

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA**

NAVY SEAL 1, United States Navy, NAVY)
SEAL 2, United States Navy, EOD OFFICER,)
United States Navy, SENIOR CHIEF PETTY)
OFFICER, United States Navy, CHAPLAIN,)
United States Navy, LIEUTENANT COLONEL)
1, United States Marine Corps, LIEUTENANT)
COLONEL 2, United States Marine Corps,)
MAJOR, United States Marine Corps, SECOND)
LIEUTENANT, United States Marine Corps,)
CAPTAIN, United States Marine Corps, ARMY)
RANGER, United States Army, LANCE)
CORPORAL 1, United States Marine Corps,)
LANCE CORPORAL 2, United States Marine)
Corps, MAJOR, United States Air Force,)
NATIONAL GUARDSMAN, Virginia Army)
National Guard, COAST GUARD)
LIEUTENANT, United States Coast Guard,)
COLONEL, United States Army, TECHNICAL)
SERGEANT, United States Air Force, DEFENSE)
DEPARTMENT CONTRACTOR, United States)
Department of Defense, FEDERAL CIVILIAN)
ENGINEER CONTRACTOR, FEDERAL)
CIVILIAN CONTRACTOR EMPLOYER,)
FEDERAL NUCLEAR CONTRACTOR)
EMPLOYEE, DEPARTMENT OF ENERGY)
CIVILIAN NUCLEAR TECH, for themselves)
and all others similarly situated,)

Case No. _____

Plaintiffs,)

v.)

JOSEPH R. BIDEN, in his official capacity as)
President of the United States, LLOYD AUSTIN,)
in his official capacity as Secretary of the United)
States Department of Defense, and ALEJANDRO)
MAYORKAS, in his official capacity as Secretary)
of the Department of Homeland Security,)

Defendants.)



**VERIFIED CLASS ACTION COMPLAINT FOR PRELIMINARY AND
PERMANENT INJUNCTIVE RELIEF AND DECLARATORY RELIEF**

**“Our citizens in uniform may not be stripped of basic rights
simply because they doffed their civilian clothes.”¹**

For their VERIFIED CLASS ACTION COMPLAINT against Defendants, JOSEPH R. BIDEN, in his official capacity as President of the United States, LLOYD AUSTIN, in his official capacity as Secretary of the United States Department of Defense, and ALEJANDRO MAYORKAS, in his official capacity as Secretary of the Department of Homeland Security, Plaintiffs, NAVY SEAL 1, United States Navy, NAVY SEAL 2, United States Navy, NAVY EOD OFFICER, United States Navy, CHIEF PETTY OFFICER, United States Navy, CHAPLAIN, United States Navy, LIEUTENANT COLONEL 1, United States Marine Corps, LIEUTENANT COLONEL 2, United States Marine Corps, SECOND LIEUTENANT, United States Marine Corps, MAJOR, United States Marine Corps, CAPTAIN, United States Marine Corps, ARMY RANGER, United States Army, LANCE CORPORAL 1, United States Marine Corps, LANCE CORPORAL 2, United States Marine Corps, MAJOR, UNITED STATES AIR FORCE, NATIONAL GUARDSMAN, Virginia Army National Guard, LIEUTENANT, United States Coast Guard, COLONEL, United States Army, TECHNICAL SERGEANT, United States Air Force, DEFENSE DEPARTMENT CONTRACTOR, United States Department of

¹ *Chappell v. Wallace*, 462 U.S. 296, 304 (1983) (citing E. Warren, *The Bill of Rights and the Military*, 37 N.Y.U. L. Rev. 181, 188 (1962)).

Defense, FEDERAL CIVILIAN ENGINEER CONTRACTOR, FEDERAL CIVILIAN CONTRACTOR EMPLOYER, FEDERAL NUCLEAR CONTRACTOR EMPLOYEE, DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH, for themselves and all others similarly situated, (collectively “Plaintiffs”), on behalf of themselves and all others similarly situated, allege and aver as follows:

URGENCIES JUSTIFYING EMERGENCY RELIEF

“The Executive Order mandating vaccinations for all federal employees has provided clear direction. . . . Frankly, if you are not vaccinated, you will not work for the U.S. Navy.”²

1. Plaintiffs are United States Armed Forces servicemembers, federal employees, and federal civilian contractors who face a deadline under the Federal COVID-19 Vaccine Mandate to receive a COVID-19 vaccine that violates their sincerely held religious beliefs, and have been refused any religious exemption or accommodation. United States Navy and United States Marine Corps servicemembers have until November 28 to become fully vaccinated. United States Army and United States Air Force servicemembers have until December 15. United States Coast Guard servicemembers have until November 22. And civilian federal employees and contractors have until November 22. **These are the terminal dates after which**

² Vice Admiral William Galinis, Commander, Naval Sea Systems Command (NAVSEA), *ALL HANDS NOTE (10/14/2021) COMNAVSEA Vaccination Message* (Oct. 14, 2021) (warning entire command, comprising more than 85,000 civilian and military personnel).

discipline will unquestionably be imposed, but the effective due date for the one-dose Johnson and Johnson (J&J) shot is earlier, and earlier still for the first of two Pfizer or Moderna shots. Missing the earlier due dates will necessarily result in discipline at the terminal dates. Moreover, the pressure and abuse are intense, and disciplinary actions have already commenced for some. Relief is needed now to prevent these military heroes, federal employees, and federal contractors from facing punishments including dishonorable discharge, court martial, other life-altering disciplinary procedures, and termination.

2. “Greater love hath no man than this, that a man lay down his life for his friends.” *John* 15:13 (KJV). Servicemember Plaintiffs have all agreed, voluntarily and sacrificially, to devote their entire lives by this axiomatic truth, regardless of the cost to them personally or to their families who likewise sacrifice in defense of this Nation. They all have sworn an oath to protect and defend the Constitution of the United States, to sacrificially lay down their lives for their fellow citizens against enemies both foreign and domestic, and to preserve for our progeny the heritage and treasure passed down to them by Veterans of old. And, for that ultimate sacrifice in defense of the Constitution and our freedoms, **Defendants are threatening these military heroes with dishonorable discharge for even requesting a religious exemption from the COVID-19 shots. Dishonorable discharge is worse than criminal conviction for these servicemembers because it is a badge of disgrace that follows them for the rest of their lives.** *Having sacrificed everything to defend America and its citizenry—and while*

carrying the images and sounds of war with them throughout their lives—America, the “land of the free and the home of the brave,” would betray them with the worst punishment of dishonorable discharge. And for what cause? Simply because they seek an accommodation from the COVID-19 shots on account of their sincerely held religious beliefs.

3. **The deadlines for servicemember Plaintiffs to receive the COVID-19 shots are fast approaching in October and November.** *No servicemembers should be forced to choose between dishonorable discharge by the Nation they love or sinning against God by violating their sincere religious beliefs (which, by the way, can be easily accommodated).* **This Court must protect the rights of these military heroes and remove from the Republic the stain of government coercion of conscience.**

4. As the Supreme Court has long affirmed, **the heroes of the United States Armed Forces do not shed their constitutional rights at the moment of their sacrificial oath.** Indeed, “[t]his Court has never held, nor do we now hold, that military personnel are barred from all redress in civilian courts for constitutional wrongs suffered in the course of military service.” *Chappell v. Wallace*, 462 U.S. 296, 304 (1983).

5. Moreover, while servicemembers certainly have duties and responsibilities “without counterpart in civilian life,” *Schlesinger v. Councilman*, 420 U.S. 738, 757 (1975), **the Constitution still provides them with the same blanket of constitutional protection that their dedicated service and sacrifice provide to the average civilian.** For to turn the same Constitution that United States Armed Forces

members protect and defend into a weapon against them would be a travesty unknown to the Nation's founding charter and eclipse any dereliction of duty heretofore seen in the great experiment of America. Indeed, as Justice Brennan noted,

Military (or national) security is a weighty interest, not least of all because national survival is an indispensable condition of national liberties. But the concept of military necessity is seductively broad, and has a dangerous plasticity. **Because they invariably have the visage of overriding importance, there is always a temptation to invoke security "necessities" to justify an encroachment upon civil liberties. For that reason, the military-security argument must be approached with a healthy skepticism: its very gravity counsels that courts be cautious when military necessity is invoked by the Government to justify a trespass on First Amendment rights.**

Brown v. Glines, 444 U.S. 348, 369 (1980) (Brennan, J., dissenting) (emphasis added) (citation omitted).

6. As he continued,

To be sure, generals and admirals, not federal judges, are expert about military needs. **But it is equally true that judges, not military officers, possess the competence and authority to interpret and apply the First Amendment.** Moreover, in the context of this case, the expertise of military officials is, to a great degree, tainted by the natural self-interest that inevitably influences their exercise of the power to control expression. Partiality must be expected when government authorities censor the views of subordinates, especially if those views are critical of the censors. **Larger, but vaguely defined, interests in discipline or military efficiency may all too easily become identified with officials' personal or bureaucratic preferences. This Court abdicates its responsibility to safeguard free expression when it reflexively bows before the shibboleth of military necessity.**

Id. at 370.

7. Servicemembers who protect the constitutional freedoms cherished in this Nation can also invoke those same constitutional protections for breaches of their own liberties, despite military service. Here, Defendants have made it clear that they think servicemember Plaintiffs' sacrificial act of swearing an oath to protect the Nation and support and defend the Constitution is accompanied by the sacrificial surrender of those same constitutional protections they defend. The Constitution opposes such callous indifference to sacrificial service, and so, too, should this Court. Indeed, "military life do[es] not, of course, render entirely nugatory in the military context the guarantees of the First Amendment." *Goldman v. Weinberger*, 475 U.S. 503, 507 (1986). *See also Crawford v. Cushman*, 531 F.2d 1114, 1120 (2d Cir. 1976) ("**[T]he military is subject to the Bill of Rights and its constitutional implications.**" (emphasis added)). Put simply, "although First Amendment rights . . . may be 'less' for a soldier than a civilian, they are by no means lost to him." *Anderson v. Laird*, 466 F.2d 283, 295 (D.C. Cir. 1972). "**Individual freedom may not be sacrificed to military interests to the point that constitutional rights are abolished.**" *Id.* (emphasis added).

8. Servicemember Plaintiffs and all those dedicated members of the United States Armed Forces voluntarily and sacrificially answered their Nation's call to defend the freedoms we enjoy. Yet, Defendants are demanding that these brave military members sacrifice their constitutional rights which they risk their lives to defend. Indeed, "**[i]t is a basic tenet of our legal system that a government agency is**

not at liberty to ignore its own laws and that agency action in contravention of applicable statutes and regulations is unlawful. The military departments enjoy no immunity from this proscription.” *Dilley v. Alexander*, 603 F.2d 914, 920 (D.C. Cir. 1979) (emphasis added) (citation omitted). For without question, when critical constitutional rights are at issue, “the Supreme Court [has] heard numerous constitutional challenges to military policies.” *Singh v. Carter*, 168 F. Supp. 3d 216, 225 (D.D.C. 2016) (cleaned up).

9. As the Supreme Court held just last year, “**even in a pandemic, the Constitution cannot be put away and forgotten.**” *Roman Catholic Diocese of Brooklyn v. Cuomo*, 141 S. Ct. 63, 68 (2021) (emphasis added). When we have demanded so much of our Soldiers, Sailors, Airmen, and Marines, we owe them nothing less than the full measure of our own devotion and commitment to constitutional principles. Anything less would be desecrating the sacrifices these heroes have made for untold numbers of people when the call of duty demanded it, and would trample upon the graves of so many who made the ultimate sacrifice before them.

10. When the great American experiment was commenced, our Founders ordained and established the Constitution—including all of the rights it recognized and enshrined—“in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and **secure the Blessings of Liberty to ourselves and our Posterity.**” U.S. Const. Pmb1. (emphasis added). To this very day, “we continue to strive toward ‘[that] more

perfect union.” *Smith v. City of New Smyrna Beach*, No. 6:11-cv-1110-Orl-37KRS, 2013 WL 5230659, at *1 (M.D. Fla. Sept. 16, 2013). That work is not easy, and sometimes it requires the intervention of the judiciary to set the guardrails for the protection of the Republic’s liberties.

11. Recognizing that times of crisis would arise, that such times might lead governments to seek to repress precious freedoms, and that the Republic’s survival depended upon defeating such repressive instincts, the genius of our founding document is that it placed explicit protections into the text of the Bill of Rights. And, importantly, “[o]ur Bill of Rights placed our survival on firmer ground—that of freedom, not repression.” *Konigsberg v. State Bar of California*, 366 U.S. 36, 79 (1961) (Black, J., dissenting).

12. During times of national crisis, the very times when we call upon the United States Armed Forces heroes most, “the fog of public excitement obscures the ancient landmarks set up in our Bill of Rights.” *American Communist Ass’n, C.I.O. v. Douds*, 339 U.S. 382, 453 (1950) (Black, J., dissenting). But, where the fog of public excitement is at its apex, “the more imperative is the need to preserve inviolate the constitutional rights of [the First Amendment].” *De Jonge v. Oregon*, 299 U.S. 353, 365 (1937). Without doubt, “[t]herein lies the security of the Republic, the very foundation of constitutional government.” *Id.*

13. Indeed, “[t]imes of crisis take the truest measure of our commitment to constitutional values. **Constitutional values are only as strong as our willingness to**

reaffirm them when they seem most costly to bear.” *Hartness v. Bush*, 919 F.2d 170, 181 (D.C. Cir. 1990) (Edwards, J., dissenting) (emphasis added). Our willingness to reaffirm our staunch commitment to our fundamental freedoms is imperative to the very survival of the American experiment. **Servicemember Plaintiffs have demonstrated their staunch commitment, and it is time that we honor ours.** “History reveals that the initial steps in the erosion of individual rights are usually excused on the basis of an ‘emergency’ or threat to the public. **But the ultimate strength of our constitutional guarantees lies in the unhesitating application in times of crisis and tranquility alike.**” *United States v. Bell*, 464 F.2d 667, 676 (2d Cir. 1972) (Mansfield, J., concurring) (emphasis added). For, “[i]f the provisions of the Constitution be not upheld when they pinch as well as when they comfort, they may as well be discarded.” *Home Bldg. & Loan Ass’n v. Blaisdell*, 290 U.S. 398, 483 (1934) (Sutherland, J., dissenting) (emphasis added).

14. Plaintiffs have demonstrated their commitments to the United States Constitution and the Nation’s future comfort, security, and prosperity. **This Court should demand that the Nation return the favor.** Telling Plaintiffs they must accept or receive a shot they oppose according to their sincerely held religious beliefs, or face court martial, dishonorable discharge, and other life altering disciplinary measures, disgraces the sacrifices these heroes have made.

15. Defendants’ vaccine mandate, ostensibly responding to a public health crisis, has created a national emergency of much greater magnitude. The mandate

attacks the military from *within* by removing brave servicemembers from defending the Nation by land, air, and sea, and from *without* by eliminating the dedicated civilian defense contractors and employees providing everything from boots and uniforms, to cyber security, to the world's most advanced stealth fighter jet—the F-35 Raptor—solely because these protectors of our constitutional freedoms requested accommodation of their sincerely held religious beliefs under the same Constitution. The crisis created by Defendants' mandates, applied to two million federal employees, is unnecessary and completely avoidable, but nonetheless imminent and real.

16. A TRO is needed now to prevent the immediate and irreparable injury to Plaintiffs imposed by these unlawful COVID-19 mandates.

PARTIES

17. Plaintiff NAVY SEAL 1, United States Navy, is a citizen of the State of California currently stationed at a United States Naval facility in California. NAVY SEAL 1 has requested an exemption and accommodation of his sincerely held religious objections to the Secretary's mandate that all United States Armed Forces personnel accept and receive one of the COVID-19 vaccines as a condition of remaining in their sworn posts. NAVY SEAL 1's request for a religious exemption and accommodation was denied, and he was immediately removed from his position in the United States Navy. Special Operations Chief NAVY SEAL 1 enlisted in the Navy in 2009 and wanted to serve his country to the best of his ability. NAVY SEAL 1 sought to and became a Navy SEAL. He received training from 2009 starting and finishing BUD/S (Basic Underwater Demolition/SEAL) and SQT (SEAL

Qualification Training) with class 278. He deployed to Afghanistan from December 2011 to September 2012, and received a Navy and Marine Corps Commendation Medal with a combat “V” (valor) for his actions during deployment, along with a combat action ribbon. NAVY SEAL 1’s second tour was to the Philippines in support of Operation Enduring Freedom, working under Joint Special Operations Task Force (JSOTF), and receiving an Army Commendation medal. For his third tour, which was outside of his usual deployment cycle and thus 100% voluntary, NAVY SEAL 1 volunteered to augment SEAL Team Seven during the height of the Mosul, Iraq clearance from February to April 2017. During NAVY SEAL 1’s fourth tour, in Iraq from August 2017 to March 2018, NAVY SEAL 1 was the acting assault lead, putting him in charge of a platoon level force to execute the tactical direction of the platoon chief, and he earned a Navy and Marine Corps Achievement Medal and a Navy and Marine Corps Commendation Medal with a “C” (Combat). His most recent tour was to the United Arab Emirates (UAE) from March to September 2020. For his leadership setting up, organizing, and executing a large joint close air support (CAS) and combat search and rescue (CSAR) exercise, NAVY SEAL 1 received a Navy and Marine Corps Commendation Medal. This robust exercise included units from 5 different countries and over 15 assets. NAVY SEAL 1 also received awards for his time spent at training commands. His first tour was at TRADET-1 as the SOUC (Special Operations Urban Combat) Lead Petty Officer from December 2014 to June 2016. He received a Navy and Marine Corps Achievement Award for his efforts there. His second training command tour was as the Lead Chief Petty Officer of the Navy’s only

Joint Close Air Support school. For his efforts in synchronizing joint assets and providing mission critical qualification training for creating Joint Terminal Attack Controllers (JTAC) he received a Navy and Marine Corps Commendation Award.

18. Plaintiff NAVY SEAL 2, United States Navy, is a citizen of the State of Texas and is stationed in the State of Florida. NAVY SEAL 2 has served his country honorably and sacrificially for 19 years. NAVY SEAL 2 submitted a request for a religious accommodation and exemption from the United States Navy. NAVY SEAL 2's request for a religious exemption and accommodation detailed NAVY SEAL 2's religious beliefs and practices that compel him to abstain receiving any of the currently available COVID-19 vaccines. NAVY SEAL 2's request for a religious accommodation was supported by a letter from a religious leader, which demonstrated the sincerity of NAVY SEAL 2's personal beliefs. NAVY SEAL 2's commander noted that NAVY SEAL 2's religious beliefs were sincere and strongly held, but recommended that his request be disapproved, citing readiness, despite NAVY SEAL 2's currently working in a non-deployable staff position. NAVY SEAL 2's request for an accommodation has been forwarded to the Chief of Naval Personnel who is responsible for making the final determination. NAVY SEAL 2 faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for merely requesting an accommodation for his sincerely held religious beliefs.

19. Plaintiff NAVY EXPLOSIVE ORDNANCE DISPOSAL OFFICER ("NAVY EOD OFFICER"), United States Navy, is a citizen of the State of Florida currently stationed at a United States Naval facility in the State of Hawaii. NAVY

EOD OFFICER has requested an exemption and accommodation of his sincerely held religious objections to the Secretary's mandate that all United States Armed Forces personnel accept and receive one of the COVID-19 vaccines as a condition of remaining in their sworn posts. After NAVY EOD OFFICER's request for a religious exemption and accommodation, he was immediately placed in a "Not Physically Qualified" ("NPQ") status. If his religious exemption and accommodation request is not granted, he will not be allowed to deploy in January, thus removing him from his position at that time. NAVY EOD OFFICER has admirably and honorably served in the United States Navy for over 19 years, initially becoming an enlisted Navy salvage diver, following which he became an officer specializing in Explosive Ordnance Disposal (EOD). NAVY EOD OFFICER submitted a request for a religious accommodation and exemption from the United States Navy. NAVY EOD OFFICER articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. NAVY EOD OFFICER's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for merely requesting an accommodation of his sincerely held religious beliefs.

20. NAVY SENIOR CHIEF PETTY OFFICER is a 17-year Active Duty Senior Chief Petty Officer stationed with the Marines. His career is marked with service primarily within Special Operations Units, with eight (8) deployments, high performance marks, and nine (9) personal awards. He holds a bachelors from George

Washington University in Clinical Health Sciences, and four (4) years of military medical, CBRN and advanced medical training with a focus on operational medicine in the deployed setting. NAVY SENIOR CHIEF PETTY OFFICER obtained his Sub-Investigator Certification in 2017 from the FDA, so he could conduct informed consent of EUA Freeze Dried Plasma (FDP) product, track its use and report back up the chain of command to the FDA. As part of this informed consent, NAVY SENIOR CHIEF PETTY OFFICER was required to conduct an hour long brief to all eligible personnel of the risks, benefits and right to refusal of the EUA product. The program placed heavy emphasis on the impropriety of coercive tactics to obtain “consent.” Impeccable documentation was required, all personnel had to be afforded consent, all consents had to be legible, contain addresses, contain witnessed signatures, with formatting and dates matching. Audits were regularly conducted so any improper documentation that failed to meet this stringent standard was returned and required to be immediately resubmitted. In contrast, NAVY SENIOR CHIEF PETTY OFFICER’s experience with COVID-19 vaccine has been completely the opposite, having observed coercion, public shaming, improper documentation, vaccine stacking and an overall cavalier attitude towards new technology that does not have any long term data. In Summer 2021, NAVY SENIOR CHIEF PETTY OFFICER was infected with SARS-CoV-2 and recovered within two weeks, and now has serological evidence of natural immunity that many experts believe to be consistent with or even superior to the COVID-19 vaccine, and which is recognized by Navy regulation as a basis for exemption from immunization. NAVY SENIOR CHIEF PETTY OFFICER has

submitted a religious exemption request to the COVID-19 vaccine, on the basis of the leading of the Holy Spirit, and his Christian religious beliefs, including beliefs that the body is the temple of the Holy Spirit, and the COVID-19 vaccine's close connection to abortion.

21. Plaintiff NAVY CHAPLAIN is a Chaplain in the United States Navy, with over 18 years' honorable service. NAVY CHAPLAIN has personally observed the effect the mandatory COVID vaccination orders have had on mental health and readiness of multiple Sailors, in the course of his recent deployment with a Carrier Strike Group.

22. Based on his own sincerely-held Christian religious beliefs, NAVY CHAPLAIN has submitted a religious exemption request for an accommodation from the COVID shot mandates. NAVY CHAPLAIN believes accepting any of the approved COVID vaccines would be an act of irreverence toward God and would be an attempt to alter the embodied image of God within individuals, and therefore a sin contrary to historic Judeo-Christian tradition and his Christian faith.

23. NAVY CHAPLAIN's commander has provided a negative recommendation for NAVY CHAPLAIN's religious accommodation request. If his request is not approved, NAVY CHAPLAIN fears being forced to choose between his career of service to fellow Sailors, which he loves, and his faith in God and God's commands.

24. Plaintiff, LIEUTENANT COLONEL 1, United States Marine Corps, is a citizen of the State of Texas currently stationed at a United States military facility in

the State of Arizona. LIEUTENANT COLONEL 1 has requested an exemption and accommodation for his sincerely held religious objections to the Secretary's mandate that all United States Military personnel accept and receive one of the COVID-19 vaccines as a condition of remaining in their sworn posts. LIEUTENANT COLONEL 1's request for a religious exemption and accommodation is processing and adjudication of his request is pending. LIEUTENANT COLONEL 1 is currently an officer and a pilot in the Marine Corps. He has more than 18 years' exemplary service in the Marine Corps and wishes to continue serving his country for many more. LIEUTENANT COLONEL 1's duties include service as a senior officer and pilot with his unit. LIEUTENANT COLONEL 1 has served the United States on five combat tours and deployments, including one combat deployment in support of Operation Iraqi Freedom (OIF) and two combat deployments in Operation Enduring Freedom (OEF – Afghanistan). LIEUTENANT COLONEL 1 has also served as a TopGun graduate, F/A-18 pilot and instructor, Forward Air Controller (ground-based position calling in air strikes in support of Marine infantry), and in many other billets. Close Air Support and Forward Air Control involves responsibility for dropping ordnance (bombs), firing rockets, and aerial gunnery on enemy targets in close proximity to Marine infantry. An error in judgment or calculation can result in the deaths of Americans and allies in who are in close proximity to the enemy. LIEUTENANT COLONEL 1's skill at both has saved countless American lives and has destroyed America's enemies. LIEUTENANT COLONEL 1, United States Marine Corps, submitted a request for a religious accommodation and exemption from the United

States Marine Corps. LIEUTENANT COLONEL 1 articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. LIEUTENANT COLONEL 1 met with his unit's Chaplain, who reviewed his request for a religious exemption and accommodation and who found that LIEUTENANT COLONEL 1's request was made from a position of "absolute sincerity." LIEUTENANT COLONEL 1's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for merely requesting an accommodation for his sincerely held religious beliefs.

25. Plaintiff LIEUTENANT COLONEL 2 is a FY 22 Command Selected Officer and native of Queens, NY. She enlisted in the Marine Corps in June of 1997 and served as an Administrative Clerk after completing the Unit Diary Clerks Course in the top ten percent of the class. She served in the reserves and volunteered for active duty following the attacks on September 11th. In 2003, LIEUTENANT COLONEL 2 wanted to be a role model for other women and completed Officer Candidate School where she received her commission as a Second Lieutenant in the Marine Corps. As a Company Grade Officer, she served in several leadership roles including duties as a Platoon Commander in garrison and during Operation Iraqi Freedom. She served as a Series Commander at Marine Corps Recruit Training, Parris Island and staff jobs at several O5 level commands. She also deployed as a staff officer in support of Operation Enduring Freedom (Afghanistan). As a Field Grade Officer, she was selected and

served as a Department of Defense Fellow and helped conduct research to integrate women into ground combat arms jobs. Later, she was selected for Command and Staff College where she earned her Master's Degree through the Advanced Studies Program. As a field grade officer, she held billets as a Company Commander, Battalion Executive Officer, and Operations Officer. She also served as her unit's Diversity and Inclusion Officer. LIEUTENANT COLONEL 2 is currently pending a second modification to her permanent change of station orders to NAVCENT, Bahrain because she submitted a religious accommodation package although she was administratively and medically cleared to execute her orders. LIEUTENANT COLONEL 2 has had an exemplary career. However, like many others, her faith journey has several blemishes that she does not typically discuss unless she is moved by the Holy Spirit to share personal aspects of her life story to help someone in need. One of the concerns that contributes to her decision not to receive the COVID 19 shot is because of her strong opposition to abortion and how God forgave and healed her from her own abortion. Specifically, in 1995, LIEUTENANT COLONEL 2 became pregnant after being raped. The anger and humiliation of the sexual assault led her to have an abortion which made her even more ashamed. In fact, after her abortion, LIEUTENANT COLONEL 2 felt like a murderer, and punished herself because she felt unworthy. This behavior only stopped after her husband caught her punishing herself, and helped her realize that God had truly forgiven her for the abortion. The COVID shot mandate, given the use of aborted fetal cell lines in testing and development, places LIEUTENANT COLONEL 2 in the position of reliving her

rape and subsequent abortion, by being forcibly injected with a product tested on or made with aborted fetal cells, or being dismissed from the service she loves.

26. Plaintiff MAJOR, United States Marine Corps (“USMC MAJOR”) is stationed in North Carolina. He is a patriotic American who believes that Jesus Christ is the virgin-born, incarnate Deity: the King over all kings and the LORD of all lords, Whose shed blood is the sole hope for human redemption from sin and eternal judgment, Whose death and resurrection testify to His preeminence over all creation, and at Whose name alone every knee shall bow. Desiring to serve his country, and follow God’s leading for his life, USMC MAJOR took the oath of conditional enlistment in 2004 and was commissioned a second lieutenant upon completion of the Officer Candidate Course in August 2005. After graduating from The Basic School, he attended the Military Police Officer Basic Course, and spent his first tour of duty in Okinawa, Japan, where he served as Officer in Charge (OIC) for two districts, including an Air Station, off-base jurisdiction areas, and three military camps. He also performed duties as the Antiterrorism and Force Protection officer for two multinational exercises in Korea. USMC MAJOR then deployed to Iraq, where as a platoon commander and convoy commander he led Marines across Al Anbar and Diyala Provinces. Thereafter, as a Provost Marshal’s Office Operations Officer, he directed law enforcement operations at the Marine Corps’ largest training base for several years; went to Headquarters United States Marine Corps and worked as a staff officer in the Pentagon for several more. USMC MAJOR received additional specialized training and deployed a second time to Iraq, advising and assisting Iraqi

Security Forces in counterpropaganda efforts to defeat ISIS terrorists. Subsequently, he commanded Headquarters Company in a Law Enforcement Battalion; served as Force Protection Officer for a Marine Logistics Group (Forward) in Norway; and deployed to Afghanistan as an advisor to several military, police, and governmental organizations. USMC MAJOR has submitted a religious exemption request to the COVID shot mandates. He desires to continue serving in the Marine Corps, consistent with his deep personal faith in the Bible as the Word of God, and consistent with his conscience and the personal leading of Jesus Christ regarding what he admits into his body (which is the temple of the Holy Spirit). These require him to reject any involvement with the destruction of innocent human life as exemplified by the use of human fetal cell lines derived from abortions.

27. Plaintiff SECOND LIEUTENANT, United States Marine Corps, is a citizen of the State of Alabama who graduated from the United States Naval Academy (USNA) in 2021 and is now currently at The Basic School (TBS). Prior to the Naval Academy, he attended Marion Military Institute (MMI) for two years. His six years of military college were deliberate, as he has spared no expense in preparing himself to serve as the caliber of leader that United States Marines deserve. He has maintained a flawless conduct record throughout his time in college and in service, as he believes setting such an example is paramount. He has sought out every opportunity for leadership positions requiring ironclad integrity and a dedication to the Profession of Arms, including the MMI Cadet Honor Board and USNA Brigade of Midshipman Honor Investigation System. His professional education and mentorship has focused

extensively on the nuances of military law, good order and discipline, the concept of “immediate obedience to orders,” and the invaluable obligation that a commissioned officer holds to honor his or her Oath of Office. He is well known by his peers to be exceptionally disciplined in his conduct and dedicated to his Oath of Office, even in facing the potential loss of his livelihood and lifelong dream of serving and leading Marines. SECOND LIEUTENANT submitted a request for a religious accommodation from the COVID shot mandate, on multiple grounds, including his sincerely-held religious belief “that, first and foremost, a Christian's body is the Temple of the Holy Spirit and should be protected from deliberate or reckless injury or violation,” and second, that “deceit pursuant to personnel compliance and/or financial gain, is morally objectionable before God.” Upon submitting his religious exemption request, he was immediately removed from his training company, and placed in Mike Company, a non-training company reserved for 2nd Lieutenants who are either injured and unable to complete training, or are pending punitive legal action, while his religious accommodation request is routed up his Chain of Command for a final decision from the Deputy Commandant of the Marine Corps. SECOND LIEUTENANT should have been kept in his training company while his request was pending, as he has not violated any DoD or Marine Corps orders in doing so, and is administratively exempt from all pertinent orders for the duration of time awaiting a final decision. His placement in Mike Company and removal from active training does not protect the force from COVID, as SECOND LIEUTENANT is required to provide administrative and labor assistance to the command, in support of his

colleagues in the field and elsewhere. He is required to physically interact with his peers in all current Basic Officer Course classes in the execution of his support role duties. In other words, he remains active around base, working to help his former colleagues graduate from training, while his own training has been placed on hold indefinitely despite no legal or administrative misconduct. This is punitive and an improper response to a religious exemption request. SECOND LIEUTENANT deeply desires to continue training for service to the Nation in the United States Marine Corps, without the profound conflict between his religious beliefs and the COVID shot directives, and without discrimination.

28. Plaintiff CAPTAIN, United States Marine Corps, is a citizen of the State of South Carolina and a patriotic American whose faith is Islam. Desiring to serve his country, he enlisted in the United States Marine Corps in 2014, graduating from recruit training in March 2015. After serving with a Law Enforcement Battalion and earning his undergraduate degree, he was selected for Officer Candidate School, and commissioned as a second lieutenant in 2016. After graduating from The Basic School, he attended the Military Police Basic Officer Course, with his first duty assignment at a Marine Corps Law Enforcement Battalion as a Platoon Commander. He attended courses in Norway and commanded a Military Police Integrated Company during a NATO Exercise. He has been deployed in several locations, including Africa. CAPTAIN desires to continue serving in the Marine Corps, consistent with his Islamic religious beliefs that require him to abstain from

participation in that which is *haram* – forbidden – including the destruction and commoditization of innocent human life as exemplified by the use of human fetal cell lines derived from abortions. CAPTAIN desires to exercise “complete reliance on God” rather than in what he believes to be morally-tainted COVID shots.

29. Plaintiff ARMY RANGER, United States Army, ARMY RANGER, United States Army, is a citizen of the State of Missouri currently stationed at a United States military facility in the State of Washington. ARMY RANGER has requested an exemption and accommodation for his sincerely held religious objections to the Secretary’s mandate that all United States Military personnel accept and receive one of the COVID-19 vaccines as a condition of remaining in their sworn posts. ARMY RANGER has submitted a request for a religious exemption and accommodation, but he has been told by a superior the superior is concerned that the request will “put a target on him” as he is one of two men in the company who have requested a religious exemption from getting the COVID shot. Nonetheless, this superior supports his request for a religious exemption. ARMY RANGER entered active duty in 2015 as an Infantryman (11B). He was selected for Ranger Assessment Selection Program (RASP) in 2015, and graduated Ranger School in 2017, earning his Ranger Tab. He has deployed twice in support of Operation Freedom Sentinel. He is committed to serving the Nation and desires to continue, so long as he is not forced to violate his own religious beliefs and what he believes God requires of him.

30. Plaintiff LANCE CORPORAL 1, United States Marine Corps, is a citizen of the State of California currently stationed at a United States Marine Corps facility in California. LANCE CORPORAL 1 has requested an exemption and accommodation of his sincerely held religious objections to the Secretary's mandate that all United States Armed Forces personnel accept and receive one of the COVID-19 vaccines as a condition of remaining in their sworn posts. LANCE CORPORAL 1's request for a religious exemption and accommodation was **denied**. LANCE CORPORAL 1 is currently serving in the United States Marine Corps in the 1st Radio Battalion, I Marine Expeditionary Force Information Group with the I Marine Expeditionary Force. LANCE CORPORAL 1 was raised in a Christian home where his father always told him that he had the choice of going to college or joining the military. Once he decided to join the military, LANCE CORPORAL 1 instantly chose the Marines because he believed they are the best of the bunch. LANCE CORPORAL 1 started dedicating his life to physical fitness to prepare for the difficult journey he chose. LANCE CORPORAL 1 has discovered a talent and passion for Electrical Maintenance, and intends to pursue it as a civilian career post-military. LANCE CORPORAL 1 signed a 5-year contract, and he plans on serving his country for 5 years. LANCE CORPORAL 1 submitted a religious exemption request from the United States Marine Corps. LANCE CORPORAL 1's request for a religious accommodation and exemption articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. LANCE CORPORAL 1's request for a

religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for merely requesting an accommodation of his sincerely held religious beliefs.

31. Plaintiff LANCE CORPORAL 2 is a citizen of the Commonwealth of Virginia, currently stationed in North Carolina. LANCE CORPORAL 2 joined the Marine Corps in 2018 out of a desire to serve his Country. He graduated Boot Camp, Marine Corps Combat Training, and MOS School, and became a Combat Engineer. LANCE CORPORAL 2 has a strong faith in God and his Son Jesus Christ. He submitted a religious exemption request to the COVID shot orders based on his sincere Christian religious beliefs. He feels the strong conviction of God's Holy Spirit upon his heart that he must not get the COVID shot, and that if he were to get the COVID shot, it would be sin as a violation of the Holy Spirit's leading and direction, and also that it would be sinful complicity in the murder of innocent unborn humans. He believes that all people, born and unborn, are created in God's image, and that life should be respected. He believes it is disrespectful to innocent human life to be associated with or take into his body products derived from abortion. Lance Corporal 2 has been told by several non-commissioned officers that "it is unlikely your religious exemption request will be approved," and that "they're just going to deny them all." If these superiors are correct, he faces involuntary administrative separation at best, and at worst, dishonorable discharge and other life-altering punishment.

32. Plaintiff MAJOR, UNITED STATES AIR FORCE (AIR FORCE MAJOR), is an officer in the U.S. Air Force with over 18 years of honorable active-duty service, and holds a Master of Science degree from an accredited Christian university. As a teenage Christian missionary to Mexico, he developed a strong appreciation for the blessings of his home in America and the legacy of Christian values that sets our nation apart. With this love of God and his Christian American legacy, he answered the call on his life to serve the Nation in the Air Force. He was sworn in as a lieutenant by his grandfather, a retired Colonel. AIR FORCE MAJOR went on to fly many life-saving combat missions in Iraq, Africa, and Afghanistan. The hell of war struck AIR FORCE MAJOR very deeply through the loss of friendly forces' lives, the suicide of fellow airmen, as well as the deaths of innocent civilians. During one tragic mission, while defending forces surrounded by heavy enemy gunfire, AIR FORCE MAJOR suffered a deadly loss in the gunfight. In his profound devastation, AIR FORCE MAJOR called on Jesus' help to carry him through the night of continued danger to the special operations team. In subsequent years, his faith journey out of the depths of that pain and pains from other combat missions has led him to assist in several Christian ministries. He supervised weekly youth church services, Christian summer camp, counseled at a Christian charity relief center, and travelled on leave to Ethiopia to help establish a care point for an international Children's poverty relief center. AIR FORCE MAJOR's life ministry now includes his own children. Having recently learned of the use of human abortion derived fetal cell lines in the development, production, or selection and testing of COVID vaccines, AIR

FORCE MAJOR's religious convictions conflict with DoD orders that he partake of them. AIR FORCE MAJOR follows God's written direction from Scripture, and knows that he must abstain from the use of vaccines derived from aborted fetal cell lines. Per Proverbs 6:16-17, he has a strong conviction that God will judge "hands that shed innocent blood" and he cannot align himself with such deeds. He believes respect for innocent human life is what differentiates America from horrific perpetrators of human rights abuses and genocide.

33. Plaintiff NATIONAL GUARDSMAN, Virginia Army National Guard, a citizen of the Commonwealth of Virginia, entered service with the Virginia Army National Guard in 1987. He graduated Fort Benning Infantry school and became an Infantryman. His unit attended and graduated Jungle Expert school and pulled guard duty in 1988 before the Invasion of Panama. He is an expert rifleman more times than not. He was selected as the Soldier of the Year for his company and went on to win the board for the Battalion Soldier of the year in 1989. He was promoted to SGT in June of 1990. NATIONAL GUARDSMAN was employed by a Textile Mill in Virginia where he quickly rose to Production Supervisor where he served until June 2001 when NAFTA was taking a toll on the economy. He made a career change and enlisted into the Active Guard Reserve (AGR) program 2001. From May 2001-2005, he's served as Readiness/Training NCO and deployed to Guantanamo Bay, Cuba where he performed Force Protection Duties along with being the Sergeant of the Guard of Camp Delta Detainment Center. Upon returning to the United States, he earned another MOS in Logistics. In 2007, NATIONAL GUARDSMAN was

promoted to Sergeant First Class. With his new unit, he served as the Senior Logistics NCO in charge and in May of 2010, NATIONAL GUARDSMAN deployed to the austere Shindand, Afghanistan during the 2010 Surge, and it was there that he earned the Bronze Star (without V Device). He deployed as the Senior BN Logistics NCO with the 1-116th IN to Doha, Qatar for a Force Protection mission. NATIONAL GUARDSMAN served or trained in 7 countries and has over 50 awards / Impact awards. He has served as an Infantryman Squad Leader, Platoon SGT, First SGT and a Logistics NCO, has two additional skill identifiers of Battle Staff NCO and DoD Contracting Specialist. He is currently Number 2 on the State of Virginia Army National Guard. NATIONAL GUARDSMAN submitted a request for a religious accommodation and exemption from the Virginia Army National Guard. NATIONAL GUARDSMAN articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. NATIONAL GUARDSMAN's request for a religious exemption and accommodation has not been approved, and he has been told that he could potentially face court martial, dishonorable discharge, and other life-altering disciplinary measures for merely requesting an accommodation for his sincerely held religious beliefs. NATIONAL GUARDSMAN has also been REMOVED from his scheduled deployment because of his request for an accommodation and exemption.

34. Plaintiff COAST GUARD LIEUTENANT, United States Coast Guard, is a citizen of the State of Florida. She has spent 14 years in service to her country, and

is currently stationed along the Gulf Coast. Following in the footsteps of two generations of her family, she felt the call to serve as a young child. COAST GUARD LIEUTENANT had a desire to serve the people of this nation and steward its natural resources and the Coast Guard's missions had been a perfect fit. During her time in the Coast Guard, COAST GUARD LIEUTENANT has felt privileged to serve alongside a diverse group of people from all around the world, including the Naval and Coast Guard members of other nations. COAST GUARD LIEUTENANT submitted a request for a religious accommodation and exemption from the United States Coast Guard outlining her sincerely held religious objections to receiving one of the COVID-19 vaccines. While breastfeeding her child born earlier this year, she is currently under a temporary medical exemption while undergoing testing for allergies to vaccine components. Though her immediate supervisor supports her requests, COAST GUARD LIEUTENANT has been informed that should these waivers be denied, she may face an other-than-honorable discharge, loss of benefits, and other disciplinary measures if she does not accept the COVID-19 vaccine. COAST GUARD LIEUTENANT has also been informed that even if the medical waivers are approved, she may be determined medically unfit for service and discharged.

35. Plaintiff COLONEL, United States Army, is a citizen of the State of Texas and has served as a health care provider in the United States Army for 22 years. He has been deployed twice to Bosnia for six-months, and to Iraq for one year. COLONEL has treated countless numbers of Soldier patients over his career, and his family has sacrificed, as a military families do, for him to be able to serve Soldiers and

other members of the military. COLONEL hoped to retire with the United States Army, but as a result of the COVID-19 mandate, he faces discipline for the mere exercise of his sincerely held religious beliefs. COLONEL submitted a request for a religious accommodation and exemption from the United States Army. COLONEL articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. COLONEL met with his unit's Chaplain, who reviewed his request for a religious exemption and accommodation and found that COLONEL's request was sincere. COLONEL's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for merely requesting an accommodation of his sincerely held religious beliefs.

36. Plaintiff TECHNICAL SERGEANT, United States Air Force, is a citizen of the State of Oklahoma and has spent 15 years in service to her country in the United States Air Force. She felt the call to serve after high school, after being so emotionally affected by the events that transpired on September 11, 2001. TECHNICAL SERGEANT wanted to become a part of something much bigger than herself, and the Air Force offered her a wonderful opportunity. During her time in the Air Force, TECHNICAL SERGEANT felt privileged to serve with so many selfless and inspirational people all around the world. She spent time in Texas, Mississippi, Illinois, Hawaii, and South Korea. She has been deployed to Kandahar Air Base, Afghanistan, spending six months supporting Operation Enduring Freedom.

TECHNICAL SERGEANT submitted a request for a religious accommodation and exemption from the United States Air Force outlining her sincerely held religious objections to receiving one of the COVID-19 vaccines. Although she is currently under a temporary medical exemption due to being seven months pregnant, TECHNICAL SERGEANT has been informed that once that runs out, she will face court martial, dishonorable discharge, and other disciplinary measures if she does not accept the COVID-19 vaccine.

37. Plaintiff DEFENSE DEPARTMENT CONTRACTOR (and NAVY RESERVE CHIEF WARRANT OFFICER) is a citizen of the State of Florida and a contractor of the United States Department of Defense (DoD). DEFENSE DEPARTMENT CONTRACTOR is on leave of absence from his DoD Contractor employer, where he conducted Intelligence, Surveillance, and Reconnaissance (ISR) quantitative and qualitative assessments and studies in all phases of ISR asset and sensor performance and effectiveness for the DoD. These assessments are briefed to DoD senior leadership to inform decisions on future employment, allocation, and procurement. He holds a Top Secret/Sensitive Compartmented information (TS/SCI) security clearance. As a NAVY RESERVE CHIEF WARRANT OFFICER, he formerly enlisted in the Navy Reserve's Non-Prior Service and Advance Pay Grade (APG) programs in November 2003. After completing basic training in August 2004, DEFENSE DEPARTMENT CONTRACTOR was assigned to NR SECGRU Minneapolis from 2004 to 2010. From January to December 2008, DEFENSE DEPARTMENT CONTRACTOR was mobilized in support of Operation Iraqi

Freedom as part of a Joint Task Force stationed in Balad, Iraq. Following his mobilization, DEFENSE DEPARTMENT CONTRACTOR returned to NR NIOC Texas-Minneapolis and was advanced to Chief Petty Officer in September 2009. DEFENSE DEPARTMENT CONTRACTOR's military leadership assignments include Operations Department Leading Chief Petty Officer at NR NIOC Minneapolis, Senior Enlisted Leader and then Senior Chief Petty Officer in 2015 at NR NIOC Georgia-Orlando, Senior Enlisted Leader at NR Office of Naval Intelligence, and Senior Enlisted Leader NR at NIOC Georgia – Pensacola. Following his tour at NR NIOC Georgia – Pensacola, he was commissioned as a CWO2 in 2019. Following his commissioning, he affiliated with NR C10FNIOCGA ORL and has been on active duty orders supporting US Special Operations Command J24. He has submitted a request for a religious accommodation and exemption from the United States outlining his sincerely held religious objections to receiving one of the COVID-19 vaccines because of their connection to aborted fetal cell lines. DEFENSE DEPARTMENT CONTRACTOR's request was supported by a Chaplain's recommendation and his supervisor's recommendation. DEFENSE DEPARTMENT CONTRACTOR has not received a response to his request for a religious accommodation but has been informed that it is not likely to be granted.

38. Plaintiff FEDERAL CIVILIAN ENGINEER CONTRACTOR is a citizen of the State of Georgia and employed by a large military defense contractor that provides LCD screens used in United States Armed Forces aircraft. FEDERAL CIVILIAN ENGINEER CONTRACTOR is a level-2 electrical engineer working

nearly exclusively on contracts for the United States Armed Forces. FEDERAL CIVILIAN ENGINEER CONTRACTOR is an active congregant of his church with sincerely held religious beliefs that compel him to abstain from accepting or receiving the COVID-19 vaccines. FEDERAL CIVILIAN ENGINEER CONTRACTOR would like to submit a request for a religious exemption and accommodation, but has seen his employer's responses to some religious exemption requests submitted by colleagues stating a "waiver of required vaccination should be granted indefinitely, after which time you will need to be fully vaccinated," rendering any granted exemption potentially illusory, and subject to revocation at any time.

39. Plaintiff FEDERAL CIVILIAN CONTRACTOR EMPLOYER is a citizen of the State of Michigan who owns his own engineering company located in the Midwest. FEDERAL CIVILIAN CONTRACTOR EMPLOYER and his company develop and support military weapons systems, including current and next generation land vehicles for the Army and next generation Navy vessels. FEDERAL CIVILIAN CONTRACTOR EMPLOYER would like to request a religious exemption and accommodation from the Executive Order mandating that all government contractors mandate the COVID-19 vaccines, and he would like to be able to accommodate and exempt his employees that likewise have sincerely held religious objections to the COVID-19 vaccines. FEDERAL CIVILIAN CONTRACTOR EMPLOYER is concerned that as a result of his desire to provide religious exemptions and accommodations and the Executive Order mandating that all government

contractors and subcontractors require COVID-19 vaccines of their employees, his government contracts (future and current) will be terminated.

40. Plaintiff FEDERAL NUCLEAR CONTRACTOR EMPLOYEE is a citizen of the Commonwealth of Virginia and a young woman of child-bearing age. She holds sincere Christian religious beliefs about human life and marriage. She believes that mankind was created by God, that men and women are designed for a unique, complementary relationship within the context of marriage, and that as part of that relationship, God has designed the female body to fulfill the Creation mandate to “be fruitful and multiply.” FEDERAL NUCLEAR CONTRACTOR EMPLOYEE believes abortion to be a great sin, and is morally opposed to the use of aborted fetal cells in the testing or development of vaccines, including the COVID vaccines. FEDERAL NUCLEAR CONTRACTOR EMPLOYEE is not married yet, but hopes to be one day, and in that relationship to have a child or children as God blesses her. She believes that “children are an heritage of the Lord,” and that bearing a child or children in the context of marriage fulfils a Divine mandate. FEDERAL NUCLEAR CONTRACTOR EMPLOYEE is aware that no long-term studies have been performed on any of the COVID shots regarding their impact on female fertility, and given her religious beliefs about marriage and childbearing, cannot receive any of the COVID shots. FEDERAL NUCLEAR CONTRACTOR EMPLOYEE fears being placed in the position of having to choose between her job and her faith.

41. Plaintiff DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH is a citizen of the State of Texas and is an R&D Research Technician/Operations Technician for Material Physics Applications Quantum (MPA-Q) which is his group at the Los Alamos National Laboratory in New Mexico. He works with Radar Frequencies, Tesla Magnets, Class 3/4 Laser Operations and Experiments, as well as many other aspects of the DOE's nuclear programs. He has been employed at his current position for 12 years and is a faithful and exemplary employee. DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH requested a religious exemption and accommodation from Defendants' COVID-19 vaccine mandate on federal civilian contractors, and his request was denied. DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH was given until October 15 to accept one of the vaccines or face termination.

42. Defendant JOSEPH R. BIDEN, in his official capacity as President of the United States, is the head of the federal government and Commander in Chief of the United States Armed Forces, and is responsible for enacting, implementing, and enforcing the federal COVID-19 vaccine mandate for members of the United States Armed Forces and civilian federal employees and contractors. Specifically, President Biden issued two Executive Orders on September 9, 2021, mandating that all civilian federal employees and contractors receive a COVID-19 vaccine. President Biden is sued in his official capacity.

43. Defendant LLOYD AUSTIN, in his official capacity as the Secretary of the United States Department of Defense (DoD), is responsible for enacting, implementing, and enforcing the federal COVID-19 vaccine mandate for members of the United States Armed Forces under DoD authority. Specifically, Secretary Austin issued the August 24 Memorandum for Senior Pentagon Leadership and other officials mandating that all military servicemembers under Department of Defense authority receive a COVID-19 vaccine. Secretary Austin is sued in his official capacity.

44. ALEJANDRO MAYORKAS, in his official capacity as Secretary of the Department of Homeland Security, is responsible for enacting, implementing, and enforcing the federal COVID-19 vaccine mandate for members of the United States Coast Guard and other civilian federal employees and contractors. Secretary Austin issued a directive, in accordance with President Biden's September 6 Executive Orders, mandating that all Department of Homeland Security employees, including United States Coast Guard servicemembers, receive a COVID-19 vaccine. Secretary Mayorkas is sued in his official capacity.

JURISDICTION AND VENUE

45. This action arises under the First Amendment to the United States Constitution. This action also arises under federal statutory law, namely the Religious Freedom Restoration Act, 42 U.S.C. §§ 2000bb to 2000bb-4, and under the Emergency Use Authorization provisions of the Federal Food Drug and Cosmetic Act, 21 U.S.C. § 360bbb-3.

46. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1343, and 1367.

47. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b)(2) because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this district.

48. This Court is authorized to grant declaratory relief under the Declaratory Judgment Act, 28 U.S.C. §§ 2201–2202, implemented through Rule 57, Federal Rules of Civil Procedure.

49. This Court is authorized to grant Plaintiffs' prayer for a temporary restraining order (TRO) and preliminary and permanent injunctive relief pursuant to Rule 65 of the Federal Rules of Civil Procedure.

GENERAL ALLEGATIONS

A. THE FEDERAL COVID-19 VACCINE MANDATE.

50. On September 9, 2021, President Biden issued Executive Order 14043, Requiring Coronavirus Disease 2019 Vaccination for Federal Employees, requiring all federal employees to receive one of the COVID-19 vaccines as a condition of employment. (A true and correct copy of Executive Order 14043 is attached hereto as **EXHIBIT A** and incorporated herein.)

51. In Executive Order 14043, President Biden stated: “I have determined that to promote the health and safety of the Federal workforce and the efficiency of the civil service, it is necessary to require COVID-19 vaccination for all Federal employees” (Ex. A at 2.)

52. Consistent with that determination, Executive Order 14043 states: “Each agency shall implement, to the extent consistent with applicable law, a program to require COVID-19 vaccination for all of its Federal employees” (Ex. A at 2.)

53. Also on September 9, 2021, President Biden issued Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors, requiring that all federal contractors and subcontractors “comply with all guidance for contractor or subcontractor workplace locations published by the Safer Federal Workforce Task Force.” (A true and correct copy of Executive Order 14042 is attached hereto as **EXHIBIT B** and incorporated herein.) Pursuant to Executive Order 14042, the Safer Federal Workforce Task Force issued its *Guidance for Federal Contractors and Subcontractors* on September 24, 2021, requiring that all employees of federal contractors and subcontractors receive one of the COVID-19 vaccines as a condition of performing any contract for work for the Federal Government. (A true and correct copy of the *Guidance* is attached hereto as **Exhibit C** and incorporated herein.)

54. On August 24, 2021, Secretary Austin issued a Memorandum for Senior Pentagon Leadership, Commanders of the Combatant Commands, and Defense Agency and DoD Field Activity Directors, Subject: Mandatory Coronavirus Disease 2019 Vaccination of Department of Defense Service Members, mandating that all military servicemembers under DoD authority receive the COVID-19 vaccine. (A true and correct copy of the Secretary’s August 24 Memorandum is attached hereto as **EXHIBIT D** and incorporated herein.)

55. In his Memorandum, Secretary Austin stated: “After careful consultation with medical experts and military leadership, and with the support of the President, I have determined that mandatory vaccination against coronavirus disease 2019 (COVID-19) is necessary to protect the Force and defend the American people.” (Exhibit D at 1.)

56. Secretary Austin further stated: “I therefore direct the Secretaries of the Military Departments to immediately begin full vaccination of all members of the Armed Forces under DoD authority on active duty or in the Ready Reserve, including the National Guard, who are not fully vaccinated against COVID-19.” (Exhibit D at 1.)

57. Though not even possible right now (*see infra*), the Secretary stated that mandatory vaccination “will only use COVID-19 vaccines that receive full licensure from the Food and Drug Administration (FDA), in accordance with FDA-approved labeling and guidance.” (Ex. D at 1.)

B. PLAINTIFFS’ SINCERELY HELD RELIGIOUS BELIEFS.

58. Plaintiffs all have sincerely held religious beliefs, rooted in Scripture, that preclude them from complying with the Federal COVID-19 Vaccine Mandate because of the connections between the various COVID-19 vaccines and the cell lines of aborted fetuses, whether in the vaccines’ origination, production, development, testing, or other inputs. Plaintiffs also have sincerely held religious beliefs, rooted in Scripture, that their bodies are temples of the Holy Spirit and that they cannot place anything into their Temples without confirmation and conviction from the Holy Spirit.

59. A fundamental component of Plaintiffs' sincerely held religious beliefs is that all life is sacred, from the moment of conception to natural death, and that abortion is the murder of an innocent life and a grave sin against God.

60. Plaintiffs' sincerely held religious beliefs are rooted in Scripture's teachings that "[a]ll Scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, [and] for instruction in righteousness." *2 Timothy* 3:16 (KJV).

61. Because of that sincerely held religious belief, Plaintiffs believe that they must conform their lives, including their decisions relating to medical care, to the commands and teaching of Scripture.

62. Plaintiffs have sincerely held religious beliefs that God forms children in the womb and knows them prior to birth, and that because of this, life is sacred from the moment of conception to natural death. *See Psalm* 139:13–14 (ESV) ("For you formed my inward parts; you knitted me together in my mother's womb. I praise you, for I am fearfully and wonderfully made."); *Psalm* 139:16 (ESV) ("Your eyes saw my unformed substance; in your book were written, every one of them, the days that were formed for me, when as yet there was none of them."); *Isaiah* 44:2 (ESV) ("Thus says the LORD who made you, who formed you from the womb . . ."); *Isaiah* 44:24 (ESV) ("Thus says the LORD, your Redeemer, who formed you from the womb: 'I am the Lord, who made all things . . .'"); *Isaiah* 49:1b (ESV) ("The LORD called me from the womb, from the body of my mother he named my name."); *Isaiah* 49:5 (ESV) ("And now the LORD says, he who formed me from the womb to be his servant . . .");

Jeremiah 1:5 (ESV) (“Before I formed you in the womb I knew you, and before you were born I consecrated you; I appointed you a prophet to the nations.”).

63. Plaintiffs also have sincerely held religious beliefs that every child’s life is sacred because each is made in the image of God. *See Genesis* 1:26–27 (ESV) (“Then God said, ‘Let us make man in our image, after our likeness. . . . So God created man in his own image, in the image of God he created him; male and female he created them.’” (footnote omitted)).

64. Plaintiffs have sincerely held religious beliefs that because life is sacred from the moment of conception, the killing of that innocent life is the murder of an innocent human in violation of Scripture. *See, e.g., Exodus* 20:13 (ESV) (“You shall not murder.”); *Exodus* 21:22–23 (ESV) (imposing death penalty for killing of an unborn child); *Exodus* 23:7 (ESV) (“[D]o not kill the innocent and righteous”); *Genesis* 9:6 (ESV) (“Whoever sheds the blood of man, by man shall his blood be shed, for God made man in his own image.”); *Deuteronomy* 27:25 (ESV) (“Cursed be anyone who takes a bribe to shed innocent blood.” (internal quotation marks omitted)); *Proverbs* 6:16–17 (ESV) (“There are six things that the LORD hates, seven that are an abomination to him: . . . hands that shed innocent blood”).

65. The Hebrew word for “abomination” in the text above is תּוֹעֵבָה (to`eba). The verbal form is “abhor,” “loath,” “detest,” and “exclude.” Twelve times the Book of Proverbs uses תּוֹעֵבָה in reference to an “abomination to the LORD.” (יהוה or Yahweh). The word is also used in conjunction with the Ammonites and the Ashtoreth, the Sidonians, Chemosh, and Moab. Some of these nations sacrificed their

children to Baal. Indeed, *Jeremiah* 19:4–9, refers to the shedding of innocent blood by sacrificing children as the reason for judgement against Judah. Abortion is the modern-day sacrifice of children made in the image of God. Plaintiffs do not want to be part of such an “abomination.” They do not want indirectly or directly to be in any way associated with abortion. To do so is abhorrent, loathsome, detestable, abominable to God. In short, to require these employees to inject a substance into their bodies that has any association (no matter how near or remote to abortion) is a sin against their Creator, their Lord, and their Savior.

66. Plaintiffs also have sincerely held religious beliefs that it would be better to tie millstones around their necks and be drowned in the sea than to bring harm to an innocent child. *See Matthew* 18:6; *Luke* 17:2 (ESV).

67. Plaintiffs also have sincerely held religious beliefs that their bodies are temples of the Holy Spirit, and that to inject medical products that have any connection whatsoever to aborted fetal cell lines would be defiling the temple of the Holy Spirit. (*See 1 Corinthians* 6:15–20 (ESV) (“Do you not know that your bodies are members of Christ? . . . Or do you not know that your body is a temple of the Holy Spirit within you, whom you have from God? You are not your own, for you were bought with a price. So glorify God in your body.”)).

68. Plaintiffs’ religious beliefs compel them to not condone, support, justify, or benefit (directly or indirectly) from the taking of innocent human life via abortion, and that to do so is sinning against God.

69. Plaintiffs' sincerely held religious beliefs preclude them from accepting any one of the three currently available COVID-19 vaccines derived from, produced or manufactured by, tested on, developed with, or otherwise connected to aborted fetal cell lines.

70. As reported by the North Dakota Department of Health, in its handout literature for those considering one of the COVID-19 vaccines, "[t]he non-replicating viral vector vaccine produced by Johnson & Johnson **did require the use of fetal cell cultures, specifically PER.C6, in order to produce and manufacture the vaccine.**" See North Dakota Health, *COVID-19 Vaccines & Fetal Cell Lines* (Apr. 20, 2021), https://www.health.nd.gov/sites/www/files/documents/COVID%20Vaccine%20Page/COVID-19_Vaccine_Fetal_Cell_Handout.pdf.

71. The Louisiana Department of Health likewise confirms that the Johnson & Johnson COVID-19 vaccine used the PER.C6 fetal cell line, which "is a retinal cell line that was **isolated from a terminated fetus in 1985.**" La. Dep't of Public Health, *You Have Questions, We Have Answers: COVID-19 Vaccine FAQ* (Dec. 21, 2020), https://ldh.la.gov/assets/oph/Center-PHCH/Center-PH/immunizations/You_Have_Qs_COVID-19_Vaccine_FAQ.pdf (emphasis added).

72. Scientists at the American Association for the Advancement of Science have likewise published research showing that the Johnson & Johnson vaccine used aborted fetal cell lines in the development and production phases of the vaccine.

Meredith Wadman, *Vaccines that use human fetal cells draw fire*, Science (June 12, 2020), available at <https://science.sciencemag.org/content/368/6496/1170.full>.

73. The same is true of the Moderna and Pfizer-BioNTech mRNA vaccines. The Louisiana Department of Health's publications again confirm that aborted fetal cells lines were used in the "proof of concept" phase of the development of their mRNA vaccines. See La. Dep't of Public Health, *supra*.

74. The North Dakota Department of Health likewise confirms: "Early in the development of mRNA vaccine technology, **fetal cells were used for 'proof of concept' (to demonstrate how a cell could take up mRNA and produce the SARS-CoV-2 spike protein) or to characterize the SARS-CoV-2 spike protein.**" N.D. Health, *supra* (emphasis added).

75. The Chief Scientific Officer and Senior Director of Worldwide Research for Pfizer have also been reported to demonstrate that its COVID-19 vaccine is derived from aborted fetal cells and have made statements that they wanted to keep that information from the public. See *PFIZER LEAKS: Whistleblower Goes On Record, Reveals Internal Emails from Chief Scientific Officer & Senior Director of Worldwide Research Discussing COVID Vaccine ... 'We Want to Avoid Having the Information on the Fetal Cells Floating Out There'*, ProjectVeritas (Oct. 6, 2021), <https://www.projectveritas.com/news/pfizer-leaks-whistleblower-goes-on-record-reveals-internal-emails-from-chief/>.

76. Specifically, Vanessa Gelman, Pfizer Senior Director of Worldwide Research: “From the perspective of corporate affairs, we want to avoid having the information on fetal cells floating out there...The risk of communicating this right now outweighs any potential benefit we could see, particularly with general members of the public who may take this information and use it in ways we may not want out there. We have not received any questions from policy makers or media on this issue in the last few weeks, so we want to avoid raising this if possible.” *Id.*

77. And, Philip Dormitzer, Pfizer’s Chief Scientific Officer is reported as saying that he wanted to keep the information secret because of the objections that pro-life individuals, such as Plaintiffs in this action, would have: “HEK293T cells, used for the IVE assay, are ultimately derived from an aborted fetus. On the other hand, the Vatican doctrinal committee has confirmed that they consider it acceptable for Pro-Life believers to be immunized. Pfizer’s official statement couches the answer well and is what should be provided in response to an outside inquiry.” *Id.*

78. Because all three of the currently available COVID-19 vaccines are developed and produced from, tested with, researched on, or otherwise connected with the aborted fetal cell lines HEK-293 and PER.C6, Plaintiffs’ sincerely held religious beliefs compel them to abstain from obtaining or injecting any of these products into their body, regardless of the perceived benefit or rationale.

79. Plaintiffs have sincerely held religious beliefs that their bodies are temples of the Holy Spirit, and that to inject medical products that have any connection whatsoever to aborted fetal cell lines would be defiling the temple of the Holy Spirit.

80. Plaintiffs sincerely religious beliefs that their bodies are temples of the Holy Spirit and that they are to glorify God with their bodies lays the foundation for everything they do, consume, or inject into their bodies. From this foundation they make studied and reasonable decisions about what is good and what is not good or may not be good for their bodies. To knowingly abuse their bodies by engaging in a dishonorable act, or consuming or injecting a substance that will or may produce adverse consequences, is a sin against God. Based on this foundation, Plaintiffs would consume pure water over a similarly clear liquid they know or reasonably conclude is harmful to the body. This belief and other sincerely held religious beliefs are foundational to all their decisions and actions and are not limited to aborted fetal cell lines.

81. Plaintiffs have sincerely held religious beliefs that the Holy Spirit—through prayer and the revelation of Scripture—guide them in all decisions they make in life.

82. Plaintiffs have sincerely held religious beliefs that Jesus Christ came to this earth, died on the cross for their sins, was resurrected three days later, and that when He ascended to Heaven, He sent the Holy Spirit to indwell His believers and to guide them in all aspects of their lives. *See John 16:7 (ESV)* (“Nevertheless, I tell you the truth: it is to your advantage that I go away, for if I do not go away, the Helper will not come to you. But if I go, I will send him to you.”); *John 14:26 (ESV)* (“But the Helper, the Holy Spirit, whom the Father will send in my name, he will teach you all things and bring to your remembrance all that I have said to you.”).

83. Plaintiffs have sincerely held religious beliefs that the Holy Spirit was given to them by God to reprove them of righteousness and sin and to guide them into all truth. *See John* 16:8–13 (ESV) (“And when he comes, he will convict the world concerning sin and righteousness and judgment When the Spirit of truth comes, he will guide you into all the truth, for he will not speak on his own authority, but whatever he hears he will speak, and he will declare to you the things that are to come.”).

84. Plaintiffs also have sincerely held religious beliefs that they will receive answers to their questions through prayer and supplication, including for decisions governing their medical health. *See James* 1:5 (ESV) (“If any of you lacks wisdom, let him ask God, who gives generously to all without reproach, and it will be given him.”); *Mark* 11:24 (ESV) (“Therefore I tell you, whatever you ask in prayer, believe that you have received it, and it will be yours.”); *Philippians* 4:6–7 (ESV) (“[D]o not be anxious about anything, but in everything by prayer and supplication with thanksgiving let your requests be made known to God. And the peace of God, which surpasses all understanding, will guard your hearts and your minds in Christ Jesus.”); *1 John* 4:14–15 (ESV) (“And we have seen and testify that the Father has sent his Son to be the Savior of the world. Whoever confesses that Jesus is the Son of God, God abides in him, and he in God.”).

85. Through much prayer and reflection, Plaintiffs have sought wisdom, understanding, and guidance on the proper decisions to make concerning these COVID-19 vaccines, and Plaintiffs have been convicted by the Holy Spirit that

accepting any of the three currently available vaccines is against the teachings of Scripture and would be a sin.

86. Plaintiffs have sincerely held religious beliefs that compel them to follow the teachings of the Holy Spirit, who has not given them peace, comfort, or admonition to accept any of the three currently available COVID-19 vaccines.

87. Plaintiffs have sincerely held religious beliefs that they are being guided and instructed by the Holy Spirit not to accept any of the three currently available COVID-19 vaccines and that it would be a sin against God to do so.

88. Plaintiff CAPTAIN is of the Islamic faith whose sincerely held religious beliefs that require him to abstain from participation in that which is *haram* – forbidden – including the destruction and commoditization of innocent human life as exemplified by the use of human fetal cell lines derived from abortions. CAPTAIN desires to exercise “complete reliance on God” rather than in what he believes to be morally-tainted COVID shots

C. PLAINTIFFS’ WILLINGNESS TO COMPLY WITH SAFE AND TESTED ALTERNATIVES TO UNIVERSAL VACCINATION AS ACCOMMODATION OF THEIR SINCERELY HELD RELIGIOUS BELIEFS.

89. Plaintiffs have offered, and are ready, willing, and able to comply with all reasonable health and safety requirements to facilitate their religious exemption and accommodation from the Federal COVID-19 Vaccine Mandate.

90. Plaintiffs have all informed their respective commanding officers and civilian supervisors that they are willing to comply with reasonable conditions that

were sufficient for nearly two years, permitting them to fulfill their sworn duties and faithful service to their employers and a grateful nation, and which reasonable conditions continued from the FDA's Emergency Use Authorization (EUA) of the first COVID-19 vaccine in December 2020, until August 24, 2021 for military servicemembers and September 9 for federal civilian employees and contractors. Nothing has changed except for the Mandate, and thus the past proves a good example of present and future reasonable accommodations.

91. The accommodations which have been ongoing for nearly two years are certainly reasonable under the accumulating scientific evidence. Indeed,

A preliminary study has shown that in the case of a breakthrough infection, the Delta variant is able to grow in the noses of vaccinated people **to the same degree as if they were not vaccinated at all**. The virus that grows is just as infectious as that in unvaccinated people, meaning vaccinated people can transmit the virus and infect others.

Sanjay Mishra, *Evidence mounts that people with breakthrough infections can spread Delta easily*, National Geographic (Aug. 20, 2021), <https://www.nationalgeographic.com/science/article/evidence-mounts-that-people-with-breakthrough-infections-can-spread-delta-easily> (emphasis added); *see also Statement from CDC Director Rochelle P. Walensky, MD, MPH on Today's MMWR* (July 30, 2021), <https://www.cdc.gov/media/releases/2021/s0730-mmwr-covid-19.html> (noting “**the Delta infection resulted in similarly high SARS-CoV-2 viral loads in vaccinated and unvaccinated people**” (emphasis added).)

92. Other reasonable protocols beyond the currently-available COVID vaccines remain sufficient to prevent the spread of COVID-19 among military servicemembers, federal employees, and federal contractors, and constitute a reasonable alternative to mandatory, universal vaccination as an accommodation of sincerely held religious beliefs.

93. The United States District Court for the Western District of Louisiana recently issued a TRO against a medical school for the school's failure to grant religious exemptions when other reasonable accommodations were available and mandatory vaccination was not the least restrictive means of achieving the school's interest in protecting the school's student body. *See Magliulo v. Edward Via College of Osteopathic Medicine*, No. 3:21-CV-2304, 2021 WL 36799227 (W.D. La. Aug. 17, 2021).

94. The United States District Court for the Western District of Michigan issued a TRO against a university for its failure to allow students with religious objections to vaccination to participate in athletics and other extracurricular activities when other reasonable alternatives were available as a reasonable accommodation for their religious beliefs. *See Dahl v. Bd. of Trustees of W. Mich. Univ.*, No. 1:21-cv-757, 2021 WL 3891620, *2 (W.D. Mich. Aug. 31, 2021). The Sixth Circuit Court of Appeals affirmed that preliminary injunction in its order refusing to stay the preliminary injunction. *See Dahl v. Bd. of Trustees of W. Mich. Univ.*, No. 21-2945, 2021 WL 4618519 (6th Cir. Oct. 7, 2021).

95. The United States District Court for the Northern District of New York and the Second Circuit Court of Appeals have both entered injunctions against enforcement of New York's COVID-19 vaccine mandate on healthcare workers that expressly excluded any religious exemption. On October 12, 2021, the Northern District of New York entered a preliminary injunction enjoining state officials from enforcing the mandate. *See Dr. A. v. Hochul*, No. 1:21-CV-1009, 2021 WL 4734404 (N.D.N.Y. Oct. 12, 2021). The court had previously entered a TRO to the same effect. *See* 2021 WL 4189533 (N.D.N.Y. Sept. 14, 2021). On September 30, in between the Northern District's TRO and preliminary injunction, the Second Circuit gave its imprimatur to the *Dr. A.* TRO in *We The Patriots USA, Inc. v. Hochul*, No. 21-2179, dkt. 65 (2d Cir. Sept. 30, 2021). In *We The Patriots*, the Second Circuit issued an injunction pending appeal against New York's mandate, enjoining state officials from enforcing it "in a manner that would violate the terms of the temporary restraining order issued in *Dr. A v. Hochul*."

96. The United States Military Health System allows three different types of permanent *medical* exemptions from compulsory immunizations: (1) "Determination by a medical provider that further vaccination will seriously endanger patient's health;" (2) "Medical, Reactive exemption: Previously severe reaction after specific vaccine;" and (3) "Medical, Immune exemption: Evidence of existing immunity (e.g., by serologic antibody test, documentation of previous infection or natural infection presumed)." *See* Military Health System, *Immunization Exemption Guidance*, Health.mil, <https://www.health.mil/Military-Health-Topics/Health->

Readiness/Immunization-Healthcare/Clinical-Consultation-Services/Exemption-Guidance (last visited October 14, 2021).

97. Several Plaintiffs and countless other class members were previously infected with COVID-19, have serologic test results demonstrating natural antibodies and immunity to COVID-19, and otherwise qualify for the exemptions ostensibly available for servicemembers. Plaintiffs, however, have been denied the ability to even requests the officially available exemptions.

D. PLAINTIFFS' REQUESTS FOR AN ACCOMMODATION FROM THE MANDATORY COVID-19 VACCINE POLICY.

98. On September 7, 2021, NAVY SEAL 1 submitted to the United States Navy a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. NAVY SEAL 1 articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. NAVY SEAL 1 met with his unit's Chaplain, who reviewed his request for a religious exemption and accommodation and found that NAVY SEAL 1's request was sincere. NAVY SEAL 1's Chaplain forwarded NAVY SEAL 1's request to the command. After review, NAVY SEAL 1's request for a religious exemption and accommodation was denied, and he was preemptively removed from his position as Platoon Chief. NAVY SEAL 1 faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

99. On September 14, 2021, NAVY SEAL 2 submitted to the United States Navy a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. NAVY SEAL 2's request for a religious exemption and accommodation detailed NAVY SEAL 2's religious beliefs and practices that compel him to abstain from receiving any of the currently available COVID-19 vaccines. NAVY SEAL 2's request for a religious accommodation was supported by a letter from a religious leader, which demonstrated the sincerity of NAVY SEAL 2's personal beliefs. NAVY SEAL 2's commander noted that NAVY SEAL 2's religious beliefs were sincere and strongly held, but recommended that his request be disapproved. NAVY SEAL 2's request for an accommodation has been forwarded to the officers responsible for making the final determination, but he has been informed that his request will not be approved because of his direct commander's recommendation of denial. NAVY SEAL 2 faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination

100. On September 15, 2021, NAVY EOD OFFICER submitted to the United States Navy a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. NAVY EOD OFFICER articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. NAVY EOD OFFICER's request for a religious exemption and accommodation has not been approved, and he faces potential court martial,

dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

101. On September 16, 2021, LIEUTENANT COLONEL 1, United States Marine Corps, submitted to the United States Marine Corps a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. LIEUTENANT COLONEL 1 articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. LIEUTENANT COLONEL 1 met with his unit's Chaplain, who reviewed his request for a religious exemption and accommodation and found that LIEUTENANT COLONEL's request was made from a position of "absolute sincerity." LIEUTENANT COLONEL 1's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

102. LIEUTENANT COLONEL 2, United States Marine Corps, submitted to the United States Marine Corps a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of her sincerely held beliefs. LIEUTENANT COLONEL 2 articulated to his command that she has and exercises sincerely held religious beliefs that compel her to abstain from receiving any of the currently available COVID-19 vaccines. LIEUTENANT COLONEL 1's request for a

religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination

103. On September 16, 2021, ARMY RANGER submitted to the United States Army a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. ARMY RANGER articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. ARMY RANGER met with his unit's Chaplain, who reviewed his request for a religious exemption and accommodation and who found that ARMY RANGER's request was sincere. ARMY RANGER also submitted a pastor's verification letter with his request. ARMY RANGER's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

104. On September 9, 2016, LANCE CORPORAL submitted to the United States Marine Corps a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. LANCE CORPORAL articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently

available COVID-19 vaccines. LANCE CORPORAL's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

105. On October 4, 2021, NATIONAL GUARDSMAN submitted to the Virginia Army National Guard a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. NATIONAL GUARDSMAN articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. NATIONAL GUARDSMAN's request for a religious exemption and accommodation has not been approved, and he has already been removed from his scheduled deployment because of his request. NATIONAL GUARDSMAN additionally faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination. NATIONAL GUARDSMAN has also been removed from his scheduled deployment because of his request for an accommodation and exemption.

106. LIEUTENANT, United States Coast Guard submitted a request for a religious accommodation and exemption from the United States Coast Guard outlining her sincerely held religious objections to receiving one of the COVID-19 vaccines. Although she is currently under a temporary medical exemption while

breastfeeding her child born earlier this year and undergoing testing for allergies to vaccine components, LIEUTENANT has been informed that should these waivers be denied, she will may face dishonorable discharge, loss of benefits, and other disciplinary measures if she does not accept the COVID-19 vaccine. LIEUTENANT has also been informed that even if the medical waivers are approved, she may be determined medically unfit for service and discharged.

107. On September 28, 2021, COLONEL submitted to the United States Army a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. COLONEL articulated to his command that he has and exercises sincerely held religious beliefs that compel him to abstain from receiving any of the currently available COVID-19 vaccines. COLONEL met with his unit's Chaplain, who reviewed his request for a religious exemption and accommodation and found that COLONEL's request was sincere. COLONEL's request for a religious exemption and accommodation has not been approved, and he faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

108. TECHNICAL SERGEANT submitted to the United States Air Force a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of her sincerely held beliefs. TECHNICAL SERGEANT articulated to her command that she has and exercises sincerely held religious beliefs that compel her to abstain from receiving any of the currently available COVID-19 vaccines.

TECHNICAL SERGEANT also requested and was granted a temporary medical exemption because she is seven months pregnant, which will expire at the end of her pregnancy. TECHNICAL SERGEANT's request for a religious exemption and accommodation has not been approved, and she faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of her sincerely held religious beliefs against COVID-19 vaccination.

109. On October 2, 2021, DEFENSE DEPARTMENT CONTRACTOR submitted to the United States Department of Defense a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs. DEFENSE DEPARTMENT CONTRACTOR's request for a religious accommodation and exemption outlined his sincerely held religious objections to receiving any of the COVID-19 vaccines because of their connections to aborted fetal cell lines. DEFENSE DEPARTMENT CONTRACTOR's request was supported by a Chaplain's and supervisor's recommendations. DEFENSE DEPARTMENT CONTRACTOR's request has not been approved, and he has been informed that it is likely to be denied. DEFENSE DEPARTMENT CONTRACTOR faces potential court martial, dishonorable discharge, and other life-altering disciplinary measures for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

110. FEDERAL CIVILIAN ENGINEER CONTRACTOR would like to submit a request for religious exemption from the Federal COVID-19 Vaccine

Mandate as an accommodation of his sincerely held beliefs, but has been deprived of guidance on how and to whom to submit such a request. FEDERAL CIVILIAN ENGINEER CONTRACTOR has also been informed that there is little chance such requests will be approved. FEDERAL CIVILIAN ENGINEER CONTRACTOR faces termination for exercising and seeking accommodation of his sincerely held religious beliefs against COVID-19 vaccination.

111. FEDERAL CIVILIAN CONTRACTOR EMPLOYER would like to submit a request for religious exemption from the Federal COVID-19 Vaccine Mandate as an accommodation of his sincerely held beliefs, and to be able to provide religious exemptions and accommodations to his employees who have sincerely held religious objections to the COVID-19 vaccines, but has been deprived of guidance on how and to whom to submit such a request. Given the Mandate's requirement that all employees of federal government contractors and subcontractors receive a COVID-19 vaccine, FEDERAL CIVILIAN CONTRACTOR EMPLOYER faces termination of his current government contracts and disqualification from future contracts as a result of his exercising and seeking accommodation of his and his employees' sincerely held religious beliefs against COVID-19 vaccination.

112. FEDERAL NUCLEAR CONTRACTOR EMPLOYEE is not married yet, but hopes to be one day, and in that relationship to have a child or children as God blesses her. She believes that "children are an heritage of the Lord," and that bearing a child or children in the context of marriage fulfils a Divine mandate.

FEDERAL NUCLEAR CONTRACTOR EMPLOYEE is aware that no long-term studies have been performed on any of the COVID shots regarding their impact on female fertility, and given her religious beliefs about marriage and childbearing, cannot receive any of the COVID shots. FEDERAL NUCLEAR CONTRACTOR EMPLOYEE fears being placed in the position of having to choose between her job and her faith.

113. DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH requested a religious exemption and accommodation from Defendants' COVID-19 vaccine mandate on federal civilian contractors, and his request was denied. DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH was given until October 15 to accept one of the vaccine or face termination.

114. While many Plaintiffs' and class members' religious exemption requests have already been denied, the still pending requests have been effectively denied, as Plaintiffs and class members with pending requests have been threatened with dishonorable discharge, court martial, termination, or other life-altering disciplinary measures for merely seeking accommodation of their sincerely held religious beliefs, and some of these Plaintiffs have been informed by their superiors that **no religious exemption or accommodation will be given so there is no point in even making a request.**

115. For example, on October 14, 2021, Vice Admiral William Galinis, Commander, Naval Sea Systems Command (NAVSEA), sent a warning to his entire

command, comprising more than 85,000 civilian and military personnel: “The Executive Order mandating vaccinations for all federal employees has provided clear direction. We are moving quickly toward a workforce where vaccinations are a condition of employment. Frankly, if you are not vaccinated, you will not work for the U.S. Navy.”

E. THE ONLY COVID-19 VACCINES AVAILABLE IN THE UNITED STATES ARE ADMINISTERED UNDER EMERGENCY USE AUTHORIZATION BECAUSE THERE IS NO FDA APPROVED COVID-19 VACCINE CURRENTLY AVAILABLE IN THE UNITED STATES.

116. Despite the misreporting, there is no COVID-19 vaccine available in the United States that has received full FDA licensing and approval.

117. On August 23, 2021, the United States Food and Drug Administration issued two separate letters pertaining to two separate COVID-19 vaccines. *See* Letter, United States Food and Drug Administration to BioNTech Manufacturing GmbH (Aug. 23, 2021), <https://www.fda.gov/media/151710/download> (“BioNTech Letter”); Letter, United States Food and Drug Administration to Pfizer, Inc. (Aug. 23, 2021), <https://www.fda.gov/media/150386/download> (“Pfizer Letter”). (A true and correct copy of the BioNTech Letter is attached hereto as **EXHIBIT E** and incorporated herein. A true and correct copy of the Pfizer Letter is attached hereto as **EXHIBIT F** and incorporated herein.)

118. In the Pfizer Letter, the FDA confirms that, on December 11, 2020, it granted Emergency Use Authorization (EUA) for the Pfizer-BioNTech COVID-19

Vaccine. (Pfizer Letter at 1.) It also notes that the EUA was continued on December 23, 2020, February 25, 2020, May 10, 2021, June 25, 2021, and August 12, 2021. (Pfizer Letter at 1-2.)

119. The Pfizer Letter also makes clear that there are scientific, manufacturing, and **legal** differences between the Pfizer-BioNTech COVID-19 Vaccine and the newly approved BioNTech COMIRNATY, COVID-19 Vaccine, mRNA. (Pfizer Letter at 2 n.9, 3 n.10.)

120. Specifically, the FDA stated that although COMIRNATY was granted full approval by the FDA, the Pfizer-BioNTech COVID-19 Vaccine was still only authorized under the EUA. (Pfizer Letter at 2 n.9 (“In the August 23, 2021 revision, FDA clarified that, subsequent to the FDA approval of COMIRNATY (COVID-19 Vaccine, mRNA) for the prevention of COVID-19 for individuals 16 years of age and older, **this EUA would remain in place for the Pfizer-BioNTech COVID-19 vaccine for the previously-authorized indication and uses.** It also authorized COMIRNATY (COVID-19 Vaccine, mRNA) under this EUA for certain uses that are not included in the approved biologics license application (BLA).” (emphasis added).

121. All existing vials of the Pfizer-BioNTech COVID-19 Vaccine remain available only under the authorization of the EUA. (Pfizer Letter at 2 n.9.)

122. On information and belief, the existing vials of Pfizer-BioNTech COVID-19 Vaccine in the United States number in the millions, and that all of these EUA vaccine doses will be administered **before any does of the fully approved**

COMIRNATY, meaning the fully approved COMIRNATY will not be available for administration in the United States in the near future.

123. There are currently no available doses of COMIRNATY in the United States, and **COMIRNATY is not being manufactured for production or distribution in the United States at this time.**

124. In fact, the FDA Pfizer Letter plainly states that **COMIRNATY is not available in the United States: “Although COMIRNATY (COVID-19 Vaccine, mRNA) is approved to prevent COVID-19 in individuals 16 years of age and older, there is no sufficient approved vaccine for distribution to the population.”** (Pfizer Letter at 6 n.12 (emphasis added).)

125. Thus, the FDA has admitted and acknowledged that COMIRNATY is not available for the population in the United States, and thus extended the EUA for the Pfizer-BioNTech Covid-19 Vaccine. (*Id.*)

126. Indeed, in order for the FDA to have extended the EUA for the Pfizer-BioNTech Covid-19 Vaccine, **it was required to find that there were no alternatives available for the Pfizer-BioNTech Vaccine.** (*See* Pfizer Letter at 6 (“There is no adequate, approved, and **available alternative** to the Pfizer-BioNTech COVID-19 Vaccine to prevent COVID-19.” (emphasis added).)

127. Moreover, though Secretary Austin stated that the Federal COVID-19 Vaccine Mandate “will only use COVID-19 vaccines that receive full licensure from the Food and Drug Administration (FDA), in accordance with FDA-approved

labeling and guidance,” (Ex. D at 1), additional military documents reveal that the Department of Defense is not following its own directive and is, instead, using EUA vaccines because there is no FDA approved vaccine available. In a Memorandum for Assistant Secretary of the Army (Manpower and Reserve Affairs), Assistant Secretary of the Navy (Manpower and Reserve Affairs), Assistant Secretary of the Air Force (Manpower and Reserve Affairs), and the Director of the Defense Health Agency, Terry Adirim, Acting Assistant Secretary of Defense for Health Affairs, admitted that the Department of Defense was not administering a fully licensed and approved vaccine to the heroes in the United States Armed Forces, but was instead skirting federal law by mandating an EUA vaccine instead. (A true and correct copy of Acting Assistant Secretary Adirim’s Memorandum is attached hereto as **EXHIBIT G** and incorporated herein.)

128. Specifically, the Memorandum stated that Department of Defense health care providers “**should use doses distributed under the EUA to administer the vaccination series as if the doses were the licensed vaccine.**” (Ex. G at 1 (emphasis added).)

129. Thus, the only currently available COVID-19 vaccines are authorized under EUA only, and therefore cannot be mandated by Secretary Austin. (*See infra* Count I.)

130. The Federal Food, Drug, And Cosmetic Act provides that

subject to the provisions of this section, the Secretary (of the Department of Health and Human Services) may authorize the

introduction into interstate commerce, during the effective period of a declaration under subsection (b), of a drug, device, or biological product intended for use in an actual or potential emergency (referred to in this section as an “emergency use.”

21 U.S.C. § 360bbb-3(a)(1) (emphasis added) [hereinafter EUA Statute].

131. As an essential part of the explicit statutory conditions for EUA, **the EUA Statute mandates that all individuals to whom the EUA product may be administered be given the option to accept or refuse administration of the product:**

With respect to the emergency use of an unapproved product, the Secretary, to the extent practicable given the applicable circumstances described in subsection (b)(1), shall, for a person who carries out any activity for which the authorization is issued, establish such conditions on an authorization under this section as the Secretary finds necessary or appropriate to protect the public health, including the following:

.....

(ii) Appropriate conditions designed to ensure that individuals to whom the product is administered are informed—

(I) that the Secretary has authorized the emergency use of the product;

(II) of the significant known and potential benefits and risks of such use, and of the extent to which such benefits and risks are unknown; and

(III) of the option to accept or refuse administration of the product, of the consequences, if any, of refusing administration of the product, and of the alternatives to the product that are available and of their benefits and risks.

21 U.S.C. § 360bbb-3(e)(1)(A)(ii)(I)–(III) (emphasis added).

132. The statutorily required Fact Sheets for each of the EUA COVID-19 vaccines acknowledge that individuals cannot be compelled to accept or receive the

vaccine. *See, e.g.,* Pfizer-BioNTech, *Fact Sheet for Recipients and Caregivers* (June 25, 2021), <https://www.fda.gov/media/144414/download> (“**It is your choice to receive or not to receive the Pfizer-BioNTech COVID-19 Vaccine. Should you decide not to receive it, it will not change your standard medical care.**” (emphasis added)).

133. Because all COVID-19 vaccines available in the United States are subject to the EUA Statute restrictions and limitations, all individuals—**including military servicemembers, federal employees, and federal civilian contractors**—have the explicit right under the EUA Statute to accept or refuse administration of the products.

F. IRREPARABLE HARM TO PLAINTIFFS.

134. Because of Defendants’ refusal to grant Plaintiffs merited religious exemptions from the Federal COVID-19 Vaccine Mandate, Plaintiff servicemembers face the unconscionable choice of violating their sincerely held religious beliefs or facing court martial and dishonorable discharge from their faithful service to the Nation or, in the case of Plaintiff civilian employees and contractors, termination from their employment and contracts.

135. As a result of the Federal COVID-19 Vaccine Mandate, Plaintiffs have suffered and are suffering irreparable injury by being prohibited from engaging in their constitutionally and statutorily protected rights to the free exercise of their sincerely held religious beliefs.

136. As a result of the Federal COVID-19 Vaccine Mandate, Plaintiffs have suffered and are suffering irreparable injury by being forced to choose between

maintaining the ability to feed their families and the free exercise of their sincerely held religious beliefs.

137. As a result of the Federal COVID-19 Vaccine Mandate, Plaintiffs have suffered and are suffering irreparable injury by being stripped of their rights to equal protection of the law and being subjected to disfavored class status in the United States Armed Forces, federal employment, and federal contracting.

138. Military servicemember Plaintiffs also face the prospect of irreparable medical injury as a result of the Federal COVID-19 Vaccine Mandate. A recent study conducted by the Department of Defense found “**higher than expected rates of heart inflammation following receipt of COVID-19 vaccines**” among military servicemembers. *See* Patricia Kime, *DoD Confirms: Rare Heart Inflammation Cases Linked to COVID-19 Vaccines*, Military.com (June 30, 2021), <https://www.military.com/daily-news/2021/06/30/dod-confirms-rare-heart-inflammation-cases-linked-covid-19-vaccines.html> (emphasis added).

In fact, on or about June 29, 2021, Defendants knew that the mRNA vaccines would causing myocarditis/pericarditis (a potentially serious and deadly heart inflammation) in certain members of the military, particularly in males 30 and under. In a study conducted by United States Army, Navy, and Air Force physicians specifically found: A total of 23 male patients (22 currently serving in the military and 1 retiree; median [range] age, 25 [20-51] years) **presented with acute onset of marked chest pain within 4 days after receipt of an mRNA COVID-19 vaccine. All military members were previously healthy with a high level of fitness.** Seven received the BNT162b2-mRNA vaccine and 16 received the mRNA-1273 vaccine. A total of 20 patients had symptom onset following the second dose of an appropriately spaced 2-dose series. All patients had significantly elevated cardiac troponin levels. Among 8 patients who underwent cardiac magnetic resonance imaging within the

acute phase of illness, all had findings consistent with the clinical diagnosis of myocarditis. . . . **While the observed number of myocarditis cases was small, the number was higher than expected among male military members after a second vaccine dose.**

Jay Montgomery, et al., *Myocarditis Following Immunization With mRNA COVID-19 Vaccines in Members of the US Military*, Journal of American Medical Association Network (June 29, 2021), available at <https://jamanetwork.com/journals/jamacardiology/fullarticle/2781601> (emphasis added).

139. Dr. Matthew Oster, a member of the President's COVID-19 Task Force, confirmed the link between the COVID-19 vaccines and myocarditis, stating: "It does appear that mRNA vaccines may be a new trigger for myocarditis yet it does have some different characteristics." Jackie Salo, *COVID-19 mRNA vaccines likely linked to rare heart condition in kids: CDC panel*, (June 23, 2021), <https://nypost.com/2021/06/23/covid-19-vaccines-from-pfizer-moderna-likely-linked-to-rare-heart-condition-cdc-panel/>.

140. Indeed, it is now well confirmed by the CDC and other studies that males 30 and under have an unacceptable risk of developing myocarditis as a result of the COVID-19 vaccines. See **EXHIBIT H**, Declaration of Dr. Peter McCullough.

141. The COVID-19 genetic vaccines (Pfizer, Moderna, J&J) skipped testing for genotoxicity, mutagenicity, teratogenicity, and oncogenicity. In other words, it is unknown whether or not these products will change human genetic material, cause birth defects, reduce fertility, or cause cancer. (Ex. H, McCullough Decl. ¶16.)

142. The Pfizer, Moderna, and JNJ vaccines are considered “genetic vaccines”, or vaccines produced from gene therapy molecular platforms which according to US FDA regulatory guidance are classified as gene delivery therapies and should be under a 15-year regulatory cycle with annual visits for safety evaluation by the research sponsors. FDA. Food and Drug Administration. (*Id.* ¶17.)

143. The FDA has “advised sponsors to observe subjects for delayed adverse events for as long as 15 years following exposure to the investigational gene therapy product, specifying that the long-term follow-up observation should include a minimum of five years of annual examinations, followed by ten years of annual queries of study subjects, either in person or by questionnaire.” (emphasis added) Thus, the administration of the Moderna, Pfizer, and JNJ vaccines should not be undertaken without the proper consent and arrangements for long-term follow-up which are currently not offered in the US. (See, EUA briefing documents for commitments as to follow up: Moderna , Pfizer , J&J). They have a dangerous mechanism of action in that they all cause the body to make an uncontrolled quantity of the pathogenic wild-type spike protein from the SARS-CoV-2 virus for at least two weeks probably a longer period based on the late emergence of vaccine injury reports. This is unlike all other vaccines where there is a set amount of antigen or live-attenuated virus. This means for Pfizer, Moderna, and J&J vaccines it is not predictable among patients who will produce more or less of the spike protein. The Pfizer, Moderna, and JNJ vaccines because they are different, are expected to produce different libraries of limited antibodies to the now extinct wild-type spike protein. We know the spike protein

produced by the vaccines is obsolete because the 17th UK Technical Report on SARS-CoV-2 Variants issued June 25, 2021, and the CDC June 19, 2021, Variant Report both indicate the SARS-CoV-2 wild type virus to which all the vaccines were developed is now extinct. (*Id.* ¶18.)

144. The spike protein itself has been demonstrated to injure vital organs such as the brain, heart, lungs, as well as damage blood vessels and directly cause blood clots. Additionally, because these vaccines infect cells within these organs, the generation of spike protein within heart and brain cells, in particular, causes the body's own immune system to attach to these organs. This is abundantly apparent with the burgeoning number of cases of myocarditis or heart inflammation among individuals below age 30 years. (*Id.*)

145. Because the US FDA and CDC have offered no interpretation of overall safety of the COVID-19 vaccines according to the manufacturer or as a group, nor have they offered methods of risk mitigation for these serious adverse effects which can lead to permanent disability or death, no one should be pressured, coerced, receive the threat or reprisal, or be mandated to receive one of these investigational products against their will. Because the vaccine centers, CDC, FDA, and the vaccine manufacturers ask for the vaccine recipient to grant indemnification on the consent form before injection, all injuries incurred by the person are at their own cost which can be prohibitive depending on the needed procedures, hospitalizations, rehabilitation, and medications. (*Id.*)

146. The COVID-19 public vaccination program operated by the CDC and the FDA is a clinical investigation and under no circumstance can any person receive pressure, coercion, or threat of reprisal on their free choice of participation. Violation of this principle of autonomy by any entity constitutes reckless endangerment with a reasonable expectation of causing personal injury resulting in damages. (*Id.* ¶21.)

147. The total safety reports in VAERS for all vaccines per year up to 2019 was 16,320. The total safety reports in VAERS for COVID-19 Vaccines alone through October 1, 2021, is 778,683. Based on VAERS as of October 1, 2021, there were 16,310 COVID-19 vaccine deaths reported and 75,605 hospitalizations reported for the COVID-19 vaccines (Pfizer, Moderna, JNJ). By comparison, from 1999, until December 31, 2019, VAERS received 3167 death reports (158 per year) adult death reports for all vaccines combined. Thus, the COVID-19 mass vaccination is associated with at least a 39-fold increase in annualized vaccine deaths reported to VAERS. (*Id.* ¶28.)

148. COVID-19 vaccine adverse events account for 98% of all vaccine-related AEs from December 2020 through the present in VAERS. (*Id.* ¶29.)

149. The COVID-19 vaccines are not safe for general use and cannot be deployed indiscriminately or supported, recommended, or mandated among any group. (*Id.* ¶30.)

150. There are emerging trends showing that the vaccine is especially risky for those 12- 29 in my expert medical opinion with complications in the cardiovascular,

neurological, hematologic, and immune systems. (See, Rose J, et al). Increasingly the medical community is acknowledging the possible risks and side effects including myocarditis, Bell's Palsy, Pulmonary Embolus, Pulmonary Immunopathology, and severe allergic reaction causing anaphylactic shock. See Chien-Te Tseng, Elena Sbrana, Naoko Iwata- Yoshikawa, Patrick C Newman, Tania Garron, Robert L Atmar, Clarence J Peters, Robert B Couch, Immunization with SARS coronavirus vaccines leads to pulmonary immunopathology on challenge with the SARS virus, <https://pubmed.ncbi.nlm.nih.gov/22536382/> (last visited June 21, 2021); Centers for Disease Control and Prevention, Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine—United States, December 14– 23, 2020 (Jan 15, 2021). (*Id.* ¶31.)

151. The Centers for Disease Control has held emergency meetings on this issue and the medical community is responding to the crisis. It is known that myocarditis causes injury to heart muscle cells and may result in permanent heart damage resulting in heart failure, arrhythmias, and cardiac death. These conditions could call for a lifetime need for multiple medications, implantable cardio defibrillators, and heart transplantation. Heart failure has a five-year 50% survival and would markedly reduce the lifespan of a child or young adult who develops this complication after vaccine-induced myocarditis. (*Id.* ¶32.)

152. COVID-19 vaccine-induced myocarditis has a predilection for young males below age 30 years. The Centers for Disease Control has held emergency meetings on this issue and the medical community is responding to the crisis and the

US FDA has issued a warning on the Pfizer and Moderna vaccines for myocarditis. In the cases reviewed by the CDC and FDA, 90% of children with COVID-19 induced myocarditis developed symptoms and clinical findings sufficiently severe to warrant hospitalization. Because this risk is not predictable and the early reports may represent just the tip of the iceberg, no individual under age 30 under any set of circumstances should feel obliged to take this risk with the current genetic vaccines particularly the Pfizer and Moderna products. (*Id.* ¶33.)

153. Multiple recent studies and news reports detail people 18-29 dying from myocarditis after receiving the COVID-19 vaccine. According to the CDC, 475 cases of pericarditis and myocarditis have been identified in vaccinated citizens aged 30 and younger. See FDA, Vaccines and Related Biological Products Advisory Committee June 10, 2021, Meeting Presentation. The FDA found that people 12-24 account for 8.8% of the vaccines administered, but 52% of the cases of myocarditis and pericarditis were reported. (*Id.* ¶¶34-35.)

154. The CDC recently released data stating that there have been 267 cases of myocarditis or pericarditis reported after receiving one dose of the COVID-19 vaccines and 827 reported cases after two doses through June 11. There are 132 additional cases where the number of doses received is unknown. *Id.* There have been 2466 reported cases of myocarditis that have occurred, and the median age is thirty. (*Id.* ¶37.) And, the CDC just announced that the vaccine is “likely linked” to myocarditis. Advisory

Board, CDC panel reports ‘likely association’ of heart inflammation and mRNA COVID-19 vaccines in young people. (*Id.* ¶36.)

155. The irreparable harm to Plaintiffs and the class members they represent is incalculable, unconscionable, and unconstitutional. As the Declaration of Nay Chaplain (attached hereto as **EXHIBIT I** and incorporated herein) demonstrates, the military heroes of this Nation are under inordinate strain from this forced mandate that violates their conscience, and it is having tremendous mental health effects, including a large number of military suicides. (Ex. I, ¶¶6-32.) The Declaration of COAST GUARD LIEUTENANT (attached hereto as **EXHIBIT J** and incorporated herein) likewise demonstrates immeasurable and irreparable injury.

CLASS ALLEGATIONS

156. Plaintiffs satisfy the requirements Fed. R. Civ. P. 23(a) because the class is so numerous that joinder of all members is impracticable, each member’s claims involve common questions of law and fact, the claims of the representatives are typical of and identical to the claims of the other members of the class, and the representatives here will fairly and adequately protect the interests of the class in having the primarily legal questions addressed by this Court in an expeditious manner. Between Active Duty Military and Reserves, the United States Armed Forces comprise almost 2.3 million individuals, the federal government directly employees approximately 2.1 million, and federal contractors and subcontractors total about 3.7 million.

157. Plaintiffs have typicality with the other members of the class of military servicemembers, civilian federal employees, and civilian federal contractors who have

been denied religious exemption from the Federal COVID-19 Vaccine Mandate, estimated to number in the thousands or even tens of thousands, and who are threatened with the unconscionable choice between conformance with their sincerely held religious convictions adverse employment action.

158. Plaintiffs have commonality with the other members of the class because they are all members of the United States Armed Forces, civilian federal employees, or civilian federal contractors subject to the Federal COVID-19 Vaccine Mandate.

159. Plaintiffs' claims in this Court are representative of the claims of other class members and involve questions of fact and law that are common to all class members, including, *inter alia*,

(a) whether the EUA Statute requires that Plaintiffs be given the option to refuse a COVID-19 vaccine because there is currently no FDA approved COVID-19 vaccine available;

(b) whether Defendants violate the First Amendment to the United States Constitution by mandating that Plaintiffs accept and receive a COVID-19 vaccine regardless of whether Plaintiffs' and the other class members' sincerely held religious beliefs compel them to abstain from acceptance or receipt of the three currently available COVID-19 vaccines; and

(c) whether the federal Religious Freedom Restoration Act (RFRA) requires Defendants and all those in active concert with them to provide accommodations and exemptions to those Plaintiffs with sincerely held religious convictions that compel

them to abstain from receiving one of the three currently available COVID-19 vaccines.

160. Plaintiffs' claims are representative and common among all class members because the injury sustained—Defendants' refusals to grant exemption and accommodation for sincerely held religious objections to the COVID-19 vaccines and the resulting adverse employment actions—are categorically identical. Indeed, Plaintiffs and the other members of the class "have suffered the same injury." *Wal-Mart Stores, Inc. v. Dukes*, 564 U.S. 338, 350 (2011).

161. Plaintiffs will fairly and adequately protect the interests of the class because they are seeking a temporary restraining order, preliminary and permanent injunctive relief, and declaratory relief against enforcement of the Federal COVID-19 Vaccine Mandate and Defendants' refusals to entertain or grant religious exemptions and accommodations which will provide relief to all class members.

162. Plaintiffs likewise satisfy the requirements of Fed. R. Civ. P. 23(b) because Defendants have acted in a manner that applies to all members of the class with respect to the Federal COVID-19 Vaccine Mandate, and have refused to grant religious accommodations to the entire group of class members who have sincerely held religious objections to receiving a COVID-19 vaccine under the Mandate. Fed. R. Civ. P. 23(b)(2).

163. Additionally, Plaintiffs' requested injunctive and declaratory relief would appropriately protect of the entire class as a whole. Fed. R. Civ. P. 23(b)(2).

164. Moreover, Plaintiffs satisfy the requirements of Fed. R. Civ. P. 23(b) because the common questions of law and fact applicable to the class members' claims predominate over individualized questions pertaining to individual class members. Fed. R. Civ. P. 23(b)(3).

165. Adjudication of Plaintiffs and the other class members' claims are more fairly and efficiently adjudicated by a class action, as the claims for religious accommodation and exemption from the Federal COVID-19 Vaccine Mandate are virtually identical among all class members, the relevant facts applicable to each individual class member are substantially similar, and the applicable substantive law for the class members' claims is identical in all respects. Fed. R. Civ. P. 23(b)(3).

**COUNT I – VIOLATION OF THE EMERGENCY USE AUTHORIZATION
PROVISIONS OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT,
21 U.S.C. § 360bbb-3**

166. Plaintiffs hereby reallege and adopt each and every allegation in paragraphs 1-165 as if fully set forth herein.

167. The Federal Food, Drug, And Cosmetic Act provides that

subject to the provisions of this section, the Secretary (of the Department of Health and Human Services) may authorize the introduction into interstate commerce, during the effective period of a declaration under subsection (b), of a drug, device, or biological product intended for use in an actual or potential emergency (referred to in this section as an “emergency use.”

21 U.S.C. § 360bbb-3(a)(1) (emphasis added).

168. For ease of reference, Plaintiffs will refer to the general provisions of 21 U.S.C. §360bbb-3 as the “Emergency Use Authorization Statute” or “EUA Statute.”

169. The Emergency Use Authorization Statute further provides the limitations on when the Secretary may authorize the emergency use of an unapproved product for use in interstate commerce, and specifically limits such authorization to circumstances where the Secretary of Homeland Security has determined certain emergencies exist, where the Secretary of Defense has determined that certain military emergencies exist, where the Secretary of the Department of Health and Human Services has determined that certain public health emergencies exist, and where there has been some identification of a material threat pursuant to other provisions of the United States Code. *See* 21 U.S.C. § 360bbb-3(b)(1)(A)-(D).

170. The Secretary's Emergency Use Authorization terminates whenever the circumstances described in 21 U.S.C. § 360bbb-3(b)(1)(A)-(D) cease to exist or where the product approved for Emergency Use under the statute receives a change in approval status. 21 U.S.C. § 360bbb-3(b)(2)(A)(i)-(ii).

171. As an essential part of the explicit statutory conditions for EUA, **the EUA Statute mandates that all individuals to whom the EUA product may be administered be given the option to accept or refuse administration of the product:**

With respect to the emergency use of an unapproved product, the Secretary, to the extent practicable given the applicable circumstances described in subsection (b)(1), shall, for a person who carries out any activity for which the authorization is issued, establish such conditions on an authorization under this section as the Secretary finds necessary or appropriate to protect the public health, including the following:

....

(ii) Appropriate conditions designed to ensure that individuals to whom the product is administered are informed—

(I) that the Secretary has authorized the emergency use of the product;

(II) of the significant known and potential benefits and risks of such use, and of the extent to which such benefits and risks are unknown; and

(III) **of the option to accept or refuse administration of the product**, of the consequences, if any, of refusing administration of the product, and of the alternatives to the product that are available and of their benefits and risks.

21 U.S.C. § 360bbb-3(e)(1)(A)(ii)(I)–(III) (emphasis added).

172. Consistent with the requirement in the Emergency Use Authorization statute that all potential recipients of the COVID-19 vaccine be informed of the option to accept or refuse the vaccine, the Emergency Use Authorization Fact Sheet for all three of the currently available COVID-19 vaccines specifically states – **as required by the Emergency Use Authorization Statute** – that individuals have the right to refuse administration of the COVID-19 vaccine. A true and correct copy of the Emergency Use Authorization Fact Sheet for the Moderna COVID-19 Vaccine is attached hereto as EXHIBIT ## and incorporated herein. A true and correct copy of the Emergency Use Authorization Fact Sheet for the Pfizer- BioNTech COVID-19 Vaccine is attached hereto as EXHIBIT ## and incorporated herein. A true and correct copy of the Emergency Use Authorization Fact Sheet for the Janssen (Johnson & Johnson) COVID-19 Vaccine is attached hereto as EXHIBIT ## and incorporated herein.

173. Specifically, the Emergency Use Authorization Fact Sheets for all three COVID-19 vaccines state that it is the individual’s right to refuse administration of the

vaccine. (See Exhibit H at 4 (“**It is your choice to receive or not to receive the Moderna COVID-19 Vaccine. Should you decide not to receive it, it will not change your standard medical care.**” (emphasis added)); Exhibit I at 5 (“**It is your choice to receive or not to receive the Pfizer-BioNTech COVID-19 Vaccine. Should you decide not to receive it, it will not change your standard medical care.**” (emphasis added)); Exhibit J at 5 (“**It is your choice to receive or not to receive the Janssen COVID-19 Vaccine. Should you decide not to receive it, it will not change your standard medical care.**” (emphasis added))).)

174. “Congress has prohibited the administration of investigational drugs to service members without their consent.” *Doe v. Rumsfeld*, 341 F. Supp. 2d 1, 19 (D.D.C. 2004).

175. There is a very strict mechanism under which any military exception to the EUA statute may be deployed, and neither have occurred here.

176. First, the President can waive the informed consent requirement, but that Presidential waiver must be in writing and demonstrate that the President has determined “that obtaining consent is not in the interests of national security.”

177. The strict criteria laid out in the statutory framework demonstrate the limited scope of the exceptions to the informed consent requirement. To start, the initial emergency declaration by the HHS Secretary must be based on one of four statutorily listed justifications – none of which apply here. The first requires the Secretary of Defense to find a **domestic emergency**, or significant potential for a

domestic emergency, based on heightened risk of attack with a **biological, chemical, radiological, or nuclear agent**. 21 U.S.C.A. § 360bbb–3(b)(1)(A) (“A “determination by the Secretary of Homeland Security that there is a domestic emergency, or a significant potential for a domestic emergency, involving a heightened risk of attack with a biological, chemical, radiological, or nuclear agent or agents.”).

178. The second requires a finding that there is a **military emergency** involving a heightened risk to US military forces of an attack with a **biological, chemical, radiological, or nuclear agent**, or an agent that may cause an imminently life-threatening and specific risk to US military forces. 21 U.S.C. § 360bbb-3(b)(1)(B) (“A “determination by the Secretary of Defense that there is a **military emergency**, or a significant potential for a military emergency, involving a heightened risk to United States military forces, including personnel operating under the authority of title 10 or title 50, of **attack with a biological, chemical, radiological, or nuclear agent or agents**; or an agent or agents that may cause, or are otherwise associated with, **an imminently life-threatening and specific risk** to United States military forces.” (emphasis added)).

179. The third requires a finding that there is a public health emergency, or significant potential for a public health emergency that affects national security or the health and security of US citizens abroad that involves a **biological, chemical, radiological, or nuclear agent or a disease or condition attributable to one of those agents**. 21 U.S.C. §360bbb-3(b)(1)(C) (A “determination by the Secretary that there is

a **public health emergency**, or a significant potential for a public health emergency, **that affects**, or has a significant potential to affect, **national security** or the health and security of United States citizens living abroad, **and** that involves a **biological, chemical, radiological, or nuclear agent or agents, or a disease or condition that may be attributable to such agent or agents.**” (emphasis added)).

180. The fourth requires the identification of a material threat involving **chemical, biological, radiological, and nuclear agents** sufficient to affect national security or the health and security of US citizens living abroad. 21 U.S.C. § 360bbb-3(b)(1)(D) (“The “identification of a **material threat** [involving chemical, biological, radiological, and nuclear agents] pursuant to section 319F–2 of the Public Health Service Act [42 U.S.C. 247d–6b] sufficient **to affect national security** or the health and security of United States citizens living abroad.” (emphasis added)).

181. Under the above statute, there is no legal basis on which the President may waive consent for the COVID-19 vaccines for the military. Indeed, he has not done so because he has no statutory authority under these facts to waive the EUA requirements for the military.

182. Even after the HHS Secretary establishes that one of the four criteria are satisfied, then under § 360bbb–3 the HHS Secretary then must make a separate determination that an “agent” referred to in the declaration can cause a serious or life-threatening disease or condition **and** that based on the scientific evidence available for the product authorized under the EUA (i) it may be effective in diagnosing, treating,

or preventing the disease or serious life-threatening disease, (ii) the known and potential benefits outweigh the risks; (iii) there is no adequate, approved, and available alternative to the product authorized under the EUA; (iv) **in the case of a military emergency based on a biological, chemical, radiological, or nuclear agent, the Secretary of Defense made the emergency use request**; and (v) other criteria established by regulation are satisfied.

183. None of the foregoing criteria has been satisfied.

184. Defendants have ignored their obligations under the EUA Statute.

185. There has been no Presidential declaration sufficient to invoke the consent exceptions of the EUA statute.

186. There has been no domestic emergency, military emergency, public health emergency, or material threat of a biological, chemical, radiological, or nuclear agent, or a disease attributable to one of those conditions.

187. As such, Defendants are prohibited by the EUA statute from mandating that any Plaintiffs or similarly situated military servicemembers receive or accept one of the COVID-19 vaccines.

188. Put simply, the Emergency Use Authorization Statute provides that, **as a condition of receiving authorization for emergency use, ALL individuals to whom the EUA product may be administered are given the right to accept or refuse administration of the product – and this includes members of the military. And, of**

course, the EUA right to accept or refuse applies and cannot be waived respecting the federal employees and federal civilian contractor Plaintiffs.

189. The only currently available COVID-19 vaccines (Janssen/Johnson & Johnson, Moderna, and Pfizer/BioNTech) are only authorized for use under the Emergency Use Authorization statute and have no general approval under the United States Code.

190. Because all three of the currently available COVID-19 vaccines are subject only to Emergency Use under the Emergency Use Authorization statute, the Emergency Use Authorization statute mandates that all individuals to whom the product may be administered, **including Plaintiffs**, be given the right to accept or refuse administration of the product.

191. Put simply, because all three of the currently available COVID-19 vaccines are subject only to Emergency Use under the Emergency Use Authorization statute, the Emergency Use Authorization statute prohibits Defendants from making the COVID-19 vaccines mandatory.

192. The Federal COVID-19 Vaccine Mandate, on its face and as applied, has caused, is causing, and will continue to cause irreparable harm and actual and undue hardship on Plaintiffs' sincerely held religious beliefs.

193. Plaintiffs have no adequate remedy at law for the continuing deprivation of their most cherished constitutional liberties and sincerely held religious beliefs.

COUNT II – VIOLATION OF THE FIRST AMENDMENT TO THE UNITED STATES CONSTITUTION

194. Plaintiffs hereby reallege and adopt each and every allegation in paragraphs 1–165 above as if fully set forth herein.

195. The Free Exercise Clause of the First Amendment to the United States Constitution prohibits the government from abridging Plaintiffs’ rights to free exercise of religion.

196. Plaintiffs have sincerely held religious beliefs that Scripture is the infallible, inerrant word of the Lord Jesus Christ, and that they are to follow its teachings.

197. Plaintiffs have and exercise sincerely held religious beliefs (articulated *supra* Section B) which compel them to abstain from receiving or accepting any of the currently available COVID-19 vaccines.

198. The Federal COVID-19 Vaccine Mandate, on its face and as applied, targets Plaintiffs’ sincerely held religious beliefs by prohibiting Plaintiffs from seeking and receiving exemption and accommodation for their sincerely held religious beliefs against the COVID-19 vaccines.

199. The Federal COVID-19 Vaccine Mandate, on its face and as applied, impermissibly burdens Plaintiffs’ sincerely held religious beliefs, compels Plaintiffs to either change those beliefs or act in contradiction to them, and forces Plaintiffs to choose between the teachings and requirements of their sincerely held religious beliefs in the commands of Scripture and the government’s imposed value system.

200. The Federal COVID-19 Vaccine Mandate, on its face and as applied, places Plaintiffs in an irresolvable conflict between compliance with the mandate and their sincerely held religious beliefs.

201. The Federal COVID-19 Vaccine Mandate, on its face and as applied, puts substantial pressure on Plaintiffs to violate their sincerely held religious beliefs or face loss of their ability to feed their families.

202. The Federal COVID-19 Vaccine Mandate, on its face and as applied, is neither neutral nor generally applicable.

203. The Federal COVID-19 Vaccine Mandate, on its face and as applied, specifically targets Plaintiffs' religious beliefs for disparate and discriminatory treatment.

204. The Federal COVID-19 Vaccine Mandate, on its face and as applied, creates a system of individualized exemptions for preferred exemption requests while discriminating against requests for exemption and accommodation based on sincerely held religious beliefs. Regarding the federal employee and federal civilian contractor Plaintiffs, Defendant Biden imposed the Vaccine Mandate on them while exempting Congress, the Internal Revenue Service (IRS) and the United States Postal Service. Indeed, a certain husband and wife are both federal employees. One works for the IRS while the other works for the Veterans Administration (VA). Although husband and wife are working as federal employees, one is under the Vaccine Mandate, and one is not. The VA has used a simple one-page form on which an employee merely checks a box to request a religious exemption. Other federal employees are subject to a more

burdensome process or have received no guidance on submitting religious exemption requests. The civilian federal contractors face a deadline of November 22, but none have received any guidance on whether or where they might file a request for religious exemption and accommodation.

205. The Federal COVID-19 Vaccine Mandate, on its face and as applied, constitutes a religious gerrymander by unconstitutionally orphaning exemption and accommodation requests based solely on sincerely held religious beliefs of Plaintiffs while permitting the more favored medical exemptions to be granted.

206. The Federal COVID-19 Vaccine Mandate, on its face and as applied, constitutes a substantial burden on Plaintiffs' exercise of their sincerely held religious beliefs.

207. The Federal COVID-19 Vaccine Mandate, on its face and as applied, fails to accommodate Plaintiffs' sincerely held religious beliefs.

208. There is no legitimate, rational, or compelling interest in the Federal COVID-19 Vaccine Mandate's exclusion of exemptions and accommodations for sincerely held religious beliefs.

209. The Federal COVID-19 Vaccine Mandate is not the least restrictive means of achieving an otherwise permissible government interest.

210. The Federal COVID-19 Vaccine Mandate, on its face and as applied, has caused, is causing, and will continue to cause irreparable harm and actual and undue hardship on Plaintiffs' sincerely held religious beliefs.

211. Plaintiffs have no adequate remedy at law to protect the continuing deprivation of their most cherished constitutional liberties and sincerely held religious beliefs.

WHEREFORE, Plaintiffs respectfully pray for relief against Defendant as hereinafter set forth in their prayer for relief

COUNT III - VIOLATION OF THE RELIGIOUS FREEDOM RESTORATION ACT, 42 U.S.C. § 2000bb-1, et seq.

212. Plaintiffs hereby reallege and adopt each and every allegation in paragraphs 1–165 above as if fully set forth herein.

213. The Religious Freedom Restoration Act (RFRA) provides that “Government shall not substantially burden a person’s exercise of religion even if the burden results from a rule of general applicability.” 42 U.S.C. § 2000bb-1(a).

214. RFRA also demands that, should the government substantially burden a person’s free exercise of religion, it bears the burden of demonstrating that its burden on religious exercise furthers a compelling government interest and is the least restrictive means of achieving that compelling government interest. 42 U.S.C. § 2000bb-1(b).

215. RFRA plainly applies to Defendants, as they constitute a “branch, department, agency, instrumentality, and official of the United States.” 42 U.S.C. § 2000bb-2(1).

216. Congress enacted RFRA “to provide **very broad** protection for religious liberty,” going “far beyond what [the Supreme Court] has held is constitutionally

required” under the First Amendment. *Burwell v. Hobby Lobby Stores, Inc.*, 573 U.S. 682, 693, 706 (2014) (emphasis added).

217. As such, RFRA encompasses a very broad definition of “exercise of religion,” which includes ““any exercise of religion, whether or not compelled by, or central to, a system of religious belief.”” *Hobby Lobby*, 573 U.S. at 696 (quoting 42 U.S.C. § 2000bb—5(7)(A)).

218. RFRA mandated that the law “be construed in favor of a broad protection of religious exercise, to the maximum extent permitted by the terms of this chapter and the Constitution.”” *Hobby Lobby*, 573 U.S. at 696 (quoting 42 U.S.C. § 2000cc—3(g)).

219. “RFRA operates as a kind of super statute, displacing the normal operation of other federal laws.” *Bostock v. Clayton Cnty.*, 140 S. Ct. 1731, 1754 (2020).

220. Plaintiffs have sincerely held religious beliefs that Scripture is the infallible, inerrant word of the Lord Jesus Christ, and that they are to follow its teachings.

221. Plaintiffs have and exercise sincerely held religious beliefs (articulated *supra* Section B) which compel them to abstain from receiving or accepting any of the currently available COVID-19 vaccines.

222. The Federal COVID-19 Vaccine Mandate, on its face and as applied, targets Plaintiffs’ sincerely held religious beliefs by prohibiting Plaintiffs from seeking and receiving exemption and accommodation for their sincerely held religious beliefs against the COVID-19 vaccines.

223. The Federal COVID-19 Vaccine Mandate, on its face and as applied, impermissibly burdens Plaintiffs' sincerely held religious beliefs, compels Plaintiffs to either change those beliefs or act in contradiction to them, and forces Plaintiffs to choose between the teachings and requirements of their sincerely held religious beliefs in the commands of Scripture and the government's imposed value system.

224. The Federal COVID-19 Vaccine Mandate, on its face and as applied, places Plaintiffs in an irresolvable conflict between compliance with the mandate and their sincerely held religious beliefs.

225. The Federal COVID-19 Vaccine Mandate, on its face and as applied, puts substantial pressure on Plaintiffs to violate their sincerely held religious beliefs or face loss of their ability to feed their families.

226. The Federal COVID-19 Vaccine Mandate, on its face and as applied, specifically targets Plaintiffs' religious beliefs for disparate and discriminatory treatment.

227. The Federal COVID-19 Vaccine Mandate, on its face and as applied, creates a system of individualized exemptions for preferred exemption requests while discriminating against requests for exemption and accommodation based on sincerely held religious beliefs.

228. The Federal COVID-19 Vaccine Mandate, on its face and as applied, constitutes a substantial burden on Plaintiffs' exercise of their sincerely held religious beliefs.

229. By forcing Plaintiffs into the unconscionable choice between violating their sincerely held religious convictions or facing dishonorable discharge, courts martial, termination, and other disciplinary measures, Defendants' mandate constitutes a substantial burden on Plaintiffs' exercise of religion.

230. The Federal COVID-19 Vaccine Mandate, on its face and as applied, fails to accommodate Plaintiffs' sincerely held religious beliefs.

231. There is no legitimate, rational, or compelling interest in the Federal COVID-19 Vaccine Mandate's exclusion of exemptions and accommodations for sincerely held religious beliefs.

232. The Federal COVID-19 Vaccine Mandate is not the least restrictive means of achieving an otherwise permissible government interest.

233. The Federal COVID-19 Vaccine Mandate, on its face and as applied, has caused, is causing, and will continue to cause irreparable harm and actual and undue hardship on Plaintiffs' sincerely held religious beliefs.

234. Plaintiffs have no adequate remedy at law for the continuing deprivation of their most cherished constitutional liberties and sincerely held religious beliefs.

WHEREFORE, Plaintiffs respectfully pray for relief against Defendants as hereinafter set forth in their prayer for relief.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs, on behalf of themselves and all others similarly situated, respectfully pray for relief as follows:

A. That the Court issue a temporary restraining order restraining and enjoining Defendants and their officers, agents, employees, and attorneys, and all other persons in active concert or participation with them, from enforcing, threatening to enforce, attempting to enforce, or otherwise requiring compliance with the Federal COVID-19 Vaccine Mandate such that:

- i. Defendants will immediately comply with the Emergency Use Authorization Statute so that each individual has the “option to accept or refuse” administration of the COVID-19 vaccines as there is currently no FDA approved COVID-19 vaccine available to the population;
- ii. Defendants will immediately cease in their refusal to consider, evaluate, or accept Plaintiffs’ requests for exemption and accommodation for their sincerely held religious beliefs;
- iii. Defendants’ will immediately grant Plaintiffs’ requests for religious exemption and accommodation from the Federal COVID-19 Vaccine Mandate; and
- iv. Defendants will immediately cease any actions arising from or connected to the military servicemember Plaintiffs’ religious exemption and accommodation requests, including current and ongoing punishment and threatening to dishonorably discharge, court martial, and impose other life-altering disciplinary actions

on Plaintiffs for failure to accept a COVID-19 vaccine that violates their sincerely held religious beliefs;

- v. Defendants will immediately cease any actions arising from or connected to the federal civilian employee and contractor Plaintiffs' religious exemption and accommodation requests, including demotion, termination, or other disciplinary actions on Plaintiffs for failure to accept a COVID-19 vaccine that violates their sincerely held religious beliefs;

B. That the Court issue a preliminary injunction pending trial, and a permanent injunction upon judgment, restraining and enjoining Defendants and their officers, agents, employees, and attorneys, and all other persons in active concert or participation with them, from enforcing, threatening to enforce, attempting to enforce, or otherwise requiring compliance with the Federal COVID-19 Vaccine Mandate such that:

- i. Defendants will immediately comply with the Emergency Use Authorization Statute so that each individual has the "option to accept or refuse" administration of the COVID-19 vaccines as there is currently no FDA approved COVID-19 vaccine available to the population;
- ii. Defendants will immediately cease in their refusal to consider, evaluate, or accept Plaintiffs' requests for exemption and accommodation for their sincerely held religious beliefs;

- iii. Defendants' will immediately grant Plaintiffs' requests for religious exemption and accommodation from the Federal COVID-19 Vaccine Mandate; and
- iv. Defendants will immediately cease any actions arising from or connected to the military servicemember Plaintiffs' religious exemption and accommodation requests, including current and ongoing punishment and threatening to dishonorably discharge, court martial, and impose other life-altering disciplinary actions on Plaintiffs for failure to accept a COVID-19 vaccine that violates their sincerely held religious beliefs;
- v. Defendants will immediately cease any actions arising from or connected to the federal civilian employee and contractor Plaintiffs' religious exemption and accommodation requests, including demotion, termination, or other disciplinary actions on Plaintiffs for failure to accept a COVID-19 vaccine that violates their sincerely held religious beliefs;

C. That this Court render a declaratory judgment declaring that the Federal COVID-19 Vaccine Mandate, both on its face and as applied by Defendants, is illegal and unlawful in that it purports to remove federal civil rights and constitutional protections from military servicemembers and civilian federal employees and contractors, and further declaring—

- i. the Federal COVID-19 Vaccine Mandate violates the federal Emergency Use Authorization provisions of the Federal Food, Drug, and Cosmetic Act by imposing a mandatory COVID-19 shot upon Plaintiffs without giving the “option to accept or refuse” the EUA product;
- ii. the Federal COVID-19 Vaccine Mandate, without sufficient provision for exemption or accommodation for sincerely held religious beliefs, violates the First Amendment to the United States Constitution by imposing a substantial burden on Plaintiffs’ sincerely held religious beliefs;
- iii. the Federal COVID-19 Vaccine Mandate, without sufficient provision for exemption or accommodation for sincerely held religious beliefs, violates the federal Religious Freedom Restoration Act by imposing a substantial burden on Plaintiffs’ sincerely held religious beliefs;

D. That this Court adjudge, decree, and declare the rights and other legal obligations and relations within the subject matter here in controversy so that such declaration shall have the full force and effect of final judgment;

E. That this Court retain jurisdiction over the matter for the purposes of enforcing the Court’s order;

F. That this Court grant such other and further relief as the Court deems equitable and just under the circumstances.

Respectfully submitted,

/s/ Roger K. Gannam

Mathew D. Staver

Horatio G. Mihet

Roger K. Gannam

Daniel J. Schmid*

Richard L. Mast*

LIBERTY COUNSEL

P.O. Box 540774

Orlando, FL 32854

Phone: (407) 875-1776

Facsimile: (407) 875-0770

Email: court@lc.org

hmihet@lc.org

rgannam@lc.org

dschmid@lc.org*

rmast@lc.org*

*Application for Admission pro hac vice pending

Attorneys for Plaintiffs

VERIFICATION

I, NAVY SEAL 2, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ NAVY SEAL 2
NAVY SEAL 2
(Original Signature retained by Counsel)

VERIFICATION

I, NAVY EOD OFFICER, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ NAVY EOD OFFICER
NAVY EOD OFFICER
(Original Signature retained by Counsel)

VERIFICATION

I, NAVY CHIEF PETTY OFFICER, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ NAVY CHIEF PETTY OFFICER
NAVY CHIEF PETTY OFFICER
(Original Signature retained by Counsel)

VERIFICATION

I, NAVY CHAPLAIN, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ NAVY CHAPLAIN
NAVY CHAPLAIN
(Original Signature retained by Counsel)

VERIFICATION

I, LIEUTENANT COLONEL 1, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ LIEUTENANT COLONEL 1
LIEUTENANT COLONEL 1
(Original Signature retained by Counsel)

VERIFICATION

I, LIEUTENANT COLONEL 2, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ LIEUTENANT COLONEL 2
LIEUTENANT COLONEL 2
(Original Signature retained by Counsel)

VERIFICATION

I, USMC MAJOR, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ USMC MAJOR
USMC MAJOR
(Original Signature retained by Counsel)

VERIFICATION

I, ARMY RANGER, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ ARMY RANGER
ARMY RANGER
(Original Signature retained by Counsel)

VERIFICATION

I, LANCE CORPORAL 1, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ LANCE CORPORAL 1
LANCE CORPORAL 1
(Original Signature retained by Counsel)

VERIFICATION

I, LANCE CORPORAL 2, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ LANCE CORPORAL 2
LANCE CORPORAL 2
(Original Signature retained by Counsel)

VERIFICATION

I, USMC LIEUTENANT, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ USMC LIEUTENANT
USMC LIEUTENANT
(Original Signature retained by Counsel)

VERIFICATION

I, Air Force MAJOR, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ Air Force MAJOR
Air Force MAJOR
(Original Signature retained by Counsel)

VERIFICATION

I, NATIONAL GUARDSMAN, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ NATIONAL GUARDSMAN
NATIONAL GUARDSMAN
(Original Signature retained by Counsel)

VERIFICATION

I, COLONEL, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ COLONEL _____
COLONEL
(Original Signature retained by Counsel)

VERIFICATION

I, TECHNICAL SERGEANT, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ TECHNICAL SERGEANT
TECHNICAL SERGEANT
(Original Signature retained by Counsel)

VERIFICATION

I, DEFENSE DEPARTMENT CONTRACTOR, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ DEFENSE DEPARTMENT CONTRACTOR
DEFENSE DEPARTMENT CONTRACTOR
(Original Signature retained by Counsel)

VERIFICATION

I, FEDERAL CIVILIAN ENGINEER CONTRACTOR, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ FEDERAL CIVILIAN ENGINEER CONTRACTOR
FEDERAL CIVILIAN ENGINEER CONTRACTOR
(Original Signature retained by Counsel)

VERIFICATION

I, FEDERAL CIVILIAN CONTRACTOR EMPLOYER, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ FEDERAL CIVILIAN CONTRACTOR EMPLOYER
FEDERAL CIVILIAN CONTRACTOR EMPLOYER
(Original Signature retained by Counsel)

VERIFICATION

I, FEDERAL NUCLEAR CONTRACTOR EMPLOYEE, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ FEDERAL NUCLEAR CONTRACTOR EMPLOYEE
FEDERAL NUCLEAR CONTRACTOR EMPLOYEE
(Original Signature retained by Counsel)

VERIFICATION

I, DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH, am over the age of eighteen years and a Plaintiff in this action. The statements and allegations that pertain to me or which I make in this VERIFIED COMPLAINT are true and correct, and based upon my personal knowledge (unless otherwise indicated). If called upon to testify to their truthfulness, I would and could do so competently. I declare under penalty of perjury, under the laws of the United States, that the foregoing statements are true and correct to the best of my knowledge.

Dated: October 15, 2021

/s/ DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH
DEPARTMENT OF ENERGY CIVILIAN NUCLEAR TECH
(Original Signature retained by Counsel)

BRIEFING ROOM

Executive Order on Requiring Coronavirus Disease 2019 Vaccination for Federal Employees

SEPTEMBER 09, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, including sections 3301, 3302, and 7301 of title 5, United States Code, it is hereby ordered as follows:

Section 1. Policy. It is the policy of my Administration to halt the spread of coronavirus disease 2019 (COVID-19), including the B.1.617.2 (Delta) variant, by relying on the best available data and science-based public health measures. The Delta variant, currently the predominant variant of the virus in the United States, is highly contagious and has led to a rapid rise in cases and hospitalizations. The nationwide public health emergency, first declared by the Secretary of Health and Human Services on January 31, 2020, remains in effect, as does the National Emergency Concerning the Coronavirus Disease 2019 (COVID-19) declared pursuant to the National Emergencies Act in Proclamation 9994 of March 13, 2020 (Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak). The Centers for Disease Control and Prevention (CDC) within the Department of Health and Human Services has determined that the best way to slow the spread of COVID-19 and to prevent infection by the Delta variant or other variants is to be vaccinated.

COVID-19 vaccines are widely available in the United States. They protect people from getting infected and severely ill, and they significantly reduce the likelihood of hospitalization and death. As of the date of this order, one of the COVID-19 vaccines, the Pfizer-BioNTech COVID-19 Vaccine, also known as Comirnaty, has received approval from the Food and Drug Administration (FDA), and two others, the Moderna COVID-19 Vaccine and the Janssen COVID-19 Vaccine, have been authorized by the FDA for emergency use. The FDA has determined that all three vaccines meet its rigorous standards for safety, effectiveness, and manufacturing quality.

The health and safety of the Federal workforce, and the health and safety of members of the public with whom they interact, are foundational to the efficiency of the civil service. I have determined that ensuring the health and safety of the Federal workforce and the efficiency of

the civil service requires immediate action to protect the Federal workforce and individuals interacting with the Federal workforce. It is essential that Federal employees take all available steps to protect themselves and avoid spreading COVID-19 to their co-workers and members of the public. The CDC has found that the best way to do so is to be vaccinated.

The Safer Federal Workforce Task Force (Task Force), established by Executive Order 13991 of January 20, 2021 (Protecting the Federal Workforce and Requiring Mask-Wearing), has issued important guidance to protect the Federal workforce and individuals interacting with the Federal workforce. Agencies have also taken important actions, including in some cases requiring COVID-19 vaccination for members of their workforce.

Accordingly, building on these actions, and in light of the public health guidance regarding the most effective and necessary defenses against COVID-19, I have determined that to promote the health and safety of the Federal workforce and the efficiency of the civil service, it is necessary to require COVID-19 vaccination for all Federal employees, subject to such exceptions as required by law.

Sec. 2. Mandatory Coronavirus Disease 2019 Vaccination for Federal Employees. Each agency shall implement, to the extent consistent with applicable law, a program to require COVID-19 vaccination for all of its Federal employees, with exceptions only as required by law. The Task Force shall issue guidance within 7 days of the date of this order on agency implementation of this requirement for all agencies covered by this order.

Sec. 3. Definitions. For the purposes of this order:

(a) The term “agency” means an Executive agency as defined in 5 U.S.C. 105 (excluding the Government Accountability Office).

(b) The term “employee” means an employee as defined in 5 U.S.C. 2105 (including an employee paid from nonappropriated funds as referenced in 5 U.S.C. 2105(c)).

Sec. 4. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect: (i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

(d) If any provision of this order, or the application of any provision to any person or

circumstance, is held to be invalid, the remainder of this order and the application of any of its other provisions to any other persons or circumstances shall not be affected thereby.

JOSEPH R. BIDEN JR.

THE WHITE HOUSE,
September 9, 2021.

BRIEFING ROOM

Executive Order on Ensuring Adequate COVID Safety Protocols for Federal Contractors

SEPTEMBER 09, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Federal Property and Administrative Services Act, 40 U.S.C. 101 *et seq.*, and section 301 of title 3, United States Code, and in order to promote economy and efficiency in procurement by contracting with sources that provide adequate COVID-19 safeguards for their workforce, it is hereby ordered as follows:

Section 1. Policy. This order promotes economy and efficiency in Federal procurement by ensuring that the parties that contract with the Federal Government provide adequate COVID-19 safeguards to their workers performing on or in connection with a Federal Government contract or contract-like instrument as described in section 5(a) of this order. These safeguards will decrease the spread of COVID-19, which will decrease worker absence, reduce labor costs, and improve the efficiency of contractors and subcontractors at sites where they are performing work for the Federal Government. Accordingly, ensuring that Federal contractors and subcontractors are adequately protected from COVID-19 will bolster economy and efficiency in Federal procurement.

Sec. 2. Providing for Adequate COVID-19 Safety Protocols for Federal Contractors and Subcontractors. (a) Executive departments and agencies, including independent establishments subject to the Federal Property and Administrative Services Act, 40 U.S.C. 102(4)(A) (agencies), shall, to the extent permitted by law, ensure that contracts and contract-like instruments (as described in section 5(a) of this order) include a clause that the contractor and any subcontractors (at any tier) shall incorporate into lower-tier subcontracts. This clause shall specify that the contractor or subcontractor shall, for the duration of the contract, comply with all guidance for contractor or subcontractor workplace locations published by the Safer Federal Workforce Task Force (Task Force Guidance or Guidance), provided that the Director of the Office of Management and Budget (Director) approves the Task Force Guidance and determines that the Guidance, if adhered to by contractors or subcontractors, will promote economy and efficiency in Federal contracting. This clause shall apply to any workplace locations (as specified by the Task Force Guidance) in which an individual is working on or in

connection with a Federal Government contract or contract-like instrument (as described in section 5(a) of this order).

(b) By September 24, 2021, the Safer Federal Workforce Task Force (Task Force) shall, as part of its issuance of Task Force Guidance, provide definitions of relevant terms for contractors and subcontractors, explanations of protocols required of contractors and subcontractors to comply with workplace safety guidance, and any exceptions to Task Force Guidance that apply to contractor and subcontractor workplace locations and individuals in those locations working on or in connection with a Federal Government contract or contract-like instrument (as described in section 5(a) of this order).

(c) Prior to the Task Force publishing new Guidance related to COVID-19 for contractor or subcontractor workplace locations, including the Guidance developed pursuant to subsection (b) of this section, the Director shall, as an exercise of the delegation of my authority under the Federal Property and Administrative Services Act, *see* 3 U.S.C. 301, determine whether such Guidance will promote economy and efficiency in Federal contracting if adhered to by Government contractors and subcontractors. Upon an affirmative determination by the Director, the Director's approval of the Guidance, and subsequent issuance of such Guidance by the Task Force, contractors and subcontractors working on or in connection with a Federal Government contract or contract-like instrument (as described in section 5(a) of this order), shall adhere to the requirements of the newly published Guidance, in accordance with the clause described in subsection (a) of this section. The Director shall publish such determination in the *Federal Register*.

(d) Nothing in this order shall excuse noncompliance with any applicable State law or municipal ordinance establishing more protective safety protocols than those established under this order or with any more protective Federal law, regulation, or agency instructions for contractor or subcontractor employees working at a Federal building or a federally controlled workplace.

(e) For purposes of this order, the term "contract or contract-like instrument" shall have the meaning set forth in the Department of Labor's proposed rule, "Increasing the Minimum Wage for Federal Contractors," 86 Fed. Reg. 38816, 38887 (July 22, 2021). If the Department of Labor issues a final rule relating to that proposed rule, that term shall have the meaning set forth in that final rule.

Sec. 3. Regulations and Implementation. (a) The Federal Acquisition Regulatory Council, to the extent permitted by law, shall amend the Federal Acquisition Regulation to provide for inclusion in Federal procurement solicitations and contracts subject to this order the clause described in section 2(a) of this order, and shall, by October 8, 2021, take initial steps to implement appropriate policy direction to acquisition offices for use of the clause by recommending that agencies exercise their authority under subpart 1.4 of the Federal Acquisition Regulation.

(b) By October 8, 2021, agencies shall take steps, to the extent permitted by law, to exercise any applicable authority to ensure that contracts and contract-like instruments as described in section 5(a) of this order that are not subject to the Federal Acquisition Regulation and that are entered into on or after October 15, 2021, consistent with the effective date of such agency action, include the clause described in section 2(a) of this order.

Sec. 4. Severability. If any provision of this order, or the application of any provision of this order to any person or circumstance, is held to be invalid, the remainder of this order and its application to any other person or circumstance shall not be affected thereby.

Sec. 5. Applicability. (a) This order shall apply to any new contract; new contract-like instrument; new solicitation for a contract or contract-like instrument; extension or renewal of an existing contract or contract-like instrument; and exercise of an option on an existing contract or contract-like instrument, if:

(i) it is a procurement contract or contract-like instrument for services, construction, or a leasehold interest in real property;

(ii) it is a contract or contract-like instrument for services covered by the Service Contract Act, 41 U.S.C. 6701 *et seq.*;

(iii) it is a contract or contract-like instrument for concessions, including any concessions contract excluded by Department of Labor regulations at 29 C.F.R. 4.133(b); or

(iv) it is a contract or contract-like instrument entered into with the Federal Government in connection with Federal property or lands and related to offering services for Federal employees, their dependents, or the general public;

(b) This order shall not apply to:

(i) grants;

(ii) contracts, contract-like instruments, or agreements with Indian Tribes under the Indian Self-Determination and Education Assistance Act (Public Law 93-638), as amended;

(iii) contracts or subcontracts whose value is equal to or less than the simplified acquisition threshold, as that term is defined in section 2.101 of the Federal Acquisition Regulation;

(iv) employees who perform work outside the United States or its outlying areas, as those terms are defined in section 2.101 of the Federal Acquisition Regulation; or

(v) subcontracts solely for the provision of products.

Sec. 6. Effective Date. (a) Except as provided in subsection (b) of this section, this order is effective immediately and shall apply to new contracts; new contract-like instruments; new solicitations for contracts or contract-like instruments; extensions or renewals of existing contracts or contract-like instruments; and exercises of options on existing contracts or contract-like instruments, as described in section 5(a) of this order, where the relevant

contract or contract-like instrument will be entered into, the relevant contract or contract-like instrument will be extended or renewed, or the relevant option will be exercised, on or after:

(i) October 15, 2021, consistent with the effective date for the action taken by the Federal Acquisition Regulatory Council pursuant to section 3(a) of this order; or

(ii) for contracts and contract-like instruments that are not subject to the Federal Acquisition Regulation and where an agency action is taken pursuant to section 3(b) of this order, October 15, 2021, consistent with the effective date for such action.

(b) As an exception to subsection (a) of this section, where agencies have issued a solicitation before the effective date for the relevant action taken pursuant to section 3 of this order and entered into a new contract or contract-like instrument resulting from such solicitation within 30 days of such effective date, such agencies are strongly encouraged to ensure that the safety protocols specified in section 2 of this order are applied in the new contract or contract-like instrument. But if that contract or contract-like instrument term is subsequently extended or renewed, or an option is subsequently exercised under that contract or contract-like instrument, the safety protocols specified in section 2 of this order shall apply to that extension, renewal, or option.

(c) For all existing contracts and contract-like instruments, solicitations issued between the date of this order and the effective dates set forth in this section, and contracts and contract-like instruments entered into between the date of this order and the effective dates set forth in this section, agencies are strongly encouraged, to the extent permitted by law, to ensure that the safety protocols required under those contracts and contract-like instruments are consistent with the requirements specified in section 2 of this order.

Sec. 7. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

JOSEPH R. BIDEN JR.

THE WHITE HOUSE,

September 9, 2021.

Safer Federal Workforce Task Force
COVID-19 Workplace Safety: Guidance for Federal Contractors and Subcontractors
Issued September 24, 2021

Introduction

On September 9, President Biden announced his [Path Out of the Pandemic: COVID-19 Action Plan](#). One of the main goals of this science-based plan is to get more people vaccinated. As part of that plan, the President signed Executive Order 14042, [Ensuring Adequate COVID Safety Protocols for Federal Contractors](#), (“the order”) which directs executive departments and agencies, including independent establishments subject to the Federal Property and Administrative Services Act, 40 U.S.C. § 102(4)(A), to ensure that covered contracts and contract-like instruments include a clause (“the clause”) that the contractor and any subcontractors (at any tier) shall incorporate into lower-tier subcontracts. This clause shall specify that the contractor or subcontractor shall, for the duration of the contract, comply with all guidance for contractor or subcontractor workplace locations published by the Safer Federal Workforce Task Force (“Task Force”), provided that the Director of the Office of Management and Budget (“OMB”) approves the Task Force Guidance (the or this “Guidance”) and determines that the Guidance, if adhered to by covered contractors, will promote economy and efficiency in Federal contracting.

The actions directed by the order will ensure that parties who contract with the Federal Government provide COVID-19 safeguards in workplaces with individuals working on or in connection with a Federal Government contract or contract-like instrument. These workplace safety protocols will apply to all covered contractor employees, including contractor or subcontractor employees in covered contractor workplaces who are not working on a Federal Government contract or contract-like instrument. These safeguards will decrease the spread of SARS-CoV-2, the virus that causes COVID-19, which will decrease worker absence, reduce labor costs, and improve the efficiency of contractors and subcontractors performing work for the Federal Government.

Pursuant to this Guidance, and in addition to any requirements or workplace safety protocols that are applicable because a contractor or subcontractor employee is present at a Federal workplace, Federal contractors and subcontractors with a covered contract will be required to conform to the following workplace safety protocols:

1. COVID-19 vaccination of covered contractor employees, except in limited circumstances where an employee is legally entitled to an accommodation;
2. Compliance by individuals, including covered contractor employees and visitors, with the Guidance related to masking and physical distancing while in covered contractor workplaces; and
3. Designation by covered contractors of a person or persons to coordinate COVID-19 workplace safety efforts at covered contractor workplaces.

The order also sets out a process for OMB and the Safer Federal Workforce Task Force to update the Guidance for covered contractors, which the Task Force will consider doing based on future changes to Centers for Disease Control and Prevention (“CDC”) COVID-19 guidance and as warranted by the circumstances of the pandemic and public health conditions. It also sets out a process for the Federal Acquisition Regulatory Council (“FAR Council”) to implement such protocols and guidance for covered Federal procurement solicitations and contracts subject to the Federal Acquisition Regulation (“FAR”) and for agencies that are responsible for covered contracts and contract-like instruments not subject to the FAR to take prompt action to ensure that those covered contracts and contract-like instruments include the clause, consistent with the order.

Covered contractors shall adhere to the requirements of this Guidance. The Director of OMB has, as authorized by Executive Order 14042, approved this Guidance and has, an exercise of the delegation of authority (see 3 U.S.C. § 301) under the Federal Property and Administrative Services Act determined that this Guidance will promote economy and efficiency in Federal contracting if adhered to by Government contractors and subcontractors. The Director has published such determination in the Federal Register.

Definitions

Community transmission – means the level of community transmission as set forth in the [CDC COVID-19 Data Tracker County View](#).

Contract and contract-like instrument – has the meaning set forth in the Department of Labor’s proposed rule, “Increasing the Minimum Wage for Federal Contractors,” [86 Fed. Reg. 38,816, 38,887](#) (July 22, 2021). If the Department of Labor issues a final rule relating to that proposed rule, this term shall have the meaning set forth in that final rule.

That proposed rule defines a contract or contract-like instrument as an agreement between two or more parties creating obligations that are enforceable or otherwise recognizable at law. This definition includes, but is not limited to, a mutually binding legal relationship obligating one party to furnish services (including construction) and another party to pay for them. The term contract includes all contracts and any subcontracts of any tier thereunder, whether negotiated or advertised, including any procurement actions, lease agreements, cooperative agreements, provider agreements, intergovernmental service agreements, service agreements, licenses, permits, or any other type of agreement, regardless of nomenclature, type, or particular form, and whether entered into verbally or in writing. The term contract shall be interpreted broadly as to include, but not be limited to, any contract within the definition provided in the FAR at 48 CFR chapter 1 or applicable Federal statutes. This definition includes, but is not limited to, any contract that may be covered under any Federal procurement statute. Contracts may be the result of competitive bidding or awarded to a single source under applicable authority to do so. In addition to bilateral instruments, contracts include, but are not limited to, awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance; exercised contract options; and bilateral contract modifications. The term contract includes contracts covered by the Service Contract Act, contracts covered by the Davis-Bacon Act, concessions contracts not otherwise subject to the Service Contract Act, and contracts in connection with Federal property or land and related to offering services for Federal employees, their dependents, or the general public.

Contractor or subcontractor workplace location – means a location where covered contract employees work, including a covered contractor workplace or Federal workplace.

Covered contract – means any contract or contract-like instrument that includes the clause described in Section 2(a) of the order.

Covered contractor – means a prime contractor or subcontractor at any tier who is party to a covered contract.

Covered contractor employee – means any full-time or part-time employee of a covered contractor working on or in connection with a covered contract or working at a covered

contractor workplace. This includes employees of covered contractors who are not themselves working on or in connection with a covered contract.

Covered contractor workplace – means a location controlled by a covered contractor at which any employee of a covered contractor working on or in connection with a covered contract is likely to be present during the period of performance for a covered contract. A covered contractor workplace does not include a covered contractor employee’s residence.

Federal workplace – means any place, site, installation, building, room, or facility in which any Federal executive department or agency conducts official business, or is within an executive department or agency’s jurisdiction, custody, or control.

Fully vaccinated – People are considered [fully vaccinated](#) for COVID-19 two weeks after they have received the second dose in a two-dose series, or two weeks after they have received a single-dose vaccine. There is currently no post-vaccination time limit on fully vaccinated status; should such a limit be determined by the Centers for Disease Control and Prevention, that limit will be considered by the Task Force and OMB for possible updating of this Guidance.

For purposes of this Guidance, people are considered fully vaccinated if they have received COVID-19 vaccines currently approved or authorized for emergency use by the U.S. Food and Drug Administration (Pfizer-BioNTech, Moderna, and Johnson & Johnson [J&J]/Janssen COVID-19 vaccines) or COVID-19 vaccines that have been listed for emergency use by the World Health Organization (e.g., AstraZeneca/Oxford). More information is available at [Interim Clinical Considerations for Use of COVID-19 Vaccines | CDC](#).

Clinical trial participants from a U.S. site who are documented to have received the full series of an “active” (not placebo) COVID-19 vaccine candidate, for which vaccine efficacy has been independently confirmed (e.g., by a data and safety monitoring board), can be considered fully vaccinated two weeks after they have completed the vaccine series. Currently, the Novavax COVID-19 vaccine meets these criteria. More information is available at the CDC website [here](#).

Mask – means any mask that is consistent with CDC recommendations as set forth in [Types of Masks and Respirators | CDC](#). This may include the following: disposable masks, masks that fit properly (snugly around the nose and chin with no large gaps around the sides of the face), masks made with breathable fabric (such as cotton), masks made with tightly woven fabric (i.e., fabrics that do not let light pass through when held up to a light source), masks with two or three layers, masks with inner filter pockets, and filtering facepiece respirators that are approved by the National Institute for Occupational Safety and Health or consistent with international standards. The following do not constitute masks for purposes of this Guidance: masks with exhalation valves, vents, or other openings; face shields only (without mask); or masks with single-layer fabric or thin fabric that does not block light.

Guidance

Covered contractors are responsible for ensuring that covered contractor employees comply with the workplace safety protocols detailed below. Covered contractor employees must also comply with agency COVID-19 workplace safety requirements while in Federal workplaces.

Consistent with applicable law, agencies are strongly encouraged to incorporate a clause requiring compliance with this Guidance into contracts that are not covered or directly addressed by the order because the contract is under the Simplified Acquisition Threshold as defined in section 2.101 of the FAR or is a contract or subcontract for the manufacturing of products. Agencies are also strongly encouraged to incorporate a clause requiring compliance with this Guidance into existing contracts and contract-like instruments prior to the date upon which the order requires inclusion of the clause.

- 1. Vaccination of covered contractor employees, except in limited circumstances where an employee is legally entitled to an accommodation*

Covered contractors must ensure that all covered contractor employees are fully vaccinated for COVID-19, unless the employee is legally entitled to an accommodation. Covered contractor employees must be fully vaccinated no later than December 8, 2021. After that date, all covered contractor employees must be fully vaccinated by the first day of the period of performance on a newly awarded covered contract, and by the first day of the period of performance on an exercised option or extended or renewed contract when the clause has been incorporated into the covered contract.

A covered contractor may be required to provide an accommodation to covered contractor employees who communicate to the covered contractor that they are not vaccinated against COVID-19 because of a disability (which would include medical conditions) or because of a sincerely held religious belief, practice, or observance. A covered contractor should review and consider what, if any, accommodation it must offer. Requests for “medical accommodation” or “medical exceptions” should be treated as requests for a disability accommodation.

Should a Federal agency have an urgent, mission-critical need for a covered contractor to have covered contractor employees begin work on a covered contract or at a covered workplace before becoming fully vaccinated, the agency head may approve an exception for the covered contractor—in the case of such limited exceptions, the covered contractor must ensure these covered contractor employees are fully vaccinated within 60 days of beginning work on a covered contract or at a covered workplace. The covered contractor must further ensure that such employees comply with masking and physical distancing requirements for not fully vaccinated individuals in covered workplaces prior to being fully vaccinated.

The covered contractor must review its covered employees’ documentation to prove vaccination status. Covered contractors must require covered contractor employees to show or provide their

employer with one of the following documents: a copy of the record of immunization from a health care provider or pharmacy, a copy of the COVID-19 Vaccination Record Card (CDC Form MLS-319813_r, published on September 3, 2020), a copy of medical records documenting the vaccination, a copy of immunization records from a public health or State immunization information system, or a copy of any other official documentation verifying vaccination with information on the vaccine name, date(s) of administration, and the name of health care professional or clinic site administering vaccine. Covered contractors may allow covered contractor employees to show or provide to their employer a digital copy of such records, including, for example, a digital photograph, scanned image, or PDF of such a record.

The covered contractor shall ensure compliance with the requirements in this Guidance related to the showing or provision of proper vaccination documentation.

Covered contractors are strongly encouraged to incorporate similar vaccination requirements into their non-covered contracts and agreements with non-covered contractors whose employees perform work at covered contractor workplaces but who do not work on or in connection with a Federal contract, such as those contracts and agreements related to the provision of food services, onsite security, or groundskeeping services at covered contractor workplaces.

2. Requirements related to masking and physical distancing while in covered contractor workplaces

Covered contractors must ensure that all individuals, including covered contractor employees and visitors, comply with published CDC guidance for masking and physical distancing at a covered contractor workplace, as discussed further in this Guidance.

In addition to the guidance set forth below, CDC's guidance for mask wearing and physical distancing in specific settings, including healthcare, transportation, correctional and detention facilities, and schools, must be followed, as applicable.

In areas of high or substantial community transmission, fully vaccinated people must wear a mask in indoor settings, except for limited exceptions discussed in this Guidance. In areas of low or moderate community transmission, fully vaccinated people do not need to wear a mask. Fully vaccinated individuals do not need to physically distance regardless of the level of transmission in the area.

Individuals who are not fully vaccinated must wear a mask indoors and in certain outdoor settings (see below) regardless of the level of community transmission in the area. To the extent practicable, individuals who are not fully vaccinated should maintain a distance of at least six feet from others at all times, including in offices, conference rooms, and all other communal and work spaces.

Covered contractors must require individuals in covered contractor workplaces who are required to wear a mask to:

- Wear appropriate masks consistently and correctly (over mouth and nose).
- Wear appropriate masks in any common areas or shared workspaces (including open floorplan office space, cubicle embankments, and conference rooms).
- For individuals who are not fully vaccinated, wear a mask in crowded outdoor settings or during outdoor activities that involve sustained close contact with other people who are not fully vaccinated, consistent with CDC guidance.

A covered contractor may be required to provide an accommodation to covered contractor employees who communicate to the covered contractor that they cannot wear a mask because of a disability (which would include medical conditions) or because of a sincerely held religious belief, practice, or observance. A covered contractor should review and consider what, if any, accommodation it must offer.

Covered contractors may provide for exceptions to mask wearing and/or physical distancing requirements consistent with CDC guidelines, for example, when an individual is alone in an office with floor to ceiling walls and a closed door, or for a limited time when eating or drinking and maintaining appropriate distancing. Covered contractors may also provide exceptions for covered contractor employees engaging in activities in which a mask may get wet; high intensity activities where covered contractor employees are unable to wear a mask because of difficulty breathing; or activities for which wearing a mask would create a risk to workplace health, safety, or job duty as determined by a [workplace risk assessment](#). Any such exceptions must be approved in writing by a duly authorized representative of the covered contractor to ensure compliance with this Guidance at covered contractor workplaces, as discussed further below.

Masked individuals may be asked to lower their masks briefly for identification purposes in compliance with safety and security requirements.

Covered contractors must check the [CDC COVID-19 Data Tracker County View website](#) for community transmission information in all areas where they have a covered contractor workplace at least weekly to determine proper workplace safety protocols. When the level of community transmission in the area of a covered contractor workplace increases from low or moderate to substantial or high, contractors and subcontractors should put in place more protective workplace safety protocols consistent with published guidelines. However, when the level of community transmission in the area of a covered contractor workplace is reduced from high or substantial to moderate or low, the level of community transmission must remain at that lower level for at least two consecutive weeks before the covered contractor utilizes those protocols recommended for areas of moderate or low community transmission.

- 3. Designation by covered contractors of a person or persons to coordinate COVID-19 workplace safety efforts at covered contractor workplaces.*

Covered contractors shall designate a person or persons to coordinate implementation of and compliance with this Guidance and the workplace safety protocols detailed herein at covered contractor workplaces. The designated person or persons may be the same individual(s) responsible for implementing any additional COVID-19 workplace safety protocols required by local, State, or Federal law, and their responsibilities to coordinate COVID-19 workplace safety protocols may comprise some or all of their regular duties.

The designated individual (or individuals) must ensure that information on required COVID-19 workplace safety protocols is provided to covered contractor employees and all other individuals likely to be present at covered contractor workplaces, including by communicating the required workplace safety protocols and related policies by email, websites, memoranda, flyers, or other means and posting signage at covered contractor workplaces that sets forth the requirements and workplace safety protocols in this Guidance in a readily understandable manner. This includes communicating the COVID-19 workplace safety protocols and requirements related to masking and physical distancing to visitors and all other individuals present at covered contractor workplaces. The designated individual (or individuals) must also ensure that covered contractor employees comply with the requirements in this guidance related to the showing or provision of proper vaccination documentation.

Frequently Asked Questions

Vaccination and Safety Protocols

Q1: How do covered contractors determine vaccination status of visitors to covered contractor workplaces?

A: Covered contractors should post signage at entrances to covered contractor workplaces providing information on safety protocols for fully vaccinated and not fully vaccinated individuals, including the protocols defined in the masking and physical distancing section above, and instruct individuals to follow the appropriate workplace safety protocols while at the covered contractor workplace. Covered contractors may take other reasonable steps, such as by communicating workplace safety protocols to visitors prior to their arrival at a covered contractor workplace or requiring all visitors to follow masking and physical distancing protocols for not fully vaccinated individuals.

Q2: Do covered contractors need to provide onsite vaccinations to their employees?

A: Covered contractors should ensure their employees are aware of [convenient opportunities to be vaccinated](#). Although covered contractors may choose to provide vaccinations at their facilities or workplaces, given the widespread availability of vaccinations, covered contractors are not required to do so.

Q3: What should a contractor employee do if a covered contractor employee has lost or does not have a copy of required vaccination documentation?

A: If covered contractor employees need new vaccination cards or copies of other documentation proof of vaccination, they should contact the vaccination provider site where they received their vaccine. Their provider should be able to provide them with new cards or documentation with up-to-date information about the vaccinations they have received. If the location where the covered contractor employees received their COVID-19 vaccine is no longer operating, the covered contractor employees should contact their State or local health department's [immunization information system \(IIS\)](#) for assistance. Covered contractor employees should [contact their State or local health department](#) if they have additional questions about vaccination cards or vaccination records.

An attestation of vaccination by the covered contractor employee is not an acceptable substitute for documentation of proof of vaccination.

Q4: Who is responsible for determining if a covered contractor employee must be provided an accommodation because of a disability or because of a sincerely held religious belief, practice, or observance?

A: A covered contractor may be required to provide an accommodation to contractor employees who communicate to the covered contractor that they are not vaccinated for COVID-19, or that they cannot wear a mask, because of a disability (which would include medical conditions) or because of a sincerely held religious belief, practice, or observance. A covered contractor should review and consider what, if any, accommodation it must offer. The contractor is responsible for considering, and dispositioning, such requests for accommodations regardless of the covered contractor employee's place of performance. If the agency that is the party to the covered contract is a "joint employer" for purposes of compliance with the Rehabilitation Act and Title VII of the Civil Rights Act, both the agency and the covered contractor should review and consider what, if any, accommodation they must offer.

Q5: Are covered contractor employees who have a prior COVID-19 infection required to be vaccinated?

A: Yes, covered contractor employees who have had a prior COVID-19 infection are required to be vaccinated. More information from CDC can be found [here](#).

Q6: Can a covered contractor accept a recent antibody test from a covered contractor employee to prove vaccination status?

A: No. A covered contractor cannot accept a recent antibody test from a covered contractor employee to prove vaccination status.

Workplaces

Q7: Does this Guidance apply to outdoor contractor or subcontractor workplace locations?

A: Yes, this Guidance applies to contractor or subcontractor workplace locations that are outdoors.

Q8: If a covered contractor employee is likely to be present during the period of performance for a covered contract on only one floor or a separate area of a building, site, or facility controlled by a covered contractor, do other areas of the building, site, or facility controlled by a covered contractor constitute a covered contractor workplace?

A: Yes, unless a covered contractor can affirmatively determine that none of its employees on another floor or in separate areas of the building will come into contact with a covered contractor employee during the period of performance of a covered contract. This would include affirmatively determining that there will be no interactions between covered contractor employees and non-covered contractor employees in those locations during the period of performance on a covered contract, including interactions through use of common areas such as lobbies, security clearance areas, elevators, stairwells, meeting rooms, kitchens, dining areas, and parking garages.

Q9: If a covered contractor employee performs their duties in or at only one building, site, or facility on a campus controlled by a covered contractor with multiple buildings, sites, or facilities, are the other buildings, sites, or facility controlled by a covered contractor considered a covered contractor workplace?

A: Yes, unless a covered contractor can affirmatively determine that none of its employees in or at one building, site, or facility will come into contact with a covered contractor employee during the period of performance of a covered contract. This would include affirmatively determining that there will be no interactions between covered contractor employees and non-covered contractor employees in those locations during the period of performance on a covered contract, including interactions through use of common areas such as lobbies, security clearance areas, elevators, stairwells, meeting rooms, kitchens, dining areas, and parking garages.

Q10: Are the workplace safety protocols enumerated above the same irrespective of whether the work is performed at a covered contractor workplace or at a Federal workplace?

A: Yes. The Guidance applies to all covered contractor employees and to all contractor or subcontractor workplace locations. While at a Federal workplace, covered contractor employees must also comply with any additional agency workplace safety requirements for that workplace. Because covered contractor employees working on a covered contract need to be fully vaccinated after December 8, 2021, covered contractor employees who work only at a Federal workplace need to be fully vaccinated by that date as well, unless legally entitled to an accommodation.

Q11: How does this Guidance apply to covered contractor employees who are authorized under the covered contract to perform work remotely from their residence?

A: An individual working on a covered contract from their residence is a covered contractor employee, and must comply with the vaccination requirement for covered contractor employees, even if the employee never works at either a covered contractor workplace or Federal workplace during the performance of the contract. A covered contractor employee's residence is not a covered contractor workplace, so while in the residence the individual need not comply with requirements for covered contractor workplaces, including those related to masking and physical distancing, even while working on a covered contract.

Scope and Applicability

Q12: By when must the requirements of the order be reflected in contracts?

A: Section 6 of the order lays out a phase-in of the requirements for covered contracts as follows:

- *Contracts awarded prior to October 15 where performance is ongoing* – the requirements must be incorporated at the point at which an option is exercised or an extension is made.
- *New contracts* – the requirements must be incorporated into contracts awarded on or after November 14. Between October 15 and November 14, agencies must include the clause in the solicitation and are encouraged to include the clause in contracts awarded during this time period but are not required to do so unless the solicitation for such contract was issued on or after October 15.

Q13: Must the order’s requirements be flowed down to all lower-tier subcontractors and, if so, who is responsible for flowing the clause down?

A: Yes. The requirements in the order apply to subcontractors at all tiers, except for subcontracts solely for the provision of products. The prime contractor must flow the clause down to first-tier subcontractors; higher-tier subcontractors must flow the clause down to the next lower-tier subcontractor, to the point at which subcontract requirements are solely for the provision of products.

Q14: Does the Guidance apply to small businesses?

A: Yes, the requirement to comply with this Guidance applies equally to covered contractors regardless of whether they are a small business. This broad application of COVID-19 guidance will more effectively decrease the spread of COVID-19, which, in turn, will decrease worker absence, reduce labor costs, and improve the efficiency of contractors and subcontractors at workplaces where they are performing work for the Federal Government.

Q15: What steps are being taken to promote consistent application of the order’s requirements across agencies?

A: The FAR Council will conduct a rulemaking to amend the FAR to include a clause that requires covered contractors performing under FAR-based contracts to comply with this Guidance for contractor and subcontractor workplace locations. Prior to rulemaking, by October 8, 2021, the FAR Council will develop a clause and recommend that agencies exercise their authority to deviate from the FAR using the procedures set forth in subpart 1.4. Agencies responsible for contracts and contract-like instruments that are not subject to the FAR, such as concession contracts, will be responsible for developing appropriate guidance by October 8, 2021 to incorporate requirements into their covered instruments entered into on or after October 15, 2021.

Q16: If the Safer Federal Workforce Task Force updates this Guidance to add new requirements, do those requirements apply to existing contracts?

A: Yes. Covered contractors are required to, for the duration of the contract, comply with all Task Force Guidance for contractor or subcontractor workplace locations, including any new

Guidance where the OMB Director approves the Guidance and determines that adherence to the Guidance will promote economy and efficiency in Federal contracting. The Task Force and OMB plan to ensure any workplace safety protocols reflect what is necessary to decrease the spread of COVID-19.

Q17: What constitutes work performed “in connection with” a covered contract?

A: Employees who perform duties necessary to the performance of the covered contract, but who are not directly engaged in performing the specific work called for by the covered contract, such as human resources, billing, and legal review, perform work in connection with a Federal Government contract.

Q18: Do the workplace safety protocols in the Guidance apply to covered contractor employees who perform work outside the United States?

A: No. The workplace safety protocols in the Guidance do not apply to covered contractor employees who only perform work outside the United States or its outlying areas, as those terms are defined in section 2.101 of the FAR.

Compliance

Q19: Does this clause apply in States or localities that seek to prohibit compliance with any of the workplace safety protocols set forth in this Guidance?

A: Yes. These requirements are promulgated pursuant to Federal law and supersede any contrary State or local law or ordinance. Additionally, nothing in this Guidance shall excuse noncompliance with any applicable State law or municipal ordinance establishing more protective workplace safety protocols than those established under this Guidance.

Q20: Can a covered contractor comply with workplace safety requirements from the Occupational Safety and Health Administration, including pursuant to any current or forthcoming Emergency Temporary Standard related to COVID-19, instead of the requirements of this Guidance?

A: No. Covered contractors must comply with the requirements set forth in this Guidance regardless of whether they are subject to other workplace safety standards.

Q21: What is the prime contractor’s responsibility for verifying that subcontractors are adhering to the mandate?

A: The prime contractor is responsible for ensuring that the required clause is incorporated into its first-tier subcontracts in accordance with the implementation schedule set forth in section 6 of the order. When the clause is incorporated into a subcontract, a subcontractor is required to

comply with this Guidance and the workplace safety protocols detailed herein. Additionally, first-tier subcontractors are expected to flow the clause down to their lower-tier subcontractors in similar fashion so that accountability for compliance is fully established throughout the Federal contract supply chain for covered subcontractor employees and workplaces at all tiers through application of the clause.



SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

AUG 24 2021

MEMORANDUM FOR SENIOR PENTAGON LEADERSHIP
COMMANDERS OF THE COMBATANT COMMANDS
DEFENSE AGENCY AND DOD FIELD ACTIVITY DIRECTORS

SUBJECT: Mandatory Coronavirus Disease 2019 Vaccination of Department of Defense Service Members

To defend this Nation, we need a healthy and ready force. After careful consultation with medical experts and military leadership, and with the support of the President, I have determined that mandatory vaccination against coronavirus disease 2019 (COVID-19) is necessary to protect the Force and defend the American people.

Mandatory vaccinations are familiar to all of our Service members, and mission-critical inoculation is almost as old as the U.S. military itself. Our administration of safe, effective COVID-19 vaccines has produced admirable results to date, and I know the Department of Defense will come together to finish the job, with urgency, professionalism, and compassion.

I therefore direct the Secretaries of the Military Departments to immediately begin full vaccination of all members of the Armed Forces under DoD authority on active duty or in the Ready Reserve, including the National Guard, who are not fully vaccinated against COVID-19.

Service members are considered fully vaccinated two weeks after completing the second dose of a two-dose COVID-19 vaccine or two weeks after receiving a single dose of a one-dose vaccine. Those with previous COVID-19 infection are not considered fully vaccinated.

Mandatory vaccination against COVID-19 will only use COVID-19 vaccines that receive full licensure from the Food and Drug Administration (FDA), in accordance with FDA-approved labeling and guidance. Service members voluntarily immunized with a COVID-19 vaccine under FDA Emergency Use Authorization or World Health Organization Emergency Use Listing in accordance with applicable dose requirements prior to, or after, the establishment of this policy are considered fully vaccinated. Service members who are actively participating in COVID-19 clinical trials are exempted from mandatory vaccination against COVID-19 until the trial is complete in order to avoid invalidating such clinical trial results.

Mandatory vaccination requirements will be implemented consistent with DoD Instruction 6205.02, "DoD Immunization Program," July 23, 2019. The Military Departments should use existing policies and procedures to manage mandatory vaccination of Service members to the extent practicable. Mandatory vaccination of Service members will be subject to any identified contraindications and any administrative or other exemptions established in Military Department policy. The Military Departments may promulgate appropriate guidance to carry out the requirements set out above. The Under Secretary of Defense for Personnel and

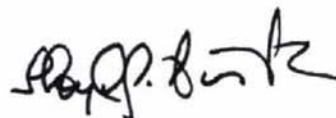


OSD007764-21/CMD010116-21

Readiness may provide additional guidance to implement and comply with FDA requirements or Centers for Disease Control and Prevention recommendations.

The Secretaries of the Military Departments should impose ambitious timelines for implementation. Military Departments will report regularly on vaccination completion using established systems for other mandatory vaccine reporting.

Our vaccination of the Force will save lives. Thank you for your focus on this critical mission.

A handwritten signature in black ink, appearing to read "Stephen P. Bunker". The signature is written in a cursive, somewhat stylized font.



Our STN: BL 125742/0

BLA APPROVAL

BioNTech Manufacturing GmbH
Attention: Amit Patel
Pfizer Inc.
235 East 42nd Street
New York, NY 10017

August 23, 2021

Dear Mr. Patel:

Please refer to your Biologics License Application (BLA) submitted and received on May 18, 2021, under section 351(a) of the Public Health Service Act (PHS Act) for COVID-19 Vaccine, mRNA.

LICENSING

We are issuing Department of Health and Human Services U.S. License No. 2229 to BioNTech Manufacturing GmbH, Mainz, Germany, under the provisions of section 351(a) of the PHS Act controlling the manufacture and sale of biological products. The license authorizes you to introduce or deliver for introduction into interstate commerce, those products for which your company has demonstrated compliance with establishment and product standards.

Under this license, you are authorized to manufacture the product, COVID-19 Vaccine, mRNA, which is indicated for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 16 years of age and older.

The review of this product was associated with the following National Clinical Trial (NCT) numbers: NCT04368728 and NCT04380701.

MANUFACTURING LOCATIONS

Under this license, you are approved to manufacture COVID-19 Vaccine, mRNA drug substance at Wyeth BioPharma Division of Wyeth Pharmaceuticals LLC, 1 Burt Road, Andover, Massachusetts. The final formulated product will be manufactured, filled, labeled and packaged at Pfizer Manufacturing Belgium NV, Rijksweg 12, Puurs, Belgium and at Pharmacia & Upjohn Company LLC, 7000 Portage Road, Kalamazoo, Michigan. The diluent, 0.9% Sodium Chloride Injection, USP, will be manufactured at Hospira, Inc., (b) (4) and at Fresenius Kabi USA, LLC, (b) (4).

Page 2 – STN BL 125742/0 – Elisa Harkins

You may label your product with the proprietary name, COMIRNATY, and market it in 2.0 mL glass vials, in packages of 25 and 195 vials.

We did not refer your application to the Vaccines and Related Biological Products Advisory Committee because our review of information submitted in your BLA, including the clinical study design and trial results, did not raise concerns or controversial issues that would have benefited from an advisory committee discussion.

DATING PERIOD

The dating period for COVID-19 Vaccine, mRNA shall be 9 months from the date of manufacture when stored between -90°C to -60°C (-130°F to -76°F). The date of manufacture shall be no later than the date of final sterile filtration of the formulated drug product (at Pharmacia & Upjohn Company LLC in Kalamazoo, Michigan, the date of manufacture is defined as the date of sterile filtration for the final drug product; at Pfizer Manufacturing Belgium NV in Puurs, Belgium, it is defined as the date of the (b) (4)

Following the final sterile filtration, (b) (4)

, no

reprocessing/reworking is allowed without prior approval from the Agency. The dating period for your drug substance shall be (b) (4) when stored at (b) (4). We have approved the stability protocols in your license application for the purpose of extending the expiration dating period of your drug substance and drug product under 21 CFR 601.12.

FDA LOT RELEASE

Please submit final container samples of the product in final containers together with protocols showing results of all applicable tests. You may not distribute any lots of product until you receive a notification of release from the Director, Center for Biologics Evaluation and Research (CBER).

BIOLOGICAL PRODUCT DEVIATIONS

You must submit reports of biological product deviations under 21 CFR 600.14. You should identify and investigate all manufacturing deviations promptly, including those associated with processing, testing, packaging, labeling, storage, holding and distribution. If the deviation involves a distributed product, may affect the safety, purity, or potency of the product, and meets the other criteria in the regulation, you must submit a report on Form FDA 3486 to the Director, Office of Compliance and Biologics Quality, electronically through the eBPDR web application or at the address below. Links for the instructions on completing the electronic form (eBPDR) may be found on CBER's web site at <https://www.fda.gov/vaccines-blood-biologics/report-problem-center-biologics-evaluation-research/biological-product-deviations>:

Food and Drug Administration
Center for Biologics Evaluation and Research
Document Control Center

Page 3 – STN BL 125742/0 – Elisa Harkins

10903 New Hampshire Ave.
WO71-G112
Silver Spring, MD 20993-0002

MANUFACTURING CHANGES

You must submit information to your BLA for our review and written approval under 21 CFR 601.12 for any changes in, including but not limited to, the manufacturing, testing, packaging or labeling of COVID-19 Vaccine, mRNA, or in the manufacturing facilities.

LABELING

We hereby approve the draft content of labeling including Package Insert, submitted under amendment 74, dated August 21, 2021, and the draft carton and container labels submitted under amendment 63, dated August 19, 2021.

CONTENT OF LABELING

As soon as possible, but no later than 14 days from the date of this letter, please submit the final content of labeling (21 CFR 601.14) in Structured Product Labeling (SPL) format via the FDA automated drug registration and listing system, (eLIST) as described at <http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm>. Content of labeling must be identical to the Package Insert submitted on August 21, 2021. Information on submitting SPL files using eLIST may be found in the guidance for industry *SPL Standard for Content of Labeling Technical Qs and As* at <http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM072392.pdf>.

The SPL will be accessible via publicly available labeling repositories.

CARTON AND CONTAINER LABELS

Please electronically submit final printed carton and container labels identical to the carton and container labels submitted on August 19, 2021, according to the guidance for industry *Providing Regulatory Submissions in Electronic Format — Certain Human Pharmaceutical Product Applications and Related Submissions Using the eCTD Specifications* at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/providing-regulatory-submissions-electronic-format-certain-human-pharmaceutical-product-applications>.

All final labeling should be submitted as Product Correspondence to this BLA STN BL 125742 at the time of use and include implementation information on Form FDA 356h.

ADVERTISING AND PROMOTIONAL LABELING

Page 4 – STN BL 125742/0 – Elisa Harkins

You may submit two draft copies of the proposed introductory advertising and promotional labeling with Form FDA 2253 to the Advertising and Promotional Labeling Branch at the following address:

Food and Drug Administration
Center for Biologics Evaluation and Research
Document Control Center
10903 New Hampshire Ave.
WO71-G112
Silver Spring, MD 20993-0002

You must submit copies of your final advertising and promotional labeling at the time of initial dissemination or publication, accompanied by Form FDA 2253 (21 CFR 601.12(f)(4)).

All promotional claims must be consistent with and not contrary to approved labeling. You should not make a comparative promotional claim or claim of superiority over other products unless you have substantial evidence or substantial clinical experience to support such claims (21 CFR 202.1(e)(6)).

ADVERSE EVENT REPORTING

You must submit adverse experience reports in accordance with the adverse experience reporting requirements for licensed biological products (21 CFR 600.80), and you must submit distribution reports at monthly intervals as described in 21 CFR 600.81. For information on adverse experience reporting, please refer to the guidance for industry *Providing Submissions in Electronic Format—Postmarketing Safety Reports for Vaccines* at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/providing-submissions-electronic-format-postmarketing-safety-reports-vaccines>. For information on distribution reporting, please refer to the guidance for industry *Electronic Submission of Lot Distribution Reports* at <http://www.fda.gov/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Post-MarketActivities/LotReleases/ucm061966.htm>.

PEDIATRIC REQUIREMENTS

Under the Pediatric Research Equity Act (PREA) (21 U.S.C. 355c), all applications for new active ingredients, new indications, new dosage forms, new dosing regimens, or new routes of administration are required to contain an assessment of the safety and effectiveness of the product for the claimed indication in pediatric patients unless this requirement is waived, deferred, or inapplicable.

We are deferring submission of your pediatric studies for ages younger than 16 years for this application because this product is ready for approval for use in individuals 16 years of age and older, and the pediatric studies for younger ages have not been completed.

Page 5 – STN BL 125742/0 – Elisa Harkins

Your deferred pediatric studies required under section 505B(a) of the Federal Food, Drug, and Cosmetic Act (FDCA) are required postmarketing studies. The status of these postmarketing studies must be reported according to 21 CFR 601.28 and section 505B(a)(4)(C) of the FDCA. In addition, section 506B of the FDCA and 21 CFR 601.70 require you to report annually on the status of any postmarketing commitments or required studies or clinical trials.

Label your annual report as an “**Annual Status Report of Postmarketing Study Requirement/Commitments**” and submit it to the FDA each year within 60 calendar days of the anniversary date of this letter until all Requirements and Commitments subject to the reporting requirements under section 506B of the FDCA are released or fulfilled. These required studies are listed below:

1. Deferred pediatric Study C4591001 to evaluate the safety and effectiveness of COMIRNATY in children 12 years through 15 years of age.

Final Protocol Submission: October 7, 2020

Study Completion: May 31, 2023

Final Report Submission: October 31, 2023

2. Deferred pediatric Study C4591007 to evaluate the safety and effectiveness of COMIRNATY in infants and children 6 months to <12 years of age.

Final Protocol Submission: February 8, 2021

Study Completion: November 30, 2023

Final Report Submission: May 31, 2024

3. Deferred pediatric Study C4591023 to evaluate the safety and effectiveness of COMIRNATY in infants <6 months of age.

Final Protocol Submission: January 31, 2022

Study Completion: July 31, 2024

Final Report Submission: October 31, 2024

Submit the protocols to your IND 19736, with a cross-reference letter to this BLA STN BL 125742 explaining that these protocols were submitted to the IND. Please refer to the PMR sequential number for each study/clinical trial and the submission number as shown in this letter.

Submit final study reports to this BLA STN BL 125742. In order for your PREA PMRs to be considered fulfilled, you must submit and receive approval of an efficacy or a labeling

Page 6 – STN BL 125742/0 – Elisa Harkins

supplement. For administrative purposes, all submissions related to these required pediatric postmarketing studies must be clearly designated as:

- **Required Pediatric Assessment(s)**

We note that you have fulfilled the pediatric study requirement for ages 16 through 17 years for this application.

POSTMARKETING REQUIREMENTS UNDER SECTION 505(o)

Section 505(o) of the Federal Food, Drug, and Cosmetic Act (FDCA) authorizes FDA to require holders of approved drug and biological product applications to conduct postmarketing studies and clinical trials for certain purposes, if FDA makes certain findings required by the statute (section 505(o)(3)(A), 21 U.S.C. 355(o)(3)(A)).

We have determined that an analysis of spontaneous postmarketing adverse events reported under section 505(k)(1) of the FDCA will not be sufficient to assess known serious risks of myocarditis and pericarditis and identify an unexpected serious risk of subclinical myocarditis.

Furthermore, the pharmacovigilance system that FDA is required to maintain under section 505(k)(3) of the FDCA is not sufficient to assess these serious risks.

Therefore, based on appropriate scientific data, we have determined that you are required to conduct the following studies:

4. Study C4591009, entitled “A Non-Interventional Post-Approval Safety Study of the Pfizer-BioNTech COVID-19 mRNA Vaccine in the United States,” to evaluate the occurrence of myocarditis and pericarditis following administration of COMIRNATY.

We acknowledge the timetable you submitted on August 21, 2021, which states that you will conduct this study according to the following schedule:

Final Protocol Submission: August 31, 2021

Monitoring Report Submission: October 31, 2022

Interim Report Submission: October 31, 2023

Study Completion: June 30, 2025

Final Report Submission: October 31, 2025

5. Study C4591021, entitled “Post Conditional Approval Active Surveillance Study Among Individuals in Europe Receiving the Pfizer-BioNTech Coronavirus

Page 7 – STN BL 125742/0 – Elisa Harkins

Disease 2019 (COVID-19) Vaccine,” to evaluate the occurrence of myocarditis and pericarditis following administration of COMIRNATY.

We acknowledge the timetable you submitted on August 21, 2021, which states that you will conduct this study according to the following schedule:

Final Protocol Submission: August 11, 2021

Progress Report Submission: September 30, 2021

Interim Report 1 Submission: March 31, 2022

Interim Report 2 Submission: September 30, 2022

Interim Report 3 Submission: March 31, 2023

Interim Report 4 Submission: September 30, 2023

Interim Report 5 Submission: March 31, 2024

Study Completion: March 31, 2024

Final Report Submission: September 30, 2024

6. Study C4591021 substudy to describe the natural history of myocarditis and pericarditis following administration of COMIRNATY.

We acknowledge the timetable you submitted on August 21, 2021, which states that you will conduct this study according to the following schedule:

Final Protocol Submission: January 31, 2022

Study Completion: March 31, 2024

Final Report Submission: September 30, 2024

7. Study C4591036, a prospective cohort study with at least 5 years of follow-up for potential long-term sequelae of myocarditis after vaccination (in collaboration with Pediatric Heart Network).

We acknowledge the timetable you submitted on August 21, 2021, which states that you will conduct this study according to the following schedule:

Final Protocol Submission: November 30, 2021

Study Completion: December 31, 2026

Page 8 – STN BL 125742/0 – Elisa Harkins

Final Report Submission: May 31, 2027

8. Study C4591007 substudy to prospectively assess the incidence of subclinical myocarditis following administration of the second dose of COMIRNATY in a subset of participants 5 through 15 years of age.

We acknowledge the timetable you submitted on August 21, 2021, which states that you will conduct this assessment according to the following schedule:

Final Protocol Submission: September 30, 2021

Study Completion: November 30, 2023

Final Report Submission: May 31, 2024

9. Study C4591031 substudy to prospectively assess the incidence of subclinical myocarditis following administration of a third dose of COMIRNATY in a subset of participants 16 to 30 years of age.

We acknowledge the timetable you submitted on August 21, 2021, which states that you will conduct this study according to the following schedule:

Final Protocol Submission: November 30, 2021

Study Completion: June 30, 2022

Final Report Submission: December 31, 2022

Please submit the protocols to your IND 19736, with a cross-reference letter to this BLA STN BL 125742 explaining that these protocols were submitted to the IND. Please refer to the PMR sequential number for each study/clinical trial and the submission number as shown in this letter.

Please submit final study reports to the BLA. If the information in the final study report supports a change in the label, the final study report must be submitted as a supplement to this BLA STN BL 125742. For administrative purposes, all submissions related to these postmarketing studies required under section 505(o) must be submitted to this BLA and be clearly designated as:

- **Required Postmarketing Correspondence under Section 505(o)**
- **Required Postmarketing Final Report under Section 505(o)**
- **Supplement contains Required Postmarketing Final Report under Section 505(o)**

Section 505(o)(3)(E)(ii) of the FDCA requires you to report periodically on the status of any study or clinical trial required under this section. This section also requires you to periodically report to FDA on the status of any study or clinical trial otherwise

Page 9 – STN BL 125742/0 – Elisa Harkins

undertaken to investigate a safety issue. In addition, section 506B of the FDCA and 21 CFR 601.70 require you to report annually on the status of any postmarketing commitments or required studies or clinical trials.

You must describe the status in an annual report on postmarketing studies for this product. Label your annual report as an **Annual Status Report of Postmarketing Requirements/Commitments** and submit it to the FDA each year within 60 calendar days of the anniversary date of this letter until all Requirements and Commitments subject to the reporting requirements of section 506B of the FDCA are fulfilled or released. The status report for each study should include:

- the sequential number for each study as shown in this letter;
- information to identify and describe the postmarketing requirement;
- the original milestone schedule for the requirement;
- the revised milestone schedule for the requirement, if appropriate;
- the current status of the requirement (i.e., pending, ongoing, delayed, terminated, or submitted); and,
- an explanation of the status for the study or clinical trial. The explanation should include how the study is progressing in reference to the original projected schedule, including, the patient accrual rate (i.e., number enrolled to date and the total planned enrollment).

As described in 21 CFR 601.70(e), we may publicly disclose information regarding these postmarketing studies on our website at <http://www.fda.gov/Drugs/Guidance/ComplianceRegulatoryInformation/Post-marketingPhaseIVCommitments/default.htm>.

We will consider the submission of your annual report under section 506B of the FDCA and 21 CFR 601.70 to satisfy the periodic reporting requirement under section 505(o)(3)(E)(ii) provided that you include the elements listed in section 505(o) and 21 CFR 601.70. We remind you that to comply with section 505(o), your annual report must also include a report on the status of any study or clinical trial otherwise undertaken to investigate a safety issue. Failure to periodically report on the status of studies or clinical trials required under section 505(o) may be a violation of FDCA section 505(o)(3)(E)(ii) and could result in regulatory action.

POSTMARKETING COMMITMENTS SUBJECT TO REPORTING REQUIREMENTS UNDER SECTION 506B

We acknowledge your written commitments as described in your letter of August 21, 2021 as outlined below:

10. Study C4591022, entitled “Pfizer-BioNTech COVID-19 Vaccine Exposure during Pregnancy: A Non-Interventional Post-Approval Safety Study of Pregnancy and Infant Outcomes in the Organization of Teratology Information Specialists (OTIS)/MotherToBaby Pregnancy Registry.”

Final Protocol Submission: July 1, 2021

Page 10 – STN BL 125742/0 – Elisa Harkins

Study Completion: June 30, 2025

Final Report Submission: December 31, 2025

11. Study C4591007 substudy to evaluate the immunogenicity and safety of lower dose levels of COMIRNATY in individuals 12 through <30 years of age.

Final Protocol Submission: September 30, 2021

Study Completion: November 30, 2023

Final Report Submission: May 31, 2024

12. Study C4591012, entitled “Post-emergency Use Authorization Active Safety Surveillance Study Among Individuals in the Veteran’s Affairs Health System Receiving Pfizer-BioNTech Coronavirus Disease 2019 (COVID-19) Vaccine.”

Final Protocol Submission: January 29, 2021

Study Completion: June 30, 2023

Final Report Submission: December 31, 2023

13. Study C4591014, entitled “Pfizer-BioNTech COVID-19 BNT162b2 Vaccine Effectiveness Study - Kaiser Permanente Southern California.”

Final Protocol Submission: March 22, 2021

Study Completion: December 31, 2022

Final Report Submission: June 30, 2023

Please submit clinical protocols to your IND 19736, and a cross-reference letter to this BLA STN BL 125742 explaining that these protocols were submitted to the IND. Please refer to the PMC sequential number for each study/clinical trial and the submission number as shown in this letter.

If the information in the final study report supports a change in the label, the final study report must be submitted as a supplement. Please use the following designators to prominently label all submissions, including supplements, relating to these postmarketing study commitments as appropriate:

- **Postmarketing Commitment – Correspondence Study Update**
- **Postmarketing Commitment – Final Study Report**
- **Supplement contains Postmarketing Commitment – Final Study Report**

Page 11 – STN BL 125742/0 – Elisa Harkins

For each postmarketing study subject to the reporting requirements of 21 CFR 601.70, you must describe the status in an annual report on postmarketing studies for this product. Label your annual report as an **Annual Status Report of Postmarketing Requirements/Commitments** and submit it to the FDA each year within 60 calendar days of the anniversary date of this letter until all Requirements and Commitments subject to the reporting requirements of section 506B of the FDCA are fulfilled or released. The status report for each study should include:

- the sequential number for each study as shown in this letter;
- information to identify and describe the postmarketing commitment;
- the original schedule for the commitment;
- the status of the commitment (i.e., pending, ongoing, delayed, terminated, or submitted); and,
- an explanation of the status including, for clinical studies, the patient accrual rate (i.e., number enrolled to date and the total planned enrollment).

As described in 21 CFR 601.70(e), we may publicly disclose information regarding these postmarketing studies on our website at <http://www.fda.gov/Drugs/Guidance/ComplianceRegulatoryInformation/Post-marketingPhaseIVCommitments/default.htm>.

POST APPROVAL FEEDBACK MEETING

New biological products qualify for a post approval feedback meeting. Such meetings are used to discuss the quality of the application and to evaluate the communication process during drug development and marketing application review. The purpose is to learn from successful aspects of the review process and to identify areas that could benefit from improvement. If you would like to have such a meeting with us, please contact the Regulatory Project Manager for this application.

Sincerely,

Mary A. Malarkey
Director
Office of Compliance
and Biologics Quality
Center for Biologics
Evaluation and Research

Marion F. Gruber, PhD
Director
Office of Vaccines
Research and Review
Center for Biologics
Evaluation and Research



September 22, 2021

Pfizer Inc.
Attention: Mr. Amit Patel
235 East 42nd St
New York, NY 10017

Dear Mr. Patel:

On February 4, 2020, pursuant to Section 564(b)(1)(C) of the Federal Food, Drug, and Cosmetic Act (the FD&C Act or the Act), the Secretary of the Department of Health and Human Services (HHS) determined that there is a public health emergency that has a significant potential to affect national security or the health and security of United States citizens living abroad, and that involves the virus that causes Coronavirus Disease 2019 (COVID-19).¹ On the basis of such determination, the Secretary of HHS on March 27, 2020, declared that circumstances exist justifying the authorization of emergency use of drugs and biological products during the COVID-19 pandemic, pursuant to Section 564 of the Act (21 U.S.C. 360bbb-3), subject to terms of any authorization issued under that section.²

On December 11, 2020, the Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for emergency use of Pfizer-BioNTech COVID-19 Vaccine for the prevention of COVID-19 for individuals 16 years of age and older pursuant to Section 564 of the Act. FDA reissued the letter of authorization on: December 23, 2020,³ February 25, 2021,⁴ May

¹ U.S. Department of Health and Human Services, Determination of a Public Health Emergency and Declaration that Circumstances Exist Justifying Authorizations Pursuant to Section 564(b) of the FD&C Act, 21 U.S.C. § 360bbb-3, February 4, 2020.

² U.S. Department of Health and Human Services, *Declaration that Circumstances Exist Justifying Authorizations Pursuant to Section 564(b) of the Federal Food, Drug, and Cosmetic Act*, 21 U.S.C. § 360bbb-3, 85 FR 18250 (April 1, 2020).

³ In the December 23, 2020 revision, FDA removed reference to the number of doses per vial after dilution from the letter of authorization, clarified the instructions for vaccination providers reporting to VAERS, and made other technical corrections. FDA also revised the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) to clarify the number of doses of vaccine per vial after dilution and the instructions for reporting to VAERS. In addition, the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) and the Fact Sheet for Recipients and Caregivers were revised to include additional information on safety monitoring and to clarify information about the availability of other COVID-19 vaccines.

⁴ In the February 25, 2021 revision, FDA allowed flexibility on the date of submission of monthly periodic safety reports and revised the requirements for reporting of vaccine administration errors by Pfizer Inc. The Fact Sheet for Health Care Providers Administering Vaccine (Vaccination Providers) was revised to provide an update to the storage and transportation temperature for frozen vials, direct the provider to the correct CDC website for information on monitoring vaccine recipients for the occurrence of immediate adverse reactions, to include data from a developmental toxicity study, and add adverse reactions that have been identified during post authorization use. The Fact Sheet for Recipients and Caregivers was revised to add adverse reactions that have been identified during post authorization use.

Page 2 – Pfizer Inc.

10, 2021,⁵ June 25, 2021,⁶ August 12, 2021,⁷ and on August 23, 2021, FDA approved COMIRNATY (COVID-19 Vaccine, mRNA)⁸ and reissued the letter in its entirety for both Pfizer-BioNTech COVID-19 Vaccine and certain uses of COMIRNATY (COVID-19 Vaccine, mRNA).⁹

On September, 22 2021, having concluded that revising this EUA is appropriate to protect the public health or safety under section 564(g)(2) of the Act, FDA is reissuing the August 23, 2021 letter of authorization in its entirety with revisions incorporated to authorize for emergency use the administration of a single booster dose of COMIRNATY (COVID-19 Vaccine, mRNA) or Pfizer-BioNTech COVID-19 Vaccine at least 6 months after completing the primary series of this vaccine in individuals: 65 years of age and older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19.

⁵ In the May 10, 2021 revision, FDA authorized Pfizer-BioNTech Vaccine for the prevention of COVID-19 in individuals 12 through 15 years of age, as well as for individuals 16 years of age and older. In addition, FDA revised the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) to include the following Warning: “Syncope (fainting) may occur in association with administration of injectable vaccines, in particular in adolescents. Procedures should be in place to avoid injury from fainting.” In addition, the Fact Sheet for Recipients and Caregivers was revised to instruct vaccine recipients or their caregivers to tell the vaccination provider about fainting in association with a previous injection.

⁶ In the June 25, 2021 revision, FDA clarified terms and conditions that relate to export of Pfizer-BioNTech COVID-19 Vaccine from the United States. In addition, the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) was revised to include a Warning about myocarditis and pericarditis following administration of the Pfizer-BioNTech COVID-19 Vaccine. The Fact Sheet for Recipients and Caregivers was updated to include information about myocarditis and pericarditis following administration of the Pfizer-BioNTech COVID-19 Vaccine.

⁷ In the August 12, 2021 revision, FDA authorized a third dose of the Pfizer-BioNTech COVID-19 Vaccine administered at least 28 days following the two dose regimen of this vaccine in individuals 12 years of age or older who have undergone solid organ transplantation, or individuals 12 years of age or older who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise.

⁸ COMIRNATY (COVID-19 Vaccine, mRNA) was approved for active immunization to prevent COVID-19 caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 16 years of age and older.

⁹ In the August 23, 2021 revision, FDA clarified that, subsequent to the FDA approval of COMIRNATY (COVID-19 Vaccine, mRNA) for the prevention of COVID-19 for individuals 16 years of age and older, this EUA would remain in place for the Pfizer-BioNTech COVID-19 vaccine for the previously-authorized indication and uses. It also authorized COMIRNATY (COVID-19 Vaccine, mRNA) under this EUA for certain uses that are not included in the approved biologics license application (BLA). In addition, the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) was revised to provide updates on expiration dating of the authorized Pfizer-BioNTech COVID-19 Vaccine and updated language regarding warnings and precautions related to myocarditis and pericarditis. The Fact Sheet for Recipients and Caregivers was updated as the Vaccine Information Fact Sheet for Recipients and Caregivers, which comprises the Fact Sheet for the authorized Pfizer-BioNTech COVID-19 Vaccine and information about the FDA-licensed vaccine, COMIRNATY (COVID-19 Vaccine, mRNA).

Page 3 – Pfizer Inc.

COMIRNATY (COVID-19 Vaccine, mRNA) is the same formulation as the Pfizer-BioNTech COVID-19 Vaccine and can be used interchangeably with the Pfizer-BioNTech COVID-19 Vaccine to provide the COVID-19 vaccination series.¹⁰

For the December 11, 2020 authorization for individuals 16 years of age and older, FDA reviewed safety and efficacy data from an ongoing Phase 1/2/3 trial in approximately 44,000 participants randomized 1:1 to receive Pfizer-BioNTech COVID-19 Vaccine or saline control. The trial has enrolled participants 12 years of age and older. FDA's review at that time considered the safety and effectiveness data as they relate to the request for emergency use authorization in individuals 16 years of age and older. FDA's review of the available safety data from 37,586 of the participants 16 years of age and older, who were followed for a median of two months after receiving the second dose, did not identify specific safety concerns that would preclude issuance of an EUA. FDA's analysis of the available efficacy data from 36,523 participants 12 years of age and older without evidence of SARS-CoV-2 infection prior to 7 days after dose 2 confirmed that the vaccine was 95% effective (95% credible interval 90.3, 97.6) in preventing COVID-19 occurring at least 7 days after the second dose (with 8 COVID-19 cases in the vaccine group compared to 162 COVID-19 cases in the placebo group). Based on these data, and review of manufacturing information regarding product quality and consistency, FDA concluded that it is reasonable to believe that Pfizer-BioNTech COVID-19 Vaccine may be effective. Additionally, FDA determined it is reasonable to conclude, based on the totality of the scientific evidence available, that the known and potential benefits of Pfizer-BioNTech COVID-19 Vaccine outweigh the known and potential risks of the vaccine, for the prevention of COVID-19 in individuals 16 years of age and older. Finally, on December 10, 2020, the Vaccines and Related Biological Products Advisory Committee voted in agreement with this conclusion.

For the May 10, 2021 authorization for individuals 12 through 15 years of age, FDA reviewed safety and effectiveness data from the above-referenced, ongoing Phase 1/2/3 trial that has enrolled approximately 46,000 participants, including 2,260 participants 12 through 15 years of age. Trial participants were randomized 1:1 to receive Pfizer-BioNTech COVID-19 Vaccine or saline control. FDA's review of the available safety data from 2,260 participants 12 through 15 years of age, who were followed for a median of 2 months after receiving the second dose, did not identify specific safety concerns that would preclude issuance of an EUA. FDA's analysis of SARS-CoV-2 50% neutralizing antibody titers 1 month after the second dose of Pfizer-BioNTech COVID-19 Vaccine in a subset of participants who had no serological or virological evidence of past SARS-CoV-2 infection confirm that the geometric mean antibody titer in participants 12 through 15 years of age was non-inferior to the geometric mean antibody titer in participants 16 through 25 years of age. FDA's analysis of available descriptive efficacy data from 1,983 participants 12 through 15 years of age without evidence of SARS-CoV-2 infection prior to 7 days after dose 2 confirm that the vaccine was 100% effective (95% confidence interval 75.3, 100.0) in preventing COVID-19 occurring at least 7 days after the second dose

¹⁰ The licensed vaccine has the same formulation as the EUA-authorized vaccine and the products can be used interchangeably to provide the vaccination series without presenting any safety or effectiveness concerns. The products are legally distinct with certain differences that do not impact safety or effectiveness.

Page 4 – Pfizer Inc.

(with no COVID-19 cases in the vaccine group compared to 16 COVID-19 cases in the placebo group). Based on these data, FDA concluded that it is reasonable to believe that Pfizer-BioNTech COVID-19 Vaccine may be effective in individuals 12 through 15 years of age. Additionally, FDA determined it is reasonable to conclude, based on the totality of the scientific evidence available, that the known and potential benefits of Pfizer-BioNTech COVID-19 Vaccine outweigh the known and potential risks of the vaccine, for the prevention of COVID-19 in individuals 12 through 15 years of age.

For the August 12, 2021 authorization of a third dose of the Pfizer-BioNTech COVID-19 Vaccine in individuals 12 years of age or older who have undergone solid organ transplantation, or individuals 12 years of age or older who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise, FDA reviewed safety and effectiveness data reported in two manuscripts on solid organ transplant recipients. The first study was a single arm study conducted in 101 individuals who had undergone various solid organ transplant procedures (heart, kidney, liver, lung, pancreas) a median of 97±8 months earlier. A third dose of the Pfizer-BioNTech COVID-19 Vaccine was administered to 99 of these individuals approximately 2 months after they had received a second dose. Levels of total SARS-CoV-2 binding antibodies meeting the pre-specified criteria for success occurred four weeks after the third dose in 26/59 (44.0%) of those who were initially considered to be seronegative and received a third dose of the Pfizer-BioNTech COVID-19 Vaccine; 67/99 (68%) of the entire group receiving a third vaccination were subsequently considered to have levels of antibodies indicative of a significant response. In those who received a third vaccine dose, the adverse event profile was similar to that after the second dose and no grade 3 or grade 4 events were reported. A supportive secondary study describes a double-blind, randomized-controlled study conducted in 120 individuals who had undergone various solid organ transplant procedures (heart, kidney, kidney-pancreas, liver, lung, pancreas) a median of 3.57 years earlier (range 1.99-6.75 years). A third dose of a similar mRNA vaccine (the Moderna COVID-19 vaccine) was administered to 60 individuals approximately 2 months after they had received a second dose (i.e., doses at 0, 1 and 3 months); saline placebo was given to 60 individuals for comparison. The primary outcome was anti-RBD antibody at 4 months greater than 100 U/mL. This titer was selected based on NHP challenge studies as well as a large clinical cohort study to indicate this antibody titer was protective. Secondary outcomes were based on a virus neutralization assay and polyfunctional T cell responses. Baseline characteristics were comparable between the two study arms as were pre-intervention anti-RBD titer and neutralizing antibodies. Levels of total SARS-CoV-2 binding antibodies indicative of a significant response occurred four weeks after the third dose in 33/60 (55.0%) of the Moderna COVID-19 vaccinated group and 10/57 (17.5%) of the placebo individuals. In the 60 individuals who received a third vaccine dose, the adverse event profile was similar to that after the second dose and no grade 3 or grade 4 adverse events were reported. Despite the moderate enhancement in antibody titers, the totality of data (i.e., supportive paper by Hall et al. demonstrated efficacy of the product in the elderly and persons with co-morbidities) supports the conclusion that a third dose of the Pfizer-BioNTech COVID-19 Vaccine may be effective in this population, and that the known and potential benefits of a third dose of Pfizer-BioNTech COVID-19 Vaccine outweigh the known and potential risks of the vaccine for immunocompromised individuals at least 12 years of age who have received two doses of the Pfizer-BioNTech COVID-19 Vaccine and who have undergone solid organ

Page 5 – Pfizer Inc.

transplantation, or who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise.

For the September 22, 2021 authorization of a single booster dose of the Pfizer-BioNTech COVID-19 Vaccine administered at least 6 months after completing the primary series in individuals: 65 years of age and older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19, FDA reviewed safety and effectiveness data from the above-referenced, ongoing Phase 1/2/3 trial in which 329 participants 18 through 75 years of age received a booster dose of the Pfizer-BioNTech COVID-19 Vaccine approximately 6 months (range 4.8 to 8.8 months) after completion of the primary series. FDA's review of the available safety data from 329 participants 18 through 75 years of age, who had been followed for a median of 2.6 months after receiving the booster dose, did not identify specific safety concerns that would preclude issuance of an EUA. The effectiveness of the booster dose of the Pfizer-BioNTech COVID-19 Vaccine is based on an assessment of 50% neutralizing antibody titers (NT50) against SARS-CoV-2 (USA_WA1/2020). FDA's analysis of SARS-CoV-2 NT50 one month after the booster dose compared to 1 month after the primary series in study participants 18 through 55 years of age who had no serological or virological evidence of past SARS-CoV-2 infection up to 1 month after the booster dose confirmed noninferiority for both geometric mean ratio and difference in seroresponse rates. Based on the totality of the scientific evidence available, including data from the above-referenced clinical trial, FDA concluded that a booster dose the Pfizer-BioNTech COVID-19 Vaccine may be effective, and that the known and potential benefits of a single booster dose at least 6 months after completing the primary series outweigh the known and potential risks for individuals 65 years of age and older; individuals 18 through 64 years of age at high risk of severe COVID-19; and individuals 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19.

Having concluded that the criteria for issuance of this authorization under Section 564(c) of the Act are met, I am authorizing the emergency use of Pfizer-BioNTech COVID-19 Vaccine for the prevention of COVID-19, as described in the Scope of Authorization section of this letter (Section II) and subject to the terms of this authorization. Additionally, as specified in subsection III.BB, I am authorizing use of Pfizer-BioNTech COVID-19 Vaccine and of COMIRNATY (COVID-19 Vaccine, mRNA) under this EUA when used to provide: a two-dose regimen for individuals aged 12 through 15 years; a third dose to individuals 12 years of age or older who have undergone solid organ transplantation or who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise; or a single booster dose at least 6 months after completing the primary series to individuals: 65 years of age and older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19.

Page 6 – Pfizer Inc.

I. Criteria for Issuance of Authorization

I have concluded that the emergency use of Pfizer-BioNTech COVID-19 Vaccine¹¹ for the prevention of COVID-19 when administered as described in the Scope of Authorization (Section II) meets the criteria for issuance of an authorization under Section 564(c) of the Act, because:

- A. SARS-CoV-2 can cause a serious or life-threatening disease or condition, including severe respiratory illness, to humans infected by this virus;
- B. Based on the totality of scientific evidence available to FDA, it is reasonable to believe that Pfizer-BioNTech COVID-19 Vaccine may be effective in preventing COVID-19, and that, when used under the conditions described in this authorization, the known and potential benefits of Pfizer-BioNTech COVID-19 Vaccine when used to prevent COVID-19 outweigh its known and potential risks; and
- C. There is no adequate, approved, and available alternative¹² Pfizer-BioNTech COVID-19 Vaccine to prevent COVID-19.¹³

II. Scope of Authorization

I have concluded, pursuant to Section 564(d)(1) of the Act, that the scope of this authorization is limited as follows:

- Pfizer Inc. will supply Pfizer-BioNTech COVID-19 Vaccine either directly or through authorized distributor(s),¹⁴ to emergency response stakeholders¹⁵ as directed by the U.S.

¹¹ In this section (Section I), references to Pfizer-BioNTech COVID-19 Vaccine also apply to COMIRNATY (COVID-19 Vaccine, mRNA).

¹² Although COMIRNATY (COVID-19 Vaccine, mRNA) is approved to prevent COVID-19 in individuals 16 years of age and older, there is not sufficient approved vaccine available for distribution to this population in its entirety at the time of reissuance of this EUA. Additionally, there are no products that are approved to prevent COVID-19 in individuals age 12 through 15, or to provide: an additional dose to the immunocompromised population, or a booster dose to the authorized population described in this EUA.

¹³ No other criteria of issuance have been prescribed by regulation under Section 564(c)(4) of the Act.

¹⁴ “Authorized Distributor(s)” are identified by Pfizer Inc. or, if applicable, by a U.S. government entity, such as the Centers for Disease Control and Prevention (CDC) and/or other designee, as an entity or entities allowed to distribute authorized Pfizer-BioNTech COVID-19 Vaccine.

¹⁵ For purposes of this letter, “emergency response stakeholder” refers to a public health agency and its delegates that have legal responsibility and authority for responding to an incident, based on political or geographical boundary lines (e.g., city, county, tribal, territorial, State, or Federal), or functional (e.g., law enforcement or public health range) or sphere of authority to administer, deliver, or distribute vaccine in an emergency situation. In some cases (e.g., depending on a state or local jurisdiction’s COVID-19 vaccination response organization and plans), there might be overlapping roles and responsibilities among “emergency response stakeholders” and “vaccination providers” (e.g., if a local health department is administering COVID-19 vaccines; if a pharmacy is acting in an official capacity under the authority of the state health department to administer COVID-19 vaccines). In such cases, it is expected that the conditions of authorization that apply to emergency response stakeholders and vaccination providers will all be met.

Page 7 – Pfizer Inc.

government, including the Centers for Disease Control and Prevention (CDC) and/or other designee, for use consistent with the terms and conditions of this EUA;

- The Pfizer-BioNTech COVID-19 Vaccine covered by this authorization will be administered by vaccination providers¹⁶ and used only to prevent COVID-19 in individuals ages 12 and older with a two-dose regimen, to provide a third dose to individuals 12 years of age or older who have undergone solid organ transplantation, or who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise, and to provide a single booster dose at least 6 months after completing the primary series of the vaccine to individuals: 65 years of age or older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19; and
- Pfizer-BioNTech COVID-19 Vaccine may be administered by a vaccination provider without an individual prescription for each vaccine recipient.

This authorization also covers the use of the licensed COMIRNATY (COVID-19 Vaccine, mRNA) product when used to provide: a two-dose regimen for individuals aged 12 through 15 years; a third dose to individuals 12 years of age or older who have undergone solid organ transplantation or who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise; or a single booster dose at least 6 months after completing the primary series to individuals: 65 years of age and older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19.

Product Description¹⁷

The Pfizer-BioNTech COVID-19 Vaccine is supplied as a frozen suspension in multiple dose vials; each vial must be diluted with 1.8 mL of sterile 0.9% Sodium Chloride Injection, USP prior to use to form the vaccine. The Pfizer-BioNTech COVID-19 Vaccine does not contain a preservative.

¹⁶ For purposes of this letter, “vaccination provider” refers to the facility, organization, or healthcare provider licensed or otherwise authorized by the emergency response stakeholder (e.g., non-physician healthcare professionals, such as nurses and pharmacists pursuant to state law under a standing order issued by the state health officer) to administer or provide vaccination services in accordance with the applicable emergency response stakeholder’s official COVID-19 vaccination and emergency response plan(s) and who is enrolled in the CDC COVID-19 Vaccination Program. If the vaccine is exported from the United States, a “vaccination provider” is a provider that is authorized to administer this vaccine in accordance with the laws of the country in which it is administered. For purposes of this letter, “healthcare provider” also refers to a person authorized by the U.S. Department of Health and Human Services (e.g., under the PREP Act Declaration for Medical Countermeasures against COVID-19) to administer FDA-authorized COVID-19 vaccine (e.g., qualified pharmacy technicians and State-authorized pharmacy interns acting under the supervision of a qualified pharmacist). See, e.g., HHS. *Fourth Amendment to the Declaration Under the Public Readiness and Emergency Preparedness Act for Medical Countermeasures Against COVID-19 and Republication of the Declaration*. 85 FR 79190 (December 9, 2020).

¹⁷ For COMIRNATY (COVID-19 Vaccine, mRNA) product description, please see the COMIRNATY (COVID-19 Vaccine, mRNA) prescribing information, found here: <https://www.fda.gov/media/151707/download>.

Page 8 – Pfizer Inc.

Each 0.3 mL dose of the Pfizer-BioNTech COVID-19 Vaccine contains 30 mcg of a nucleoside-modified messenger RNA (modRNA) encoding the viral spike (S) glycoprotein of SARS-CoV-2. Each dose of the Pfizer-BioNTech COVID-19 Vaccine also includes the following ingredients: lipids (0.43 mg (4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate), 0.05 mg 2[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide, 0.09 mg 1,2-distearoyl-sn-glycero-3-phosphocholine, and 0.2 mg cholesterol), 0.01 mg potassium chloride, 0.01 mg monobasic potassium phosphate, 0.36 mg sodium chloride, 0.07 mg dibasic sodium phosphate dihydrate, and 6 mg sucrose. The diluent (0.9% Sodium Chloride Injection) contributes an additional 2.16 mg sodium chloride per dose.

The dosing regimen is a primary series of two doses of 0.3 mL each, 3 weeks apart. A third primary series dose may be administered at least 28 days following the second dose to individuals 12 years of age or older who have undergone solid organ transplantation, or individuals 12 years of age or older who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise. A single booster dose (0.3 mL) may be administered at least 6 months after completing the primary series to individuals: 65 years of age or older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19.

The manufacture of the authorized Pfizer-BioNTech COVID-19 Vaccine is limited to those facilities identified and agreed upon in Pfizer's request for authorization.

The Pfizer-BioNTech COVID-19 Vaccine vial label and carton labels are clearly marked for "Emergency Use Authorization." The Pfizer-BioNTech COVID-19 Vaccine is authorized to be distributed, stored, further redistributed, and administered by emergency response stakeholders when packaged in the authorized manufacturer packaging (i.e., vials and cartons), despite the fact that the vial and carton labels may not contain information that otherwise would be required under the FD&C Act.

Pfizer-BioNTech COVID-19 Vaccine is authorized for emergency use with the following product-specific information required to be made available to vaccination providers and recipients, respectively (referred to as "authorized labeling"):

- Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers): Emergency Use Authorization (EUA) of Pfizer-BioNTech COVID-19 Vaccine to Prevent Coronavirus Disease 2019 (COVID-19)
- Vaccine Information Fact Sheet for Recipients and Caregivers About COMIRNATY (COVID-19 Vaccine, mRNA) and Pfizer-BioNTech COVID-19 Vaccine to Prevent Coronavirus Disease (COVID-19).

Page 9 – Pfizer Inc.

I have concluded, pursuant to Section 564(d)(2) of the Act, that it is reasonable to believe that the known and potential benefits of Pfizer-BioNTech COVID-19 Vaccine,¹⁸ when used to prevent COVID-19 and used in accordance with this Scope of Authorization (Section II), outweigh its known and potential risks.

I have concluded, pursuant to Section 564(d)(3) of the Act, based on the totality of scientific evidence available to FDA, that it is reasonable to believe that Pfizer-BioNTech COVID-19 Vaccine may be effective in preventing COVID-19 when used in accordance with this Scope of Authorization (Section II), pursuant to Section 564(c)(2)(A) of the Act.

Having reviewed the scientific information available to FDA, including the information supporting the conclusions described in Section I above, I have concluded that Pfizer-BioNTech COVID-19 Vaccine (as described in this Scope of Authorization (Section II)) meets the criteria set forth in Section 564(c) of the Act concerning safety and potential effectiveness.

The emergency use of Pfizer-BioNTech COVID-19 Vaccine under this EUA must be consistent with, and may not exceed, the terms of the Authorization, including the Scope of Authorization (Section II) and the Conditions of Authorization (Section III). Subject to the terms of this EUA and under the circumstances set forth in the Secretary of HHS's determination under Section 564(b)(1)(C) described above and the Secretary of HHS's corresponding declaration under Section 564(b)(1), Pfizer-BioNTech COVID-19 Vaccine is authorized to prevent COVID-19 in individuals 12 years of age and older as described in the Scope of Authorization (Section II) under this EUA, despite the fact that it does not meet certain requirements otherwise required by applicable federal law.

III. Conditions of Authorization

Pursuant to Section 564 of the Act, I am establishing the following conditions on this authorization:

Pfizer Inc. and Authorized Distributor(s)

- A. Pfizer Inc. and authorized distributor(s) will ensure that the authorized Pfizer-BioNTech COVID-19 Vaccine is distributed, as directed by the U.S. government, including CDC and/or other designee, and the authorized labeling (i.e., Fact Sheets) will be made available to vaccination providers, recipients, and caregivers consistent with the terms of this letter.
- B. Pfizer Inc. and authorized distributor(s) will ensure that appropriate storage and cold chain is maintained until delivered to emergency response stakeholders' receipt sites.
- C. Pfizer Inc. will ensure that the terms of this EUA are made available to all relevant stakeholders (e.g., emergency response stakeholders, authorized distributors, and vaccination providers) involved in distributing or receiving authorized Pfizer-BioNTech COVID-19 Vaccine. Pfizer Inc. will provide to all relevant stakeholders a

¹⁸ The conclusions supporting authorization stated in this Section (Section II) also apply to COMIRNATY (COVID-19 Vaccine, mRNA).

copy of this letter of authorization and communicate any subsequent amendments that might be made to this letter of authorization and its authorized labeling.

- D. Pfizer Inc. may develop and disseminate instructional and educational materials (e.g., video regarding vaccine handling, storage/cold-chain management, preparation, disposal) that are consistent with the authorized emergency use of the vaccine as described in the letter of authorization and authorized labeling, without FDA’s review and concurrence, when necessary to meet public health needs during an emergency. Any instructional and educational materials that are inconsistent with the authorized labeling are prohibited.
- E. Pfizer Inc. may request changes to this authorization, including to the authorized Fact Sheets for the vaccine. Any request for changes to this EUA must be submitted to Office of Vaccines Research and Review (OVRR)/Center for Biologics Evaluation and Research (CBER). Such changes require appropriate authorization prior to implementation.¹⁹
- F. Pfizer Inc. will report to Vaccine Adverse Event Reporting System (VAERS):
- Serious adverse events (irrespective of attribution to vaccination);
 - Cases of Multisystem Inflammatory Syndrome in children and adults; and
 - Cases of COVID-19 that result in hospitalization or death, that are reported to Pfizer Inc.
- These reports should be submitted to VAERS as soon as possible but no later than 15 calendar days from initial receipt of the information by Pfizer Inc.
- G. Pfizer Inc. must submit to Investigational New Drug application (IND) number 19736 periodic safety reports at monthly intervals in accordance with a due date agreed upon with the Office of Biostatistics and Epidemiology (OBE)/CBER beginning after the first full calendar month after authorization. Each periodic safety report is required to contain descriptive information which includes:
- A narrative summary and analysis of adverse events submitted during the reporting interval, including interval and cumulative counts by age groups, special populations (e.g., pregnant women), and adverse events of special interest;
 - A narrative summary and analysis of vaccine administration errors, whether or not associated with an adverse event, that were identified since the last reporting interval;
 - Newly identified safety concerns in the interval; and

¹⁹ The following types of revisions may be authorized without reissuing this letter: (1) changes to the authorized labeling; (2) non-substantive editorial corrections to this letter; (3) new types of authorized labeling, including new fact sheets; (4) new carton/container labels; (5) expiration dating extensions; (6) changes to manufacturing processes, including tests or other authorized components of manufacturing; (7) new conditions of authorization to require data collection or study. For changes to the authorization, including the authorized labeling, of the type listed in (3), (6), or (7), review and concurrence is required from the Preparedness and Response Team (PREP)/Office of the Center Director (OD)/CBER and the Office of Counterterrorism and Emerging Threats (OCET)/Office of the Chief Scientist (OCS).

Page 11 – Pfizer Inc.

- Actions taken since the last report because of adverse experiences (for example, changes made to Healthcare Providers Administering Vaccine (Vaccination Providers) Fact Sheet, changes made to studies or studies initiated).
- H. No changes will be implemented to the description of the product, manufacturing process, facilities, or equipment without notification to and concurrence by FDA.
- I. All manufacturing facilities will comply with Current Good Manufacturing Practice requirements.
- J. Pfizer Inc. will submit to the EUA file Certificates of Analysis (CoA) for each drug product lot at least 48 hours prior to vaccine distribution. The CoA will include the established specifications and specific results for each quality control test performed on the final drug product lot.
- K. Pfizer Inc. will submit to the EUA file quarterly manufacturing reports, starting in July 2021, that include a listing of all Drug Substance and Drug Product lots produced after issuance of this authorization. This report must include lot number, manufacturing site, date of manufacture, and lot disposition, including those lots that were quarantined for investigation or those lots that were rejected. Information on the reasons for lot quarantine or rejection must be included in the report.
- L. Pfizer Inc. and authorized distributor(s) will maintain records regarding release of Pfizer-BioNTech COVID-19 Vaccine for distribution (i.e., lot numbers, quantity, release date).
- M. Pfizer Inc. and authorized distributor(s) will make available to FDA upon request any records maintained in connection with this EUA.
- N. Pfizer Inc. will conduct post-authorization observational studies to evaluate the association between Pfizer-BioNTech COVID-19 Vaccine and a pre-specified list of adverse events of special interest, including myocarditis and pericarditis, along with deaths and hospitalizations, and severe COVID-19. The study population should include individuals administered the authorized Pfizer-BioNTech COVID-19 Vaccine under this EUA in the general U.S. population (12 years of age and older), individuals that receive a booster dose, populations of interest such as healthcare workers, pregnant women, immunocompromised individuals, subpopulations with specific comorbidities. The studies should be conducted in large scale databases with an active comparator. Pfizer Inc. will provide protocols and status update reports to the IND 19736 with agreed-upon study designs and milestone dates.

Emergency Response Stakeholders

- O. Emergency response stakeholders will identify vaccination sites to receive authorized Pfizer-BioNTech COVID-19 Vaccine and ensure its distribution and administration, consistent with the terms of this letter and CDC's COVID-19 Vaccination Program.

- P. Emergency response stakeholders will ensure that vaccination providers within their jurisdictions are aware of this letter of authorization, and the terms herein and any subsequent amendments that might be made to the letter of authorization, instruct them about the means through which they are to obtain and administer the vaccine under the EUA, and ensure that the authorized labeling [i.e., Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) and Vaccine Information Fact Sheet for Recipients and Caregivers] is made available to vaccination providers through appropriate means (e.g., e-mail, website).
- Q. Emergency response stakeholders receiving authorized Pfizer-BioNTech COVID-19 Vaccine will ensure that appropriate storage and cold chain is maintained.

Vaccination Providers

- R. Vaccination providers will administer the vaccine in accordance with the authorization and will participate and comply with the terms and training required by CDC's COVID-19 Vaccination Program.
- S. Vaccination providers will provide the Vaccine Information Fact Sheet for Recipients and Caregivers to each individual receiving vaccination and provide the necessary information for receiving their second dose and/or third dose.
- T. Vaccination providers administering the vaccine must report the following information associated with the administration of the vaccine of which they become aware to VAERS in accordance with the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers):
- Vaccine administration errors whether or not associated with an adverse event
 - Serious adverse events (irrespective of attribution to vaccination)
 - Cases of Multisystem Inflammatory Syndrome in children and adults
 - Cases of COVID-19 that result in hospitalization or death

Complete and submit reports to VAERS online at <https://vaers.hhs.gov/reportevent.html>. The VAERS reports should include the words "Pfizer-BioNTech COVID-19 Vaccine EUA" in the description section of the report. More information is available at vaers.hhs.gov or by calling 1-800-822-7967. To the extent feasible, report to Pfizer Inc. by contacting 1-800-438-1985 or by providing a copy of the VAERS form to Pfizer Inc.; Fax: 1-866-635-8337.

- U. Vaccination providers will conduct any follow-up requested by the U.S government, including CDC, FDA, or other designee, regarding adverse events to the extent feasible given the emergency circumstances.
- V. Vaccination providers will monitor and comply with CDC and/or emergency response stakeholder vaccine management requirements (e.g., requirements

Page 13 – Pfizer Inc.

concerning obtaining, tracking, and handling vaccine) and with requirements concerning reporting of vaccine administration data to CDC.

- W. Vaccination providers will ensure that any records associated with this EUA are maintained until notified by FDA. Such records will be made available to CDC, and FDA for inspection upon request.

Conditions Related to Printed Matter, Advertising, and Promotion

- X. All descriptive printed matter, advertising, and promotional material, relating to the use of the Pfizer-BioNTech COVID-19 Vaccine shall be consistent with the authorized labeling, as well as the terms set forth in this EUA, and meet the requirements set forth in section 502(a) and (n) of the FD&C Act and FDA implementing regulations.
- Y. All descriptive printed matter, advertising, and promotional material relating to the use of the Pfizer-BioNTech COVID-19 Vaccine clearly and conspicuously shall state that:
- This product has not been approved or licensed by FDA, but has been authorized for emergency use by FDA, under an EUA to prevent Coronavirus Disease 2019 (COVID-19) for use in individuals 12 years of age and older; and
 - The emergency use of this product is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of the medical product under Section 564(b)(1) of the FD&C Act unless the declaration is terminated or authorization revoked sooner.

Condition Related to Export

- Z. If the Pfizer-BioNTech COVID-19 Vaccine is exported from the United States, conditions C, D, and O through Y do not apply, but export is permitted only if 1) the regulatory authorities of the country in which the vaccine will be used are fully informed that this vaccine is subject to an EUA and is not approved or licensed by FDA and 2) the intended use of the vaccine will comply in all respects with the laws of the country in which the product will be used. The requirement in this letter that the authorized labeling (i.e., Fact Sheets) be made available to vaccination providers, recipients, and caregivers in condition A will not apply if the authorized labeling (i.e., Fact Sheets) are made available to the regulatory authorities of the country in which the vaccine will be used.

Conditions With Respect to Use of Licensed Product

- AA. COMIRNATY (COVID-19 Vaccine, mRNA) is now licensed for individuals 16 years of age and older. There remains, however, a significant amount of Pfizer-BioNTech COVID-19 Vaccine that was manufactured and labeled in accordance with this emergency use authorization. The authorization remains in place with respect to the Pfizer-BioNTech COVID-19 Vaccine.

Page 14 – Pfizer Inc.

BB. This authorization also covers the use of the licensed COMIRNATY (COVID-19 Vaccine, mRNA) product when used to provide: a two-dose regimen for individuals aged 12 through 15 years; a third dose to individuals 12 years of age or older who have undergone solid organ transplantation or who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise; or a single booster dose at least 6 months after completing the primary series to individuals: 65 years of age or older; 18 through 64 years of age at high risk of severe COVID-19; and 18 through 64 years of age whose frequent institutional or occupational exposure to SARS-CoV-2 puts them at high risk of serious complications of COVID-19 including severe COVID-19. Conditions A through W in this letter apply when COMIRNATY (COVID-19 Vaccine, mRNA) is provided for the uses described in this subsection III.BB, except that product manufactured and labeled in accordance with the approved BLA is deemed to satisfy the manufacturing, labeling, and distribution requirements of this authorization.

IV. Duration of Authorization

This EUA will be effective until the declaration that circumstances exist justifying the authorization of the emergency use of drugs and biological products during the COVID-19 pandemic is terminated under Section 564(b)(2) of the Act or the EUA is revoked under Section 564(g) of the Act.

Sincerely,

--/S/--

RADM Denise M. Hinton
Chief Scientist
Food and Drug Administration

Enclosures

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (MANPOWER AND RESERVE AFFAIRS)
ASSISTANT SECRETARY OF THE NAVY (MANPOWER AND RESERVE AFFAIRS)
ASSISTANT SECRETARY OF THE AIR FORCE (MANPOWER AND RESERVE AFFAIRS)
DIRECTOR, DEFENSE HEALTH AGENCY

SUBJECT: Mandatory Vaccination of Service Members using the Pfizer-BioNTech COVID-19 and Comirnaty COVID-19 Vaccines

On August 23, 2021, the U.S. Food and Drug Administration (FDA) approved the biologics license application for the Comirnaty vaccine, made by Pfizer-BioNTech, as a two-dose series for prevention of coronavirus disease 2019 (COVID-19) in persons aged 16 years or older. Previously, on December 11, 2020, the FDA issued an Emergency Use Authorization (EUA) for the Pfizer-BioNTech COVID-19 vaccine, which has the same formulation as the Comirnaty vaccine. Per FDA guidance, these two vaccines are “interchangeable” and DoD health care providers should “use doses distributed under the EUA to administer the vaccination series as if the doses were the licensed vaccine.”¹

Consistent with FDA guidance, DoD health care providers will use both the Pfizer-BioNTech COVID-19 vaccine and the Comirnaty COVID-19 vaccine interchangeably for the purpose of vaccinating Service members in accordance with Secretary of Defense Memorandum, “Mandatory Coronavirus Disease 2019 Vaccination of Department of Defense Service Members,” August 24, 2021.

My point of contact for this guidance is Colonel Michael J. Berecz, who may be reached at (703) 681-8463 or michael.j.berecz.mil@mail.mil.

ADIRIM.TERR
Y.A.152384712
7
Digitally signed by
ADIRIM.TERRY.A.152384
7127
Date: 2021.09.14 11:02:05
-04'00'

Terry Adirim, M.D., M.P.H., M.B.A.
Acting

cc:
Surgeon General of the Army
Surgeon General of the Navy
Surgeon General of the Air Force
Joint Staff Surgeon

¹ FDA, “Q&A for Comirnaty (COVID-19 Vaccine mRNA),” <https://www.fda.gov/vaccines-blood-biologics/qa-comirnaty-covid-19-vaccine-mrna>, accessed September 10, 2021.

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA**

NAVY SEAL 1, United States Navy, NAVY)
SEAL 2, United States Navy, EOD OFFICER,)
United States Navy, SENIOR CHIEF PETTY)
OFFICER, United States Navy, CHAPLAIN,)
United States Navy, LIEUTENANT COLONEL)
1, United States Marine Corps, LIEUTENANT)
COLONEL 2, United States Marine Corps,)
MAJOR, United States Marine Corps, SECOND)
LIEUTENANT, United States Marine Corps,)
CAPTAIN, United States Marine Corps, ARMY)
RANGER, United States Army, LANCE)
CORPORAL 1, United States Marine Corps,)
LANCE CORPORAL 2, United States Marine)
Corps, MAJOR, UNITED STATES AIR)
FORCE, NATIONAL GUARDSMAN, Virginia)
Army National Guard, COAST GUARD)
LIEUTENANT, United States Coast Guard,)
COLONEL, United States Army, TECHNICAL)
SERGEANT, United States Air Force, DEFENSE)
DEPARTMENT CONTRACTOR, United States)
Department of Defense, FEDERAL CIVILIAN)
ENGINEER CONTRACTOR, FEDERAL)
CIVILIAN CONTRACTOR EMPLOYER,)
FEDERAL NUCLEAR CONTRACTOR)
EMPLOYEE, DEPARTMENT OF ENERGY)
CIVILIAN NUCLEAR TECH, for themselves)
and all others similarly situated,)

Case No. _____

Plaintiffs,)

v.)

JOSEPH R. BIDEN, in his official capacity as)
President of the United States, LLOYD AUSTIN,)
in his official capacity as Secretary of the United)
States Department of Defense, and ALEJANDRO)
MAYORKAS, in his official capacity as Secretary)
of the Department of Homeland Security,)

Defendants.)



**DECLARATION OF DR. PETER MCCULLOUGH, MD, MPH IN
SUPPORT OF PLAINTIFFS' PETITION FOR PRELIMINARY
INJUNCTION**

I, Dr. Peter McCullough, do hereby declare as follows:

1. I am over eighteen years of age, and I am not suffering under any mental disability and am competent to give this sworn declaration. I am able to read and write and to give this declaration voluntarily and on my own free will and accord. No one has used any threats, force, pressure, or intimidation to make me sign this affidavit. I understand that I am swearing or affirming under oath to the truthfulness of the claims made in this affidavit under penalties of perjury; that I have read these statements in this affidavit; and these statements are my understanding of the facts and that my opinion provided is based on a reasonable degree of medical certainty. I am working on this case Pro Bono; and have not been paid by anyone to provide this opinion. I am providing this declaration as I have serious, grave concerns for these municipal workers and the public-at-large.

2. I have personal knowledge and understanding of these matters and I make this affidavit in support of the truth of the contents contained herein. In short: I believe within a reasonable degree of medical certainty that the COVID-19 vaccine(s) are not safe generally. It is my belief based on a reasonable degree of medical certainty that the vaccine could cause the death of the Plaintiffs. I believe within a reasonable degree of medical certainty that the data upon which the City of

Gainesville has based its mandate upon is flawed and/or inaccurate; and imposing this vaccine is not only dangerous and could cause harm to the Plaintiffs, but to the public-at-large who depend on first responders and critical infrastructure workers. In support, I submit the following for the Court's consideration:

3. Attached to this Declaration as **EXHIBIT 1** is my Curriculum Vitae. After receiving a bachelor's degree from Baylor University, I completed my medical degree as an Alpha Omega Alpha graduate from the University of Texas Southwestern Medical School in Dallas. I went on to complete my internal medicine residency at the University of Washington in Seattle, a cardiology fellowship including service as Chief Fellow at William Beaumont Hospital, and a master's degree in public health in the field of epidemiology at The University of Michigan. I am board certified in internal medicine and cardiovascular disease and hold an additional certification in clinical lipidology, and previously echocardiography. I participate in the maintenance of certification programs by the American Board of Internal Medicine for both Internal Medicine and Cardiovascular Diseases. I am an active scholar in medicine with roles as an author, editor-in-chief of a peer-reviewed journals, editorialist, and reviewer at dozens of major medical journals and textbooks.

4. I have led clinical, education, research, and program operations at major academic centers (Henry Ford Hospital, Oakland University William Beaumont

School of Medicine) as well as academically oriented community health systems. I spearheaded the clinical development of in vitro natriuretic peptide and neutrophil gelatinase associated lipocalin assays in diagnosis, prognosis, and management of heart and kidney disease now used worldwide. I also led the first clinical study demonstrating the relationship between severity of acute kidney injury and mortality after myocardial infarction. I have contributed to the understanding of the epidemiology of chronic heart and kidney disease through many manuscripts from the Kidney Early Evaluation Program Annual Data Report published in the American Journal of Kidney Disease and participated in clinical trial design and execution in cardiorenal applications of acute kidney injury, hypertension, acute coronary syndromes, heart failure, and chronic cardiorenal syndromes. I participated in event adjudication (involved attribution of cause of death) in trials of acute coronary syndromes, chronic kidney disease, heart failure, and data safety and monitoring of antidiabetic agents, renal therapeutics, hematology products, and gastrointestinal treatments. I have served as the chairman or as a member of over 20 randomized trials of drugs, devices, and clinical strategies. Sponsors have included pharmaceutical manufacturers, biotechnology companies, and the National Institutes of Health.

5. I frequently lecture and advise on internal medicine, nephrology, and cardiology to leading institutions worldwide. I am recognized by my peers for my

work on the role of chronic kidney disease as a cardiovascular risk state. I have over 1,000 related scientific publications, including the “Interface between Renal Disease and Cardiovascular Illness” in *Braunwald’s Heart Disease Textbook*. My works have appeared in the *New England Journal of Medicine*, *Journal of the American Medical Association*, and other top-tier journals worldwide. I am a senior associate editor of the *American Journal of Cardiology*. I have testified before the U.S. Senate Committee on Homeland Security and Governmental Affairs, the U.S. Food and Drug Administration Cardiorenal Advisory Panel and its U.S. Congressional Oversight Committee, The New Hampshire Senate, the Colorado House of Commons, and the Texas Senate Committee on Health and Human Services. I am a Fellow of the American College of Cardiology, the American Heart Association, the American College of Physicians, the American College of Chest Physicians, the National Lipid Association, the Cardiorenal Society of America, and the National Kidney Foundation; and I am also a Diplomate of the American Board of Clinical Lipidology. In 2013, I was honored with the International Vicenza Award for Critical Care Nephrology for my contribution and dedication to the emerging problem of cardiorenal syndromes. I am a founding member of Cardiorenal Society of America, an organization dedicated to bringing together cardiologists and nephrologists and engage in research, improved quality of care, and community outreach to patients with both heart and kidney disease. I am the current President of the Cardiorenal

Society of America, an expert organization dedicated to advancing research and clinical care for patients who have combined heart and kidney disease. I am the former Editor-in-Chief of *Cardiorenal Medicine*, a primary research journal listed by the National Library of Medicine which is the only publication with a primary focus on research concerning patients with combined heart and kidney disease. Finally, I am the Editor-in-Chief of Reviews in Cardiovascular Medicine, a widely read journal that publishes reviews on contemporary topics in cardiology and is also listed by the National Library of Medicine.

6. Since the outset of the pandemic, I have been a leader in the medical response to the COVID-19 disaster and have published “Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection,” the first synthesis of sequenced multidrug treatment of ambulatory patients infected with SARS-CoV-2 in the *American Journal of Medicine* and updated in *Reviews in Cardiovascular Medicine*. I have 47 peer-reviewed publications on the COVID-19 infection cited in the National Library of Medicine. Through a window to public policymakers, I have contributed extensively on issues surrounding the COVID-19 crisis in a series of OPED’s for *The Hill* in 2020. Starting in 2021, I publish a weekly contribution on *America Out Loud*, *The McCullough Report*. I testified on the SARS-CoV-2 outbreak in the U.S. Senate Committee on Homeland Security and Governmental Affairs on November 19,

2020. I testified on lessons learned from the pandemic response in the Texas Senate Committee on Health and Human Services on March 10, 2021, and on early treatment of COVID-19 at the Colorado General Assembly on March 31, 2021. Additionally, I testified in the New Hampshire Senate on legislation concerning the investigational COVID-19 vaccine on April 14, 2020. My expertise on the SARS-CoV-2 infection and COVID-19 syndrome, like that of infectious disease specialists, is approximately 18 months old with the review of hundreds of manuscripts and with the care of many patients with acute COVID-19, post-COVID-19 long-hauler syndromes, and COVID-19 vaccine injury syndromes including neurologic damage, myocarditis, and a variety of other internal medicine problems that have occurred after the mRNA and adenoviral DNA COVID-19 vaccines. I have formed my opinions in close communications with many clinicians around the world based on in part our collective clinical experience with acute and convalescent COVID-19 cases as well as closely following the preprint and published literature on the outbreak. I have specifically reviewed key published rare cases and reports concerning the possible recurrence of SARS- CoV-2 in patients who have survived an initial episode of COVID-19 illness. See attached Curriculum Vitae.

As to my Expert Opinion

7. The CDC recently reported the lowest number of cases since March of 2020 (the beginning of the COVID-19 pandemic). Sam Baker & Andrew

Witherspoon, COVID-19 cases hit lowest point in U.S. since pandemic began, AXIOS (June 3, 2021),¹

8. Further, according to my research, herd immunity is calculated by a specific formula, as follows: $((CC*6) + V + (.15*P)) \div P = HIN$.

CC= COVID-19 cases

in the state 6= the
current CDC multiplier

V= number of vaccinated in the state

15% = the number of people in a given state that will not get COVID-19
P=Population of a state

HIN=Herd Immunity Totals

By this method of calculation, the United States has achieved herd immunity meaning that the total of this calculation exceeds 100%. As vaccines continue to fail, we can expect cases of COVID-19 and the meaning of herd immunity applies to spread. Despite expected incidents and prevalent cases, my opinion is that spread will be minimized and there will be no more large outbreak curves as the country experienced in November through early January before the advent of widely deployed early treatment protocols. Because the randomized trials of all COVID-19 vaccines revealed < 1% absolute risk reductions, and the recent observation of widespread failure of COVID-19 vaccines in countries such as Israel which has a substantial population vaccinated early the pandemic, we can expect more vaccine

¹ <https://www.axios.com/coronavirus-cases-infections-vaccines-success-fa7673a1-0582-4e69-aefb-3b5170268048.html>

failures in the United States and no fundamental impact of mass vaccination on the epidemic curves.

Table 1: COVID-19 Deaths by Age Group in the U.S. as of June 27, 2021: Source: <https://COVID-19.cdc.gov/COVID-19-data-tracker/#demographics>

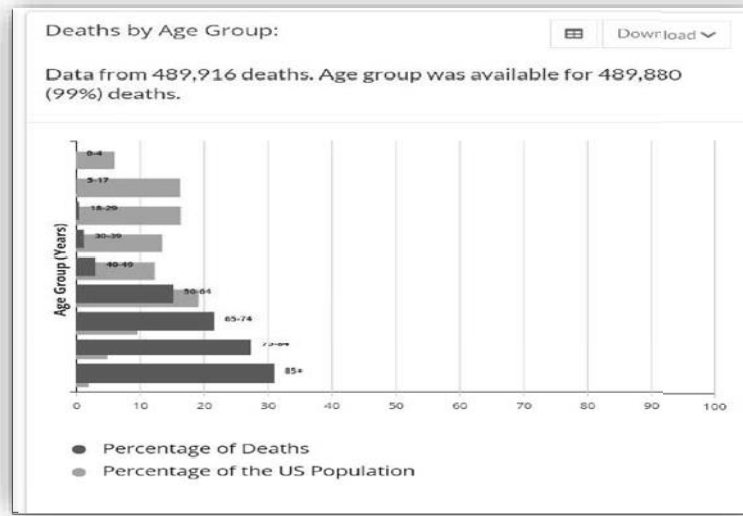


Table 2: COVID-19 Rate Ratios by Age.²

²<https://www.cdc.gov/coronavirus/2019-ncov/COVID-19-data/investigations-discovery/hospitalizationdeath-by-age.html>

Risk for COVID-19 Infection, Hospitalization, and Death By Age Group

Updated June 24, 2021 [Print](#)

Rate ratios compared to 18- to 29-year-olds¹

	0-4 years old	5-17 years old	18-29 years old	30-39 years old	40-49 years old	50-64 years old	65-74 years old	75-84 years old	85+ years old
Cases²	<1x	1x	Reference group	1x	1x	1x	1x	1x	1x
Hospitalization³	<1x	<1x	Reference group	2x	2x	4x	6x	9x	15x
Death⁴	<1x	<1x	Reference group	4x	10x	35x	95x	230x	610x

All rates are relative to the 18- to 29-year-old age category. This group was selected as the reference group because it has accounted for the largest cumulative number of COVID-19 cases compared to other age groups. Sample interpretation: Compared with 18- to 29-year-olds, the rate of death is four times higher in 30- to 39-year-olds, and 610 times higher in those who are 85 years and older. (In the table, a rate of 1x indicates no difference compared to the 18- to 29-year-old age category.)

9. There is negligible risk for adults younger than the age of 60. For example, for each 18-29-year-old that dies from COVID-19, four 30-39 year old individuals die, ten 40-49-year-olds, thirty-five 50-64-year-olds die, ninety-five 65-74-year-olds die, 230 75-84-year-olds die, and 610 over 85 years of age die. See Table 2.

10. In my expert medical opinion, the epidemic spread of COVID-19, like all other respiratory viruses, notably influenza, is driven by symptomatic persons; asymptomatic spread is trivial and inconsequential.

11. A meta-analysis of contact tracing studies published in The Journal of the American Medical Association showed asymptomatic COVID-19 spread was negligible at 0.7%. Zachary J. Madewell, Ph.D.; Yang Yang, Ph.D.; Ira M. Longini Jr, Ph.D.; M. Elizabeth Halloran, MD, DSc; Natalie E. Dean, Ph.D., Household

Transmission of SARS-CoV-2: A Systematic Review and Meta-analysis, JAMA Network Open.³ Accordingly, a rational and ethical prevention measure to reduce the spread of COVID-19 is a simple requirement, as part of formal policies, that persons with active symptomatic, febrile (feverish) respiratory illnesses, like COVID-19, should isolate themselves. Indeed, during the H1N1 influenza A pandemic, fully open, unmasked college campuses were advised by federal health officials, “Flu-stricken college students should stay out of circulation” and “if they can’t avoid contact they need to wear surgical masks.”⁴

Advances in COVID-19 Treatments

12. Even if the virus is contracted, the treatment of the infection has improved tremendously since the advent of COVID-19. Studies have shown several different treatment methods, which have proven effective. A combination of medications, supported by the Association of American Physicians and Surgeons, for a minimum of five days and acutely administered supplements used for the initial ambulatory patient with suspected and or confirmed COVID-19 (moderate or greater probability) has proven effective. Brian C Procter, Casey Ross, Vanessa Pickard, Erica Smith, Cortney Hanson, Peter A McCullough, Clinical outcomes after early

³ <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2774102> (last visited June 20, 2021).

⁴ Great Falls Tribune, Advice: Flu-stricken college students should stay out of circulation, August 21, 2009, page 5, section A, available at <https://www.newspapers.com/image/243611045>

ambulatory multidrug therapy for high-risk SARS-CoV-2 (COVID-19) infection,⁵ summarized in Table 3 below. This approach has resulted in an ~85% reduction in hospitalization and death in high-risk individuals presenting with COVID-19⁶:

Table 3: COVID-19 Treatments

Agent (drug)	Rationale
Zinc synthesis	Inhibits SARS-CoV-2 RNA
Hydroxychloroquine 200 mg po bid virions,	Inhibits endosomal transfer of anti-inflammatory
Ivermectin (200 mcg/kg) usual dose á/â-mediated nuclear12 mg po qd x 3 days CoV-2 into nucleus	Attenuates importin transport of SARS-CoV-2 into nucleus
Azithromycin 250 mg po bid	Covers respiratory bacterial pathogens in secondary infection
Doxycycline 100 mg po bid	Covers respiratory bacterial pathogens in secondary infection
Inhaled budesonide, Dexamethasone 8 mg IM	Treats cytokine storm
Folate, thiamine, vitamin B-12	Reduce tissue oxidative stress
Intravenous fluid	Intravascular volume expansion

13. I, along with my colleagues, conducted the study referenced in paragraph 23, which evaluated patients between the ages of 12 and 89 years. The average age was 50.5 and 61.6% were women. The study found that primary care physicians can

⁵ Reviews in Cardiovascular Medicine (December 30, 2021), available at <https://rcm.imrpress.com/EN/10.31083/j.rcm.2020.04.260> (last visited June 26, 2021)

⁶ <https://ijirms.in/index.php/ijirms/article/view/1100>

treat COVID-19 patients resulting in rates of hospitalization and death. The study showed that administration of the medicines and supplements shown in Table 3 produces a less than 2% chance of facing hospitalization or death among high-risk adults (age over 50 with medical problems). As this study was done with mainly higher-risk patients at the peak of the pandemic, this is a highly successful treatment plan and just one of the many new treatments that have been used in the last year including those admitted for COVID-19 which are covered in the NIH COVID-19 Guidelines. *Id.*; see also National Institutes of Health, Therapeutic Management of Adults With COVID-19 (Updated May 24, 2021), <https://www.COVID-19treatmentguidelines.nih.gov/management/therapeutic-management/> (last visited June 21, 2021).

14. Treatment has improved so drastically for COVID-19 that according to the CDC AH Provisional COVID-19 Death Counts by Age, there were no deaths in Colorado for the 0-17 age group in 2020 or 2021. This is evidence of less virulent strains of SARS-CoV-2 and better treatment and less risk for students and a generally lowered virulence for the SARS-CoV-2 strains as the pandemic progresses over time.

15. In my expert medical opinion, the combination of lowering COVID-19 rates, achievement of herd immunity, and the drastically improved treatment options make the Emergency Use Authorization for the investigational COVID-19 vaccine

sponsored by the US FDA and CDC, unreasonable from a scientific and medical perspective.

COVID-19 Vaccine Research and Development

16. The COVID-19 genetic vaccines (Pfizer, Moderna, J&J) skipped testing for genotoxicity, mutagenicity, teratogenicity, and oncogenicity. In other words, it is unknown whether or not these products will change human genetic material, cause birth defects, reduce fertility, or cause cancer.

17. The Pfizer, Moderna, and JNJ vaccines are considered “genetic vaccines”, or vaccines produced from gene therapy molecular platforms which according to US FDA regulatory guidance are classified as gene delivery therapies and should be under a 15-year regulatory cycle with annual visits for safety evaluation by the research sponsors. FDA. Food and Drug Administration. (Long Term Follow-up After Administration of Human Gene Therapy Products. Guidance for Industry.⁷

18. The FDA has “advised sponsors to observe subjects for delayed adverse events for as long as 15 years following exposure to the investigational gene therapy product, specifying that the long-term follow-up observation should include a minimum of five years of annual examinations, followed by ten years of annual

⁷ FDA-2018-D-2173. 2020. Accessed July 13, 2021, at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/long-term-follow-after-administration-human-gene-therapy-products>

queries of study subjects, either in person or by questionnaire.” (emphasis added) Thus, the administration of the Moderna, Pfizer, and JNJ vaccines should not be undertaken without the proper consent and arrangements for long-term follow-up which are currently not offered in the US. (See, EUA briefing documents for commitments as to follow up: Moderna , Pfizer , J&J). They have a dangerous mechanism of action in that they all cause the body to make an uncontrolled quantity of the pathogenic wild-type spike protein from the SARS-CoV-2 virus for at least two weeks probably a longer period based on the late emergence of vaccine injury reports. This is unlike all other vaccines where there is a set amount of antigen or live-attenuated virus. This means for Pfizer, Moderna, and J&J vaccines it is not predictable among patients who will produce more or less of the spike protein. The Pfizer, Moderna, and JNJ vaccines because they are different, are expected to produce different libraries of limited antibodies to the now extinct wild-type spike protein. We know the spike protein produced by the vaccines is obsolete because the 17th UK Technical Report on SARS-CoV-2 Variants issued June 25, 2021, and the CDC June 19, 2021, Variant Report both indicate the SARS-CoV-2 wild type virus to which all the vaccines were developed is now extinct.⁸

⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001354/Variants_of_Concern_VOC_Technical_Briefing_17.pdf; https://COVID-19.cdc.gov/COVID-19-datatracker/?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fcases-updates%2Fvariant-proportions.html#variant-proportions

The spike protein itself has been demonstrated to injure vital organs such as the brain, heart, lungs, as well as damage blood vessels and directly cause blood clots. Additionally, because these vaccines infect cells within these organs, the generation of spike protein within heart and brain cells, in particular, causes the body's own immune system to attach to these organs. This is abundantly apparent with the burgeoning number of cases of myocarditis or heart inflammation among individuals below age 30 years.

Because the US FDA and CDC have offered no interpretation of overall safety of the COVID-19 vaccines according to the manufacturer or as a group, nor have they offered methods of risk mitigation for these serious adverse effects which can lead to permanent disability or death, no one should be pressured, coerced, receive the threat or reprisal, or be mandated to receive one of these investigational products against their will. Because the vaccine centers, CDC, FDA, and the vaccine manufacturers ask for the vaccine recipient to grant indemnification on the consent form before injection, all injuries incurred by the person are at their own cost which can be prohibitive depending on the needed procedures, hospitalizations, rehabilitation, and medications.

19. In general, it is never good clinical practice to widely utilize novel biological products in populations that have not been tested in registrational trials. For COVID-19 vaccines, this includes COVID-19 survivors, those with prior

suspected COVID-19 infection, those with positive SARS-CoV-2 serologies, pregnant women, and women of childbearing potential who cannot assure contraception.

20. It is never good research practice to perform a large-scale clinical investigation without the necessary structure to ensure the safety and protection of human subjects. These structures include a critical event committee, data safety monitoring board, and human ethics committee. These groups in large studies work to objectively assess the safety of the investigational product and research integrity. The goal is mitigating risk and protecting human subjects. It is my understanding that the COVID-19 vaccine program is sponsored by the CDC and FDA and has none of these safety structures in place. It is my assessment, that the COVID-19 clinical investigation has provided no meaningful risk mitigation for subjects (restricting groups, a special assessment of side effects, follow-up visits, or changes in the protocol to ensure or improve the safety of the program).

COVID-19 Vaccine Risks

21. The COVID-19 public vaccination program operated by the CDC and the FDA is a clinical investigation and under no circumstance can any person receive pressure, coercion, or threat of reprisal on their free choice of participation. Violation of this principle of autonomy by any entity constitutes reckless endangerment with a reasonable expectation of causing personal injury resulting in damages.

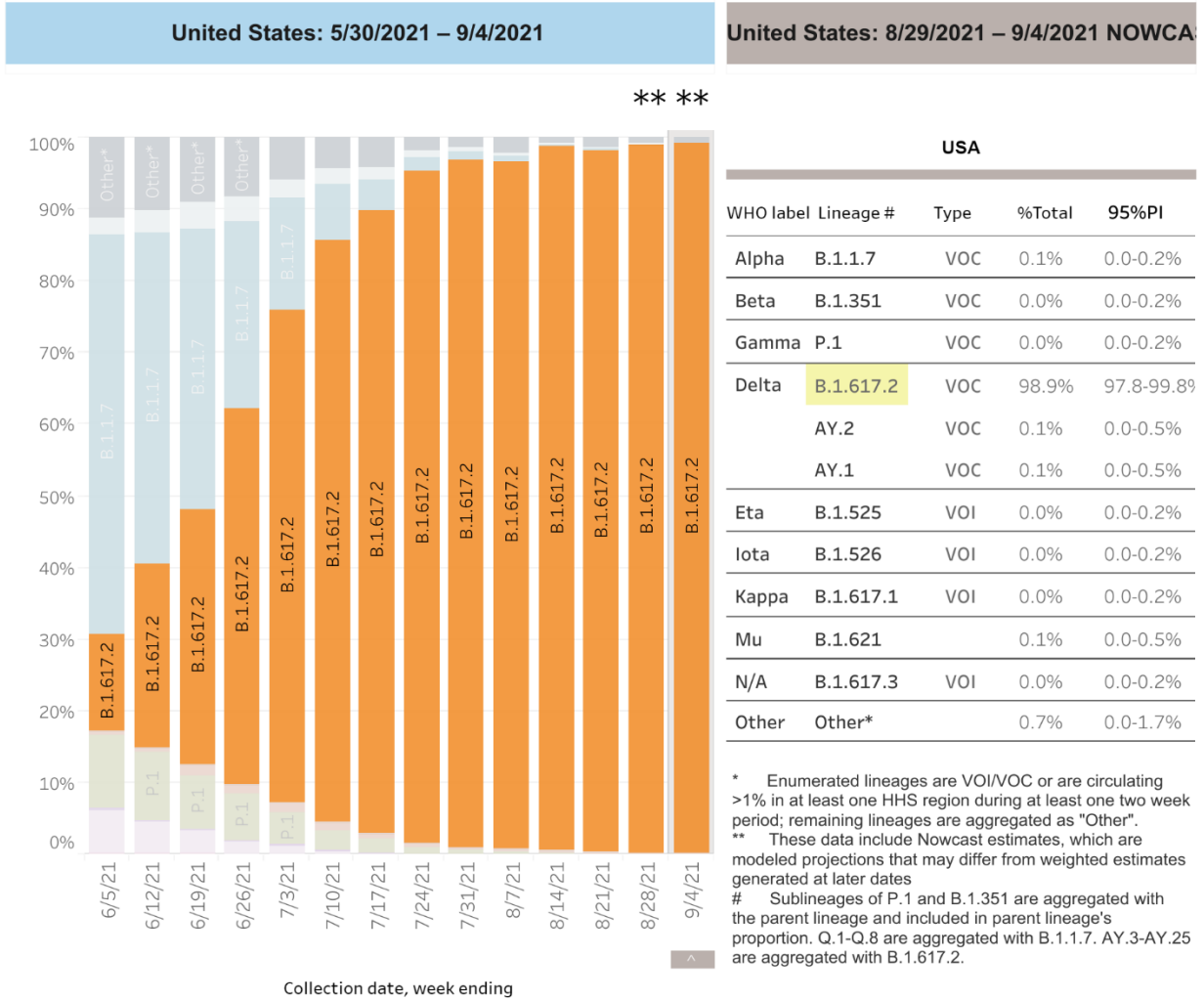
22. The current COVID-19 vaccines are not sufficiently protective against contracting COVID-19 to support its use beyond the current voluntary participation in the CDC- sponsored program. A total of 10,262 SARS-CoV-2 vaccine breakthrough infections had been reported from 46 U.S. states and territories as of April 30, 2021. Among these cases, 6,446 (63%) occurred in females, and the median patient age was 58 years (interquartile range = 40–74 years). Based on preliminary data, 2,725 (27%) vaccine breakthrough infections were asymptomatic, 995 (10%) patients were known to be hospitalized, and 160 (2%) patients died. Among the 995 hospitalized patients, 289 (29%) were asymptomatic or hospitalized for a reason unrelated to COVID-19. The median age of patients who died was 82 years (interquartile range = 71–89 years); 28 (18%) decedents were asymptomatic or died from a cause unrelated to COVID-19. Sequence data were available from 555 (5%) reported cases, 356 (64%) of which were identified as SARS-CoV-2 variants of concern, including B.1.1.7 (199; 56%), B.1.429 (88; 25%), B.1.427 (28; 8%), P.1 (28; 8%), and B.1.351 (13; 4%). None of these variants are encoded in the RNA or DNA of the current COVID-19 vaccines. In response to these numerous reports, the CDC announced on May 1, 2021, that community breakthrough cases would no longer be reported to the public and only those vaccine failure cases requiring hospitalization will be reported, presumably on the CDC website⁹ This

⁹ (<https://www.cdc.gov/mmwr/volumes/70/wr/mm7021e3.htm>).

overt asymmetric reporting will create the false picture of only unvaccinated individuals developing COVID-19 when in reality patients who are fully vaccinated will be contracting breakthrough infections except for those vaccinated individuals who were previously immune from prior COVID-19 infection.

23. The Delta variant of SARS-CoV-2 accounts for the 98.9% of present cases in the United Kingdom, Israel, and the United States.¹⁰ (Because of progressive mutation of the spike protein, the virus has achieved an immune escape from the COVID-19 vaccines with the most obvious example being Israel where indiscriminate vaccination achieved 80% immunization rates. *See* Table 4.

¹⁰ (<https://covid.cdc.gov/covid-data-tracker/#variant-proportions>)



24. This has promoted the emergence of the Delta variant as the dominant strain and because it is not adequately covered by the Pfizer COVID-19 vaccine, >80% of Israeli COVID-19 cases have occurred in persons fully vaccinated. This confirms the failure of the vaccines against COVID-19.

Table 4: Israel Confirmed Cases, Vaccinated vs. Unvaccinated Source:
<https://datadashboard.health.gov.il/COVID-19019/general>

25. In the SARS-CoV-2 variants of concern and variants under investigation

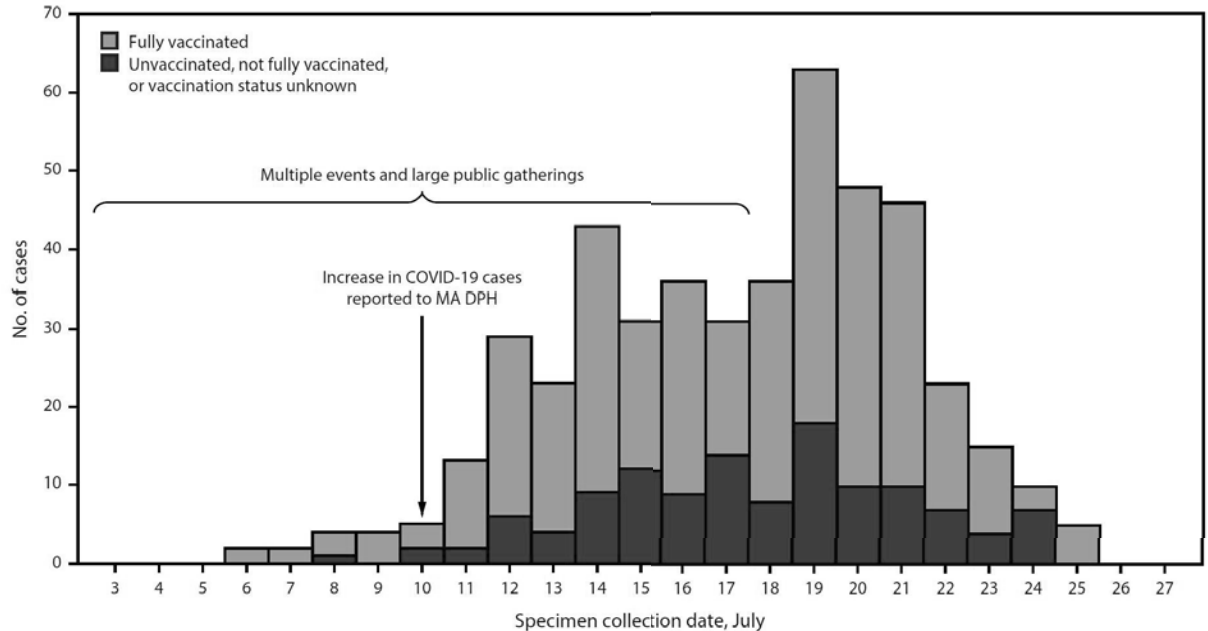
in England Technical briefing 17 25 June 2021, 92,056 cases had the Delta variant and 50/7235 fully vaccinated and 44/53,822 of the unvaccinated died. This indicates that the fully vaccinated who contract the Delta variant have an 8.6-fold increased risk for death, (95% CI 5.73-12.91), $p < 0.0001$, as compared to those who chose to remain unvaccinated.¹¹

26. The CDC has published a report titled: “Outbreak of SARS-CoV-2 Infections, Including COVID-19 Vaccine Breakthrough Infections, Associated with Large Public Gatherings — Barnstable County, Massachusetts, July 2021” demonstrating complete failure of the COVID-19 in controlled spread of SARS-CoV-2 in congregate settings. My interpretation of this report is that the vaccines are not sufficiently effective to make the elective, investigation vaccine recommended for use beyond individual preference.¹²

¹¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001354/Variants_of_Concern_VOC_Technical_Briefing_17.pdf

¹² <https://www.cdc.gov/mmwr/volumes/70/wr/pdfs/mm7031e2-H.pdf>

FIGURE 1. SARS-CoV-2 infections (N = 469) associated with large public gatherings, by date of specimen collection and vaccination status* — Barnstable County, Massachusetts, July 2021



Abbreviation: MA DPH = Massachusetts Department of Public Health.

* Fully vaccinated was defined as ≥ 14 days after completion of state immunization registry—documented COVID-19 vaccination as recommended by the Advisory Committee on Immunization Practices.

27. In 1990, the Vaccine Adverse Event Reporting System (“VAERS”) was established as a national early warning system to detect possible safety problems in U.S. licensed vaccines. VAERS is a passive reporting system, meaning it relies on individuals to voluntarily send in reports of their experiences to the CDC and FDA. VAERS is useful in detecting unusual or unexpected patterns of adverse event reporting that might indicate a possible safety problem with a vaccine.

28. The total safety reports in VAERS for all vaccines per year up to 2019 was 16,320. The total safety reports in VAERS for COVID-19 Vaccines alone through October 1, 2021, is 778,683. Based on VAERS as of October 1, 2021, there

were 16,310 COVID-19 vaccine deaths reported and 75,605 hospitalizations reported for the COVID-19 vaccines (Pfizer, Moderna, JNJ). By comparison, from 1999, until December 31, 2019, VAERS received 3167 death reports (158 per year) adult death reports for all vaccines combined. Thus, the COVID-19 mass vaccination is associated with at least a 39-fold increase in annualized vaccine deaths reported to VAERS

29. COVID-19 vaccine adverse events account for 98% of all vaccine-related AEs from December 2020 through the present in VAERS.

30. The COVID-19 vaccines are not safe for general use and cannot be deployed indiscriminately or supported, recommended, or mandated among any group.

31. There are emerging trends showing that the vaccine is especially risky for those 12- 29 in my expert medical opinion with complications in the cardiovascular, neurological, hematologic, and immune systems. (See, Rose J, et al). Increasingly the medical community is acknowledging the possible risks and side effects including myocarditis, Bell's Palsy, Pulmonary Embolus, Pulmonary Immunopathology, and severe allergic reaction causing anaphylactic shock. See Chien-Te Tseng, Elena Sbrana, Naoko Iwata- Yoshikawa, Patrick C Newman, Tania Garron, Robert L Atmar, Clarence J Peters, Robert B Couch, Immunization with SARS coronavirus vaccines leads to pulmonary immunopathology on challenge

with the SARS virus, <https://pubmed.ncbi.nlm.nih.gov/22536382/> (last visited June 21, 2021); Centers for Disease Control and Prevention, Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer-BioNTech COVID-19 Vaccine—United States, December 14– 23, 2020 (Jan 15, 2021).¹³

32. The Centers for Disease Control has held emergency meetings on this issue and the medical community is responding to the crisis. It is known that myocarditis causes injury to heart muscle cells and may result in permanent heart damage resulting in heart failure, arrhythmias, and cardiac death. These conditions could call for a lifetime need for multiple medications, implantable cardio defibrillators, and heart transplantation. Heart failure has a five-year 50% survival and would markedly reduce the lifespan of a child or young adult who develops this complication after vaccine-induced myocarditis (ref McCullough PA Reach Study).

33. COVID-19 vaccine-induced myocarditis has a predilection for young males below age 30 years. The Centers for Disease Control has held emergency meetings on this issue and the medical community is responding to the crisis and the US FDA has issued a warning on the Pfizer and Moderna vaccines for myocarditis. In the cases reviewed by the CDC and FDA, 90% of children with COVID-19 induced myocarditis developed symptoms and clinical findings sufficiently severe to warrant hospitalization. Because this risk is not predictable and the early reports

¹³ <https://www.cdc.gov/mmwr/volumes/70/wr/mm7002e1.htm> (last visited June 26, 2021).

may represent just the tip of the iceberg, no individual under age 30 under any set of circumstances should feel obliged to take this risk with the current genetic vaccines particularly the Pfizer and Moderna products. <https://www.fda.gov/news-events/press-announcements/coronavirus-COVID-19-update-june-25-2021>.

34. Multiple recent studies and news reports detail people 18-29 dying from myocarditis after receiving the COVID-19 vaccine. According to the CDC, 475 cases of pericarditis and myocarditis have been identified in vaccinated citizens aged 30 and younger. See FDA, Vaccines and Related Biological Products Advisory Committee June 10, 2021, Meeting Presentation.¹⁴

35. The FDA found that people 12-24 account for 8.8% of the vaccines administered, but 52% of the cases of myocarditis and pericarditis were reported. Id.

¹⁴ <https://www.fda.gov/media/150054/download#page=17> (last visited June 21, 2021).


Table 5: VAERS Report

Preliminary myocarditis/pericarditis reports to VAERS following dose 2 mRNA vaccination, Exp. vs. Obs. (data thru May 31, 2021)

Age groups	Doses admin	Crude reporting rate*	Expected†,‡ Myocarditis/pericarditis cases	Observed† Myocarditis/pericarditis reports
12–15 yrs	134,041	22.4	0–1	2
16–17 yrs	2,258,932	35.0	2–19	79
18–24 yrs	9,776,719	20.6	8–83	196
25–39 yrs	26,844,601	5.0	23–228	124
40–49 yrs	19,576,875	3.0	17–166	51
50–64 yrs	36,951,538	1.3	31–314	39
65+ yrs	42,124,078	0.9	36–358	26
NR	—	—	—	11

8.8% of doses admin

n=277 reports
52.5% of total reports

 * Per million doses administered; † Assumes a 31-day post-vaccination observation window; ‡ 528 reports with symptom onset within 30 days of vaccination shown; § Based on Gubernot et al. U.S. Population-Based background incidence rates of medical conditions for use in safety assessment of COVID-19 vaccines. Vaccine. 2021 May 14;50(64-410)(2):100578-8.

36. Further, the CDC just announced that the vaccine is “likely linked” to myocarditis. Advisory Board, CDC panel reports ‘likely association’ of heart inflammation and mRNA COVID-19 vaccines in young people, (June 24, 2021).¹⁵

37. The CDC recently released data stating that there have been 267 cases of myocarditis or pericarditis reported after receiving one dose of the COVID-19 vaccines and 827 reported cases after two doses through June 11. There are 132 additional cases where the number of doses received is unknown. Id. There have been 2466 reported cases of myocarditis that have occurred, and the median age is thirty.¹⁶

¹⁵ <https://www.advisory.com/daily-briefing/2021/06/24/heart-inflammation>.

¹⁶ Id. <https://www.openvaers.com/COVID-19-data> (accessed July 17, 2021)

38. On June 23, 2021, Dr. Matthew Oster, who serves on President Joe Biden's CDC COVID-19 Task Force, stated in a PowerPoint presentation that the mRNA vaccines are causing myocarditis in "young men aged 16-30," adding, "It does appear that mRNA vaccines may be a new trigger for Myocarditis." See Matthew Oster, Overview of Myocarditis and Pericarditis: ACP COVID-19 Vaccines Work Group June 23, 2021¹⁷

39. On June 29, 2021, the Defense Health Agency (DHA) published a report in the *Journal of the American Medical Association Cardiology* (JAMA) entitled, "Myocarditis Following Immunization with mRNA COVID-19 Vaccines in Members of the U.S. Military."¹⁸ The study reports that previously healthy service members have developed myocarditis, a severe and life-threatening inflammation of the heart, within an average of just four days of receiving their first shot of either the Pfizer-BioNTech or the Moderna vaccine.

40. I have seen and examined adolescent patients with post-COVID-19 myocarditis which typically occurs two days after the injection, most frequently after the second injection of mRNA products (Pfizer, Moderna). The clinical manifestations can be chest pain, signs and symptoms of heart failure, and

¹⁷ <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2021-06/02-COVID-Oster-508.pdf> (last visited October 12, 2021); see also <https://nypost.com/2021/06/23/covid-19-vaccines-from-pfizer-moderna-likely-linked-to-rare-heart-condition-cdc-panel/>

¹⁸ <https://jamanetwork.com/journals/jamacardiology/fullarticle/2781601> (last visited October 12, 2021)

arrhythmias. The diagnosis usually requires a clinical or hospital encounter, 12-lead electrocardiogram, blood tests including cardiac troponin (test for heart muscle damage), ECG monitoring, and cardiac imaging with echocardiography or cardiac magnetic resonance imaging. Given the risks for either manifest or future left ventricular dysfunction, patients are commonly prescribed heart failure medications (beta-blockers, renin-angiotensin system, inhibitors), and aspirin. More complicated patients require diuretics and anticoagulants. For post- COVID-19 vaccine myocarditis, I follow current position papers on the topic and restrict physical activity and continue medications for approximately three months before blood biomarkers and cardiac imaging are reassessed. If there is concurrent pericarditis, non-steroidal anti-inflammatory agents and colchicine may additionally be prescribed. Multiple medical studies are starting to come out detailing this problem.¹⁹ Acute myocarditis can lead to sudden death.

¹⁹ See, e.g., Tommaso D'Angelo MD, Antonino Cattafi MD, Maria Ludovica Carerj MD, Christian Booz MD, Giorgio Ascenti MD, Giuseppe Cicero MD, Alfredo Blandino MD, Silvio Mazziotti MD, Myocarditis after SARS-CoV-2 Vaccination: A Vaccine-induced Reaction?, Pre-proof, Canadian Journal of Cardiology, [https://www.onlinecjc.ca/article/S0828-282X\(21\)00286-5/fulltext](https://www.onlinecjc.ca/article/S0828-282X(21)00286-5/fulltext) (last visited June 26, 2021); Jeffrey Heller, Israel sees probable link between Pfizer vaccine and myocarditis cases (June 2, 2021), <https://www.reuters.com/world/middle-east/israel-sees-probable-link-between-pfizer-vaccine-small-number-myocarditis-cases-2021-06-01/> (last visited June 26, 2021); Tschöpe C, Cooper LT, Torre-Amione G, Van Linthout S. Management of Myocarditis-Related Cardiomyopathy in Adults. *Circ Res.* 2019 May 24;124(11):1568-1583. doi: 10.1161/CIRCRESAHA.118.313578. PMID: 31120823. Caforio AL, Pankuweit S, Arbustini E, Basso C, Gimeno-Blanes J, Felix SB, Fu M, Heliö T, Heymans S, Jahns R, Klingel K, Linhart A, Maisch B, McKenna W, Mogensen J, Pinto YM, Ristic A, Schultheiss HP, Seegewiss H, Tavazzi L, Thiene G, Yilmaz A, Charron P, Elliott PM; European Society of Cardiology Working Group on Myocardial and Pericardial

The US FDA has given an update on the JNJ vaccine concerning the risk of cerebral venous sinus thrombosis and thrombosis with thrombocytopenia in women ages 18-48 associated with low platelet counts death.. This complication causes a variety of stroke-like syndromes that can involve the cranial nerves, vision, and coordination. Blood clots in the venous sinuses of the brain are difficult to remove surgically and require blood thinners sometimes with only partial recovery. In some cases, special glasses are required to correct vision and these young adults can be expected to miss considerable time away from school undergoing neurological rehabilitation. Because this risk is not predictable no woman under age 48 under any set of circumstances should feel obliged to take this risk with the JNJ vaccine. Such catastrophic neurologic thrombotic events could occur in first responders or critical infrastructure employees while on duty. <https://www.fda.gov/news-events/press-announcements/joint-cdc-and-fda-statement-johnson-johnson-COVID-19-vaccine>.

41. Additionally, the US FDA has an additional warning for Guillen-Barre Syndrome or ascending paralysis for the JNJ vaccine which is not predictable and

Diseases. Current state of knowledge on aetiology, diagnosis, management, and therapy of myocarditis: a position statement of the European Society of Cardiology Working Group on Myocardial and Pericardial Diseases. *Eur Heart J*. 2013 Sep;34(33):2636-48, 2648a- 2648d. doi: 10.1093/eurheartj/ehz210. Epub 2013 Jul 3. PMID: 23824828

when it occurs can result in ascending paralysis, respiratory failure, the need for critical care, and death. Not all cases completely resolve, and some vaccine victims may require long term mechanical ventilation, or become quadra- or paraplegics. Prolonged neurological rehabilitation is commonly required, and this will call for time away from school and studies for those children injured from the JNJ vaccine with Guillen-Barre Syndrome. This syndrome is unpredictable and could occur in a critical worker while on duty and thus potentially harming others (passengers, coworkers, etc). <https://www.fda.gov/media/150723/download>.

42. The vaccine is also far less safe than previous vaccines like the meningococcal meningitis vaccine that is typically required on college campuses which in 2019 recorded zero deaths. The COVID-19 vaccines since their EUA approval on May 10, 2021, have already claimed the lives of 15 children and 79 young individuals under age 30 (VAERS).

43. For example, the VAERS (Vaccine Adverse Event Reporting System) data from the CDC shows, for 18-29-year-olds, there have been no deaths from the meningococcal vaccine from 1999 – 2019.²⁰

44. The main side effects people reported from the meningitis vaccine are

²⁰ See, United States Department of Health and Human Services (DHHS), Public Health Service (PHS), Centers for Disease Control (CDC)/Food and Drug Administration (FDA), Vaccine Adverse Reporting System (VAERS) 1990 - 06/11/2021, CDC WONDER On-line Database. Accessed at <https://wonder.cdc.gov/vaers.html> on June 23, 2021, 1:43:33 PM, (“Query Criteria”), Attached as Exhibit C.

headache, injection site pain, nausea, chills, and a fever, and even these were limited as no more than fifteen of each were reported. Id. The student population and their parents, in general, accept the requirements for meningococcal vaccination because the vaccines are safe, effective, and do not pose a risk of death, unlike the COVID-19 vaccines.

45. In the brief time the COVID-19 vaccines have been available, there have been many more serious symptoms and even a death of a healthy 13-year-old boy. (See Nationwide VAERS COVID-19 Vaccine Data through June 18, 2021, attached as **EXHIBIT 2**). Further, milder side effects from the vaccine include changes in hormone and menstrual cycles in women, fever, swelling at the injection site, etc.²¹.

46. At the time of this report, the CDC/FDA as the US public vaccine sponsors have yet to present to America a comprehensive COVID-19 vaccine safety report according to manufacturer, region, and patient categories who have volunteered for vaccination. Likewise, there has been no comprehensive report on vaccine efficacy particularly in the present era of the Delta variant.

47. Recent studies from Tess Lawrie, MBBS, PhD, a highly respected

²¹ Jill Seladi-Schulman, Ph.D., Can COVID-19 or the COVID-19 Vaccine Affect Your Period? (May 25, 2021), <https://www.healthline.com/health/menstruation/can-COVID-19-affect-your-period#COVID-19-and-men%20strual-cycles> (last visited June 26, 2021); Rachael K. Raw, Clive Kelly, Jon Rees, Caroline Wroe, David R. Chadwick, Previous COVID-19 infection but not Long-COVID-19 is associated with increased adverse events following BNT162b2/Pfizer vaccination, (pre-print) <https://www.medrxiv.org/content/10.1101/2021.04.15.21252192v1> (last visited June 26, 2021)

evidence-based professional, on the UK's equivalent of the VAERS systems concluded that the vaccines were unsafe for use in humans due to the extensive side effects they are causing. Tess Lawrie, Re. Urgent preliminary report of Yellow Card data up to 26th May 2021, (June 9, 2021), <http://www.skirsch.com/COVID-19/TessLawrieYellowCardAnalysis.pdf>

Risks of COVID-19 Vaccines for Those Recovered from COVID-19

48. There is recent research on the fact that the COVID-19 vaccine is dangerous for those who have already had COVID-19 and have recovered with inferred robust, complete, and durable immunity. These patients were excluded from the FDA-approved clinical trials performed by Pfizer, Moderna, and J&J. From these trials the safety profile was unknown when the products for approved for Emergency Use Authorization in 2020. There has been no study demonstrating clinical benefit with COVID-19 vaccination in those who have well documented or even suspected prior COVID-19 illness.

49. A medical study of United Kingdom healthcare workers who had already had COVID-19 and then received the vaccine found that they suffered higher rates of side effects than the average population.²²

50. The test group experienced more moderate to severe symptoms than the

²² Rachel K. Raw, et al., Previous COVID-19 infection but not Long-COVID-19 is associated with increased adverse events following BNT162b2/Pfizer vaccination, medRxiv (preprint), <https://www.medrxiv.org/content/10.1101/2021.04.15.21252192v1> (last visited June 21, 2021)

study group that did not previously have COVID-19. Id. The symptoms included fever, fatigue, myalgia-arthralgia, and lymphadenopathy. Id. Raw found that in 974 individuals who received the BNT162b2/Pfizer vaccine, those with a prior history of SARS-CoV-2 or those who had positive antibodies at baseline had a higher rate of vaccine reactions than those who were COVID-19 naive. Id.

51. Mathioudakis et al. reported that in 2020 patients who underwent vaccination with either mRNA-based or vector-based COVID-19 vaccines, COVID-19-recovered patients who were needlessly vaccinated had higher rates of vaccine reactions.

52. Krammer et al. reported on 231 volunteers for COVID-19 vaccination, 83 of whom had positive SARS-CoV-2 antibodies at the time of immunization. The authors found: “Vaccine recipients with preexisting immunity experience systemic side effects with a significantly higher frequency than antibody naïve vaccines (e.g., fatigue, headache, chills, fever, muscle or joint pains, in order of decreasing frequency, $P < 0.001$ for all listed symptoms, Fisher’s exact test, two-sided).”²³

Natural Immunity to COVID-19

53. To my knowledge, there are no trustworthy studies that demonstrate the clinical benefit of COVID-19 vaccination in COVID-19 survivors or those with

²³ (<https://www.medrxiv.org/content/10.1101/2021.01.29.21250653v1>).

suspected COVID-19 illness or subclinical disease who have laboratory evidence of prior infection.

54. It is my opinion that SARS-CoV-2 causes an infection in humans that results in robust, complete, and durable immunity, and is superior to vaccine immunity which by comparison has demonstrated massive failure including over 10,000 well-documented vaccine failure cases as reported by the CDC before tracking was stopped on May 31, 2021. There are no studies demonstrating the clinical benefit of COVID-19 vaccination in COVID-19 survivors and there are three studies demonstrating harm in such individuals. Thus, it is my opinion that the COVID-19 vaccination is contraindicated in COVID-19 survivors many of whom may be in the student population.

55. Multiple laboratory studies conducted by highly respected U.S. and European academic research groups have reported that convalescent mildly or severely infected COVID-19 patients who are unvaccinated can have greater virus-neutralizing immunity— especially more versatile, long-enduring T- cell immunity—relative to vaccinated individuals who were never infected.²⁴.

²⁴ See Athina Kilpeläinen, et al., Highly functional Cellular Immunity in SARS-CoV-2 Non-Seroconvertors is associated with immune protection, bioRxiv (pre-print), <https://www.biorxiv.org/content/10.1101/2021.05.04.438781v1> (last visited June 26, 2021); Tongcui Ma, et al., Protracted yet coordinated differentiation of long-lived SARS- CoV-2-specific CD8+ T cells during COVID-19 convalescence, bioRxiv (pre-print), <https://www.biorxiv.org/content/10.1101/2021.04.28.441880v1> (last visited June 26, 2021); Claudia Gonzalez, et al., Live virus neutralisation testing in convalescent patients and subjects vaccinated against 19A, 20B, 20I/501Y.V1 and 20H/501Y.V2 isolates of SARS-CoV-2, medRxiv

56. Cleveland Clinic studied their employees for the effects of natural immunity in unvaccinated people.²⁵ They found zero SARS-CoV-2 reinfections during a 5-month follow-up among n=1359 infected employees who were naturally immune remained unvaccinated and concluded such persons are “unlikely to benefit from COVID-19 vaccination.” Among those who were vaccinated, unlike the naturally immune, there were vaccine failure or breakthrough cases of COVID-19. Id.

57. An analysis by Murchu et al demonstrated in 615,777 individuals which included well-documented COVID-19 as well as subclinical infections with positive serologies, there was a negligible incidence (<1%) of COVID-19 over the long term. Murchu found no evidence of waning immunity over time suggesting no possibility that future vaccination would be indicated for any reason.

(pre-print), <https://www.medrxiv.org/content/10.1101/2021.05.11.21256578v1> (last visited June 21, 2021); Carmen Camara, et al. Differential effects of the second SARS-CoV-2 mRNA vaccine dose on T cell immunity in naïve and COVID-19 recovered individuals, bioRxiv (pre-print), <https://www.biorxiv.org/content/10.1101/2021.03.22.436441v1> (last visited June 26, 2021); Ellie N. Ivanova, et al., Discrete immune response signature to SARS-CoV-2 mRNA vaccination versus infection, medRxiv (pre-print), <https://www.medrxiv.org/content/10.1101/2021.04.20.21255677v1> (last visited June 26, 2021); Catherine J. Reynolds, et al, Prior SARS-CoV-2 infection rescues B and T cell responses to variants after first vaccine dose, (pre-print), <https://pubmed.ncbi.nlm.nih.gov/33931567/> (last visited June 21, 2021); Yair Goldberg, et al., Protection of previous SARS-CoV-2 infection is similar to that of BNT162b2 vaccine protection: A three-month nationwide experience from Israel, medRxiv (pre-print), <https://www.medrxiv.org/content/10.1101/2021.04.20.21255670v1> (last visited 06/26/21)

²⁵ Nabin K. Shrestha, Patrick C. Burke, Amy S. Nowacki, Paul Terpeluk, Steven M. Gordon, Necessity of COVID-19 vaccination in previously infected individuals, medRxiv (pre-print), <https://www.medrxiv.org/content/10.1101/2021.06.01.21258176v2> (last visited June 21, 2021).

<https://onlinelibrary.wiley.com/doi/10.1002/rmv.2260>.

58. A recently published article in Nature reported that prior infection induces long- lived bone marrow plasma cells which means the antibodies to prevent reinfection of COVID-19 are long-lasting.²⁶

CONCLUSION

In my expert medical opinion which is and is within a reasonable degree of medical certainty, despite the current Delta variant outbreak, the increasing likelihood of herd immunity to COVID-19, the low risk to children and adolescents of serious complications or death due to COVID-19, the negligible risk of asymptomatic spread of COVID-19, the vastly improved COVID-19 treatments currently available all make the risks inherent in COVID-19 significantly lower than they were in 2020.


It is my expert medical opinion that the COVID-19 vaccines are progressively losing efficacy over the prevention of COVID-19 and in widely vaccinated countries (Israel, Iceland, Singapore) up to 80% of COVID-19 cases have been previously vaccinated implying the vaccines have become obsolete with antigenic escape or resistance to variants (e.g. Delta) that have evolved to infect persons who were vaccinated against the now extinct wild-type SARS-CoV-2 strain.

²⁶ Jackson S. Turner et. al. SARS-CoV-2 infection induces long- lived bone marrow plasma cells in humans, (May 24, 2021) <https://www.nature.com/articles/s41586-021-03647-4>

It is my expert medical opinion that it is not good research or clinical practice to widely utilize novel biologic therapy (mRNA, adenoviral DNA COVID-19 vaccines) in populations where there is no information generated from the registrational trials with the FDA, specifically COVID-19 survivors, suspected COVID-19-recovered, pregnant or women who could become pregnant at any time after investigational vaccines. In my expert medical opinion, the risks associated with the investigational COVID-19 vaccines far outweigh any theoretical benefits, are not minor or unserious, and many of those risks are unknown or have not been adequately quantified nor has the duration of their consequences been evaluated or is calculable. Therefore, in my expert medical opinion, the Emergency Use Authorization and mandatory administration of COVID-19 vaccines creates an unethical, unreasonable, clinically unjustified, unsafe, and unnecessary risk to the Plaintiffs. Likewise, in my medical expert opinion, the mandatory administration of COVID-19 vaccines in municipal employees creates unnecessary risk to the employees and other citizens who rely on first responders and other critical infrastructure workers.

I declare under penalty of perjury of the laws of the United States and the State of Florida that the foregoing statements are true and correct.

Dated: 13th day of October, 2021:


/s/ Peter McCullough

13-OCT-2021

EXHIBIT 1

Tuesday, October 6, 2021

CURRICULUM VITAE

PETER A. McCULLOUGH, MD, MPH, FACC, FCCP, FAHA, FNKF, FNLA, FCRSA

Business

HeartPlace
3409 Worth Street, #500
Dallas TX 75246
Desk: 214-841-2000
Cell: 248-444-6905
e-mail: PeterAMcCullough@gmail.com

Home

5231 Richard Avenue
Dallas, TX 75206

Birth date

December 29, 1962

Birthplace

Buffalo, NY, USA

EDUCATION

- 1) Certificate of Graduate Liberal Arts Studies: Southern Methodist University, December 17, 2016, principal faculty Dr. Anthony Picchioni, PhD, Adjunct Professor in Human Development, P.O. Box 750181, Dallas, TX 75275, 214-768-3417, www.smu.edu
 - Graduated with Honor
- 2) Master of Public Health: University of Michigan School of Public Health, August 19, 1994, Dean Noreen M. Clark, PhD, 109 Observatory Street, Ann Arbor, MI 48109-2029, phone 734-764-5454, www.sph.umich.edu
 - Major: General Epidemiology
- 3) Doctor of Medicine: University of Texas Southwestern Medical School, June 4, 1988, Dean Bryan M. Williams, MD, 5323 Harry Hines Boulevard, Dallas, TX 75235-9070, 214-648-3111, <http://www.utsouthwestern.edu/education/medical-school/>
 - Clinical year rank of 1 in 199, overall rank in class of 12 in 199
 - Alpha Omega Alpha Texas Gamma Chapter, installed March 17, 1988
- 4) Bachelor of Science: Baylor University, May 18, 1984, Chancellor Abner McCall, PhD, Office of the Registrar, Waco, TX 76798-7056, 254-710-1181, <http://www.baylor.edu/>
 - Double-major: Biology and Psychology
 - Graduated with Honor, degree rank of 29 in 131, university rank of 127 in 1,152

Peter A. McCullough, M.D., M.P.H.

- Alpha Lambda Delta Freshman Honorary, installed March 19, 1981

POSTGRADUATE TRAINING

- 1) Cardiovascular Diseases Fellowship: William Beaumont Hospital (WBH) (presently Oakland University William Beaumont School of Medicine), Division of Cardiology, 3601 W. Thirteen Mile Rd, Royal Oak, MI 48073, 248-551-4198, 7-1-94 to 6-30-97, Chief Cardiovascular Fellow for 1996-97, William W. O'Neill, MD, Program Director and Division Chief
- 2) Internal Medicine Residency: University of Washington School of Medicine, Department of Internal Medicine, 1959 NE Pacific, Seattle, WA 98195, (206) 543-3239, 3-year traditional track, 7-1-88 to 6-30-91, James F. Wallace, MD, Program Director, Paul G. Ramsey, MD, Chairman of Medicine

PROFESSIONAL EXPERIENCE

HeartPlace, 3409 Worth Street, Suite 500, Dallas TX 75246, March 1, 2021.

Positions Held: 1) Attending Physician

Baylor Scott and White Health, Baylor Health Care System, Baylor University Medical Center (BUMC), Baylor Heart and Vascular Institute, Baylor Jack and Jane Hamilton Heart and Vascular Hospital, Dallas TX, Texas A & M University College of Medicine, Department of Medicine, Division of Cardiology, Baylor Heart and Vascular Institute, 621 N. Hall St., #H030, Dallas, TX 75226, February 3, 2014 to February 25, 2021. Cardiovascular Governance Council, Kevin Wheelan, MD, Cardiology Division Chief and Chief Medical Officer, Heart Institute Office (214) 820-7500

Positions Previously Held:

- 1) Professor in the Principal Faculty, Non-Tenure Track in the Department of Internal Medicine, Texas A & M University Health Sciences Center (2016-2021)
- 2) Chief of Cardiovascular Research (2014-2021)
- 3) Program Director, BUMC Cardiovascular Diseases Fellowship Program (2014-2021)
- 4) Vice Chief, BUMC Internal Medicine (2016-2021)

St. John Providence Health System, Providence Park Heart Institute, Department of Medicine, Cardiology Section, 47601 Grand River Avenue, Suite B-125, Novi, MI 48374, September 1, 2010 to July 19, 2013. Department of Medicine Chair, Anibal Drelichman, MD: 248-849-3152, Cardiology Section Chief: Shukri David, MD, 248-465-5955

Positions Previously Held:

Peter A. McCullough, M.D., M.P.H.

- 1) Chief Academic and Scientific Officer (Academic Dean Equivalent), St. John Providence Health System, (2010 to 2013)
- 2) Medical Director, Clinical Lipidology, Department of Medicine, Cardiology Section (2010 to 2013)

William Beaumont Hospital, Department of Internal Medicine, Divisions of Nutrition and Preventive Medicine, Department of Cardiology, 3601 West Thirteen Mile Road, Royal Oak, MI 48073, October 1, 2002 to 2010. Department of Medicine Chair: Michael A. Maddens, M.D., 248-551-0622, Department of Cardiology Chair: David E. Haines, M.D., 248-858-0404

Oakland University William Beaumont School of Medicine, 472 O'Dowd Hall 2200 N. Squirrel, Rochester, MI 48309, Robert Folberg, MD, Medical School Dean, Kenneth Hightower, PhD, Dean of Allied Health Sciences, 248-370-3562. Clinical Professor of Health Sciences and Medicine (2007 to 2010)

Positions Previously Held:

- 1) Consultant Cardiologist and Chief, Division of Nutrition and Preventive Medicine (2002 to 2010), Department of Internal Medicine
- 2) Medical Director, Preventive Cardiology (2002 to 2010)
- 3) Medical Director, Lipid Apheresis Program (2007 to 2010)
- 4) Medical Director, Weight Control Center (2002-2005)

University of Missouri-Kansas City (UMKC) School of Medicine, Truman Medical Center, Department of Medicine, Cardiology Section, 2301 Holmes St., Kansas City, MO 64108. August 18, 2000-September 30, 2002. Department of Medicine Chair: George R. Reisz, M.D, 816-556-3450

Positions Previously Held:

- 1) Associate Professor of Medicine (Tenure Track) and Cardiology Section Chief (2000-2002)

Henry Ford Health System (HFHS), Henry Ford Heart and Vascular Institute, 2799 W. Grand Blvd., K-14, Detroit, MI 48202, July 1, 1997 to August 16, 2000. Cardiovascular Division Head: W. Douglas Weaver, M.D, 800-653-6568

Positions Previously Held:

- 1) Assistant Professor of Medicine (Tenure Track), Case Western Reserve University School of Medicine, and HFHVI Senior Staff Cardiologist Medical Director, Preventive Cardiology, 1999-2000
- 2) Program Director, Cardiovascular Diseases Fellowship Training Program, 1999-2000
- 3) Director of Cardiovascular Informatics Section, 1997-2000
- 4) Associate Director of the Center for Clinical Effectiveness, 1997-99

Peter A. McCullough, M.D., M.P.H.

- 5) Associate Director of the Cardiovascular Diseases Fellowship Program, 1998-99

Emergency Physicians Medical Group, PC, 2000 Green Road, Suite 300, Ann Arbor, MI 48105, 800-466-3764. Emergency medicine attending at Mission Health McPherson Hospital, Howell, 1991-1997; Oakwood Beyer Hospital Center, Ypsilanti 1991-1997, and Mercy Hospital, Grayling 1991-1992

Positions Previously Held:

- 1) Associate Member
- 2) Washtenaw County Human Services Deputy Medical Examiner, 1995-1996

Mercy Internal Medicine Associates, 308 Michigan Avenue, Grayling, MI 49738, Mercy Hospital-Grayling, 1100 Michigan Avenue, Grayling, MI 49738, 517-348-5461. Internal medicine attending at Mercy Hospital, Grayling, MI, 1991-1992

Positions Previously Held:

- 1) Coronary Care Unit Director
- 2) Physician Director of Cardiopulmonary Services

SPECIAL TRAINING

- 1) The Healthcare Forum Cardiovascular Health Fellowship, 1998-99
- 2) American Heart Association (AHA), 23rd 10-Day U.S. Seminar on the Epidemiology and Prevention of Cardiovascular Disease, July-August, 1997
- 3) University of Michigan Summer Session in Epidemiology, 1997-99
- 4) Stanford University Course on Medical Informatics, Palo Alto, CA, June, 1997
- 5) Current Practice of Vascular Ultrasound 3-Day Course, Chicago, IL, April, 1997
- 6) Advanced Pacemaker Concepts Course, CPI, Inc., Lansing, MI, 1995
- 7) Pacesetter Comprehensive Pacemaker 4-Day Course, Santa Fe, NM, 1997
- 8) Medtronic Bakken Education Tutorial and Medtronic Applied Physiological Research Laboratory Lead Implantation Training and Biventricular Implantation Training (2 sessions), Minneapolis, MN, 2001-2002
- 9) 2004 ASCeXAM Review Course, American Society of Echocardiography, San Francisco, CA, April 22-24, 2004
- 10) National Lipid Association Masters Course in Clinical Lipidology, Hilton Head, SC, August 21-23, 2008

CERTIFICATION AND LICENSURE

- 1) Licensed in the State of Washington 1988-1997 (#MD00027562), Michigan expires January 31, 2022 (#4301058147), and New York 1992 to present (#189283 inactive status), Missouri 2000-2002 (#2000165365 inactive status) and Texas expires May 31, 2022 (#P9222)

Peter A. McCullough, M.D., M.P.H.

- 2) FLEX passed April 4, 1990, State of Washington, Department of Health, Board of Medical Examiners
- 3) Diplomate, American Board of Internal Medicine, Candidate #136084, September, 25, 1991, recertified May 1, 2001, recertified June 10, 2011, recertified April 6, 2021, valid through 2031, 510 Walnut Street, Suite 1700, Philadelphia, PA 19106-3699
- 4) Diplomate, American Board of Internal Medicine, Cardiovascular Diseases Subspecialty, Candidate #136084, November, 1997, valid through 2007, recertified October 1, 2007, valid through 2017, recertified September 28, 2017, valid through 2027, 510 Walnut Street, Suite 1700, Philadelphia, PA 19106-3699
- 5) Diplomate, American Board of Clinical Lipidology, September 27, 2008, 6816 Southpoint Parkway, Suite 1000, Jacksonville, FL 32216. Fellow, National Lipid Association
- 6) National Board of Echocardiography (NBE), Examination of Special Competence in Adult Echocardiography, 2004-2014 expired
- 7) Diplomate, American Board of Forensic Examiners, July 16, 1996, no expiration date

RECOGNITION

Teaching:

1. Henry Ford Hospital, 1999 Chief Medical Resident's Best Teacher Award

Research:

1. Chest Foundation Young Investigator Award 2001, Philadelphia, PA, November 7, 2001, President's International Awards Ceremony
2. National Kidney Foundation (NKF) of Michigan, Innovations in Health Care Award Finalist 2008, East Lansing, MI, April 17, 2008
3. American College of Cardiology (ACC) Simon Dack Award for Scholarly Excellence by the Journal of the American College of Cardiology, March 5, 2009
4. 11th International Vicenza Award in Critical Care Nephrology, International Renal Research Institute, Vicenza, Italy, June 11, 2013

Postgraduate:

1. Founding Fellow, Cardiorenal Society of America, March 2016
2. Fellow, National Lipid Association, January, 2013
3. Fellow, National Kidney Foundation, January, 2012
4. Fellow, American College of Chest Physicians, February, 2001
5. Fellow, American College of Physicians, January, 2001 to September, 2021
6. Fellow, American College of Cardiology, February, 1999

AFFILIATIONS

- 1) Alpha Omega Alpha, National Honor Medical Society, 1988 to present

Peter A. McCullough, M.D., M.P.H.

- 2) American College of Emergency Physicians, Member, 1992-1994
- 3) American College of Forensic Examiners, Member 1996 to present
- 4) AHA, Council on Epidemiology and Prevention, 1995 to present
- 5) AHA, Grassroots Network, 1998-2000.
- 6) Central Society for Clinical Research, Member, 1999-2000
- 7) Council on Geriatric Cardiology, Member 1996-1997
- 8) Michigan Chapter of the ACC, Chair, Annual Cardiology Board Review, 1999-2000
- 9) Michigan State Medical Society, Member, 1997-2000, 2004 to 2009
- 10) The American Medical Informatics Association, 1997-2000
- 11) The Health Forum, Charter Cardiovascular Health Charter Alumni Representative, 1998 to 2002
- 12) Cardiorenal Society of America, Founding Executive Board Member, 2013 to present, Vice President 2014-2016, President 2016 to present
- 13) Dallas County Medical Society, 2014 to present
- 14) Texas Medical Association, 2014 to present
- 15) Baylor Alumni Association, 2015 to present
- 16) New York Academy of Sciences, 2016 to present
- 17) Truth for Health Foundation, Founding Executive Board Member, Chief Medical Advisor, 2021 to present

EDITORIAL RESPONSIBILITIES

- 1) *Advances in Chronic Kidney Disease*, Editorial Board Member, 2003-present. [referenced through Elsevier Bibliographic Database, EMBASE/Excerpta Medica, MEDLINE]
- 2) *American Journal of Cardiology*, Associate Editor, 2014 to present
- 3) *American Journal of Kidney Disease*, [referenced through Elsevier Bibliographic Database, EMBASE/Excerpta Medica, MEDLINE] Associate Editor, 2006 to 2019, Guest Editor, 2011, 2012
- 4) *Arquivos Brasileiros de Cardiologia*, International Editorial Board, 2006 to present
- 5) *Biocritique*, Editorial Board, 2001 to 2013, www.biocritique.com
- 6) *Blood Purification*, Editorial Board 2018 to present
- 7) *Cardiovascular Clinician*, Editorial Board, 2011 to 2013, internet site, CARDIOVASCULARClinician.com™
- 8) *Cardiovascular Diagnosis and Therapy (CDT)*, Editorial Board (Print ISSN: 2223-3652; Online ISSN: 2223-3660, 2012 to present
- 9) *Cardiovascular Innovations and Applications (CVIA)*, Editorial Board 2015 to present
- 10) *Cardiorenal Medicine*, Associate Editor, 2016-2017, Editor-in-Chief 2018 to 2021
- 11) *Circulation*, Editorial Board, 2016 to present
- 12) *Circulation Heart Failure*, Editorial Board, 2008 to present, Associate Editor, 2008 to 2016, Guest Editor 2010, 2011, 2012
- 13) *Clinical Exercise Physiology*, Clinical Consultant to the Editorial Board, 1998-2002.
- 14) *Cochrane Renal Group Module*, 2008, Editorial Contributor, Centre for Kidney Research, The Children's Hospital at Westmead, Westmead NSW, Australia

Peter A. McCullough, M.D., M.P.H.

- 15) *Expert Review of Cardiovascular Therapy*, Editorial Advisory Panel, 2002 to present, www.future-drugs.com
- 16) *Journal of the American College of Cardiology*, Editorial Consultant, 2003-present. "Elite Reviewer" Recognition, 2004, 2005, 2006, 2007, 2008, 2011, 2014, 2016 (DeMaria AN. The elite reviewer. *J Am Coll Cardiol* 2003;41(1):157-8.)
- 17) *Journal of Geriatric Cardiology*, Editorial Board Member, 2003-present. The Institute of Geriatric Cardiology, Chinese PLA Hospital, Beijing. [Joint China-U.S.A. publication]
- 18) *Journal of Biorepository Science for Applied Medicine*, Honorary Editorial Board, 2012 to 2018
- 19) *Journal of Clinical & Experimental Cardiology*, OMICS Publishing Group, Open Access, CrossRef, PubMed, DOAJ, Index Copernicus, Scientific Commons, EBSCO, 2010 to 2017
- 20) *Journal of Diabetes & Metabolism*, OMICS Publishing Group, Open Access, 2010 to 2017
- 21) *Journal of Interventional Cardiology*, "News and Views", Section Editor, 2000-2003. Editorial Board Member, 2003 to present
- 22) *Journal of Nephrology and Therapeutics*, Editorial Board, OMICS Publishing Group, Editorial Board, 2010 to 2017
- 23) *Reviews in Cardiovascular Medicine*, MedReviews, LLC, www.medreviews.com "Cardiorenal Function," Section Editor, 2001-2002, Associate Editor, 2003-2009, Co-Editor, 2009 to present
- 24) *The American College of Cardiology Foundation ACCEL Audio Journal*, Editorial Board 2008 to present
- 25) *The Open Atherosclerosis & Thrombosis Journal*, [referenced through Bentham Open, PubMed, Google and Google Scholar] Editorial Board, 2008 to 2012
- 26) *The Open Heart Failure Journal*, [referenced through Bentham Open, PubMed, Google and Google Scholar] Editorial Board, 2008 to 2010
- 27) *Therapy*, [referenced through Elsevier Bibliographic Database, EMBASE/Excerpta Medica, MEDLINE], Editorial Board, 2008 to 2010

Manuscript Reviewer

- 1) *Advances in Chronic Kidney Disease*, 2004 to present (18)
- 2) *Advances in Medical Sciences*, 2012 to present (2)
- 3) *Advances in Therapy*, 2008 to present (1).
- 4) *American Family Physician*, 2004 to present (2)
- 5) *American Journal of Cardiovascular Drugs*, 2002 to present. (2)
- 6) *American Heart Journal (AHJ)*, 1998 to present (22)
- 7) *American Journal of Cardiology (AJC)*, 1999 to present (60)
- 8) *American Journal of Human Biology*, 2014 to present (1)
- 9) *American Journal of Hypertension*, 2011 to present (1)
- 10) *American Journal of Kidney Diseases (AJKD)*, 2002 to present (30)
- 11) *American Journal of Medicine (AJM)*, 1997 to present (7)
- 12) *American Journal of the Medical Sciences (AJMS)*, 2006 to present (3)
- 13) *American Journal of Nephrology*, 2004 to present (24)
- 14) *American Journal of Physiology: Renal Physiology*, 2006 to present (2)

Peter A. McCullough, M.D., M.P.H.

- 15) *American Journal of Transplantation*, 2004 to present (1)
- 16) *Annals of Epidemiology*, 2004 to present (1)
- 17) *Annals of Internal Medicine*, 2008 to present (3)
- 18) *Annals of Noninvasive Electrocardiology*, 2009 to present (1)
- 19) *Antimicrobial Agents and Chemotherapy*, 2020 to present (1)
- 20) *Archives of Internal Medicine*, 2004 to present (2)
- 21) *Archives of Pathology and Laboratory Medicine*, 2007 to present (1)
- 22) *Arteriosclerosis, Thrombosis, and Vascular Biology*, 2010 to present (2)
- 23) *Autonomic Neuroscience: Basic and Clinical*, 2007 to present (1)
- 24) *BUMC Proceedings*, 2012 to present (3)
- 25) *Biochemia Medica*, 2012 to present (1)
- 26) *Biomed Central (BMC) Medical Imaging*, 2010 to present (1)
- 27) *Blood Purification*, 2010 to present (2)
- 28) *BMC Medicine*, 2007 to present (1)
- 29) *BMC Nephrology*, 2011 to present (1)
- 30) *BMJ Clinical Evidence*, 2008 to present (1)
- 31) *British Medical Journal (BMJ)*, 2009 to present (1)
- 32) *Canadian Medical Association Journal (CMAJ)*, 2006 to present (3)
- 33) *Cardiac Failure Review*, 2015 to present (1)
- 34) *Cardiology*, 2007 to present (1)
- 35) *Cardiorenal Medicine*; 2013 to present (10)
- 36) *Cardiovascular Innovations and Applications*, 2016 to present (1)
- 37) *Cardiovascular Therapeutics*, 2010 to present (1)
- 38) *Catheterization and Cardiovascular Interventions*, 2000 to present (6)
- 39) *Chest*, 2000 to present (6)
- 40) *Circulation*, 1998 to present (100)
- 41) *Circulation Cardiovascular Interventions*, 2012 to present (1)
- 42) *Circulation Cardiovascular Quality and Outcomes*, 2010 to present (1)
- 43) *Circulation Heart Failure*, 2009 to present (4)
- 44) *Circulation Imaging*, 2012 to present (1)
- 45) *Cleveland Clinic Journal of Medicine*, 2008 to present (1)
- 46) *Clinica Chimica Acta*, 2013 (1)
- 47) *Clinical Cardiology*, 2001 (3)
- 48) *Clinical Chemistry and Laboratory Medicine*, 2010 to present (2)
- 49) *Clinical Exercise Physiology*, 2000-2002 (4)
- 50) *Clinical Journal of the American Society of Nephrology* 2008 to present (3)
- 51) *Clinical Kidney Journal*, 2012 to present (1)
- 52) *Clinical Medicine and Research*, 2008 to present (1)
- 53) *Clinical Nephrology*, 2008 to present (2)
- 54) *Clinical Physiology and Functional Imaging*, 2010 to present (1)
- 55) *Clinical Researcher*, 2002 to present (1)
- 56) *Clinics*, 2010 to present (1)
- 57) *Cochrane Collaboration*, 2009 to present (2)
- 58) *Congestive Heart Failure*, 2005 to present (4)

Peter A. McCullough, M.D., M.P.H.

- 59) *Coronary Artery Disease*, 2005 to present (1)
- 60) *Critical Care Medicine*, 2008 to present (2)
- 61) *Current Medical Research and Opinion*, 2005 to present (1)
- 62) *Diabetes Care*, 2011 to present (2)
- 63) *Diabetes and Vascular Disease Research*, 2011 to present (1)
- 64) *Diabetes, Obesity, and Metabolism*, 2019 to present (1)
- 65) *Diabetic Medicine*, 2008 to present (1)
- 66) *Drug Benefit Trends*, 1999 (1)
- 67) *Drugs*, 2000 (2)
- 68) *European Heart Journal*, 1995 (12)
- 69) *European Journal of Cardiovascular Prevention and Rehabilitation*, 2006 (1)
- 70) *European Journal of Heart Failure*, 2012 (4)
- 71) *Expert Opinion on Pharmacotherapy*, 2003 to present (3)
- 72) *Expert Opinion Therapeutic Patents*, 2004 to present (1)
- 73) *Expert Review of Cardiovascular Therapy*, 2008 to present (2)
- 74) *Global Heart*, 2012 (1)
- 75) *Heart*, 2004 (2)
- 76) *Heart and Vessels*, 2007 (2)
- 77) *Hemodialysis International* 2013 (2)
- 78) *Internal Medicine Journal (Australasia)*, 2009 to present (1)

- 79) *International Journal of Infectious Diseases* 2020 to present (2)
- 80) *International Journal of Nephrology*, 2010 to present (2)
- 81) *Journal of Biomarkers*, 2013 (1)
- 82) *Journal of Geriatric Cardiology*, 2017 (1)
- 83) *International Journal of Infectious Diseases*, 2021 to present (3)
- 84) *Journal of Internal Medicine*, 2009 to present (1)
- 85) *Journal of Interventional Cardiology (JIC)*, 1996 to present (9)
- 86) *Journal of the American College of Cardiology (JACC)*, 1998 to present (228)
- 87) *Journal of the American College of Cardiology: Heart Failure (JACC Heart Fail)*, 2014 to present (12)
- 88) *Journal of the American College of Cardiology: Imaging (JACC Imag)*, 2014 to present (6)
- 89) *Journal of the American College of Cardiology: Interventions (JACC Interv)*, 2010 to present (10)
- 90) *Journal of the American Medical Association (JAMA)*, 2002 to present (60)
- 91) *Journal of the American Medical Association Cardiology (JAMA Cardiology)*, 2016 to present (20)
- 92) *Journal of the American Society of Echocardiography (JASE)*, 2009 to present (1)
- 93) *Journal of the American Society of Nephrology (JASN)* 2005 to present (14)
- 94) *Journal of Cardiac Failure*, 2003 to present (10)
- 95) *Journal of Clinical Outcomes Management*, 2011 to present (1)
- 96) *Journal of Critical Care*, 2011, to present (1)
- 97) *Journal of General Internal Medicine*, 2008 to present (1)
- 98) *Journal of Human Hypertension*, 2010 to present (1)

Peter A. McCullough, M.D., M.P.H.

- 99) *Journal of Inherited Metabolic Disease*, 2014 to present (2)
- 100) *Journal of Lipid Research*, 2010 to present (1)
- 101) *Journal of Managed Care*, 2004 to present (1)
- 102) *Journal of Physiology and Pathophysiology*, 2009 to present (1)
- 103) *Kidney and High Blood Pressure Research*, 2008 to present (1)
- 104) *Kidney International*, 2004 to present (8)
- 105) *Medical Science Monitor*, 2008 to present (1)
- 106) *Medicine & Science in Sports and Exercise*, 2005 to present (3)
- 107) *Nature Clinical Practice Cardiovascular Medicine*, 2004 to present (4)
- 108) *Nature Clinical Practice Nephrology*, 2008 to present (1)
- 109) *Nature Reviews Nephrology*, 2009 to present (3)
- 110) *Nephron*, 2005 to present (1)
- 111) *Nephrology*, 2009 to present (1)
- 112) *Nephrology, Dialysis, and Transplantation*, 2005 to present (7)
- 113) *New England Journal of Medicine*, 2006 to present (8)
- 114) *Pharmacological Research (Italy)*, 1999 (1)
- 115) *Pharmaceutical Sciences*, 2011 (1)
- 116) *PLoS Medicine*, 2005 (1)
- 117) *PLOS ONE*, 2013 (1)
- 118) *Prehospital Emergency Care*, 2015 (1)
- 119) *Preventive Medicine*, 2008 (1)
- 120) *Rejuvenation Research*, 2007 (1)
- 121) *Renal Failure*, 2011 (2)
- 122) *The Lancet*, 1999 to present (11)
- 123) *The Lancet Diabetes*, 2013 to present (5)
- 124) *The Lancet Global Health*, 2015 to present (2)

Major Meeting Abstract Grader

- 1) ACC Scientific Sessions 2001 to present (10)
- 2) ACC I2 Summit, 2006 to present (2)
- 3) American Diabetes Association, 2008 to present (13)
- 4) AHA Scientific Sessions, 1997 to present (8)
- 5) American Medical Informatics Association, Annual Symposium, 1998-2001 (3)
- 6) International Academy of Cardiology World Congress on Heart Disease, Academy of Cardiology Annual Scientific Sessions—Mechanisms and Management, 2002-present (3)
- 7) Transcatheter Therapeutics (TCT), 2004 (1)

Grant Reviewer

- 1. National Medical Research Council, Singapore, 2003-2004
- 2. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Special Emphasis Panel/Initial Review Group 2006/01 ZDK1 GRB-9, 2005

Peter A. McCullough, M.D., M.P.H.

3. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Special Emphasis Review Group, 1 R01 DK070033-01A2, 2006
4. National Institutes of Health, National Heart Lung and Blood Institute, Study Section, ZHL1 CSR-H (M1), March 6-7, 2006, Heart Failure Network
5. Diabetes UK, The British Diabetic Association, Macleod House, 10 Parkway, London NW1 7AA. December 24, 2008
6. National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases, Special Review Panel, Chronic Renal Insufficiency Cohort Study (CRIC) and A Prospective Cohort Study of Kidney Disease in Children (CKiD) Study, February 23-25, 2012, March 6, 2013
7. National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases, Special Review Panel, ZDK1 GRB-7 (O3)S in response to PAR-DK-09-247: Ancillary Studies to Major Ongoing Clinical Research Studies to Advance Areas of Scientific Interest within the Mission of the NIDDK (R01), July 11, 2012
8. Alberta Innovates Health Solutions Collaborative Research & Innovation Opportunities (CRIO) Grant Review, September, 2012
9. Health Research Board of Ireland, Health Research Awards, 2013
10. National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases 2017/01 ZRG1 DKUS-R (55) Study Section 2016

Guidelines Reviewer

1. Kidney Disease Improving Global Outcome (KDIGO) Guidelines Review
 - a. Prevention, Diagnosis, Evaluation and Treatment of Hepatitis C in Chronic Kidney Disease, Published April, 2008
 - b. Diagnosis, Evaluation, Prevention and Treatment of Chronic Kidney Disease related Mineral and Bone Disorders (CKD-MBD), Published August, 2009
 - c. Acute Kidney Injury (AKI), published March, 2012

CLINICAL TRIAL AND STUDY RESPONSIBILITIES

Overall Study Responsibilities: Steering and Executive Committees

- 1) Study Principal Investigator, Medicine vs Angiography for Thrombolytic Exclusion Patients (M.A.T.E.), 1994-1997, (multicenter, U.S., randomized controlled trial [RCT]). Status: closed.
- 2) Study Principal Investigator, The Resource Utilization Among Congestive Heart Failure Study (R.E.A.C.H.), 1998-2000, (single-center, prospective cohort study). Status: closed.
- 3) Study Principal Investigator, The Asthma, Beta-Agonists, and Congestive Heart Failure Study, (A.B.C.H.F.), 1998-1999, (single-center, case-control study). Status: closed.

Peter A. McCullough, M.D., M.P.H.

- 4) Study Co-Principal Investigator, The Prevention of Radiocontrast Induced Nephropathy Clinical Evaluation (P.R.I.N.C.E.) Study, 1995-1998, (single-center, RCT). Status: closed.
- 5) Study Co-Principal Investigator, BNP Multinational Study, Principal Investigator, Alan Maisel, MD, Biosite Diagnostics, Inc., 2000-2006, (multicenter, international, prospective cohort study). Status: closed.
- 6) Study Co-Investigator, Prophylactic Oral Amiodarone Compared to Placebo for Prevention of Atrial Fibrillation Following Coronary Artery Bypass Graft Surgery (P.A.P.A.C.A.B.G.), 1996-1998, (single-center, RCT). Status: closed.
- 7) Study Co-Investigator, Rapid Early Bedside Markers of Myocardial Injury, 1998-1999, HFHS and Biosite Diagnostics, Inc. (prospective cohort study). Status: closed.
- 8) Member, Steering Committee, Clinical Study Protocol No. 2000-025: A Phase IIIb, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Determine the Safety, Efficacy, and Tolerability of Fenoldopam Mesylate in Subjects Undergoing Interventional Cardiology Procedures (CONTRAST), William W. O'Neill, MD and Gregg Stone, MD, Co-Principal Investigators, Abbott Laboratories, Inc., 2000-2003 (multicenter, US, RCT). Status: closed.
- 9) Chair, National Steering Committee, Kidney Early Evaluation Program (KEEP) NKF, Member 2000-2005, Co-Chair 2005-2010, Chair 2010-present (multicenter, U.S., prospective cohort study). Annual budget ~\$1,325,198 (2009), ~\$1,233,832 (2010), ~\$1,614,953.00 (2011), ~\$989,500 (2012), ~\$1,217,000 (2013). Status: inactive.
- 10) Member, Steering Committee, Protocol No. 704.351 Evaluation of Synergy between Natrecor and Furosemide on Renal and Neurohormone Responses in Chronic Heart Failure: A Phase IV Study, Scios Inc., 2003-2005 (multicenter, U.S., randomized cross-over trial). Status: closed.
- 11) Member, Steering Committee, Protocol No. CCIB002FUS12. A Multicenter, Double-blind, Randomized, Parallel Group Study to Evaluate the Effects of Lotrel and Lotensin HCT on Microalbuminuria in Mild to Moderate Hypertensive Subjects with Type 2 Diabetes Mellitus, Novartis Pharmaceuticals, Inc., 2003-2006. Status: closed.
- 12) Rotating Executive Committee Principal Investigator Member, NIH HF-ACTION Trial (Exercise Training Program to Improve Clinical Outcomes in Individuals With Congestive Heart Failure), HL63747 01A2, 2006-2009. Principal Investigator, David Whellan, MD, status: closed.

Peter A. McCullough, M.D., M.P.H.

- 13) Overall Study Principal Investigator, Neutrophil Gelatinase-Associated Lipocalin: A Novel Blood Marker for Risk of Developing Contrast Induced Nephropathy (ENCINO), multicenter, prospective, blinded cohort study, 2006-2009, status: closed.
- 14) Member, Steering Committee, VA NEPHRON-D: Diabetes in Nephropathy Study, 2008 to 2013, trial stopped early for safety cardiovascular and acute kidney safety concerns in angiotensin converting enzyme inhibitor plus losartan arm, status: closed.
- 15) Member, External Expert Panel, National Institutes of Health, National Institute of Digestive and Diabetes and Kidney Diseases, Chronic Renal Insufficiency Cohort Study, status open, 2010 to present.
- 16) Member, Optimal Medical Management Subcommittee, National Institutes of Health, National Heart Lung and Blood Institute, International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA), status: open, 2011 to present.
- 17) Member, Steering Committee, National Institutes of Health, National Heart Lung and Blood Institute, International Study of Comparative Health Effectiveness with Medical and Invasive Approaches (ISCHEMIA) in patients with Chronic Kidney Disease (ISCHEMIA-CKD), status: open, 2012 to present.
- 18) Member, Steering Committee, Thrasos Innovation, Inc, A Phase II Multi-Center, Parallel-Group, Randomized, Double Blind, Proof-of-Concept, Adaptive Study Investigating the Safety and Efficacy of THR-184 Administered via Intravenous Infusion in Patients at Increased Risk of Developing Cardiac Surgery Associated-Acute Kidney Injury (CSA-AKI), status: closed, 2012 to 2015.
- 19) Overall Principal Investigator, AbbVie, Inc, Clinical Study Protocol M13-796, A Phase 2b, Randomized, Double-Blind, Placebo-Controlled, Safety and Efficacy Trial of Multiple Dosing Regimens of ABT-719 for the Prevention of Acute Kidney Injury in Subjects Undergoing High Risk Cardiac Surgery, status: closed, 2013 to 2014.
- 20) Overall Principal Investigator, Bioporto, Inc, The NGAL Test™ As An Aid in the risk assessment for AKI stage II and III in an Intensive Care Population, status: open 2017 to present.
- 21) Member, Global Expert Panel, Novo Nordisk, Inc, A Research Study to See How Semaglutide Works Compared to Placebo in People With Type 2 Diabetes and Chronic Kidney Disease (FLOW), status: open.

Overall Study Responsibilities: Endpoint Committees

Peter A. McCullough, M.D., M.P.H.

- 1) Member, Critical Endpoints Committee, Treat Angina with Aggrastat and Determine Cost of Therapy with an Invasive or Conservative Strategy, TACTICS-TIMI 18 (Protocol 019-00), 1998-2000, (multicenter, international, RCT). Status: closed
- 2) Member, Study Endpoints Committee, A Phase II, Escalation Trial of Vasoflux™ in Patients Undergoing Thrombolysis with Streptokinase for Acute Myocardial Infarction, Protocol CLN-P-V18-07001, Parexel International Corporation, 1998, (multicenter, international, RCT). Status: closed
- 3) Member, Safety Endpoint Evaluation Committee, A Phase III, Single-Blind Controlled Study to Evaluate the Clinical Effects of a Hemoglobin-based Oxygen Carrier (HBOC-210) Given as a Transfusion Alternative in Patients Undergoing Orthopedic Surgery. (Protocol HEM-0115), Biopure Corporation with Quintiles, Inc., Clinical Event and Adjudication Services, 2000-2001. (multicenter, international, RCT). Status: closed
- 4) Member, Critical Endpoints Committee, Cerivastatin Heart Outcomes in Renal Disease: Understanding Survival (C.H.O.R.U.S.), Barry Brenner, MD and William F. Keane, MD, Co-Principal Investigators, Bayer Inc., 2000-2003 (multicenter, international, RCT). Status: study terminated early due to drug withdrawal from market
- 5) Member, Clinical Events Classification Committee, Correction of Hemoglobin and Outcomes in Renal Insufficiency (CHOIR), Ajay Singh, MD, Donal Reddan, MBBS, Principal Investigators, Ortho Biotech Inc., 2001-2004 (multicenter, international, RCT). Status: closed
- 6) Member, Critical Endpoint Committee, A Randomised, Double-blind, Parallel Group, Phase 3, Efficacy and Safety Study of AZD6140 (Ticagrelor) Compared with Clopidogrel for Prevention of Vascular Events in Patients with Non-ST or ST Elevation Acute Coronary Syndromes (ACS) [PLATO – A Study of PLATelet inhibition and Patient Outcomes.], AstraZeneca, Inc., Duke Clinical Research Institute, 2008, status: closed
- 7) Chair, Clinical Endpoints Committee, Alere San Diego, Inc, Alere Prospective Blinded Study of a Novel Troponin Assay (PEARL), status: closed 2015
- 8) Chair, Adjudication Committee, Myeloperoxidase In the Diagnosis of Acute coronary Syndromes (MIDAS) study, Alere, Inc., status: closed 2012
- 9) Independent Endpoint Adjudicator, BioPorto Diagnostics, The NGAL test as an aid for the Diagnosis of AKI in an Intensive Care Population, Code of the Study: KLIN 12-005, status closed, 2015
- 10) Independent Endpoint Adjudicator, Ischemix, Inc., Safety and Efficacy of CMX-2043 for Protection of the Heart and Kidneys in Subjects Undergoing Coronary Angiography (CARIN), status: closed 2016

Peter A. McCullough, M.D., M.P.H.

- 11) Chair, Data Adjudication Committee, Estimating versus Measuring Plasma Volume and Kidney Function in Acute Decompensated Congestive Heart Failure, Eudra-CT Number 2018-002638-18, Sponsor: Charite-Universitätsmedizin Berlin, FAST Biomedical, Inc, 2018-present

Overall Study Responsibilities: Data Safety Monitoring Committees

- 1) Member, External Advisory Committee/Data Safety Monitoring Board, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Polycystic Kidney Disease (PKD) Clinical Trials Network HALT-PKD Trial, Robert Schrier, MD, Principal Investigator, Committee Chair: William Henrich, MD, 2004-2008, Data Safety Monitoring Board, status: closed 2014
- 2) Chairman, Data Safety Monitoring Committee, Clinical Trials Program CS0011-A-U301, Daiichi Sankyo Pharma Development (DSPD) CS-011, Seven Core Trials of Rivoglitazone in Type 2 Diabetes: 1) A 26-week placebo-controlled trial of 1.0 and 1.5 mg rivoglitazone vs. 45 mg pioglitazone, as monotherapy in type 2 diabetics (CS0011-A-U301); 2) A 26-week placebo-controlled trial of 0.5, 1.0 and 1.5 mg rivoglitazone vs. 15, 30 and 45 mg pioglitazone, as monotherapy in type 2 diabetics (CS0011-A-U302); 3) A 26-week placebo-controlled trial of 1.0 and 1.5 mg rivoglitazone vs. 45 mg pioglitazone, in type 2 diabetics on metformin therapy, followed by a 26-week pioglitazone-controlled continuation period (CS0011-A-U303); 4) A 26-week placebo-controlled trial of 0.5 and 1.0 mg rivoglitazone vs. 30 mg pioglitazone, in type 2 diabetics on sulfonylureas therapy, followed by a 26-week pioglitazone-controlled continuation period (CS0011-A-U304); 5) A 26-week placebo-controlled trial of 0.5 and 1.0 mg rivoglitazone vs. 15 mg pioglitazone in type 2 diabetics on insulin therapy (CS0011-A-U305); 6) A long-term (12-24 months) randomized, general efficacy and safety study of rivoglitazone vs. pioglitazone, as monotherapy or add-on therapy, in type 2 diabetics (CS0011-A-U306); 7) A 26-week placebo-controlled trial of rivoglitazone and metformin, in type 2 diabetics (CS0011-A-U307), USFDA Special Protocol Assessment Agreement granted, status: closed, 2009 trials program terminated
- 3) Member, Data Safety Monitoring Committee, A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate Cardiovascular Outcomes Following Treatment with Alogliptin in Addition to Standard of Care in Subjects with Type 2 Diabetes and Acute Coronary Syndrome SYR322_402, EXAMINE Trial Takeda Global Research and Development Center, Inc. (US) Takeda Global Research and Development Centre, Ltd. (Europe), status: 2009 trial stopped early for non-inferiority but futility on superiority outcome
- 4) Chair, Data Safety Monitoring Committee, Protocol D9120C00019, A randomised, double-blind, placebo controlled, multi-centre phase IIb dose finding study to assess the effect on GERD symptoms, safety and tolerability during four weeks treatment with AZD3355 in doses 60 mg, 120 mg, 180 mg and 240 mg bid as add-on treatment to a PPI in patients with GERD that are partial responders to PPI treatment, AstraZeneca, status: closed 2009, trials program terminated for safety

Peter A. McCullough, M.D., M.P.H.

- 5) Member, Data Safety Monitoring Committee, Protocols: AMAG-FER-IDA-301, A Phase III, Randomized, Double-Blind, Placebo-Controlled Trial of Ferumoxytol for the Treatment of Iron Deficiency Anemia, Protocol: AMAG-FER-IDA-302, A Phase III, Randomized, Open-Label, Active Controlled Trial Comparing Ferumoxytol with Iron Sucrose for the Treatment of Iron Deficiency Anemia, Protocol: AMAG-FER-IDA-303, A Phase III, Open-Label Extension, Trial of the Safety and Efficacy of Ferumoxytol for the Episodic Treatment of Iron Deficiency Anemia, AMAG Pharmaceuticals, Inc., status: closed 2010, trial completed in 2013 without safety concerns
- 6) Chair, Independent Data Monitoring Committee, Protocol 402-C-0903 Bardoxolone Methyl Evaluation in Patients with Chronic Kidney Disease and Type 2 Diabetes: the Occurrence of Renal Events (BEACON), Reata Pharmaceuticals, Inc., status: trial stopped in 2012 early for cardiovascular and mortality safety concerns
- 7) Member, Independent Safety Council, Affymax Inc and Takeda Pharmaceutical Co., Omontys (peginesatide), status: closed, post-marketing surveillance led to voluntary drug withdrawal from market in 2013 for serious and fatal allergic reactions
- 8) Chair, Independent Data Monitoring Committee, AbbVie, Inc, Clinical Study Protocol M11-352 A Randomized, Multicountry, Multicenter, Double Blind, Parallel, Placebo-Controlled Study of the Effects of Atrasentan on Renal Outcomes in Subjects with Type 2 Diabetes and Nephropathy SONAR: Study Of Diabetic Nephropathy with Atrasentan, status closed 2018
- 9) Chair, Independent Data Monitoring Committee, AbbVie, Inc., Clinical Study Protocol M13-958 A Phase 2b, Randomized, Double-Blind, Placebo-Controlled, Safety and Efficacy Trial of Multiple Dosing Regimens of ABT-719 for the Prevention of Acute Kidney Injury in Subjects Undergoing High Risk Major Surgery, status: closed 2015
- 10) Member, Data Monitoring Committee, Akebia Therapeutics, Inc., AKB-6548-CI-0007, Phase 2b Randomized, Double-Blind, Placebo-Controlled Study to Assess the Pharmacodynamic Response, Safety, and Tolerability to 20 Weeks of Oral Dosing of AKB-6548 in Subjects with Anemia Secondary to Chronic Kidney Disease (CKD), GFR Categories G3a-G5 (Stages 3, 4, and 5) (Pre-Dialysis), status: closed 2015
- 11) Member, Study Monitoring Team, Akebia Therapeutics, Inc., AKB-6548-CI-0011, Phase 2a Open-Label Study to Assess the Efficacy, Safety, and Tolerability of AKB-6548 in Subjects with Anemia Secondary to End Stage Renal Disease (ESRD), Undergoing Chronic Hemodialysis, status: closed 2016
- 12) Member, Data Monitoring Committee, Merck, Inc., Pfizer, Inc, Clinical Trials Program, Ertugliflozin (MK-8835/PF-04971729) Phase 2 and Phase 3 Development Program, status closed, 2012 to 2020

Peter A. McCullough, M.D., M.P.H.

- 13) Member, Steering Committee, Medtronic, Inc., Monitoring in Dialysis, status: closed 2016
- 14) Member, Data Safety and Monitoring Board, St. Jude Medical, EnlighTN IV Multi-center, randomized, single-blind, sham controlled clinical investigation of renal denervation for uncontrolled hypertension, status: 2013 trial terminated before recruitment started
- 15) Chair, Data Safety Monitoring Board, Neumedicines, Inc., A Phase 2, Single-Dose, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of HemaMax™ (rHuL-12) in Healthy Subjects, status: closed 2016
- 16) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Phase 2 Study of the Safety, Efficacy, and Pharmacodynamics of RTA 408 in the Treatment of Friedreich's Ataxia, 2014 to 2019, status: closed
- 17) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Phase 2 Study of the Safety, Efficacy, and Pharmacodynamics of RTA 408 in the Treatment of Mitochondrial Myopathy, 2015 to 2019, status: closed
- 18) Member, Patient Safety Review Committee, Reata Pharmaceuticals, Inc, A dose-ranging study of the efficacy and safety of Bardoxolone Methyl in patients with pulmonary arterial hypertension (402-C-1302), 2014 to 2018, status: closed
- 19) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Study of the Efficacy and Safety of Bardoxolone Methyl in Patients with Connective Tissue Disease-Associated Pulmonary Arterial Hypertension (CATALYST), 2016 to present, status: closed
- 20) Chair, Data Safety Monitoring Board, Reata Pharmaceuticals, Inc., A Phase 2/3 of Efficacy and Safety of Bardoxolone Methyl in Patients with Alport Syndrome (CARDINAL), 2017 to present, status: closed
- 21) Chair, Data Safety Monitoring Board, Sanfit, Inc., A double-blind, randomised, placebo-controlled study to assess the effect of SNF472 on progression of cardiovascular calcification on top of standard of care in end-stage-renal-disease (ESRD) patients on haemodialysis (HD) SNFCT2015-05, 2017 to 2019, status: closed
- 22) Chair, Data Monitoring Committee, Renew Research, KAI Research, A Randomized Pivotal Study of Renew™ NCP-5 for the Treatment of Mild Cognitive Impairment due to Alzheimer's Disease or Mild Dementia of the Alzheimer's Type, 2018 to present, status: closed
- 23) Chair, Data Safety Monitoring Committee, Sanofi, Inc, Multicenter, randomized, double-blind, placebo-controlled two stage study to characterize the efficacy, safety, tolerability and pharmacokinetics of GZ/SAR402671 in patients at risk of rapidly progressive Autosomal

Peter A. McCullough, M.D., M.P.H.

Dominant Polycystic Kidney Disease (ADPKD) STUDY NUMBER: EFC15392 STUDY NAME: SAVE-PKD COMPOUND: GZ/SAR402671, 2018 to present, status: open

- 24) Chair, Data Safety Monitoring Board, National Institutes of Health, National Heart, Lung and Blood Institute R34 NHLBI Clinical Trial Pilot Studies (R34) Reducing Arrhythmia in Dialysis by Adjusting the Rx Electrolytes/Ultrafiltration (RADAR), David Charytan, MD, PI, 2019 to present, status: open
- 25) Chair, Data Safety Monitoring Board, GZ402671 EFC15392 Multicenter, randomized, double-blind, placebo-controlled two stage study to characterize the efficacy, safety, tolerability and pharmacokinetics of GZ/SAR402671 in patients at risk of rapidly progressive Autosomal Dominant Polycystic Kidney Disease (ADPKD), Sanofi, status: open
- 26) Chair, Data Safety Monitoring Board, MEDI3506, Trials Portfolio, D9182C00001 A Phase 2 Randomized, Double-blinded, Placebo-controlled Study to Evaluate the Efficacy and Safety of MEDI3506 in Adult Subjects with Moderate-to-severe Atopic Dermatitis; D9181C00001 A Phase II, Randomised, Double-blind, Placebo-controlled Study to Assess the Efficacy and Safety of MEDI3506 in Adult Participants with Uncontrolled Moderate-to-severe Asthma; D9180C00002 A Phase II, Randomized, Double-blind, Placebo-controlled Study to Assess the Efficacy, Safety and Tolerability of MEDI3506 in Participants with Moderate to Severe Chronic Obstructive Pulmonary Disease and Chronic Bronchitis (FRONTIER 4); D9183C00001 A Phase 2b Randomized, Double-blind, Placebo-controlled, Study to Evaluate the Efficacy and Safety of MEDI3506 in Subjects with Diabetic Kidney Disease, Axio Inc, A Cytel Company, status: open

GRANT AWARDS

Original Research Grants

- G1) London JF (PI), Bis KG, Juni JE, Wilke N, DiCarli MF, Shetty AN, **McCullough PA**, Timmis GC. Magnetic Resonance vs. Positron Emission Tomography for the Detection of Myocardial Viability. Bracco Diagnostics Inc./SCA&I Grant, \$25,000 (WBH RC-453), 1997-98. Additional WBH Research Institute Mini-grant, \$5,000 (WBH Grant #RC-748). Level of involvement: author of the variable definitions, endpoints, and data analysis sections, 0% FTE. Status: closed 1998
- G2) **McCullough PA** (PI), Shah S, Noor H, Marks KR, McCabe KB, Zong L, McCord J, Khoury N, Ulcickas-Yood M, Ward RE. Diagnostic Accuracy of an Emergency Department Clinical Decision Unit in the Evaluation of Chest Pain. HFHS Small Projects Fund \$10,000 (HFHS Grant #A30785), 0% FTE. Status: closed 1997
- G3) Keteyian SJ (Co-PI), **McCullough PA** (Co-PI), Brawner CA, Rosman HS, Stein P, Weaver WD. A Prospective Study of Case Identification and Triage of Patients Eligible for Cardiac

Peter A. McCullough, M.D., M.P.H.

Rehabilitation. Merck & Co., U.S. Human Health, \$30,000 (HFHS Grant #E18037), 3% FTE. Status: closed 1998

- G4) **McCullough PA.** Novel Methods for Identifying High-Risk Patients for Subsequent Cardiovascular Events. Merck & Co., U.S. Human Health, \$20,000 (HFHS Grant #M1060), 0% FTE. Status: closed 1998
- G5) **McCullough PA.** Cardiovascular Informatics Development Award. Pfizer, Inc., \$10,000 (HFHS Grant #E60022), 0% FTE. Status: closed 1998
- G6) **McCullough PA,** Yee J, Soman S, Sallach J, Borzak S, Foreback C, Monaghan K, Tisdale JE, Bailey E, Bola P, Chase G, Marks KR, Weaver WD. A Prospective Dose-Ranging Trial of Folic Acid to Reduce Total Homocyst(e)ine Levels in Patients with End-Stage Renal Disease Undergoing Hemodialysis. HFHS Project Development Fund \$10,000 (HFHS Grant #A20003), 0% FTE. Status: closed 1999
- G7) **McCullough PA.** NuStep Recumbent Cross Trainer Product Development Pilot Study, NuStep, Inc., (single center, prospective pilot study), \$12,500.00, (WBH Grant #RC- 08-94847). Status: closed 2005
- G8) **McCullough PA,** Secondary Analyses from the PRINCE Trial, (single center data analysis), \$20,000, PLC Medical, Inc., (WBH #RC 08-94851) Status: closed 2005
- G9) **McCullough PA,** Sullivan RA. A Systematic Review of Vascular Calcification in Patients with Chronic Kidney Disease and End-Stage Renal Disease, 2002-2003, Braintree Labs, Inc., \$40,000, 25% FTE (WBH Grant #RC 08-94833) Status: closed 2003
- G10) Pasas SA, Davies MI, **McCullough PA.** Determination of Protein-bound Homocysteine in Human Plasma using Capillary Electrophoresis with Electrochemical Detection in Patients with Chronic Kidney Disease, 2003-2004, AHA Predoctoral Fellowship Program (Pasas), \$38,000, 15% FTE (UMKC Grant #). Status: closed 2003
- G11) Collins AC, Gladstone E, Robitscher JW, **McCullough PA,** Klag M, Narva A, Gilberston D for the NKF. Demonstration project: state-based screening for chronic kidney disease. Response to CDC-RFA-DP06-004, demonstration project for identifying individuals at high-risk for CKD in the US. Centers for Disease Control, \$1,199,609, 12% FTE Status: closed 2007
- G12) **McCullough PA,** Principal Investigator. Neutrophil Gelatinase-Associated Lipocalin (NGAL): A Novel Blood Marker for Risk of Developing Contrast-Induced Nephropathy (ENCINO). Biosite/Inovise, Inc., \$229,000.00 (WBH #RC-94862), 0% FTE Status: closed 2009
- G13) Agrawal V, Barnes M, **McCullough PA.** Evaluation of CKD awareness in medical residents. WBH intramural mini-grant R/C# 98662, \$10,000.00, 0% FTE Status: closed 2008

Peter A. McCullough, M.D., M.P.H.

- G14) **McCullough PA**, overall Principal Investigator transferred to Zalesin K. FDA Investigational New Drug Exemption (INDE) #060672. A Prospective, Randomized, Placebo-Controlled, Parallel-Group, Pilot Trial of Paricalcitol in the Treatment of Hyperparathyroidism in Patients after Roux-en-Y Gastric Bypass Surgery with Chronic Kidney Disease, Abbott Laboratories, Inc., \$496,600.00 (WBH #RC-90290), 0% FTE Status: closed 2009
- G15) **McCullough PA**, overall Principal Investigator transferred to Miller WM, FDA INDE #107750. Investigator Initiated Study. A Prospective, Double-Blind, Randomized, Parallel Group, Placebo-Controlled Trial of Aliskiren versus Placebo in Non-Diabetic, Normotensive Obese Patients with Microalbuminuria, Novartis, Inc., \$339,400.00 (WBH #RC-90345), Status: closed 2010
- G16) **McCullough PA**, overall Principal Investigator. Investigator Initiated Study, FDA Investigational New Drug (IND) #74707. A Phase 2, randomized, double-blind, placebo-controlled trial, to assess the efficacy and safety of deferiprone in the reduction of markers of contrast-induced acute oxidative kidney injury. Cormedix, Inc, \$857,745 (includes \$101,442 for Beaumont Research Coordinating Center). Study centers included Providence Hospital and Medical Center Southfield, St. John Hospital and Medical Center, Detroit, Northern Michigan Hospitals, Petoskey, MI, St. Vincent's Hospital, Indianapolis, IN, Fairfield Cardiac Cath Labs, LLC, Fairfield, OH, Oklahoma Heart Hospital, Oklahoma City, OK, Ohio Health Research Institute, Columbus, OH, Mercy St. Vincent Hospital, Toledo, OH, Status: closed 2011
- G17) **McCullough PA**, overall study Principal Investigator, A Prospective Randomized Parallel-Group Controlled Trial of Multiple Blood Biomarkers in the Personalized Management of Chronic Heart Failure, Baylor IRB 014-252, Baylor Foundation, 2014, \$78,639.20, status: closed 2016.
- G18) **McCullough PA**, overall study Principal Investigator, Baylor Hypertrophic Cardiomyopathy Program Development Project: Time-resolved, 3D phase contrast magnetic resonance imaging (MRI) (4D Flow) and Advanced Strain Rate Echocardiography in Patients with Hypertrophic Cardiomyopathy, Baylor IRB 014-175, Baylor Foundation, 2014, \$100,000.00, status: open
- G19) **McCullough PA**, overall study Principal Investigator, Preventive Cardiology Registry: Role of Proprotein Convertase Subtilisin/kexin type 9 (PCSK9) and Other Catabolic Determinants in Hypercholesterolemia in Patients with Suspected Heterozygous Familial Hypercholesterolemia Baylor IRB 014-122, Baylor Foundation, \$3,100.00, status: closed 2014
- G20) **McCullough PA**, overall study Principal Investigator and Study Chairman, Investigator Initiated Trial, "A Prospective, Double-blind, Placebo Controlled, Parallel Group,

Peter A. McCullough, M.D., M.P.H.

Randomized Trial of Extended Release Exenatide versus Placebo in Diabetic Patients with Type 4 Cardiorenal Syndrome: EXTEND-CRS”, D5551L00004/ISSEXEN0013, FDA IND 123200, Baylor IRB 014-149, AstraZeneca, 2014, \$1,597,901.93, status: open

- G21) **McCullough PA**, overall study Principal Investigator, Iso-osmolar Contrast and the Timing of Coronary Angiography in the Multivariate Risk for Cardiac Surgery Associated with Acute Kidney Injury and Major Adverse Renal and Cardiac Events (MARCE), Baylor IRB 014-096, GE Healthcare, Inc, 2015, \$145,885.00, status open
- G22) **McCullough PA**, overall study Principal Investigator, Timing of coronary angiography and multivariate risk for cardiac surgery associated acute kidney injury and major adverse renal and cardiac events (MARCE), Baylor IRB 014-096, Baylor Foundation, \$8,100.00, status: closed 2016
- G23) Mendez J, **McCullough PA**, et al, co-investigator, Assessment of Multiple Blood Biomarkers in Patients with Advanced Heart Failure Undergoing Evaluation for Cardiac Transplantation and Mechanical Circulatory Support, Baylor IRB 014-300, Critical Diagnostics, Inc, \$10,400.00, status: closed 2016
- G24) Bottiglieri, T, **McCullough PA**, et al, co-investigator, Urinary 11dhTxB2 response to acetylsalicylic acid (aspirin) in cardiovascular disease progression and adverse outcomes, Baylor IRB 008-230, Corgenix, Inc., \$99,087.00, status: closed 2016
- G25) Schussler JM, Vasudevan A, **McCullough PA**, co-investigator, Clinical outcomes and metabolomic and damage associated molecular patterns of acute kidney injury in patients undergoing percutaneous coronary intervention via the radial versus femoral artery approach, Baylor IRB 014-299, Baylor Health Care System Foundation, \$61,416.00, status: closed 2018
- G26) Tecson K, **McCullough PA**, coinvestigator, Contribution of Chronic Kidney Disease and Acute Kidney Injury to Heart Failure Outcomes, Baylor IRB 015-296, Baylor Health Care System Foundation, \$43,424.60, status: open
- G27) Vasudevan A, **McCullough PA**, coinvestigator, Burden of Cardiovascular Events Follow Percutaneous Coronary Intervention, Baylor IRB 015-297, Baylor Health Care System Foundation, \$40,000.00, status: closed 2018
- G28) Tecson, K, **McCullough PA**, Therapeutic Intensity of Lipid Lowering Therapy in Response to Recurrent Cardiovascular Events, Baylor IRB 017-106, Amgen, Inc., \$249,990.00 status: open
- G29) **McCullough PA**, Principal Investigator, A Case Finding Study of Familial Chylomicronemia, Akcea Pharmaceuticals, \$10,000.00, status: closed 2017

Peter A. McCullough, M.D., M.P.H.

- G30) **McCullough PA**, Bottiglieri T, Tecson K. Baylor Foundation \$49,923.80. Identifying metabolomic profiles among genetically confirmed familial hypercholesterolemia, dyslipidemia without familial hypercholesterolemia, and healthy controls, status start-up 2019

Site Principal Investigator Contracts

- G1) Jafri S, **McCullough PA**, and the WATCH Investigators. Warfarin and Antiplatelet Therapy in Chronic Heart Failure, (W.A.T.C.H.) Field Center, Veterans Administration Cooperative Studies Program and Sanofi Pharmaceuticals, \$36,000.00 (HFHS Grant #B51008) status: closed 2000
- G2) Jafri S, **McCullough PA**, and the CHARM Investigators. Candesartan Cilexetil (Candesartan) in Heart Failure Assessment of Reduction in Mortality and Morbidity (C.H.A.R.M.) Field Center, 1999-2000, Astra Pharmaceuticals, \$56,000.00 (HFHS Grant #E09045) status: closed 2000
- G3) Schuger C, **McCullough PA**, and the MADIT Investigators. Multicenter Automatic Defibrillator Implantation Trial II (M.A.D.I.T.-II), Guidant Corporation/Cardiac Pacemakers (CPI), \$96,000 (HFHS Grant #G10087) status: closed 2000
- G4) Schuger C, **McCullough PA**, and the MIRACLE Investigators. Multicenter InSync Randomized Clinical Evaluation (M.I.R.A.C.L.E.), Medtronic Inc., \$195,000, (HFHS Grant #G12006) status: closed 2000
- G5) **McCullough PA**, Shetty A, Soman S and the CHORUS Investigators. Cerivastatin Heart Outcomes in Renal Disease: Understanding Survival (C.H.O.R.U.S.), Barry Brenner, MD and William F. Keane, MD, Co-Principal Investigators, Bayer Inc., 2000-2003 (RCT), Clinical Site Contract, Bayer Pharmaceuticals, \$266,875.00 10% FTE (HFHS Grant #E05046) status: closed 2000
- G6) **McCullough PA**, Manley HJ and the CHORUS Investigators. Cerivastatin Heart Outcomes in Renal Disease: Understanding Survival (C.H.O.R.U.S.), Barry Brenner, MD and William F. Keane, MD, Co-Principal Investigators, Bayer Inc., 2000-2003 (RCT), Clinical Site Contract, Bayer Pharmaceuticals, \$279,000 10% FTE (UMKC Grant #E05046) status: closed 2001
- G7) Nowak R, McCord J, **McCullough PA** and the BNP Investigators. Breathing Not Properly Study (B.N.P. Multinational Study), Alan Maisel, MD, and Peter A. McCullough, MD, MPH, Co-Principal Investigators, Biosite Diagnostics, Inc., (prospective cohort study) Field Center Contract, Biosite Diagnostics, Inc., \$180,000.00 (HFHS Site), \$500,000.00, 0% FTE (HFHS Grant #E03005) status: closed 2001

Peter A. McCullough, M.D., M.P.H.

- G8) Ehrman JK, **McCullough PA**. A Prospective Randomized Trial of a Personal Health Assistant in the Secondary Prevention of Heart Disease. Merck, Inc., \$220,961.00, 7% FTE (HFHS Grant #E41010) status: closed 2002
- G9) **McCullough PA** and the CORC Investigators. Kansas City Cardiomyopathy Questionnaire Interpretability Study, John A. Spertus, MD, MPH, Principal Investigator, Cardiovascular Outcomes Research Consortium (C.O.R.C.), 2001 (multicenter, U.S., prospective cohort study), \$21,400.00, status: closed 2002
- G10) **McCullough PA**, Rutherford BD, and the OAT Investigators. Occluded Artery Trial, Judith Hochman, MD, and Gervasio Lamas, MD, Co-Principal Investigators, National Institutes of Health, National Heart Lung and Blood Institute, \$54,000.00. 0% FTE (UMKC Grant #K531122) status: closed 2002
- G11) **McCullough PA** site Principal Investigator and National Executive Committee Member. Rapid Emergency Department Heart Failure Outpatient Trial, Biosite Diagnostics, \$21,000. 0% FTE (UMKC Grant #K531130) status: closed 2002
- G12) **McCullough PA** site Principal Investigator. African-American Heart Failure Trial (AHEFT). A Placebo-Controlled Trial of BiDil added to Standard Therapy in African American Patients with Heart Failure, NitroMed, Inc., \$20,000.00 (UMKC Proposal #9722, TMC Grant #261231) status: closed 2002
- G13) **McCullough PA** and the IMAGING Investigators for Cardiology Clinical Studies, LLC. Investigation of Myocardial Gated SPECT Imaging as Initial Strategy in Heart Failure: The IMAGING in Heart Failure Trial, Dupont Pharmaceuticals Inc., \$20,000.00 (UMKC Proposal #9825, UMKC Grant #KG001278) status: closed 2002
- G14) **McCullough PA**, site Principal Investigator, and Ad Hoc Executive Committee Member. Heart Failure and a Controlled Trial Investigating Outcomes of Exercise Training. National Institutes of Health, National Heart, Lung, and Blood Institute, subcontracted through the Duke Clinical Research Institute, \$665,000, (NIH Grant #1 U01 HL63747 01A2, WBH Grant # RC 08-94837, Site #301) status: closed 2005
- G15) **McCullough PA**, site Principal Investigator, and Executive Committee Member. Protocol No. 704.351 Evaluation of Synergy between Natrekor and Furosemide on Renal and Neurohormone Responses in Chronic Heart Failure: A Phase IV Study, Scios Inc., 2003 (multicenter, U.S., randomized cross-over trial), \$105,447.50, (WBH Grant # RC 08-94836) status: closed 2005
- G16) **McCullough PA**, site Principal Investigator and National Co-Principal Investigator. Protocol No. CCIB002FUS12. A Multicenter, Double-blind, Randomized, Parallel Group Study to Evaluate the Effects of Lotrel and Lotensin HCT on Microalbuminuria in Mild to

Peter A. McCullough, M.D., M.P.H.

Moderate Hypertensive Subjects with Type 2 Diabetes Mellitus, Novartis Inc., (multicenter, U.S., randomized trial), \$63,649.90, (WBH Grant #RC 08-94838) status: closed 2006

- G17) **McCullough PA**, and the ACCOMPLISH Investigators. Protocol No. CCIB002.12301. Avoiding Cardiovascular Events through Combination Therapy in Patients Living with Systolic Hypertension, Novartis, Inc., 2003 (multicenter, multinational, randomized trial) \$159,241.00, (WBH Grant #RC 08-94844) status: closed 2006
- G18) **McCullough PA**, site Principal Investigator. Efficacy of Vasopressin Antagonism in Heart Failure: Outcome Study with Tolvaptan, Protocol #156-03-236, IND #50,533, Otsuka Maryland Research Institute, (multicenter, international, randomized trial), \$210,750.00, (WBH Grant #RC 08-94842 changed to #RC 08-94849) status: closed 2005
- G19) **McCullough PA**, site Principal Investigator. A Multicenter, Double-Blind, Randomized, Parallel Group, 6-week Study to Evaluate the Efficacy and Safety of Ezetimibe/Simvastatin Combination versus Atorvastatin in Patients with Hypercholesterolemia, Protocol #051/EZT544, Merck, Inc., (multicenter, U.S., randomized trial), \$18,840.00, (WBH Grant #RC 08-94843) status: closed 2006
- G20) **McCullough PA**, site Principal Investigator, A multicenter, double-blind randomized, parallel-group study to compare the effect of 24 weeks treatment with LAF237 (50 mg qd or bid) to placebo as add-on therapy in patients with type 2 diabetes inadequately controlled with metformin monotherapy. Novartis Pharmaceuticals, Inc., (multicenter, U.S., randomized trial), \$30,700.00, (WBH Grant #RC 08-94845) status: closed 2007
- G21) **McCullough PA**, site Principal Investigator. A multicenter, double-blind randomized, parallel-group study to compare the effect of 24 weeks treatment with LAF237 (50 mg qd or bid) to placebo as add-on therapy to pioglitazone 45 mg qd in patients with type 2 diabetes inadequately controlled with thiazolidinediones monotherapy. Novartis Pharmaceuticals, Inc., (multicenter, U.S., phase III randomized trial) \$30,700.00, (WBH Grant #RC 08-94846) status: closed 2006
- G22) **McCullough PA**, site Principal Investigator. An 8-week, randomized, double-blind, parallel group, multicenter placebo and active controlled disease escalation study to evaluate the safety and efficacy of aliskiren in patients with hypertension, \$47,100.00 (WBH #RC 08- 94852) status: closed 2007
- G23) **McCullough PA**, site Principal Investigator. A randomized, double-blind study to compare the durability of glucose lowering and preservation of pancreatic beta-cell function of rosiglitazone monotherapy compared to metformin or glyburide/glibenclamide in patients with drug naïve, recently diagnosed type 2 diabetes, \$140,100.00, Novartis Pharmaceuticals (WBH #RC 08-94849) status: closed 2008

Peter A. McCullough, M.D., M.P.H.

- G24) **McCullough PA**, site Principal Investigator. A multicenter, randomized, double-blind factorial study of the co-administration of MK-0431 and metformin in patients with type 2 diabetes who have inadequate glycemic control, \$36,735.00, Merck Research Laboratories (WBH #RC 08-94853) status: closed 2008
- G25) **McCullough PA**, site Principal Investigator. Multicenter, Randomized, Double-Blind Study to Evaluate the Efficacy & Safety of Ezetimibe/Simvastatin and Niacin Co-Administered in Patients with type IIa or Type IIb Hyperlipidemia, \$46,960.00, Merck Research Laboratories, MRK-091, (WBH #RC 08-94854) status: closed 2008
- G26) **McCullough PA**, site Principal Investigator. A Multi-Center, Randomized, Double-Blind, factorial Design study to evaluate the lipid-altering efficacy & safety of MK-0524B Combination Tablet in Patients with Primary Hypercholesterolemia or Mixed Hyperlipidemia \$40,849.00, Merck Research Laboratories, MRK-022. (WBH #RC 08-94855) status: closed 2007
- G27) **McCullough PA**, site investigator. An 8-week, multicenter, randomized, double-blind, parallel-group study to evaluate the efficacy and safety of the combination of valsartan/HCTZ/amlodipine compared to valsartan/HCTZ, valsartan/amlodipine, and HCTZ/amlodipine in patients with moderate to severe hypertension, \$43,500.00, Novartis Pharmaceuticals (WBH #RC 08-94857) status: closed 2007
- G28) **McCullough PA**, site Principal Investigator. A multicenter randomized, double-blind parallel arm, 6-week study to evaluate the efficacy and safety of ezetimibe/simvastatin versus atorvastatin in patients with metabolic syndrome and hypercholesterolemia at high risk for coronary heart disease, \$32,010.00. Merck Research Laboratories (WBH #RC 08-94861) status: closed 2008
- G29) **McCullough PA**, site Principal Investigator. A multicenter, randomized, double-blind study to evaluate the safety and efficacy of the initial therapy with coadministration of sitagliptin and pioglitazone in patients with type 2 diabetes mellitus, \$24,036.00, Merck Research Laboratories, MRK-064 (WBH #RC 08-94860) status: closed 2008
- G30) Dixon, SD, site PI, **McCullough PA**, Multinational Executive Committee. RENAL GUARD Pilot Trial. PLC Medical Systems, \$37,610.00 (WBH #RC- 90771) status: closed 2008
- G31) **McCullough, PA**, site Principal Investigator, A multi-center, randomized, double-blind, placebo and active controlled, parallel group, dose range study to evaluate the efficacy and safety of LCZ696 comparatively to valsartan, and to evaluate AHU377 to placebo after 8-week treatment in patients with essential hypertension. Novartis, Inc., \$31,965.28. (WBH #RC-94863) status: closed 2008
- G32) **McCullough PA**, site Principal Investigator. Paricalcitol capsules benefits in renal failure induced cardiac morbidity in subjects with chronic kidney disease stage 3b/4,

Peter A. McCullough, M.D., M.P.H.

(PRIMO Abbott Laboratories, ABT-M-10-030, \$157,992.00, (WBH #RC-94864) status: closed 2008

- G33) **McCullough PA**, site Principal Investigator. A randomized, double-blind, parallel group study to evaluate the effects of high-dose statin therapy on fluorodeoxyglucose (FDG) uptake in arteries of patients with atherosclerotic vascular disease. Merck Research Laboratories, MRK-081, \$86,994.00 (WBH #RC 08-90223) status: closed 2008
- G34) **McCullough PA**, site Principal Investigator. Patient registry for the Liposorber LA-15 system. Kaneka, Inc., \$7,515.00, (WBH #RC-90877) status: closed 2009
- G35) **McCullough PA**, site Principal Investigator. A 30-week multicenter, randomized, double-blind. Parallel-group study of the combination of ABT-335 and Rosuvastatin compared to rosuvastatin monotherapy in dyslipidemic subjects with stage 3 chronic kidney disease, Abbott M10-313, \$128,544.00, (WBH #RC-90212) status: closed 2009
- G36) **McCullough PA**, site Principal Investigator. A multicenter, randomized open label, active-comparator controlled study to assess the efficacy, safety, and tolerability of taspoglutide compared to exenatide in patients with type 2 diabetes mellitus inadequately controlled with metformin, thiazolidinedione, or a combination of both, Roche BC 21625, \$72,012.50, (WBC #RC-90245) status: closed 2010
- G37) **McCullough PA**, site Principal Investigator. A multicenter, randomized double-blind, placebo-controlled study to assess the efficacy, safety, and tolerability of taspoglutide compared to placebo in obese patients with type 2 diabetes mellitus inadequately controlled with metformin monotherapy, Roche BC 22092, \$38,387.50, (WBH #RC-90258) status: closed 2009
- G38) **McCullough PA**, site Principal Investigator. A safety and efficacy trial evaluating the use of apixaban for the extended treatment of deep vein thrombosis and pulmonary embolism, Bristol Myers Squibb-Pfizer CV185057, \$173,750.00, (WBH #RC-90288) status: closed 2009
- G39) **McCullough PA**, site Principal Investigator. A phase 3, active (warfarin) controlled, randomized, double-blind, parallel arm study to evaluate efficacy and safety of apixaban in preventing stroke and systemic embolism in subjects with nonvalvular atrial fibrillation, Bristol Myers Squibb-Pfizer CV1805030, \$173,750.00, (WBH #RC-90275) status: 2009
- G40) **McCullough PA**, site Principal Investigator. Treatment of Preserved Cardiac Function Heart Failure with an Aldosterone Antagonist Trial (TOPCAT), National Institutes of Health, National Heart, Lung, and Blood Institute, subcontracted through the New England Research Institutes, Inc., \$86,250.00, (WBH #RC-90267) status: closed 2010

Peter A. McCullough, M.D., M.P.H.

- G41) **McCullough PA**, site Principal Investigator. An 8-week, randomized, double-blind, parallel group, multicenter, forced titration study to evaluate the efficacy and safety of aliskiren plus HCTZ versus aliskiren monotherapy in metabolic syndrome patients with stage 2 hypertension, Novartis, Inc., \$107,362.44 (WBH #RC-90277) status: closed 2009
- G42) **McCullough PA**, site Principal Investigator, Astute SAPPHIRE AST-111, Evaluation of Novel Biomarkers from Acutely Ill Patients at Risk for Acute Kidney Injury, Astute Medical, Inc, San Diego, CA, \$23,195.50 status: closed 2012
- G43) **McCullough PA**, site Principal Investigator, protocol number 156-10-292 titled "An Observational Prospective Registry to Identify Demographic and Clinical Characteristics of Patients Hospitalized with Euvolemic and Hypervolemic Hyponatremia and Assess the Comparative Effectiveness of Available Treatments and the Impact on Resource Utilization. Otsuka Inc., \$21,262.60 status: initial contract fulfilled, reopened under extension and registry completed in 2013
- G44) **McCullough PA**, site Principal Investigator, PROspective Multicenter Imaging Study for Evaluation of Chest Pain (PROMISE) Study, National Heart, Lung, and Blood Institute (NHLBI), Pamela Douglas, MD, Principal Investigator Clinical Coordinating Center, Duke Clinical Research Institute, \$17,000.00 status: closed 2012
- G45) **McCullough PA**, site Principal Investigator, ACZ885M/Canakinumab Clinical Trial Protocol CACZ885M2301 A randomized, double-blind, placebo-controlled, event-driven trial of quarterly subcutaneous canakinumab in the prevention of recurrent cardiovascular events among stable post-myocardial infarction patients with elevated hsCRP. Novartis, Inc., 2011 \$279,223.00 status: closed 2015
- G46) **McCullough PA**, site Principal Investigator, AN-CVD2233 Evaluation of the Safety and Efficacy of Short-term A-002 (Varespladib) Treatment in Subjects with Acute Coronary Syndromes (VISTA-16) Anthera Pharmaceuticals, Inc., 2011 \$72,600.00 status: closed 2011
- G47) **McCullough PA**, site Principal Investigator, BC22140A Cardiovascular outcomes study to evaluate the potential of aleglitazar to reduce cardiovascular risk in patients with a recent acute coronary syndrome (ACS) event and type 2 diabetes mellitus (T2D), F. Hoffmann-La Roche Ltd, \$307,500.00 status: closed 2012
- G48) **McCullough PA**, site Principal Investigator, A Double-blind, Randomized, Placebo-controlled, Multicenter Study (Phase 2) to Evaluate the Safety and Efficacy of IV Infusion Treatment with Omecamtiv Mecarbil in Subjects with Left Ventricular Systolic Dysfunction Hospitalized for Acute Heart Failure (Protocol 20100754), Amgen, Inc, 253,464.00 status: closed 2012
- G49) **McCullough PA**, site Principal Investigator, MB102-073 A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Phase 3 Trial to Evaluate the Safety and

Peter A. McCullough, M.D., M.P.H.

Efficacy of Dapagliflozin in Subjects with Type 2 Diabetes with Inadequately Controlled Hypertension on an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB), Bristol-Myers Squibb Research and Development, 2011 \$34,115.00 status: closed 2012

- G50) **McCullough PA**, site Principal Investigator, MB102-077 A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Phase 3 Trial to Evaluate the Safety and Efficacy of Dapagliflozin in Subjects with Type 2 Diabetes with inadequately controlled hypertension treated with an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) and an additional Antihypertensive medication, Bristol-Myers Squibb Research and Development, \$34,115.00 status: closed 2011
- G51) **McCullough PA**, site Principal Investigator, ABT M11350 RADAR: Reducing Residual Albuminuria in Subjects with Diabetes and Nephropathy with AtRasentan – A Phase 2b, Prospective, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate Safety and Efficacy, Abbott Laboratories, \$188,377.00 status: closed 2012
- G52) **McCullough PA**, site Principal Investigator, PEGASUS TIMI 54 trial, A Randomized, Double-Blind, Placebo Controlled, Parallel Group, Multinational Trial, to Assess the Prevention of Thrombotic Events with Ticagrelor Compared to Placebo on a Background of Acetyl Salicylic Acid (ASA) Therapy in Patients with History of Myocardial Infarction, AstraZeneca, 2011 \$98,530.00 status: transferred to PI Marcel Zughuib, MD
- G53) **McCullough PA**, site Principal Investigator, A Double-blind, Randomized, Placebo-controlled, Multicenter Study Assessing the Impact of Additional LDL-Cholesterol Reduction on Major Cardiovascular Events When AMG 145 is Used in Combination with Statin Therapy in Patients with Clinically Evident Cardiovascular Disease AMG 145 Amgen Protocol Number 20110118 EudraCT number 2012-001398-97, Amgen, Inc., \$1,732,062.80 status: closed 2016
- G54) **McCullough PA**, site Principal Investigator, A single-blind, multi-site trial of the dietary supplement anatabine (RCP006) to determine the effects on peripheral markers of inflammation in patients with elevated levels of C-reactive protein (CRP). Roskamp Institute Protocol Number RI-11-01, \$6700.00 status: closed 2012
- G55) **McCullough PA**, site Principal Investigator, Long-term safety and tolerability of REGN727/SAR236553 in high cardiovascular risk patients with hypercholesterolemia not adequately controlled with their lipid modifying therapy: a randomized, double-blind, placebo-controlled study LTS11717 Sanofi Aventis, \$252,000.00 status: closed 2013
- G56) **McCullough PA**, site Principal Investigator, Assessment of Clinical Effects of Cholesteryl Ester Transfer Protein Inhibition with Evacetrapib in Patients at a High Risk for Vascular Outcomes – the ACCELERATE Study, protocol I1V-MC-EIAN, Eli Lilly, \$421,202.00 status: closed 2014

Peter A. McCullough, M.D., M.P.H.

- G57) **McCullough PA**, site Principal Investigator, AEGR-733-025, LOWER: Lomitapide Observational Worldwide Evaluation Registry, Aegerion, Inc., 2014, \$23,478.00 status: open
- G58) **McCullough PA**, site Principal Investigator, The Evaluation Of PF-04950615 (RN316), In Reducing the Occurrence of Major Cardiovascular Events in High Risk Subjects (SPIRE-1), Pfizer, Inc., \$145,343.90 status: closed 2016
- G59) **McCullough PA**, site Principal Investigator, The Evaluation Of PF-04950615 (RN316) In Reducing the Occurrence of Major Cardiovascular Events in High Risk Subjects (SPIRE-2), Pfizer, Inc., \$145,343.90 status: closed 2016
- G60) **McCullough PA**, site Principal Investigator, Long Term Observational Study in Patients with Homozygous Familial Hypercholesterolemia Treated with Kynamaro™, Genzyme-Sanofi, Inc., \$61,260.00 status: closed 2018
- G61) **McCullough PA**, site Principal Investigator, CUP14366, Alirocumab (SAR236553) Expanded Access Program for the Treatment of Severe Hypercholesterolemia Not Controlled with Maximal Tolerated Dose of Lipid Lowering Therapy Administered According to Standard of Care, Sanofi-Regeneron, Inc., 2015 \$8,500.00 status: closed 2015
- G62) **McCullough PA**, site Principal Investigator, Aspirin Dosing: A Patient-Centric Trial Assessing Benefits and Long-term Effectiveness (ADAPTABLE), Patient-Centered Outcomes Research Institute, 2015 \$29,400.00 status: open
- G63) **McCullough PA**, site Principal Investigator, Assessment of Heart Failure using Condition-Specific Impact Assessments (PROMIS), Patient-Centered Outcomes Research Institute, 2015 \$81,840.00 status: 2017 status: closed
- G64) **McCullough PA**, site Principal Investigator, A Randomized Parallel-Group, Placebo-Controlled, Double-Blind, Event-Driven, Multi-Center Pivotal Phase III Clinical Outcome Trial of Efficacy and Safety of the Oral sGC Stimulator Vericiguat in Subjects With Heart Failure With Reduced Ejection Fraction (HFrEF) - VeriCiguaT Global Study in Subjects With Heart Failure With Reduced Ejection Fraction (VICTORIA), Merck, Inc, 2017 \$878,163.90 status: closed
- G65) **McCullough PA**, site Principal Investigator, A phase III randomised, double-blind trial to evaluate efficacy and safety of once daily empagliflozin 10 mg compared to placebo, in patients with chronic Heart Failure with preserved Ejection Fraction (HFpEF), EMPEROR-PRESERVED, Boehringer-Ingelheim, 2017 \$170,099.00, status: open
- G66) **McCullough PA**, site Principal Investigator, A phase III randomised, double-blind trial to evaluate efficacy and safety of once daily empagliflozin 10 mg compared to placebo, in

Peter A. McCullough, M.D., M.P.H.

patients with chronic Heart Failure with preserved Ejection Fraction (HFpEF), EMPEROR-REDUCED, Boehringer-Ingelheim, 2017 \$170,099.00, status: open

- G67) Schiffmann R, **McCullough PA** Sub-Investigator, 014-097 PB-102-F03 (Sponsor - Protalix - PRX-102 1mg/kg q 2 weeks) A Multi Center Extension Study of PRX-102 Administered by Intravenous Infusions Every 2 Weeks for 60 Months to Adult Fabry Patients, status: open
- G68) Schiffmann R, **McCullough PA** Sub-Investigator, 014-288 AT1001-042 (Sponsor - Amicus - oral drug - chaperone) An Open-Label Extension Study to Evaluate the Long-Term Safety and Efficacy of Migalastat Hydrochloride Monotherapy in Subjects with Fabry Disease, status: closed.
- G69) Schiffmann R, **McCullough PA** Sub-Investigator, 016-153 PB-102-F20 (Sponsor - Protalix - BLINDED - ERT PRX-102 or Fabrazyme 1mg/kg q 2 weeks) A Randomized, Double blind, Active Control Study of the Safety and Efficacy of PRX-102 compared to Agalsidase Beta on Renal Function in Patients with Fabry Disease Previously Treated with Agalsidase Beta – Study Number PB-102-F20, status: open
- G70) Schiffmann R, **McCullough PA** Sub-Investigator, 017-189 PB-102-F50 (Sponsor - Protalix - PRX-102 infusion - 2mg/kg monthly) A Phase 3, Open Label, Switch Over Study to Assess the Safety, Efficacy and Pharmacokinetics of pengunigalsidase alfa (PRX-102) 2 mg/kg Administered by Intravenous Infusion Every 4 Weeks for 52 weeks in Patients with Fabry Disease Currently Treated with Enzyme Replacement Therapy: Fabrazyme® (agalsidase beta) or Replagal (agalsidase alfa), status: open
- G71) Schiffmann R, **McCullough PA** 018-150 MODIFY (Sponsor - Idorsia - oral drug - substrate reduction) A multicenter, double-blind, randomized, placebo controlled, parallel-group study to determine the efficacy and safety of lucerastat oral monotherapy in adult subjects with Fabry disease, status: open
- G72) **McCullough PA**, site Principal Investigator, A Randomized, Double-blind, Placebo-controlled, Parallel-group Multicenter Study to Evaluate the Effects of Sotagliflozin on Clinical Outcomes in Hemodynamically Stable Patients with Type 2 Diabetes Post Worsening Heart Failure (SAR 439954), Sanofi US Services, Inc, \$214,600.00, 2019, status: open
- G73) **McCullough PA**, site Sub-Investigator, A Randomized, Double-blind, Placebo-controlled, Parallel-group Study to Evaluate the Safety and Efficacy of Alirocumab in Patients with Homozygous Familial Hypercholesterolemia (R727-CL-1628), Regeneron Pharmaceuticals, Inc, \$143,503.00, 2019, status: closed
- G74) **McCullough PA**, site Sub-Investigator, A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Efficacy and Safety of Evinacumab in

Peter A. McCullough, M.D., M.P.H.

Patients with Homozygous Familial Hypercholesterolemia (R1500-CL-1629) Regeneron Pharmaceuticals, Inc, \$143,503.00, 2019, status: closed

- G75) **McCullough PA**, site Sub-Investigator, An Open-Label Study to Evaluate the Long-Term Efficacy and Safety of Evinacumab in Patients with Homozygous Familial Hypercholesterolemia (R1500-CL-1719) Regeneron Pharmaceuticals, Inc, \$65,317.44, 2019, status: open
- G76) Bottiglieri T, Tecson K, **McCullough PA**, Identifying metabolomic profiles among genetically confirmed familial hypercholesterolemia, dyslipidemia without familial hypercholesterolemia, and healthy controls, Baylor Health Care System Foundation, \$49,293.80, 2020 status: open
- G77) **McCullough PA**, Wheelan KE. BSWRI—Overall Principal Investigator, 001 A prospective clinical study of hydroxychloroquine in the prevention of SARS-COV-2 (COVID-19) infection in health care workers after high-risk exposures, FDA IND 149293, Baylor Health Care System Foundation, \$506,506.00, 2020 status: open
- G78) **McCullough PA**, Site Investigator, 4D-310-C001 entitled “An Open-label, Phase 1/2 Trial of Gene Therapy 4D-310 in Adult Males with Fabry Disease” 4D Molecular Therapeutics, Inc, \$101,210.85, 2020 status: open
- G79) **McCullough PA**, Site Investigator, TQJ230, Assessing the Impact of Lipoprotein (a) Lowering With TQJ230 on Major Cardiovascular Events in Patients With CVD (Lp(a)HORIZON) Novartis Pharmaceuticals Corporation, \$3,475,000.00, 2020 status open

Published Abstracts

- A1) **McCullough PA**, O'Neill WW, May M, Lichtenberg A, Strzelecki M, Grines CG, Safian RD. Predictors of Acute Complications after Percutaneous Coronary Revascularization with New Devices. *J Am Coll Cardiol* 1994; 122-123A [oral].
- A2) **McCullough PA**, O'Neill WW, Hoffman M, Glazier S, Safian RD. The "Protective Effect" of Restenosis Lesions on Angiographic Complications with New Devices. *Circulation* 1995;92:I-346 [poster].
- A3) **McCullough PA**, Wolyn R, Rocher LL, Levin RN, O'Neill, WW. Acute Contrast Nephropathy After Coronary Intervention: Prediction of Dialysis and Related Mortality in the Elderly. *American Journal of Geriatric Cardiology* 1996;5:52 [poster].
- A4) **McCullough PA**, Wolyn R, Rocher LL, Levin RN, O'Neill WW. Acute Contrast Nephropathy After Coronary Intervention: Incidence, Risk Factors, and Relationship to Mortality. *J Am Coll Cardiol* 1996;304-305A [oral].

Peter A. McCullough, M.D., M.P.H.

- A5) **McCullough PA**, Ayad O, Goldstein JA. Cost-Effectiveness Analysis of Patients Admitted with Chest Pain and Normal or Near-Normal Electrocardiograms. *Cathet Cardiovasc Diag* 1996;38:118 [poster].
- A6) Aliabadi D, **McCullough PA**, Kaplan B, Grines CL, Safian RD, Pica M, O'Neill WW, Goldstein JA. A Novel Mobile Fluoroscopic Imaging System for Rapid Bedside Coronary Angiography. *Cathet Cardiovasc Diag* 1996;38:111 [oral].
- A7) Thompson RJ, **McCullough PA**, Kahn JK, O'Neill WW. Early Prediction of Death and Neurologic Outcome in Out-of-Hospital Sudden Death Survivors in the Emergency Department. *Circulation* 1996;94:I-356 [poster].
- A8) **McCullough PA**, O'Neill WW, Graham M, David S, Stomel R, Rogers F, Grines CL. A Prospective Randomized Trial of Triage Angiography in Suspected Acute Myocardial Infarction Patients Who are Considered Ineligible for Reperfusion Therapy. *Circulation* 1996;94:I-570 [oral].
- A9) Aliabadi D, **McCullough PA**, Grines CL, Safian RD, Pica MC, O'Neill WW, Goldstein JA. A Novel Mobile Fluoroscopic Imaging System for Rapid Bedside Coronary Angiography. *J Am Coll Cardiol* 1997;450A [poster].
- A10) **McCullough PA**, O'Neill WW, Graham M, David S, Stomel R, Rogers F, Farhat A, Kazlauskaitė R, Grines CL. Late Outcomes in the Medicine vs. Angiography for Thrombolytic Exclusion (MATE) Study. *Circulation*, 1997;96:I-595-596 [oral].
- A11) Redle JD, West AJ, Khurana S, Marzan R, **McCullough PA**, Frumin HI. Prophylactic Oral Amiodarone with Beta Blockade has Favorable Effects on Atrial Fibrillation Post Coronary Bypass Surgery. *Circulation*, 1997;96:I-125 [poster].
- A12) Sharma ND, Gandhi RS, Philbin EF, Weaver WD, **McCullough PA**. Which Patients with Left Ventricular Dysfunction Require Chronic Anticoagulation? A Prospective Analysis. *J Am Coll Cardiol* 1998;31:33A. [poster].
- A13) **McCullough PA**, Tobin KJ, Kahn JK, O'Neill WW, Thompson RJ. Prediction of In-hospital Survival after Sudden Cardiac Death: Derivation and Validation of a Clinical Model. *J Am Coll Cardiol* 1998;31:485A [poster].
- A14) Stevens M, **McCullough PA**, Tobin KJ, Speck JP, Westveer DC, Guido-Allen DA, Hartenburg DS, Puchrowicz-Ochocki SB, O'Neill WW. A Randomized Trial of Prevention Measures in Patients at High Risk for Contrast Nephropathy: Initial Results of the PRINCE Study. *J Am Coll Cardiol* 1998;31:469A [poster].

Peter A. McCullough, M.D., M.P.H.

- A15) Tobin KJ, **McCullough PA**, Speck JP, Westveer DC, Guido-Allen DA, Hartenburg DS, Puchrowicz-Ochocki SB, O'Neill WW, Stevens M. What Role Does Mannitol Play in Preventing Contrast Nephropathy? A Prospective Analysis. *J Am Coll Cardiol* 1998;31:469A [poster].
- A16) **McCullough PA**, Al-Zagoum M, Graham M, David S, Stomel R, Rogers F, Farhat A, Kazlauskaite R, Grines CL, O'Neill WW. A Time to Treatment Analysis in the Medicine vs. Angiography for Thrombolytic Exclusion Trial. *Cathet Cardiovasc Diag* 1998;44:105 [oral].
- A17) **McCullough PA**, Al-Zagoum M, O'Neill WW, Graham M, David S, Stomel R, Rogers F, Farhat A, Kazlauskaite R, Grines CL. A Program of Triage Angiography in Acute Coronary Syndromes Ineligible for Thrombolysis: An Efficacy Analysis. *Cathet Cardiovasc Diag* 1998;44:105[poster].
- A18) Philbin EF, **McCullough PA**, Polanczyk CA, Jenkins PL, DiSalvo TG. Are Subjects in Heart Failure Trials Similar in Clinical Practice? *Circulation*, 1998;98:I-866 [moderated poster].
- A19) **McCullough PA**, Smith S, Borzak S. Understanding the Risks Associated with Baseline Renal Function in the Coronary Care Unit. *Circulation*, 1998;98:I-413 [poster].
- A20) Afzal A, Gunda M, Brawner CA, Havstad S, **McCullough PA**, Keteyian SJ. Race and the Rate of Referral to Cardiac Rehabilitation. *Circulation*, 1998;98:I-810-811 [poster].
- A21) Borzak S, Every NR, Jankowski M, Havstad S, Chase GA, **McCullough PA**, Elston-Lafata J, Weaver WD. Elderly Patients with Unstable Angina Have Ongoing Risk for Future Events. *Circulation*, 1998;98:I-629 [oral].
- A22) Borzak S, Every NR, Chase GA, Jankowski M, Havstad S, **McCullough PA**, Elston-Lafata J, Weaver WD. U.S. Regional Differences in Use of Revascularization for Unstable Angina Patients. *Circulation*, 1998;98:I-275 [oral].
- A23) **McCullough PA**, Newman M, Kaiser Carlson L, Flower J, Tuchfield B. Accelerating the Improvement in Community Cardiovascular Health Using Web-Enhanced Project Development. *J Am Coll Cardiol* 1999;33:7A [info@ACC].
- A24) Mehra P, Pasnoori V, Sengstock D, Obaidat O, Brawner CA, Keteyian SJ, Philbin EF, **McCullough PA**. The Effect of Reactive Airways Disease on Peak Oxygen Consumption in Congestive Heart Failure. *J Am Coll Cardiol* 1999;33:172A [poster].
- A25) **McCullough PA**, Cingireddy U, Philbin EF, Weaver WD. Evidence for a Heart Failure Epidemic: Findings from the REACH Study. *J Am Coll Cardiol* 1999;33:179A [poster].
- A26) **McCullough PA**, Cingireddy U, Philbin EF, Weaver WD. Secular Trends in the Management of Congestive Heart Failure by Primary Care Physicians and Cardiovascular Specialists. *J Am Coll Cardiol* 1999;33:247A [poster]

Peter A. McCullough, M.D., M.P.H.

- A27) Hassan SA, Borzak S, Philbin EF, Soman S, Shah S, Weaver WD, Yee J, Marks KR, **McCullough PA**. The Impact Chronic Renal Insufficiency on Heart Failure Mortality after Hospitalization. *Journal of Cardiac Failure* 1999;5 Suppl 1:70. [poster].
- A28) Sengstock D, Obaidat O, Pasnoori V, Mehra P, **McCullough PA**. Asthma, Chronic Beta-Agonist Use, and the Development of Dilated Cardiomyopathy: Primary Results from the ABCHF Study. *Journal of Cardiac Failure* 1999;5 Suppl 1:64. [moderated poster].
- A29) **McCullough PA**, Kuntz RE, Marks KR, Popma JJ. Should We Change from Aspirin and Ticlopidine to Aspirin and Clopidogrel after Routine Coronary Stenting? A Population-Based Decision Analysis. *Circulation* 1999;100:I-379.[oral].
- A30) **McCullough PA**, Prakash R, Tobin KJ, O'Neill WW, Thompson RJ. Application of a Cardiac Arrest Score in Patients with Sudden Death and ST Segment Elevation for Triage Angiography and Intervention. *Fighting Sudden Cardiac Death: A Worldwide Challenge*, 1999;18:T-2.
- A31) **McCullough PA**, Philbin EF, Czerska B, Spertus JA, Weaver WD. Population-based Medication Profiling in Heart Failure: Treatment Related Outcomes from the R.E.A.C.H. Study. *J Am Coll Cardiol* 2000; 35:542A [moderated poster].
- A32) **McCullough PA**, Philbin EF, Czerska B, Spertus JA, Weaver WD. The Diagnostic Evaluation of Newly Discovered Heart Failure: Opportunities for Improvement from the R.E.A.C.H. Study. *J Am Coll Cardiol* 2000;35:327A [poster].
- A33) Shah SS, Tokarski GF, McCord JK, Khoury NE, McCabe KB, Morlock RJ, Noor H, **McCullough PA**. Impact of an Emergency Department Cardiac Clinical Decision Unit on a Population of Patients with Episodic Chest Discomfort. *J Am Coll Cardiol* 2000;35:380A [poster].
- A34) Kadakia RA, **McCullough PA**, Soman S, Jankowski M, Borzak S, Keeley EC. Does Percutaneous Revascularization Confer a Long-Term Survival Benefit in Patients with Acute Renal Failure? *J Inv Cardiol* 2000;12(11):P1.
- A35) **McCullough PA**, Philbin EF, Spertus JA, Weaver WD. Gender Differences in the Diagnostic Evaluation of Heart Failure: Findings from the R.E.A.C.H. Study. *J Inv Cardiol* 2000;12(11):P23.
- A36) Pampati V, Shenkman HJ, McKinnon JE, Khandelwal AK, Nori DM, **McCullough PA**. The Significance of QRS Prolongation in Heart Failure: Findings from the CONQUEST Study. *Chest*2000;118(4):133S.
- A37) Hassan SA, Bhatt S, Borzak S, Pallekonda V, Soman SS, Yee J, Marks K, **McCullough PA**. Clinical and Echocardiographic Determinants of Congestive Heart Failure with Renal Dysfunction.*Chest*2000;118(4):134S.

Peter A. McCullough, M.D., M.P.H.

- A38) Soman SS, Vera E, Jaffery H, Singh S, Marks KR, Borzak S, **McCullough PA**. Impact of Age and Admission Hemoglobin on Coronary Care Unit Mortality. *Chest* 2000; 118(4):166S.
- A39) Soman SS, Shah S, Marks KR, Yee J, Borzak S, **McCullough PA**. The Independent Association of Renal Dysfunction and Arrhythmias in the Intensive Care Unit Setting. *Chest* 2000;118(4):171172S.
- A40) Sallach JA, Soman SS, Sallach SM, Yee J, Karriem V, Hoffman RM, **McCullough PA**. "Homocysteine Flux": An Opportunity to Modify Cardiovascular Risk in Hemodialysis Patients. *Chest* 2000;118(4):218S.
- A41) McKinnon JE, Khandelwal AK, Shenkman HJ, Pampati V, Nori DM, **McCullough PA**. Congestive Heart Failure and QRS Duration: Utilization in Establishing Prognosis in Systolic and Diastolic Dysfunction—Results of the CONQUEST Study. *Chest* 2000; 118(4):221S.
- A42) Kadakia RA, Bonifacio DL, Mikhail B, Clark VL, **McCullough PA**. Survival Following Coronary Intervention in Patients with End Stage Renal Disease. *Chest* 2000; 118(4):226-227S.
- A43) Hassan S, Nori D, Bhatt S, Borzak S, Philbin E, Weaver WD, Soman S, Shah S, **McCullough PA**. Impact of Bundle Branch Block (BBB) Pattern on EKG on Survival in Patients with Congestive Heart Failure (CHF), an Eight Year Follow-up Study. *Journal of Heart Failure* 2000;6(1):65 [A258].
- A44) Soman SS, Sallach J, Sallach S, **McCullough PA**, Karriem V, Hoffman R, Yee J. Homocysteine (tHcy) Removal by Hemodialysis (HD) Modifies Cardiovascular Disease (CVD) Risk in ESRD. *American Society of Nephrology* 2000 [A0887].
- A45) McCord JK, Nowak R, **McCullough PA**, Borzak S, Tokarski G, Tomlanovich M, Foreback C, Malki Q, Asfour A, Weaver WD. Very Rapid Rule-out: 90 Minute Exclusion of Acute Myocardial Infarction (AMI) with Troponin-I (cTnl) and Myoglobin (Myo). *Circulation* 2000;102(18): II497.
- A46) Shenkman HJ, McKinnon JE, Khandelwal AK, Pampati V, Nori DM, **McCullough PA**. Determinants of QRS Prolongation in a Generalized Heart Failure Population: Findings from the Conquest Study. *Circulation* 2000;102(18): II617.
- A47) Philbin EF, **McCullough PA**, Di Salvo TG, Dec W, Jenkins PL, Weaver WD. Socioeconomic Status is an Important Determinant of Use of Invasive Strategies after Myocardial Infarction in Hospitals with Cardiac Surgery. *Circulation* 2000;102(18): II840.
- A48) **McCullough PA**, Sandberg KR, Borzak S, Hudson MP, Garg M, Manley HJ. Use of Aspirin and thrombolysis for myocardial infarction in patients with chronic renal disease: An opportunity for quality improvement, AHA Conference on Quality of Care and Outcomes P93, *Circulation* 2001.

Peter A. McCullough, M.D., M.P.H.

- A49) Ketterer MW, Goldberg AD, **McCullough PA**, Patel S, Farha AJ, Clark V, Keteyian S, Dennollet J, Chapp J, Thayer B, Deveshwar S. Psychosocial Correlates of Early Ischemic Heart Disease (IHD): Preliminary Results. *Psychosomatic Medicine* 2001;63:172-173.
- A50) Fitzgerald FE, Thayer BL, Ehrman JK, Keteyian S, Jarvis R, **McCullough PA**. A Hospital Employee Cholesterol Challenge Using Spreads Containing Plant Sterol Esters to Help Reduce Total and LDL-Cholesterol. *American Diabetes Association* 2001 [p000].
- A51) **McCullough PA**, Garg M, Bonifacio DL, Malineni K, Kadakia RR, Soman SS, Sandberg KR. Relationship between Lipid Levels and Advanced Coronary Calcification in End Stage Renal Disease. Central Society for Clinical Research Combined Annual Meeting, 2001 [P78] *Journal of Investigative Medicine* 2001;49:284A.
- A52) **McCullough PA**, Hudson MP, Garg M, Borzak S. Benefits of Aspirin and Beta-Blockade after Myocardial Infarction in Patients with Advanced Renal Dysfunction. Central Society for Clinical Research Combined Annual Meeting, 2001 [P79] *Journal of Investigative Medicine* 2001;49:285A.
- A53) Hannen MN, **McCullough PA**, Garg M, Quick AM. Tricuspid Valve Endocarditis in a Patient with Negative Blood Cultures and Right Atrial Mass. Central Society for Clinical Research Combined Annual Meeting, 2001 [P96] *Journal of Investigative Medicine* 2001;49:287A.
- A54) **McCullough PA**, Garg M, Borzak S, Hudson MP. Outcomes after Myocardial Infarction in Patients with Advanced Renal Disease Treated with Aspirin and β -Blockade. *CHEST* 2001;120(4):145S.
- A55) **McCullough PA**, Garg M, Borzak S, Hudson MP. Benefits of Aspirin and Beta-Blockade after Myocardial Infarction in Patients with Chronic Renal Disease. *Circulation* 2001;104 (17):II-234.
- A56) Manhapra A, Jacobsen G, Havstad S, **McCullough P**, Hudson MP, Weaver WD, Borzak S. Improved Long Term Survival with Beta Blocker Therapy Among African Americans and Caucasians with Myocardial Infarction. *Circulation* 2001;104 (17):II-627.
- A57) Manhapra A, Jacobsen G, Havstad S, **McCullough P**, Hudson MP, Weaver WD, Borzak S. Racial Differences in Long Term Survival following an Acute Myocardial Infarction. *Circulation* 2001;104 (17):II-778.
- A58) Brown WW, Bakris GL, Collins A, Flack JM, Gannon M, Greene E, Grimm R, Keane WF, Klag M, **McCullough P**, Politoski G. Identification of Individuals at High Risk (HR) for Kidney Disease (KD) via Targeted Screening. International Society of Hypertension in Blacks 2001 Meeting, Las Vegas, July 8-12, 200, Plenary Presentation and Poster. *Ethnicity & Disease* 2001; 11 (2): 358.
- A59) Brown WW, Bakris GL, Chen S, Collins A, Davis J, Flack JM, Gannon M, Greene E, Grimm R, Keane WF, Klag MJ, **McCullough PA**, Politoski G, Tran A. St. Louis VAMC/St. Louis University,

Peter A. McCullough, M.D., M.P.H.

Rush Presbyterian, Minneapolis Medical Research Foundation, NKF, Wayne State University, Mayo Clinic, Hennepin County Medical Center, Johns Hopkins Medical Institutions, UMKC. Targeted Screenings Identify Persons at Risk for Kidney Disease (KD). Poster, ASN/ISN International Congress of Nephrology, San Francisco, October 13-17, 2001. *J of the Am Soc of Nephrol* 2201; 12: A1003.

- A60) Maisel AS, Hlavin P, McCord J, Nowak RM, Hollander JE, Duc P, Steg G, Omland T, Westheim A, Abraham WT, Storrow AB, McKay CA, Wu AH, **McCullough PA**, for the BNP Multinational Study Investigators. B-Type Natriuretic Peptide in the Emergency Diagnosis of Diastolic Dysfunction Heart Failure. *J Am Coll Cardiol* 2002;39:140A.
- A61) **McCullough PA**, Nowak RM, McCord J, Hollander JE, Steg G, Duc P, Westheim A, Omland T, Storrow AB, Abraham WT, Wu AH, Clopton P, Lenert L, Maisel AS, for the BNP Multinational Study Investigators. B-Type Natriuretic Peptide Adds to Clinical Judgment in the Diagnosis of Heart Failure: A Bayesian Analysis From the BNP Multinational Study. *J Am Coll Cardiol* 2002;39:140A.
- A62) **McCullough PA**, Nowak RM, McCord J, Hollander JE, Loh E, Steg G, Duc P, Omland T, Westheim A, Abraham WT, Storrow AB, Wu AH, Hlavin P, Maisel AS, for the BNP Multinational Study Investigators. The Independent Contribution to Elevations in B-Type Natriuretic Peptide from Atrial Fibrillation. *J Am Coll Cardiol* 2002;39:90A.
- A63) Maisel AS, Kazanegra R, McCord J, Nowak RM, Hollander JE, Duc P, Steg G, Omland T, Wold-Knudsen C, Westheim A, Abraham WT, Storrow AB, Wu AH, **McCullough PA**, for the BNP Multinational Study Investigators. The Effect of Diabetes on B-Type Natriuretic Peptide Levels in Patients with Acute Dyspnea. *J Am Coll Cardiol* 2002;39:182A.
- A64) **McCullough PA**, Nowak RM, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Jacobsen G, Weaver WD, Sandberg KR, McCord J. Performance of Cardiac Troponin I in the Exclusion of Myocardial Infarction in Patients with Advanced Renal Disease. *J Am Coll Cardiol* 2002;39:326A.
- A65) Khandelwal A, McKinnon JE, Shenkman HJ, Pampati V, Nori D, Kaatz S, Sandberg KR, **McCullough PA**. Epidemiology of Systolic and Diastolic Dysfunction Heart Failure in 3,471 Urban Patients. *J Am Coll Cardiol* 2002;39:192A.
- A66) Maisel AS, Kazanegra R, McCord J, Nowak RM, Hollander JE, Duc P, Steg G, Omland T, Westheim A, Abraham WT, Storrow AB, Lamba S, Wu AH, **McCullough PA**, for the BNP Multinational Study Investigators. Primary Results of the BNP Multinational Study: B-Type Natriuretic Peptide in the Emergency Diagnosis of Heart Failure. *J Am Coll Cardiol* 2002;39:201A.
- A67) **McCullough PA**, McCord J, Nowak RM, Hollander JE, Duc P, Omland T, Abraham WT, Wu AHB, Krishnaswamy P, Maisel AS. B-type Natriuretic Peptide Should be Part of the Diagnostic

Peter A. McCullough, M.D., M.P.H.

Evaluation of Heart Failure: Implications from the Breathing Not Properly (BNP) Multinational Study. *J Heart Failure* 2002;7(1):44.

- A68) Nowak RM, Maisel AS, McCord J, Kazanegra R, Hlavin P, Lenert LA, Clopton P, Hollander JE, Loh E, Duc P, Steg PG, Westheim A, Omland T, Abraham WT, Lamba S, Storrow AB, Wu AHB, McKay C, **McCullough PA**. B-type Natriuretic Peptide Complements Clinical Judgment in the Emergency Diagnosis of Heart Failure. *Acad Emerg Med* 2002 9: 359.
- A69) Hollander JE, Maisel AS, Nowak RM, McCord J, Kazanegra R, Hlavin P, Lenert LA, Clopton P, Loh E, Duc P, Steg PG, Wertheimer A, Omland T, Abraham WT, Lamba S, Storrow AB, Wu AHB, McKay C, **McCullough PA**. Impact of Acute Myocardial Ischemia on Blood B-Type Natriuretic Peptide in the Emergency Diagnosis of Heart Failure. *Acad Emerg Med* 2002 9: 440.
- A70) Knudsen CW, Omland T, Clopton P, Westheim A, Abraham WT, Storrow AB, McCord J, Nowak RM, Steg PG, Duc P, **McCullough PA**, Maisel AS. Diagnostic Value of Chest Radiographs in Patients Presenting with Acute Dyspnea: Comparison with B-type Natriuretic Peptide. *Circulation* 2002;106(19):II-683.
- A71) Omland T, Knudsen CW, Westheim A, McCord J, Aumont MC, **McCullough PA**. The Effect of Hypertension on B-type Natriuretic Peptide Levels in Patients with Acute Dyspnea: An Analysis from the Breathing Not Properly Study. *Circulation* 2002;106(19):II-477.
- A72) Sallach JA, McCord J, Sallach SM, Duc P, Omland T, Nowak RM, Hollander JE, Storrow AB, Abraham WT, Wu AHB, Clopton P, Krishnaswamy P, Maisel AS, **McCullough PA**. The Effect of Pre-Existing Ischemic Heart Disease on B-type Natriuretic Peptide Levels in Patients Presenting with Acute Dyspnea. *Circulation* 2002;106(19):II-565.
- A73) Ehrman JK, Manhapra A, Jacobsen G, **McCullough PA**. Lower Socioeconomic Status is Associated with Poor Survival in Heart Failure Patients. *Circulation* 2002;106(19):II-762.
- A74) **McCullough PA**, Omland T, Knudsen CW, Duc P, Nowak RM, McCord J, Hollander JE, Aumont MC, Steg PG, Westheim A, Storrow AB, Abraham WT, Lamba S, Wu AHB, Alan S. Maisel AS, BNP Multinational Study Investigators. Uncovering Heart Failure in Patients with Bronchospasm: Rationale for the Early Use of B-Type Natriuretic Peptide in the Emergency Department. *J Am Coll Cardiol* 2003;41:142A.
- A75) Maisel AS, Kazanegra R, **McCullough PA**, McCord J, Nowak RM, Hollander JE, Wu AHB, Duc P, Omland T, Storrow AB, Krishnaswamy P, Abraham WT, Clopton P, Steg PG, Westheim A, Knudsen CW, Herrmann HC. Bedside B-Type Natriuretic Peptide in the Emergency Diagnosis of Systolic and Nonsystolic Heart Failure: Results From the Breathing Not Properly (BNP) Multinational Study. *J Am Coll Cardiol* 2003;41:143A.
- A76) Steg PG, Duc P, Joubin L, McCord J, Abraham WT, Hollander JE, Omland T, Baron G, Aumont MC, Mentré F, **McCullough PA**, Maisel AS, BNP Multinational Study Investigators. A Comparison

Peter A. McCullough, M.D., M.P.H.

of Bedside B-Type Natriuretic Peptide Versus Echocardiographic Determination of Ejection Fraction in the Diagnosis of Heart Failure. *J Am Coll Cardiol* 2003;41:337A.

- A77) Mundy BJ, McCord J, Nowak RM, Hudson MP, Czerska B, Jacobsen G, Omland T, Wu AHB, Duc P, Hollander JE, **McCullough PA**, Maisel AS, BNP Multinational Study Investigators. B-Type Natriuretic Peptide Levels Are Inversely Related to Body Mass Index in Patients With Heart Failure. *J Am Coll Cardiol* 2003;41:158A.
- A78) **McCullough PA**, Nowak RM, McCord J, Omland T, Knudsen CW, Duc P, Hollander JE, Steg PG, Aumont MC, Westheim A, Storrow AB, Abraham WT, Lamba S, Wu AHB, Maisel AS, BNP Multinational Study Investigators. What is in the Differential Diagnosis of a B-Type Natriuretic Peptide Level of 1,000 pg/ml? *J Am Coll Cardiol* 2003;41:159A.
- A79) **McCullough PA**, Steg PG, Aumont MC, Duc P, Omland T, Knudsen CW, Nowak RM, McCord J, Hollander JE, Westheim A, Storrow AB, Abraham WT, Lamba S, Wu AHB, Maisel AS, BNP Multinational Study Investigators. What Causes Elevated B-Type Natriuretic Peptide in Patients Without Heart Failure? *J Am Coll Cardiol* 2003;41:278A.
- A80) Gurudutt B. Kulkarni, John House, John A. Spertus, **Peter A. McCullough**. Chronic Kidney Disease: The Silent Killer After Coronary Angioplasty. *J Am Coll Cardiol* 2003;41:54A.
- A81) Chew DP, Bhatt DL, Berger PB, Henry T, **McCullough PA**, Feit F, Bittl JA, Lincoff AM. Bivalirudin Provides Increasing Benefit With Declining Renal Function in Percutaneous Coronary Intervention: A Meta-Analysis of 5,035 Patients Enrolled in Three Randomized Trials. *J Am Coll Cardiol* 2003;41:83A.
- A82) Stone GW, **McCullough PA**, Tumlin J, Madyoon H, Murray P, Wang A, Chu AA, Schaer G, Stevens M, Wilensky RL, O'Neill WW, Lepor N. A Prospective, Randomized Placebo-Controlled Multicenter Trial Evaluating Fenoldopam Mesylate for the Prevention of Contrast Induced Nephropathy: The CONTRAST Trial. *J Am Coll Cardiol* 2003;41:83A.
- A83) **McCullough PA**, Duc P, Omland T, McCord J, Nowak RM, Hollander JE, Herrmann HC, Steg PG, Westheim A, Aumont MC, Knudsen CW, Storrow AB, Abraham WT, Lamba S, Wu AHB, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS, BNP Multinational Study Investigators. B-Type Natriuretic Peptide and Renal Function in the Diagnosis of Heart Failure: An Analysis from the BNP Multinational Study. *J Am Coll Cardiol* 2003;41:222A.
- A84) **McCullough PA**, Sandberg KR, Yanez J. Determinants of vascular calcification in patients with chronic kidney disease and end-stage renal disease: a systematic review. *Am J Kidney Dis* 2003;(42)227A.
- A85) Kazanegra R, Clopton P, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AH, Steg PG, Westheim A, Perez A, Herrmann HC, Knudsen CW, Aumont M-C, **McCullough PA**, Maisel AS. The impact of age, race and gender on the ability of B-

Peter A. McCullough, M.D., M.P.H.

type natriuretic peptide to aid in the emergency diagnosis of heart failure: results from the breathing not properly (BNP) multinational study. *J Cardiac Failure* 2003; 9(5):S36.

- A86) Aumont MC, Duc P, Baron G, McCord JA, Omland T, Storrow AB, **McCullough PA**, Maisel AS. High levels of brain natriuretic peptide without chronic heart failure: analysis of a multicentre study. *Eur Heart J* 2003;24(530): P2810.
- A87) Havranek EP, Masoudi FA, Rumsfeld JS, Luther SA, **McCullough PA**, Jones PG, Rathore SS. Changes in BNP are not associated with outcomes in outpatients with heart failure. *Circulation* 2003;108(17):IV-692.
- A88) Sandberg KR, Gallagher MJ, Krause KR, Franklin BA, **McCullough PA**. Caloric expenditure in the morbidly obese. *Circulation* 2003;108(17):IV-735.
- A89) Gallagher MJ, Sandberg KR, de Jong A, Krause KR, **McCullough PA**, Franklin BA. Heart rate recovery after symptom limited exercise testing in obese patients. *Circulation* 2003;108(17):IV-735.
- A90) Fishbane S, **McCullough PA**, Rudnick M. Systematic Review of the Role of N-acetylcysteine in the Prevention of Contrast Media-Induced Nephropathy. *J Am Soc Nephrol* Vol 14, 2003, 1553A.
- A91) Stacul F, Bertrand ME, **McCullough PA**, Brinker J. Contrast-induced nephropathy (CIN) following iso-osmolar (IOCM) versus low-osmolar contrast media (LOCM) in patients undergoing angiography and predicting factors for CIN: a meta-analysis. *European Congress of Radiology* 2004, B-934.
- A92) Maisel AS, Hollander J, Guss D, **McCullough PA**, Nowak R, Green G, Saltzberg M, Kazanegra R, Clopton P, Jesse R, for the REDHOT Investigators. Primary results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT): a multicenter trial examining B-type natriuretic peptide levels, emergency physician decision making and outcomes in patients with shortness of breath. *J Am Coll Cardiol* 2004; 43(5):6A.
- A93) Knudsen CW, Omland T, Westheim A, Clopton P, Abraham WT, Storrow A, McCord JK, Nowak R, Duc P, **McCullough PA**, Maisel A. B-type natriuretic peptide and chest radiograph findings as indicators of systolic dysfunction in patients presenting with acute dyspnea. *J Am Coll Cardiol* 2004; 43(5):171A.
- A94) Soman P, Lahiri A, Mieres J, Calnon D, Wolinsky D, Beller GA, Sias T, Burnham K, Conway L, **McCullough PA**, Daher E, Walsh MN, Wight J, Heller GV, Udelson JE. Investigation of Myocardial-Gated SPECT Imaging as an Initial Strategy in Heart Failure: The IMAGING in Heart Failure Study. *J Am Coll Cardiol* 2004;43(5):323A.

Peter A. McCullough, M.D., M.P.H.

- A95) Maisel AS, Bhalla MA, Gardetto N, McCord J, Nowak RM, Hollander JE, Wu AHB, Duc P, Omland T, Storrow AB, Krishnaswamy P, Abraham WT, Clopton P, Steg G, Aumont MC, Westheim A, Knudsen CW, Perez A, Kamin R, Kazanegra R, Herrmann HC, **McCullough PA**, for the BNP Multinational Study Investigators. Utility of B-type natriuretic peptide levels in predicting outcome of hospitalized patients with congestive heart failure: results of the Breathing Not Properly (BNP) Multinational Study. *J Am Coll Cardiol* 2004; 43(5):234A.
- A96) Sandberg KR, Irving SD, Veri S, **McCullough PA**. Dietary and exercise habits in morbidly obese patients pre and post gastric bypass surgery. Presented at the 44th Annual Conference on Cardiovascular Disease Epidemiology and Prevention. *Circulation* 2004;109(6):P233.
- A97) Sandberg KR, Gallagher MJ, Franklin BA, deJong AT, Krause KR, **McCullough PA**. The effects of bariatric surgery on exercise tolerance and cardiopulmonary fitness in the morbidly obese. *American Society for Bariatric Surgery Annual Meeting 2004* [P7].
- A98) Odom JS, Sandberg KR, **McCullough PA**. Psychological screening in bariatric surgery candidates. *American Society for Bariatric Surgery Annual Meeting 2004* [P51].
- A99) de Jong AT, Gallagher MJ, Sandberg KR, Krause KR, Ehrman JK, Keteyian SJ, Brawner CA, **McCullough PA**, Franklin BA. Ability to achieve maximal oxygen consumption during exercise testing in morbidly obese patients. *Medicine & Science in Sports and Exercise* 2004;36(4):S140 [999].
- A100) Conklin A, de Jong AT, Franklin BA, **McCullough PA**. Evaluation of cardiorespiratory fitness in morbidly obese adults: a feasibility study. *Medicine & Science in Sports and Exercise* 2004;36(4):S140 [1000].
- A101) Grayson D, De Jong AT, Ochoa A, Gallagher M, Franklin BA, **McCullough PA**. Oxygen consumption changes during EECP treatment in patients with and without coronary artery disease. *Medicine & Science in Sports and Exercise* 2004;36(4):S140 [1475].
- A102) Jurkovitz C, Norris K, Li S, Shen SC, McGill JA, **McCullough PA**, Narva A, Bakris G, Collins A, Klag M, Brown W. Does Obesity Modify the Association between Hypertension and Race? An Analysis of the KEEP Population. *Preventive Medicine* 39(2004), S21.
- A103) Strunk A, Bhalla V, Clopton P, Nowak RM, McCord J, Hollander JE, Duc, P, Storrow, AB, Abraham WT, Wu AHB, Steg G, Perez A, Kazanegra R, Herrmann HC, Aumont MC, **McCullough PA**, Maisel AS for the BNP Multinational Study Investigators*. Impact of the history of congestive heart failure on accuracy of BNP in the emergency diagnosis of heart failure: results from the breathing not properly (BNP) multinational study. *J Card Failure* 10(4):S50 #120, 8th Annual Scientific meeting of the Heart Failure Society of America, 2004.

Peter A. McCullough, M.D., M.P.H.

- A104) Jurkovitz C, Li S, Norris K, McGill J, Chen SC, Pergola P, Narva A, **McCullough PA**, Brown W, Klag M. Obesity is associated with risk factors for chronic kidney disease: Kidney Early Evaluation Program Results. *J Am Soc Nephrol* 2004;15:134A.
- A105) Singh AK, McGill J, **McCullough PA**, Brown W, Collins A, Chen SC, Li S, Narva A, Herman WH, Bakris GL, Jurkovitz C, Norris K, Pergola P, Klag M. Advanced stages of chronic kidney disease (CKD) detected among screened individuals with diabetes mellitus, undiagnosed diabetes, and mildly elevated glucose values: Results from the NKF Kidney Early Evaluation Program (KEEP) Study. *J Am Soc Nephrol* 2004;15:322A.
- A106) McGill J, **McCullough PA**, Brown W, Collins A, Chen SC, Li S, Narva A, Herman WH, Bakris GL, Norris K, Pergola P, Klag M, Jurkovitz C. Pre-menopausal and elderly women with chronic kidney disease (CKD) at highest risk of anemia: Results from the NKF Kidney Early Evaluation Program (KEEP) Study. *J Am Soc Nephrol* 2004;15:547A.
- A107) Gallagher MJ, Franklin BA, deJong A, Sandberg KR, Krause KR, Ehrman JK, Keteyian SJ, Brawner CA, Mattichak SJ, Kahn JK, **McCullough PA**. Cardiorespiratory fitness levels in obesity approximate those of heart failure patients: implications for exercise prescription. *Circulation* 2004;110(17)822A.
- A108) Knudsen CW, Clopton P, Klemsdal TO, Westheim A, Wu A, Abraham WT, Storrow AB, McCord JK, Nowak RM, **McCullough PA**, Omland T. Predictors of absence of heart failure in patients with elevated B-type natriuretic peptide levels. 2004;110(17)368A.
- A109) Daniels LB, Clopton P, Hollander JE, Guss D, **McCullough P**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalia MA, Bhalia V, Jesse R, Maisel A. Effect of ethnicity on likelihood of admission for heart failure. *J Am Coll Cardiol* 2005;45(3)168A.
- A110) **McCullough PA**, Brown WW, McGill JB, Collins AJ, Chen SC, Li S, Singh AK, Narva AS, Herman WH, Bakris GL, Jurkovitz CT, Norris KC, Pergola P, Klag MJ, for the KEEP Investigators. Independent components of chronic kidney disease as a cardiovascular risk factor; results from the Kidney Early Evaluation Program (KEEP). *J Am Coll Cardiol* 2005;45(3)424A.
- A111) **McCullough PA**, Klag MJ, McGill JB, Collins AJ, Chen SC, Li S, Singh AK, Narva AS, Herman WH, Bakris GL, Jurkovitz CT, Norris KC, Pergola P, Brown WW, for the KEEP Investigators. Age over 30 becomes a cardiovascular risk factor in patients screened for chronic kidney disease, results from the Kidney Early Evaluation Program (KEEP). *J Am Coll Cardiol* 2005;45(3)434A.
- A112) Daniels LB, Clopton P, Chiu A, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Wu AHB, Steg G, Westheim A, Knudsen CW, Hermann HC, **McCullough PA**, Maisel AS. Using B-type natriuretic peptide to diagnose heart failure in obese patients. *J Am Coll Cardiol* 2005;45(3)141A.

Peter A. McCullough, M.D., M.P.H.

- A113) Trivax JE, Gallagher MJ, Alexander DV, deJong AT, Kasturi G, Sandberg KR, Jafri SM, Krause KR, Chengelis DL, Moy J, Franklin BA, **McCullough PA**. Poor aerobic fitness predicts complications associated with bariatric surgery. *CHEST* 2005;128(4):282S.
- A114) Miller WM, Nori KE, Sandberg KR, Vial C, VanderLinden M, **McCullough PA**. Change in C-reactive protein levels with weight loss following gastric bypass surgery. *Circulation* 2005;111(14):P213.
- A115) Moy J, Gallagher M, de Jong A, Sandberg K, Trivax J, Alexander D, Kasturi G, Jafri S, Krause K, Chengelis D, Franklin B, **McCullough P**. Preoperative cardiopulmonary fitness predicts surgical complications after laparoscopic roux-en-Y gastric bypass surgery for morbid obesity. *Obesity Research* 2005;13, A14 (54-OR).
- A116) Nori Janosz K, Koenig K, Leff C, Miller W, **McCullough P**. How much weight needs to be lost to resolve type 2 diabetes? *Obesity Research* 2005;13, A59 (229-P).
- A117) Odom J, Ferrara M, **McCullough P**, Miller W. The effect of behavioral group attendance on weight loss while participating in an out-patient, hospital-based, meal replacement program. *Obesity Research* 2005;13, A144 (557-P).
- A118) Miller W, Veri S, Odom J, Lillystone M, Gibbs D, **McCullough P**. Effects of a short-term multidisciplinary program for childhood obesity. *Obesity Research* 2005;13, A84 (328-P).
- A119) Odom J, Ferrara M, **McCullough P**, Miller W. The effect of psychosocial factors on weight loss during an out-patient, hospital-based, meal replacement program. *Obesity Research* 2005;13, A69 (267-P).
- A120) Vanhecke TE, Miller WM, Franklin BA, Weber JE, **McCullough PA**. Differences in health awareness knowledge, environmental tobacco smoke exposure (ETS), and body-shape perception among adolescents based upon body mass index. *J Am Coll Cardiol* 2006;47(4):247A.
- A121) Duru K, Jurkovitz C, Narva A, McGill J, Bakris G, Chen SC, Lu S, Pergola P, **McCullough P**, Singh A, Klag M, Collins A, Brown W, Norris K. Racial and gender differences in hypertension control and chronic kidney disease: results from the Kidney Early Evaluation Program (KEEP). *NKF 2006 Spring Clinical Meetings*; 245: P101.
- A122) Conklin A, de Jong A, **McCullough PA**, Franklin B. Cardiorespiratory Fitness: Relation to Body Mass Index among the Morbidly Obese and Superobese. *Med Sci Sports Exerc.* 2006 May;38(5 Suppl):S84-5.
- A123) Miller WM, Khazaal N, Nori-Janosz K, Franklin B, Vial C, Kaitner R, **McCullough P**. Advantages of group treatment and exercise promoting short-term weight loss in obese adults. *Obesity* 2006;14(Suppl):A157.

Peter A. McCullough, M.D., M.P.H.

- A124) **McCullough PA.** Which Types and Which Amount of Physical Activities to Achieve and Maintain a Healthy Body Weight? 4th Metabolic Syndrome, Type II Diabetes, and Atherosclerosis Congress (MSDA), 2007, AL-18, p 23.
- A125) Vanhecke TE, **McCullough PA**, Trivax J, DeJong A, Franklin BA. Energy Expenditure, Epicardial Adipose Tissue and Cardiorespiratory Fitness in Morbidly Obese Adults: 2154: Board #67 June 1 8:00 AM - 9:30 AM. Med Sci Sports Exerc. 2007 May;39(5 Suppl):S385.
- A126) Miller WM, Veri S, Odom J, Lillystone M, Washington T, **McCullough PA**, Franklin BA. Dietary behaviors and knowledge among urban pre-adolescents: 1581: board #71 may 30 3:30 PM - 5:00 PM. Med Sci Sports Exerc. 2007 May;39(5 Suppl):S247.
- A127) DeJong AT, **McCullough P**, Franklin B. Use of VE/VCO₂ slope Corrected for Peak VO₂ as a Predictor of Post-Surgical Complications in Morbidly Obese Patients: 686: May 31 8:30 AM 8:45 AM. Med Sci Sports Exerc. 2007 May;39(5 Suppl):S40.
- A128) Zalesin KC, Krause KR, Chengelis DL, **McCullough PA.** Determinants of the Resolution of Type 2 Diabetes after Bariatric Surgery. American Society of Bariatric Surgery. Surgery for Obesity and Related Disorders 3(3):314; 2007.
- A129) Kadaj P, Vanhecke T, Barnes MA, Lazar MH, Gandhi M, **McCullough, PA.** Natriuretic peptide testing and APACHE II scores for the evaluation and prediction of outcome in acutely ill patients: a prospective cohort study. Chest 2007;132(4) 551S.
- A130) Agrawal V, Khan I, Rai B, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA.** Weight loss after bariatric surgery reduces albuminuria in obese adults with diabetes. J Am Soc Nephrol, Oct 2007; 18: 574A.
- A131) Agrawal V, Rai B, Khan I, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA.** Weight loss after bariatric surgery reduces albuminuria in obese adults. J Am Soc Nephrol, Oct 2007; 18: 767A.
- A132) O'Donoghue M, Sabatine M, Boden WE, Braunwald E, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Wallentin L, Windhausen F. The benefit of early invasive strategy in women versus men with non-ST-elevation acute coronary syndromes: a collaborative meta-analysis of randomized trials. Circulation 2007;116(16);II-383.
- A133) Boerrigter G, Costello-Boerrigter LC, Abraham WT, St. John Sutton, MG, Heublein D, Kruger KM, Hill MR, **McCullough PA**, Burnett JC. Cardiac resynchronization therapy with biventricular pacing improves renal function in heart failure patients with reduced glomerular filtration rate. Circulation 2007;116(16);II-405.

Peter A. McCullough, M.D., M.P.H.

- A134) Deliri H, Davis E, Hager CS, Welch CA, Malik FS, **McCullough PA**, Wagner GS, Carter WH. A prospective randomized trial of blood B-type natriuretic peptide levels informing management after elective coronary artery bypass surgery. *Circulation* 2007;116(16):II-683.
- A135) **McCullough PA**, Li S, Collins AJ, Chen SC, Jurkowitz CT, Norris KC, McFarlane S, Johnson B, Shlipak M, Obialo C, Brown WW, Vassalotti J, Bakris GL, for the KEEP Investigators. Chronic kidney disease and risk for premature cardiovascular disease. *Circulation* 2007;116(16):II-852.
- A136) **McCullough PA**, Leifer E, Ellis S, Rendall DS, Horwich T, Hill JA, Fonarow GC. Relationship between renal function and cardiopulmonary fitness in patients with systolic heart failure. *J Am Coll Cardiol* 2008;51(10):A52-53.
- A137) O'Donoghue, Boden WE, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Wallentin L, Windhausen F, Sabatine MS. The benefit of an invasive strategy in diabetic versus non-diabetic subjects with non-ST segment elevation acute coronary syndromes; a collaborative meta-analysis of randomized trials. *J Am Coll Cardiol* 2008;51(10):A216.
- A138) **McCullough PA**, Li S, Jurkowitz CT, Stevens LA, Wang C, Collins AJ, Chen SC, Norris KC, McFarlane S, Johnson B, Shlipak MG, Obialo CI, Brown WB, Vassalotti JA, Whaley-Connell AT, for the KEEP Investigators. Chronic kidney disease and cardiovascular disease in volunteer and randomly selected populations: KEEP and NHANES. *Am J Kidney Dis* 2008;51(4):B68. (Abstract #162)
- A139) McFarlane SI, Chen SC, Whaley-Connell A, Sowers J, Vassalotti JA, Salifu MO, Li S, Wang C, Bakris G, **McCullough PA**, Collins AJ, Norris K for the KEEP Investigators. Racial and gender differences in prevalence and predictors of anemia of chronic kidney disease: KEEP and NHANES 1999-2004. *Am J Kidney Dis* 2008;51(4):B68. (Abstract #163)
- A140) Pavey BS, Saab G, McFarlane SI, Sowers JR, Chen S, Li S, Vassalotti J, Collins AJ, Norris K, **McCullough PA**, Bakris G, Whaley-Connell A, for the KEEP Investigators. Prevalent components of cardiometabolic syndrome and cardiovascular disease from the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis* 2008;51(4):B79. (Abstract #207)
- A141) Agrawal V, Vanhecke TE, Franklin BA, Zalesin KC, Sangal RB, Hakmeh B, deJong AT, **McCullough PA**. Albuminuria in obese adults is associated with hypertension and sleep disturbance. *Am J Kidney Dis* 2008;51(4):B29. (Abstract #5)
- A142) Vassalotti JA, Uribarri J, Chen SC, Li S, Wang C, Collins AJ, Calvo MS, Whaley-Connell A, Norris KC, **McCullough PA**, Andress DL, for the KEEP Investigators. Trends in mineral metabolism in the kidney early evaluation program (KEEP). *Am J Kidney Dis* 2008;51(4):B52. (Abstract #75)

Peter A. McCullough, M.D., M.P.H.

- A143) Agrawal V, Krause KR, Chengelis DL, Zalesin K, Rocher L, **McCullough PA**. Relation between degree of weight loss after bariatric surgery and reduction in high sensitivity C-reactive protein. *Surgery for Obesity and Related Diseases* 2008;3(4):324.(Abstract P33)
- A144) Odom J, Washington TL, Zalesin K, **McCullough PA**, Hakmeh B. Psychosocial trends related to weight regain after bariatric surgery. *Surgery for Obesity and Related Diseases* 2008;3(4):324.(Abstract BH-04)
- A145) **McCullough PA**. New insights on accelerated vascular calcification in patients with kidney disease. *J Heart Dis* 2008;(6):121 (Abstract 482).
- A146) Agrawal V, Ghoshi AK, Barnes MA, **McCullough PA**. Perception of indications for nephrology referral among internal medicine residents. A national online survey. *J Am Soc Neph* 2008;19:812-13A (SA-PO3091).
- A147) Agrawal V, Swami A, Al-Sabbagh M, Kosuri R, Samarapungavan D, **McCullough PA**. Contrast induced acute kidney injury in renal transplantation recipients undergoing cardiac catheterization. *J Am Soc Neph* 2008;19:986-87A (PUB766).
- A148) Agrawal V, Agarwal M, Barnes MA, Ghosh AK, **McCullough PA**. Internal medicine resident's knowledge of chronic kidney disease complications and management: a national survey. *NKF 2009 Spring Clinical Meetings*; 43: I22.
- A149) Li S, Chen SC, Vassaloti J, Norris K, **McCullough PA**, Bakris G, Collins A. Predictors of self-referred repeat CKD screening in the Kidney Early Evaluation Program (KEEP). *NKF 2009 Spring Clinical Meetings*; 48: I42.
- A150) Whaley-Connell, Sowers JR, **McCullough PA**, Roberts T, McFarlane SI, Chen SC, Li S, Wang C, Collins AJ, Bakris GL, and the Kidney Early Evaluation Program Investigators. Diabetes mellitus and CKD awareness: the Kidney Early Evaluation Program and the National Health and Nutrition and Examination Survey. *NKF 2009 Spring Clinical Meetings*; 52: I60.
- A151) Kalatizidis R, Li S, Wang C, Chen SC, **McCullough PA**, Bakris G. Hypertension in early-stage kidney disease: an update from the kidney early evaluation program. *NKF 2009 Spring Clinical Meetings*; 80: I170.
- A152) Agrawal V, Agarwal M, Samarapungavan D, **McCullough PA**. Long term outcomes of contrast induced acute kidney injury in renal transplant recipients. *NKF 2009 Spring Clinical Meetings*; 83: I184.
- A153) **McCullough PA**, Whaley-Connell A, Brown WW, Collins AJ, Chen SC, Li S, Norris KC, Johnson BC, Calhoun D, Jurkovitz C, McFarlane S, Obialo C, Shlipak M, Sowers J, Stevens L, Vassalotti JA, Bakris GL. Cardiovascular risk modification in chronic kidney disease patients with coronary

Peter A. McCullough, M.D., M.P.H.

disease: results from the Kidney Early Evaluation Program (KEEP). J Am Coll Cardiol 2009;53(10):A224.

- A154) Kosiborod M, **McCullough PA**, Rao S, Inzucchi SE, Maddox TM, Masoudi FA, Xiao L, Fiske S, Spertus JA. Hyperglycemia and risk of acute kidney injury after coronary angiography in patients hospitalized with acute myocardial infarction. J Am Coll Cardiol 2009;53(10):A382.
- A155) Miller WM, Veri S, **McCullough PA**, Franklin BA. Children improve nutritional knowledge, increase physical activity and reduce body mass through a multidisciplinary school intervention. Poster: 2009 American College of Sports Medicine Annual Meeting; 2009 May 27; Seattle, WA. Medicine and Science in Sports and Exercise 2009;41(5):S1543.
- A156) Zalesin, KC, Franklin BA, Lillystone M, Shamoun T, Krause K, Chengelis D, Mucci S, Shaheen KW, **McCullough PA**. Differential loss of fat and lean mass in the morbidly obese after bariatric surgery. Surgery for Obesity and Related Diseases 2009;5: S29 (poster) awarded Outstanding Poster Recognition
- A157) Miller WM, Franklin BA, Veri S, Maaz Y, Jameel J, **McCullough PA**. Is degree of obesity associated with childhood obesity treatment outcomes? Poster: The Obesity Society's Annual Scientific Meeting; 2009 Oct 26; Washington, DC. Obesity 2009;17(2):S184
- A158) Trivax JE, Franklin BA, Goldstein JA, Chinnaiyan KM, Gallagher MJ, deJong AT, Colar JM, Haines DE, **McCullough PA**. Acute cardiac effects of marathon running: evidence for right heart overload. Circulation 2009;120 (18): S513
- A159) Amin AP, Riley K, Spertus JS, Venkitachalam L, Stolker JM, **McCullough PA**, Masoudi FA, Jones PG, Kosiborod M. Trends in the prevalence of acute kidney injury in patients with acute myocardial infarction. J Am Coll Cardiol 2010;55 (10): A102 (1046-282)
- A160) Agrawal V, Garimella PS, Jaar BG, Plantinga L, Ye J, **McCullough PA**. Access to health care in adults evaluated for chronic kidney disease: findings from the Kidney Early Evaluation Program. NKF 2010 Spring Clinical Meetings, April 13-17, 2010, P35.
- A161) Bomback AS, Kshirsagar AV, Whaley-Connell AT, Chen SC, Li S, Klemmer PJ, **McCullough PA**, Bakris GL. Racial differences in kidney function among individuals with obesity and metabolic syndrome: results from the Kidney Early Evaluation Program (KEEP). NKF 2010 Spring Clinical Meetings, April 13-17, 2010, P45.
- A162) Saab G, Whaley-Connell A, Chen SC, Li S, Sowers JR, Norris K, Bakris G, **McCullough PA**. The association of serum phosphorus and pulse pressure in men and women with chronic kidney disease: data from the Kidney Early Evaluation Program. NKF 2010 Spring Clinical Meetings, April 13-17, 2010, P80.

Peter A. McCullough, M.D., M.P.H.

- A163) **McCullough PA**, Brown J, Weisbord S. The effects of iso-osmolar contrast media on contrast-induced acute kidney injury: a meta-analysis. *Cath Cardiovasc Interv* 2010;75(6):S78, B-034.
- A164) **McCullough PA**, Capasso P. Patient discomfort associated with the use of intravascular iodinated contrast media: a meta-analysis of comparative randomized trials. *Cath Cardiovasc Interv* 2010;75(6):S80, B-037.
- A165) Miller WM, Spring TJ, Zalesin KC, Kaeding K, deJong AT, **McCullough PA**, Franklin, BA. Resting metabolic rate is directly associated with cardiorespiratory fitness in the morbidly obese. Poster: AHA Annual Conference on Nutrition, Physical Activity and Metabolism; 2010 March 2; San Francisco, CA. *Circulation* 2010 March; Suppl. Page 114, Poster P75.
- A166) Miller WM, So NC, Zalesin KC, Spring TJ, Kaeding K, Krause K, Chengelis D, deJong AT, Franklin BA, **McCullough PA**. Low resting metabolic rate is associated with low cardiorespiratory fitness, low vitamin D and hyperuricemia in bariatric surgery patients. Poster P-41: 27th Annual Meeting of the American Society for Metabolic and Bariatric Surgery; 2010 June 24; Las Vegas, NV. *Surgery for Obesity and Related Diseases* 2010;6:S41.
- A167) Spring TJ, Franklin BA, **McCullough PA**, Miller W, Zalesin K, Kaeding K, deJong AT. Reduced resting oxygen consumption in the morbidly obese: Implications for exercise prescription. Poster: AHA Annual Conference on Nutrition, Physical Activity and Metabolism; 2010 March 2; San Francisco, CA. *Circulation* 2010 March; Suppl. Page 102, Poster P29.
- A168) Vanhecke TE, Franklin BA, Soman P, Lahiri A, Mieres JH, Sias T, Calnon D, Wolinsky D, Beller G, Burnham K, Conway L, Wight J, Walsh M, Daher E, Heller G, Udelson JE, **McCullough PA**. Influence of Myocardial Ischemia on Outcomes in Patients with Systolic Versus Non-Systolic Heart Failure. *Journal of the American College of Cardiology* Volume 57, Issue 14, Supplement, 5 April 2011, Page E2015. Best Fellow-in-Training Poster.
- A169) Babyev R, Whaley-Connell A, Kshirsaga AV, Navaneethan S, Chen SC, Li S, **McCullough PA**, Bakris GL, Bomback AS, for the KEEP Investigators. Race does not influence ESRD and mortality in obese patients with CKD stages 3-4: results from the Kidney Early Evaluation Program. NKF 2010 Spring Clinical Meetings, Las Vegas, NV, April 24-30, 2011, P55.
- A170) Bose S, Mehta NN, Chen SC, **McCullough PA**, for the KEEP Investigators. Poor glycemic control but not dyslipidemia is associated with albuminuria in patients with CKD and type 2 diabetes mellitus: a Kidney Early Evaluation Program report. NKF 2011 Spring Clinical Meetings, Las Vegas, NV, April 24-30, 2011, P56.
- A171) Whaley-Connell A, Saab G, Szpunar S, Stevens L, Shlipak M, Bomback A, Tamura MK, McFarlane S, Li S, Chen SC, Collins A, Norris K, Bakris G, **McCullough, PA**, for the KEEP Investigators. Disease state awareness, kidney disease, and relationship to ESRD and death. NKF 2011 Spring Clinical Meetings, Las Vegas, NV, April 24-30, 2011, P121.

Peter A. McCullough, M.D., M.P.H.

- A172) Shah A, Fried L, Chen SC, Qiu Y, Li S, Cavanaugh K, Norris KC, Whaley-Connell AT, **McCullough PA**, Mehrotra R. Associations between access to care and awareness of chronic kidney disease. NKF 2012 Spring Clinical Meetings, Washington, DC, May 9-13, 2012, P170.
- A173) Akrawinthawong K, Shaw M, Kachner J, Apostolov E, Basnakian A. Shah S, Tilak J, **McCullough PA**. Urine catalytic iron and neutrophil gelatinase associated lipocalin as companion early markers of acute kidney injury after cardiac surgery: a prospective pilot study. NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P02. Am J Kidney Disease 2013;61(4):A1.
- A174) Mehrotra R, Chen SC, Kestenbaum B, Peralta C, Saab G, Sachs M, Shah A, Li S, Norris K, Whaley-Connell A. **McCullough PA**. Serum phosphorus and death or progression to end-stage renal disease in persons screened in the community for chronic kidney disease. NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P149. Am J Kidney Disease 2013;61(4):A7.
- A175) Amin A, Chen SC, Kosiborod M, Whaley-Connell A, Li S, **McCullough PA**. Synergistic relationship between eGFR and microalbuminuria in predicting long-term progression to ESRD or death in patients with piabetes: results from KEEP. NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P176. Am J Kidney Disease 2013;61(4):A8.
- A176) Jurkovitz C, Li S, Norris K, Saab G, Bomback A, Whaley-Connell A, **McCullough PA**. Association Between Lack of Health Insurance and Risk of Death and ESRD: Results from the Kidney Early Evaluation Program (KEEP). NKF 2013 Spring Clinical Meetings, Orlando, FL, April 3-5, 2013, P135. Am J Kidney Disease 2013;61(4):A6.
- A177) Larsen TR, Singh G, Velocci V, **McCullough PA**. Bioimpedence and fluid overload in patients admitted to the intensive care unit for sepsis syndromes. Blood Purif 2013;35:241.
- A178) Manatsathit W, Al-Hamid H, Gill B, Leelasinjaroen P, Hashmi U, Barawi M, **McCullough P**. Experience in the management of upper gastrointestinal bleeding and outcomes in patients taking dabigatran compared with warfarin: a retrospective, comparative study. Am J Gastroenterol 2013; 108:S464-S465.
- A179) Fried LF, Emanuele N, Hongyuan Zhang J, Brophy M, Conner T, Duckworth W, Leehey DJ, **McCullough PA**, O'Connor TZ, Palevsky PM, Reilly RF, Seliger SL, Warren S, Watnick S, Peduzzi P, Guarino P. Combined Angiotensin Inhibition for Treatment of Diabetic Nephropathy: VA Nephron-D Trial. HI-OR03 J Am Soc Nephrol 24: 2013.
- A180) Kumar N, **McCullough PA**. Epidemiology of Cardiovascular Mortality in Patients with Chronic Kidney Disease and End-Stage Renal Disease. SA-PO235 J Am Soc Nephrol 24: 2013.
- A181) Khan S, **McCullough PA**, Chawla LS, Beaver TM, Bennett Guerrero E, Wang D, Houser MT. M13-796 Study Design – A Phase 2b, Randomized, Double-Blind, Placebo-Controlled, Safety and

Peter A. McCullough, M.D., M.P.H.

Effi cacy Trial of Multiple Dosing Regimens of ABT-719 for Prevention of Acute Kidney Injury in Patients Undergoing High Risk Cardiac Surgeries. PUB013, J Am Soc Nephrol 24: 2013.

- A182) Larsen T, Kinni V, Zaks J, David S, **McCullough P**. A Lethal Case of Influenza and Type 5 Cardiorenal Syndrome. Crit Care Med 2013;41(12 Suppl.):1296.
- A183) Akrawinthawong K, Parker G, Stivers D, Cannon L, Dixon S, Ricci J, Kupfer K, Alexander P, David S, **McCullough PA**. Subclinical and clinical contrast-induced acute kidney injury: results from the ENCINO Study. Am J Kidney Dis 2014;63(5):A23
- A184) Palazzuoli A, Pellegrini M, Ruocco G, Martini G, Franci B, Campagna MS, Gillemann M, Nuti N, **McCullough PA**, Ronco C. Continuous versus bolus intermittent loop diuretic infusion in acutely decompensated heart failure: a prospective randomized trial. European Heart Journal 2014; 35:386; Suppl 1; Meeting Abstract: 2226; European Society of Cardiology Congress, Barcelona, Spain, 2014
- A185) Shin HJ, **McCullough PA**, Li S, Cho E, Rimm E, Rosner B, Manson JE, Hu FB. The Association Between Diet Quality After Diabetes Diagnosis and Major Cardiovascular Events in Women With Type 2 Diabetes Mellitus. Circulation. 2014;130:A17257
- A186) Oudiz R, Meyer C, Chin M, Feldman J, Goldsberry A, McConnell J, **McCullough P**, O'Grady M, Tapson V, Torres F, Waxman A, White R. Initial Data Report from "LARIAT": A Phase 2 Study of Bardoxolone Methyl in PAH Patients on Stable Background Therapy. Chest 2015;148(4_MeetingAbstracts):639A. doi:10.1378/chest.2345856
- A187) **McCullough PA**, Spinowitz B. Novel Agents for the Prevention and Management of Hyperkalemia. Journal of Managed Care and Speciality Pharmacy, Supplement 21 (10-a), October 2015: E23.
- A188) Haase VH, Hartman CS, Maroni BJ, Farzaneh-Far R, **McCullough PA**. Vadadustat, a Novel Oral Treatment for Anemia of Chronic Kidney Disease, Maintains Stable Hemoglobin Levels in Dialysis Patients Converting from Erythropoiesis-Stimulating Agents. SA-PO1110 J Am Soc Nephrol 26: 2015.
- A189) Palazzuoli A, Ruocco G, Pellegrini M, Franci B, Campagna MS, Nuti R, Ronco C, **McCullough PA**. Impact of loop diuretic infusion modalities on congestion signs and outcomes in patients with acute heart failure. European Heart Journal 2015; 36:672, Suppl 1 Meeting Abstract: P3791; European Society of Cardiology Congress, London, UK 2015.
- A190) Haase V, Hartman C, Maroni B, Farzaneh-Far R, **McCullough P**. Vadadustat Maintains Stable Hemoglobin Levels in Dialysis Patients Converting from Erythropoiesis-Stimulating Agent (ESA). Poster 171. NKF Spring Clinical Meetings, 2016.

Peter A. McCullough, M.D., M.P.H.

- A191) Munkres AG, Vasudevan A, Shin HJ, Sarmast SA, **McCullough PA**. Abstract 212: Integration of Multiple Cardiac Biomarkers into a Disease-Specific Score: Relationship to Clinical Status and Therapeutic Intensity. *Circulation: Cardiovascular Quality and Outcomes*, March, 2016.
- A192) Tecson K, Silver M, Brune S, Cauthen C, Kwan M, Schussler J, Vasudevan A, Watts J, **McCullough PA**. Impact of Enhanced External Counterpulsation on Heart Failure Rehospitalization Among Patients with Ischemic Cardiomyopathy. *J Am Coll Cardiol*. 2016;67(13_S):1545. doi:10.1016/S0735-1097(16)31546-7.
- A193) Prasad A, Morales J, Williams K, Sohn A, Levin D, Khan A, **McCullough P**, Mehran R, Bailey S. Contemporary Practice Patterns Related to the Risk of Acute Kidney Injury in the Catheterization Laboratory: Results from an International Survey of Society of Cardiovascular Angiography and Intervention (SCAI) Cardiologists. *Journal of the American College of Cardiology* Volume 67, Issue 13, Supplement, 5 April 2016, Page 322
- A194) Mazimba S, **McCullough P**, Rosner M, Mejia-Lopez E, Bilchick K. Changes in Renal Perfusion Pressure During Hemodynamically Guided Therapy is Associated with Worsening Renal Function. *Journal of the American College of Cardiology* Volume 69, Issue 11, Supplement, 21 March 2017, Page 768
- A195) Mazimba S, Welch T, **McCullough P**, Breathett K, Tallaj J, Bergin J, Kennedy J, Smith L, Abuannadi M, Bilchick B. Systemic Arterial Pulsatility Index (SAPI) Predicts Adverse Outcomes in Advanced Heart Failure Patients. *Journal of the American College of Cardiology* Volume 69, Issue 11, Supplement, 21 March 2017, Page 856
- A196) Vasudevan A, **McCullough PA**, Sathyamoorthy M, Schussler JM, Velasco CE, Lopez LR, Swift C, Schiffmann R, Bottiglieri T. Abstract 104: Urinary 11-Dehydro-Thromboxane B2 and Mortality in Patients with Stable Coronary Artery Disease. Scientific Poster Abstracts Selected for the 2016 Congress on Atherosclerotic Cardiovascular Disease Prevention, Sept. 16-18, 2016, Boca Raton, Florida., *Clin Cardiol*. 2016 Sep;39 Suppl 1:4-18. doi: 10.1002/clc.22597.
- A197) Tecson KM, Hamman BL, Choi JW, Garg P, Olugbode OA, Schussler JM, Stoler RC, Vasudevan A, Velasco CE, **McCullough PA**. Abstract 15609: The Effect of Contrast-Induced Acute Kidney Injury in High Risk Patients Undergoing Cardiac Surgery. *Circulation*. 2016;134(Suppl 1).
- A198) Ballantyne CM, **McCullough PA**, Sanganalmath SK, Koren A, Letierce A, Davidson MH. Safety and Efficacy of Alirocumab in Patients With Atherosclerotic Cardiovascular Disease, Based on Statin Intensity: Pooled Analyses of 5 Placebo-controlled Phase 3 Trials. *Circulation*. 2016;134:A16873.
- A199) Pergola PE, Spinowitz BS, **McCullough PA**, Singh B, Menoyo JA, Lavin PT, Rasmussen HS, Fishbane S. Effect of Sodium Zirconium Cyclosilicate Treatment for Hyperkalemia on Blood Pressure in a Long-Term Open-Label Phase 3 Study. *J Am Soc Nephrol* 27: 2016 (TH-PO478).

Peter A. McCullough, M.D., M.P.H.

- A200) Golestaneh L, Gaber AO, Kalim S, **McCullough PA**, Germain MJ. Neutrophil Gelatinase-Associated Lipocalin (NGAL) Correlates to AKI Stage in ICU Patients. J Am Soc Nephrol 27: 2016 (TH-PO643).
- A201) Kalim S, Gaber AO, Golestaneh L, Germain MJ, **McCullough PA**. Multi Center ICU Study Finds NGAL Increases Rate of AKI Detection. J Am Soc Nephrol 27: 2016 (TH-PO667).
- A202) Haase VH, Khawaja Z, Chan J, Zuraw Q, Farzaneh-Far R, Maroni BJ, **McCullough PA**. Vadadustat Maintains Hemoglobin (Hb) Levels in Dialysis-Dependent Chronic Kidney Disease (DD-CKD) Patients Independent of Systemic Inflammation or prior Dose of Erythropoiesis-Stimulating Agent (ESA). J Am Soc Nephrol 27: 2016 (TH-PO960).
- A203) Bottiglieri T, Vasudevan A, Lopez LR, Swift C, Schiffmann R, **McCullough P**. Increased F2-Isoprostane Oxidative Stress in Coronary Artery Disease (CAD) Patients with Poor Aspirin-Induced Thromboxane A2 Inhibition. 84th European Atherosclerosis Society (EAS) Congress, Innsbruck, Austria, May 29-June 1, 2016.
- A204) Winkelmayer W, Block G, Chertow G, Fishbane S, Komatsu Y, **McCullough P**, Pergola P, Rosenberger C, Williamson D, Yee J, Collins A, Khawaya Z, Sharma A, Zuraw Q, Maroni B. The INNO2VATE Phase 3 Program of Vadadustat for Treatment of Anemia in Dialysis-Dependent CKD: Rationale and Study Design. Poster 173. NKF Spring Clinical Meetings, 2017.
- A205) Lopez LR, Vasudevan A, Sathyamoorthy M, Schussler JM, Velasco C, Swift C, Schiffmann R, Bottiglieri T, **McCullough, PA**. Relationship of platelet thromboxane inhibition by aspirin and all-cause mortality in patients with stable coronary artery disease. 85th European Atherosclerosis Society (EAS) Congress, SAG007, pg 90, Prague, Czech Republic, April 24-26, 2017
- A206) Oudiz RJ, Meyer C, Chin M, Feldman J, Goldsberry A, McConnel JWI, **McCullough PA**, O'Grady M, Tapson VF, Torres F, Waxman A, White J. Results of Interim Analysis of the Efficacy and Safety of Bardoxolone Methyl in Patients with Pulmonary Arterial Hypertension Associated with Connective Tissue Disease (CTD) (The LARIAT Study) American Journal of Respiratory and Critical Care Medicine 2017;195:A6896 http://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2017.195.1_MeetingAbstracts.A6896
- A207) **McCullough PA**, Weir MR, deGoma EM, Zuraw Q, Sharma A, Luo W, Middleton J. Vadadustat does not prolong corrected QT interval in a thorough QTC study in healthy subjects. MP418. 54th ERA-EDTA Congress, Madrid, Spain, June 3-6, 2017. www.era-edta2017.org
- A208) Meyer C, Warnock D, Chin M, Goldsberry A, **McCullough P**, O'Grady M, Toto R, Ward K, Block G, Pergola P. MP142 A Phase 2/3 Study of the Efficacy and Safety of Bardoxolone Methyl in Patients with Alport Syndrome. Nephrology Dialysis Transplantation, Volume 32, Issue suppl_3, 1 May 2017, Pages iii480.

Peter A. McCullough, M.D., M.P.H.

- A209) **McCullough PA**, Uhlig K, Neylan JF, Fishbane S. Safety and Efficacy of Ferric Citrate in Patients with Nondialysis-Dependent Chronic Kidney Disease and Iron Deficiency Anemia: Post Hoc Analysis in Patients with or Without Heart Failure. *Journal of Cardiac Failure*, August 2017, Volume 23, Issue 8, Supplement, Pages S64–S65.
- A210) **McCullough PA**, David G, Todoran T, Brilakis ES, Ryan MP, Gunnarsson C. Iso-Osmolar Contrast Media and Adverse Renal and Cardiac Events after Percutaneous Cardiovascular Intervention. Poster accepted for presentation at ISPOR 20th Annual European Congress, November 4-8, 2017, Glasgow, Scotland, *Value in Health*, 2017.
- A211) Fried L, Emanuele N, Huang Y, Zhang JH, Palevsky PM, Johnson GR, Seliger SL, **McCullough PA**, Conner TA, Brophy M. ESRD and Mortality after VA NEPHRON-D. American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: TH-PO717
- A212) Block GA, Pergola PE, Inker L, **McCullough PA**, Chin M, Meyer CH, Rheault MN, Kashtan C, Warnock DG. Initial Data Report from “CARDINAL”: A Phase 2/3 Study of Bardoxolone Methyl in Patients with Alport Syndrome. American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: FR-PO1053
- A213) Fishbane S, Adler SH, Singh B, Lavin PT, **McCullough PA**, Kosiborod M, Pergola PE, Packham DK, Roger SD, Lerma EV, Butler J, Von haehling S, Spinowitz BS, Block GA. Maintained Efficacy and Safety of Sodium Zirconium Cyclosilicate for Hyperkalemia: 12-Month, Open-Label, Phase 3 Study, American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: TH-PO1112
- A214) Packham DK, **McCullough PA**, Kosiborod M, Spinowitz BS, Fishbane S, Pergola PE, Lerma EV, Butler J, Von haehling S, Adler SH, Singh B, Lavin PT. Efficacy and Safety of Short-Term Treatment with Sodium Zirconium Cyclosilicate (ZS-9) for Hyperkalemia: Open-Label, Phase 3 Trial. American Society of Nephrology Kidney Week 2017, November 1-5, 2017, New Orleans, LA, ABSTRACT: FR-PO1074
- A215) **McCullough PA**, Pergola P, Fishbane S, von Haehling S, Roger S, Adler S, Singh B, Lavin P, Butler J, Block G, Lerma E, Packham D, Kosiborod M. Efficacy and Safety of Sodium Zirconium Cyclosilicate to Treat Hyperkalemia Among Patients Taking Renin–Angiotensin–Aldosterone System Inhibitors in a 12-Month, Open-Label, Phase 3 Study: A Post Hoc Subgroup Analysis. *Circulation*. 2017;136:A16610
- A216) Ambrosy AP, Mulder H, Coles A, Krauss WE, Lam CS, **McCullough PA**, Pina I, Tromp J, Whellan DJ, O’Connor C, Mentz RJ. Renal Function and Exercise Training in Ambulatory Heart Failure Patients With a Reduced Ejection Fraction - Findings From the HF-ACTION Randomized Controlled Trial. *Circulation*. 2017;136:A17039

Peter A. McCullough, M.D., M.P.H.

- A217) Tecson KM, Kluger AY, DiMario S, Harrison D, **McCullough PA**. Abstract 131: Recurrent acute cardiovascular events and statin use. *Circ: Cardiovasc Qual Outcomes*. 2018;11(Suppl 1):A131 LP – A131. http://circoutcomes.ahajournals.org/content/11/Suppl_1/A131.abstract.
- A218) Roger S, Lavin P, Lerma E, **McCullough PA**, Butler J, Spinowitz B, von Haehling S, Kosiborod M, Adler S, Fishbane S, Packham D. Safety and Efficacy of Sodium Zirconium Cyclosilicate for Long-Term Treatment of Hyperkalaemia in Patients with Chronic Kidney Disease: Results From an Open-Label, Phase 3 Study. FP071, 55th ERA-EDTA Congress, Copenhagen, Denmark, May 24-27, 2018
- A219) Rossing P, Block GA, Chertow GM, Chin M, Goldsberry A, **McCullough PA**, Meyer CJ, Packham D, Spinowitz B, Sprague SM, Warnock DG, Pergola PE. Effect of Bardoxolone Methyl Treatment on Urinary Albumin in Patients with Type 2 Diabetes and Chronic Kidney Disease – Post-Hoc Analysis from BEAM and BEACON. FP152, 55th ERA-EDTA Congress, Copenhagen, Denmark, May 24-27, 2018
- A220) Meyer CJ, Chakinala MM, Chin MP, Coyne DW, Feldman J, Goldsberry A, **McCullough PA**, O’Grady M, Torres F, Oudiz RJ, Ward K, White RJ. Two-Year Durability of Improvements In eGFR with Bardoxolone Methyl in Patients with Pulmonary Arterial Hypertension: The LARIAT Study. FP804, 55th ERA-EDTA Congress, Copenhagen, Denmark, May 24-27, 2018
- A221) Barker CM, Van Houten J, Mehta H, Cord D, Gunnarsson, Mollenkopf S, Verta P, **McCullough PA**. The Healthcare Burden of Disease Progression in Medicare Patients with Functional Mitral Regurgitation. *J Am Coll Cardiol* March 12, 2019, 73 (9 Supplement 1) 1051; DOI:10.1016/S0735-1097(19)31658-4
- A222) Cork DP, Mehta H, Barker CM, Verta P, Gunnarsson C, Ryan MP, Baker ER, Mollenkopf S, Van Houten J, **McCullough PA**. The Economic Impact of Mitral Regurgitation, on Medically Managed Incident Heart Failure. *J Am Coll Cardiol* March 12, 2019, 73 (9 Supplement 1) 1130; DOI:10.1016/S0735-1097(19)31737-1
- A223) Cork DP, Mehta H, Barker CM, Verta P, Ryan MP, Baker E, Gunnarsson C, Mollenkopf S, Van Houten J, **McCullough PA**. The Impact of Mitral Regurgitation on Mortality and Heart Failure Admissions in Newly Diagnosed Heart Failure. *J Am Coll Cardiol* March 12, 2019, 73 (9 Supplement 1) 1131; DOI:10.1016/S0735-1097(19)31738-3
- A224) **McCullough PA**, Cork DP, Mehta HS, Barker CM, Gunnarsson C, Ryan M, Mollenkopf S, Van Houten J, Verta P. Abstract 151: Therapeutic Intensity in Medically Managed Incident Heart Failure Patients with and without Mitral Regurgitation: A Claims Based Analysis. 4 Apr 2019 https://doi.org/10.1161/hcq.12.suppl_1.151 *Circulation: Cardiovascular Quality and Outcomes*. 2019;12:A151
- A225) Van Houten J, Cork D, Mehta H, Barker C, Verta P, Gunnarsson C, Ryan MP, Baker ER, Mollenkopf S, **McCullough PA**. Therapeutic Intensity Algorithm is Associations with Annual

Peter A. McCullough, M.D., M.P.H.

Expenditures in Medically Managed Incident Heart Failure Patients with and without Mitral Regurgitation. ISPOR (The Professional Society for Health Economics and Outcomes Research) New Orleans, LA May 21, 2019 (top 10% award winner).

A226) Barker C, Cork D, **McCullough P**, Mehta H, Van Houten J, Gunnarsson C, Mollenkopf S, Verta P. Survival in Clinically Significant Tricuspid Regurgitation Patients with and without Heart Failure: Evidence from Optum's Integrated Databases. J Am Coll Cardiol March 29, 2020, 71 (11 Supplement 1) 1319; DOI:10.1016/S0735-1097(20)31946-X, <https://www.jacc.org/doi/10.1016/S0735-1097%2820%2931946-X>

A227) Mehta H, **McCullough P**, Cork D, Barker C, Van Houten J, Gunnarsson C, Mollenkopf S, Verta P. Medical Therapy in Patients with Functional Mitral Regurgitation: Are Patients Optimized in the Real World? J Am Coll Cardiol March 29, 2020, 71 (11 Supplement 1) 1322; DOI:10.1016/S0735-1097(20)31949-5. <https://www.jacc.org/doi/10.1016/S0735-1097%2820%2931949-5>

A228) **McCullough PA**, Mehta H, Barker C, Van Houten J, Mollenkopf S, Gunnarsson C, Ryan M, Cork D. Mortality and Guideline Directed Medical Therapy in Heart Failure Patients with Reduced Ejection Fraction: Evidence from Real World Data. J Am Coll Cardiol May 15, 2021, 77 (18_Supplement_1) 670; DOI: 10.1016/S0735-1097(21)02029-5 <https://www.jacc.org/doi/full/10.1016/S0735-1097%2821%2902029-5>

A229) Tecson KM, Kluger AY, Cassidy-Bushrow AE, Liu B, Coleman CM, Jones LK, Jefferson CR, VanWormer JJ, Xiang P, Habib M, Mues KE, **McCullough PA**. Early Statin Use and Recurrent Major Adverse Cardiovascular Events: A Multicenter Study. Lipid Management Best Practices. 2020;14(4): 561. Doi: 10.1016/j.jacl.2020.05.030

A230) Bottiglieri T, Arning E, Tecson KM, **McCullough PA**. The Plasma Metabolome is Significantly Altered in Hypercholesterolemia. Circ Res. 2020;127(12): e272-e284. Doi: 10.1161/RES.0000000000000450

A231) Hamadeh A, Aldujeli A, Briedis K, Tecson KM, Sanchez JS, Al Dujeli M, Al-Obeidi A, Diez-Gil JL, Zaliunas R, Stoler R, **McCullough PA**. TCT CONNECT-213 Clinical Characteristics and Outcomes of Patients With COVID-19 and STEMI Treated With Fibrinolytic Therapy. J Am Coll Cardiol. 2020;76(17):B89–90. doi: 10.1016/j.jacc.2020.09.228.

A232) **McCullough PA**. (2021) Multifaceted Highly Targeted Sequential Multidrug Treatment of Early Ambulatory High-Risk SARS-CoV-2 Infection (COVID-19). J Infect Dis Res, 4(S1): 10.

Peer-Reviewed Published Manuscripts

M1) **McCullough PA**, O'Neill WW. Influence of Regional Cardiovascular Mortality on the Use of Angiography after Acute Myocardial Infarction. Am J Cardiol 1997;79:575-80. PMID: 97221465.

Peter A. McCullough, M.D., M.P.H.

- M2) Stewart RE, Miller DD, Bowers TR, **McCullough PA**, Ponto RA, Grines CL, O'Neill WW, Juni JE, Safian RD. PET Perfusion and Vasodilator Function after Angioplasty for Acute Myocardial Infarction. *J Nuc Med* 1997;38:770-777. PMID: 97314102.
- M3) Aliabadi D, Pica MC, **McCullough PA**, Grines CL, Safian RD, O'Neill WW, Goldstein JA. Rapid Bedside Coronary Angiography with a Portable Fluoroscopic Imaging System. *Cathet Cardiovasc Diagn* 1997;41(4):449-455. PMID: 97403128.
- M4) **McCullough PA**, Wolyn R, Rocher LL, Levin RN, O'Neill WW. Acute Renal Failure after Coronary Intervention: Incidence, Risk Factors, and Relationship to Mortality. *Am J Med* 1997;103:368-375. PMID: 98041552.
- M5) Thompson RJ, **McCullough PA**, Kahn JK, O'Neill WW. Prediction of Death and Neurologic Outcome in the Emergency Department in Out-of-Hospital Cardiac Arrest Survivors. *Am J Cardiol* 1998;81:17-21. PMID: 98122431.
- M6) **McCullough PA**, Ayad O, O'Neill WW, Goldstein JA. Costs and Outcomes of Patients Admitted with Chest Pain and Essentially Normal Electrocardiograms. *Clin Cardiol* 1998;21:22-26. PMID: 98134803.
- M7) **McCullough PA**, Smith GS. Evaluation of Narrative Text for Case Finding: The Need for Accuracy Measurement. *Am J Ind Med* 1998;34:133-136. PMID: 98315422.
- M8) **McCullough PA**, Thompson RJ, Tobin KJ, Kahn JK, O'Neill WW. Validation of a Decision Support Tool for the Evaluation of Cardiac Arrest Victims. *Clin Cardiol* 1998;21:195-200. PMID: 98202866
- M9) **McCullough PA**, O'Neill WW, Graham M, Stomel RJ, Rogers F, David S, Farhat A, Kazlauskaitė R, Al-Zagoum M, Grines CL. A Prospective Randomized Trial of Triage Angiography in Acute Coronary Syndromes Ineligible for Thrombolytic Therapy: Results of the Medicine versus Angiography in Thrombolytic Exclusion (MATE) Trial. *J Am Coll Cardiol* 1998;32:596-605. PMID: 98412530.
- M10) Redle JD, Khurana S, Marzan R, **McCullough PA**, Stewart JR, Westveer DC, O'Neill WW, Bassett JS, Tepe NA, Frumin HI. Prophylactic Oral Amiodarone Compared to Placebo for Prevention of Atrial Fibrillation Following Coronary Artery Bypass Surgery. *Am Heart J* 1999;138:144-150. PMID: 10385778.
- M11) Stevens MA, **McCullough PA**, Tobin KJ, Speck JP, Westveer DC, Guido-Allen DA, Timmis GC, O'Neill WW. A Prospective Randomized Trial of Prevention Measures in Patients at High Risk for Contrast Nephropathy: Results of the P.R.I.N.C.E. Study. *J Am Coll Cardiol* 1999;33:403-411. PMID: 99137305.

Peter A. McCullough, M.D., M.P.H.

- M12) **McCullough PA**, O'Neill WW. Unstable Angina: Early Use of Coronary Angiography and Intervention. *Cardiol Clin* 1999;17(2):373-386. PMID: 10384833.
- M13) **McCullough PA**, Marks KR. Aspirin and Ticlopidine after Routine Coronary Stenting: The Gold Standard as of 1999. *J Thromb Thrombolysis* 1999;7:233-239. PMID: 10373716.
- M14) Sharma ND, **McCullough PA**, Philbin EF, Weaver WD. Left Ventricular Thrombus and Subsequent Thromboembolism in Patients with Severe Systolic Dysfunction. *Chest* 1999;117:314-320. PMID: 10669669.
- M15) **McCullough PA**, O'Neill WW, Graham M, Stomel RJ, Rogers F, David S, Farhat A, Kazlauskaitė R, Al-Zagoum M, Grines CL. Impaired Culprit Vessel Flow in Acute Coronary Syndromes Ineligible for Thrombolysis. *J Thromb Thrombolysis* 2001;10(3):247-253. PMID: 11122545.
- M16) **McCullough PA**, O'Neill WW, Graham M, Stomel RJ, Rogers F, David S, Farhat A, Kazlauskaitė R, Al-Zagoum M, Grines CL. A Time to Treatment Analysis in the Medicine versus Angiography in Thrombolytic Exclusion (MATE) Trial. *J Intervent Cardiol* 2001;14(4):415-422. PMID: 12053495.
- M17) **McCullough PA**, Soman SS, Shah SS, Smith ST, Marks KR, Yee J, Steven Borzak S. Risks Associated with Renal Dysfunction in Coronary Care Unit Patients. *J Am Coll Cardiol* 2000;36(3):679-684. PMID: 10987584.
- M18) Philbin EF, **McCullough PA**, Dec GW, DiSalvo TG. Length of Stay and Procedure Utilization are the Major Determinants of Hospital Charges for Heart Failure. *Clin Cardiol* 2001;24:56-62. PMID: 11195608.
- M19) Philbin EF, **McCullough PA**, DiSalvo TG, Dec GW, Jenkins PL, Weaver WD. Socioeconomic Status is an Important Determinant of Utilization of Invasive Procedures after Acute Myocardial Infarction in New York State. *Circulation* 2000;102[suppl III]:III107-115. PMID: 11082372
- M20) Stone GW, Tumlin JA, Madyoon H, Lepor NE, **McCullough PA**, Mathur VS, Murray PT, O'Neill WW. Design and Rationale of CONTRAST--A Prospective, Randomized, Placebo-Controlled Trial of Fenoldopam Mesylate for the Prevention of Radiocontrast Nephropathy. *Rev Cardiovasc Med.* 2001;2 Suppl 1:S31-6. PMID: 12439366.
- M21) Philbin EF, **McCullough PA**, DiSalvo TG, Dec GW, Jenkins PL, Weaver WD. Underuse of invasive procedures among Medicaid patients with acute myocardial infarction. *Am J Public Health.* 2001 Jul;91(7):1082-8. PMID: 11441735
- M22) Bonifacio D, Malineni K, Kadakia R, Soman S, Sandberg K, **McCullough PA**. Coronary Calcification and Interventional Outcomes in Dialysis Patients. *J Cardiovasc Risk* 2001;8(3):133-7. PMID 11455844

Peter A. McCullough, M.D., M.P.H.

- M23) Beattie JN, Soman SS, Sandberg KR, Yee J, Borzak S, **McCullough PA**. Determinants of Mortality after Myocardial Infarction in Patients with Advanced Renal Dysfunction. *Am J Kid Disease* 2001;37:1191-2000. PMID 11382688.
- M24) Cannon CP, Weintraub WS, Demopoulos LA, Vicari R, Frey MJ, Lakkis N, Neumann FJ, Robertson DH, DeLucca PT, DiBattiste PM, Gibson CM, Braunwald E; TACTICS (Treat Angina with Aggrastat and Determine Cost of Therapy with an Invasive or Conservative Strategy)--Thrombolysis in Myocardial Infarction 18 Investigators (**McCullough PA**, Endpoints Committee). Comparison of early invasive and conservative strategies in patients with unstable coronary syndromes treated with the glycoprotein IIb/IIIa inhibitor tirofiban. *N Engl J Med*. 2001 Jun 21;344(25):1879-87. PMID: 11419424
- M25) Shah SS, Noor H, Tokarski G, McCord J, Khoury N, McCabe KB, Marks KR, Morlock RJ, **McCullough PA**. Clinical Effectiveness Evaluation of an Emergency Department Clinical Decision Unit. *British Journal of Clinical Governance* 2001;6(1):40-45.
- M26) Cheitlin MD, Gerstenblith G, Hazzard WR, Pasternak R, Fried LP, Rich MW, Krumholz HM, Peterson E, Reves JG, McKay C, Saksena S, Shen WK, Akhtar M, Brass LM, Biller J. (**McCullough PA**, Heart Failure Subcommittee). AHA Conference Proceedings: Do existing databases hold the answers to clinical questions in geriatric cardiovascular disease and stroke? Executive Summary. Database Conference, January 27-30, 2000. *Circulation*. 2001 Aug 14;104(7):E39. PMID: 11502721.
- M27) McCord J, Nowak RM, **McCullough PA**, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Jacobsen G, Weaver WD. Ninety Minute Exclusion of Acute Myocardial Infarction Using Quantitative Point of Care Testing of Myoglobin and Troponin I. *Circulation* 2001; Sep 25;104(13):1483-8. PMID: 11571240.
- M28) **McCullough PA**, Manley HJ. Prediction and Prevention of Contrast Nephropathy. *J Interven Cardiol* 2001;14(5):547-558. PMID: 12053647.
- M29) **McCullough PA**, Philbin EF, Spertus JA, Kaatz S, Sandberg KR, Weaver WD. Confirmation of a Heart Failure Epidemic: Findings from the Resource Utilization Among Congestive Heart Failure (R.E.A.C.H.) Study. *J Am Coll Cardiol* 2002;39:60-69. PMID: 11755288.
- M30) Riaz K, Forker AD, Garg M, **McCullough PA**. Atypical presentation of cocaine-induced Type A aortic dissection: a diagnosis made by transesophageal echocardiography. *J Investig Med*. 2002 Mar;50(2):140-2. PMID 11928942.
- M31) Levin A, Stevens L, **McCullough PA**. Cardiovascular disease and the kidney. Tracking a killer in chronic kidney disease. *Postgraduate Medicine* 2002;11(4):53-60. PMID 11985133.
- M32) Ketterer MW, Denollet J, Goldberg AD, **McCullough PA**, John S, Farha AJ, Clark V, Keteyian S, Chapp J, Thayer B, Deveshwar S. The Big Mush: Psychometric Measures are Confounded and

Peter A. McCullough, M.D., M.P.H.

Nonindependent in Their Association with Age at Initial Diagnosis of Ischemic Coronary Heart Disease. *J Cardiovasc Risk* 2002;9:41-48. PMID 11984216.

- M33) Abraham WT, Fisher WG, Smith AL, Delurgio DB, Leon AR, Loh E, Kocovic DZ, Packer M, Clavell AL, Hayes DL, Ellestad M, Trupp RJ, Underwood J, Pickering F, Truex C, McAtee P, Messenger J; MIRACLE Study Group. Multicenter InSync Randomized Clinical Evaluation (**McCullough PA**, Site Principal Investigator). Cardiac resynchronization in chronic heart failure. *N Engl J Med*. 2002 Jun 13;346(24):1845-53. PMID 12063368.
- M34) **McCullough PA**. Outcomes studies and the biomedical research enterprise. *J Interv Cardiol*. 2002 Apr;15(2):167-70. PMID 12063813.
- M35) Shenkman HJ, Pampati V, Khandelwal AK, McKinnon J, Nori D, Kaatz S, Sandberg KR, **McCullough PA**. Congestive Heart Failure and QRS Duration: Establishing Prognosis Study. *Chest* 2002 Aug;122(2):528-34. PMID 12171827.
- M36) Soman SS, Sandberg KR, Borzak S, Hudson MP, Yee J, **McCullough PA**. The Independent Association of Renal Dysfunction and Arrhythmias in Critically Ill Patients. *Chest* 2002 Aug;122(2):669-77. PMID 12171849.
- M37) Maisel AS, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AHB, Clopton P, **McCullough PA**, for the BNP Multinational Study Investigators. Bedside B-type Natriuretic Peptide in the Emergency Diagnosis of Heart Failure: Primary Results from the Breathing Not Properly (BNP) Multinational Study. *N Engl J Med*, 2002;347(3):161-167. PMID 12124404.
- M38) **McCullough PA**, Sullivan R. News and Views: Equipoise on Opening Chronic Total Occlusions. *J Interv Cardiol* 2002;15(3):243-247. PMID 12141153.
- M39) **McCullough PA**, Sandberg KR, Borzak S, Hudson MP, Garg M, Manley HJ. Benefits of aspirin and beta-blockade after myocardial infarction in patients with chronic kidney disease. *Am Heart J*. 2002 Aug;144(2):226-32. PMID 12177638.
- M40) **McCullough PA**, Nowak RM, McCord J, Hollander JE, Herrman HC, Steg PG, Duc P, Westheim A, Omland T, Wold Knudsen C, Storrow AB, Abraham WT, Lamba S, Wu AHB, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS, for the BNP Multinational Study Investigators. B-type Natriuretic Peptide and Clinical Judgment in the Emergency Diagnosis of Heart Failure: An Analysis from the Breathing Not Properly (BNP) Multinational Study. *Circulation* 2002;106:416-422. PMID 12135939.
- M41) **McCullough PA**, Nowak RM, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Weaver WD, Sandberg KR, McCord J. Emergency evaluation of chest pain in patients with advanced kidney disease. *Arch Intern Med*. 2002 Nov 25;162(21):2464-8. PMID 12437406.

Peter A. McCullough, M.D., M.P.H.

- M42) Gutterez N, Diaz A, Timmis GC, O'Neill WW, Stevens MA, **McCullough PA**. Determinants of serum creatinine trajectory in acute contrast nephropathy. *J Interv Cardiol*. 2002 Oct;15(5):349-54. PMID: 12440177.
- M43) **McCullough PA**, Prakash R, Tobin KJ, O'Neill WW, Thompson RJ. Application of a cardiac arrest score in patients with sudden death and ST segment elevation for triage to angiography and intervention. *J Interv Cardiol*. 2002 Aug;15(4):257-61. PMID 12238419.
- M44) Reddy HK, Koshy SK, Sturek M, Jayam VK, Bedi A, **McCullough PA**. Rationale and methods for assessment of coronary flow prior to coronary intervention: where are we headed? *J Interv Cardiol*. 2002 Aug;15(4):335-41. PMID 12238433.
- M45) Sengstock D, Pasnoori V, Obaidat O, Mehra P, Marks KR, **McCullough PA**. Asthma, Beta-Agonists, and the Development of Congestive Heart Failure: Results of the A.B.C.H.F. Study. *J Card Failure*, 2002;8(4):232-238. PMID 12397571.
- M46) Sullivan R, **McCullough PA**. Shifting statins from clinic to critical care. *J Interv Cardiol*. 2002 Oct;15(5):431-4. PMID 12440192.
- M47) **McCullough PA**. Cardiorenal Risk: An Important Clinical Intersection. *Rev Cardiovasc Med*. 2002;3(2):71-76. PMID 12447150
- M48) **McCullough PA**, Nowak RM, Foreback C, Borzak S, Tokarski G, Tomlanovich MC, Khoury NE, Weaver WD, Sandberg KR, McCord J. Performance of Multiple Cardiac Biomarkers Measured in the Emergency Department in Patients with Chronic Kidney Disease and Chest Pain. *Acad Emerg Med*. 2002 Dec;9(12):1389-1396. PMID 12460842
- M49) **McCullough PA**. Scope of cardiovascular complications in patients with kidney disease. *Ethn Dis*. 2002 Fall;12(4):S3-44-8. PMID 12477154
- M50) Safley DM, **McCullough PA**. Antiphospholipid syndrome with renal artery embolism: case report. *Rev Cardiovasc Med*. 2002 Fall;3(4):192-201. PMID: 12556753
- M51) **McCullough PA**, Sandberg KR, Yee J, Hudson MP. Mortality benefit of angiotensin-converting enzyme inhibitors after cardiac events in patients with end-stage renal disease. *J Renin Angiotensin Aldosterone Syst*. 2002 Sep;3(3):188-91. PMID: 12563570
- M52) **McCullough PA**. Beyond serum creatinine: defining the patient with renal insufficiency and why? *Rev Cardiovasc Med* 2003;4(Suppl 1):S2-S6. PMID 12556731
- M53) Riaz K, Forker AD, Isley WL, Hamburg MS, **McCullough PA**. Hyperthyroidism: a curable cause of congestive heart failure-three case reports and a review of the literature. *Congest Heart Fail*. 2003 Jan-Feb;9(1):40-6. PMID 12556677

Peter A. McCullough, M.D., M.P.H.

- M54) **McCullough PA**, Philbin EF, Spertus JA, Sandberg KR, Sullivan RA, Kaatz S. Opportunities for improvement in the diagnosis and treatment of heart failure. Clin Cardiol. 2003 May;26(5):231-7. PMID 12769251
- M55) Maisel AS, DeMaria A, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AHB, Clopton P, **McCullough PA**, for the BNP Multinational Study Investigators. Bedside B-Type natriuretic peptide in the emergency diagnosis of heart failure with reduced or preserved ejection fraction. Results from the Breathing Not Properly Multinational Study. J Am Coll Cardiol. 2003 Jun 4;41(11):2010-7. PMID 12798574
- M56) **McCullough PA**, Duc P, Omland T, McCord J, Nowak RM, Hollander JE, Herrmann HC, Steg PG, Westheim A, Knudsen CW, Storrow AB, Abraham WT, Lamba S, Wu AH, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS; Breathing Not Properly Multinational Study Investigators. B-type natriuretic peptide and renal function in the diagnosis of heart failure: an analysis from the Breathing Not Properly Multinational Study. Am J Kidney Dis. 2003 Mar;41(3):571-9. PMID 12612980
- M57) **McCullough PA**, Hollander JE, Nowak RM, Storrow AB, Duc P, Omland T, McCord J, Herrmann HC, Steg PG, Westheim A, Knudsen CW, Abraham WT, Lamba S, Wu AHB, Perez A, Clopton P, Krishnaswamy P, Kazanegra R, Maisel AS, for the BNP Multinational Study Investigators. Uncovering Heart Failure in Patients with a History of Pulmonary Disease: Rationale for the Early Use of B-type Natriuretic Peptide in the Emergency Department. Acad Emerg Med. 2003 Mar;10(3):198-204. PMID 12615582
- M58) **McCullough PA**. Why is chronic kidney disease the "spoiler" for cardiovascular outcomes? J Am Coll Cardiol. 2003 Mar 5;41(5):725-8. PMID 12628713
- M59) Riaz K, **McCullough PA**. Fatal case of delayed repolarization due to cocaine abuse and global ischemia. Rev Cardiovasc Med. 2003 Winter;4(1):47-53. PMID 12684601
- M60) Safley DM, **McCullough PA**. The Emerging Role of Brain Natriuretic Peptide in the Management of Acute and Chronic Heart Failure in Outpatients. Heart Fail Monit. 2003;4(1):13-20. PMID 12808480
- M61) **McCullough PA**, Philbin EF, Spertus JA, Sandberg KR, Kaatz S. Angiotensin converting enzyme inhibitors and beta-blockers in African Americans with heart failure. Ethn Dis. 2003 Summer;13(3):331-6. PMID 12894957.
- M62) **McCullough PA**. Acute coronary syndromes in patients with renal failure. Curr Cardiol Rep. 2003 Jul;5(4):266-70. PMID 12801443
- M63) **McCullough PA**. B-type natriuretic peptides. A diagnostic breakthrough in heart failure. Minerva Cardioangiol. 2003 Apr;51(2):121-9. PMID 12783068

Peter A. McCullough, M.D., M.P.H.

- M64) Keeley EC, Kadakia R, Soman S, Borzak S, **McCullough PA**. Analysis of long-term survival after revascularization in patients with chronic kidney disease presenting with acute coronary syndromes. *Am J Cardiol*. 2003 Sep 1;92(5):509-14. PMID 12943868.
- M65) **McCullough PA**, Omland T, Maisel AS. B-type natriuretic peptides: a diagnostic breakthrough for clinicians. *Rev Cardiovasc Med*. 2003 Spring;4(2):72-80. PMID 12776016
- M66) **McCullough PA**, Abraham WT. Does Quality of Life Evidence Assist in the Selection of Patients for Resynchronization Therapy? *Card Electrophysiol Rev*. 2003 Jan;7(1):71-76. PMID 12766523
- M67) Chew DP, Bhatt DL, Kimball W, Henry TD, Berger P, **McCullough PA**, Feit F, Bittl JA, Lincoff AM. Bivalirudin provides increasing benefit with decreasing renal function: a meta-analysis of randomized trials. *Am J Cardiol*. 2003 Oct 15;92(8):919-23. PMID 14556866
- M68) Maisel AS, **McCullough PA**. Cardiac natriuretic peptides: a proteomic window to cardiac function and clinical management. *Rev Cardiovasc Med*. 2003;4 Suppl 4:S3-S12. PMID 14564223
- M69) **McCullough PA**, Sandberg KR. Sorting out the evidence on natriuretic peptides. *Rev Cardiovasc Med*. 2003;4 Suppl 4:S13-9. PMID 14564224
- M70) **McCullough PA**, Sandberg KR. B-type natriuretic peptide and renal disease. *Heart Fail Rev*. 2003 Oct;8(4):355-8. PMID 14574057
- M71) Keeley EC, **McCullough PA**. Coronary revascularization in patients with end-stage renal disease: risks, benefits, and optimal strategies. *Rev Cardiovasc Med*. 2003 Summer;4(3):125-30. PMID 12949440.
- M72) McCord J, Nowak RM, Hudson MP, **McCullough PA**, Tomlanovich MC, Jacobsen G, Tokarski G, Khoury N, Weaver WD. The prognostic significance of serial myoglobin, troponin I, and creatine kinase-MB measurements in patients evaluated in the emergency department for acute coronary syndrome. *Ann Emerg Med*. 2003 Sep;42(3):343-50. PMID 12944886.
- M73) Sarnak MJ, Levey AS, Schoolwerth AC, Coresh J, Culleton B, Hamm LL, **McCullough PA**, Kasiske BL, Kelepouris E, Klag MJ, Parfrey P, Pfeffer M, Raij L, Spinosa DJ, Wilson PW; AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. Kidney disease as a risk factor for development of cardiovascular disease: a statement from the AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. *Circulation*. 2003 Oct 28;108(17):2154-69. PMID 14581387.

Peter A. McCullough, M.D., M.P.H.

- M74) Sarnak MJ, Levey AS, Schoolwerth AC, Coresh J, Culleton B, Hamm LL, **McCullough PA**, Kasiske BL, Kelepouris E, Klag MJ, Parfrey P, Pfeffer M, Raij L, Spinosa DJ, Wilson PW; AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. Kidney disease as a risk factor for development of cardiovascular disease: a statement from the AHA Councils on Kidney in Cardiovascular Disease, High Blood Pressure Research, Clinical Cardiology, and Epidemiology and Prevention. Hypertension. 2003 Nov;42(5):1050-65. PMID 14604997.
- M75) Stone GW, **McCullough PA**, Tumlin JA, Lepor NE, Madyoon H, Murray P, Wang A, Chu AA, Schaer GL, Stevens M, Wilensky RL, O'Neill WW; CONTRAST Investigators. Fenoldopam mesylate for the prevention of contrast-induced nephropathy: a randomized controlled trial. JAMA. 2003 Nov 5;290(17):2284-91. PMID 14600187.
- M76) Steg PG, Duc P, Joubin L, McCord J, Abraham WT, Hollander JE, Omland T, Baron G, Aumont MC, Mentre F, **McCullough PA**, Maisel AS. A comparison of bedside B-type natriuretic peptide versus echocardiographic determination of ejection fraction in the diagnosis of heart failure. J Am Coll Cardiol. 2003 Mar 19;41(6 Suppl B):337. PMID 14637402
- M77) Kernis SJ, Franklin BA, Sandberg KR, O'Neill WW, **McCullough PA**. Advantages of an early invasive approach in acute coronary syndromes. Am J Med. 2003 Dec 1;115(8):669-71. PMID 14656622
- M78) **McCullough PA**, Sandberg KR. Epidemiology of contrast-induced nephropathy. Rev Cardiovasc Med. 2003;4 Suppl 5:S3-9. PMID 14668704
- M79) Khanna A, **McCullough PA**. Malignant hypertension presenting as hemolysis, thrombocytopenia, and renal failure. Rev Cardiovasc Med. 2003 Fall;4(4):255-9. PMID 14674379
- M80) **McCullough PA**, Fonarow GC. B-type natriuretic peptide and multimarker approaches in cardiovascular medicine. Rev Cardiovasc Med. 2003;4 Suppl 4:S1-2. PMID 14703686
- M81) **McCullough PA**, Kuncheria J, Mathur VS. Diagnostic and therapeutic utility of B-type natriuretic peptide in patients with renal insufficiency and decompensated heart failure. Rev Cardiovasc Med. 2003;4 Suppl 7:S3-S12. PMID 14668695
- M82) Franklin BA, **McCullough PA**, Gordon S. Winter Storm Warning: Snow Removal May Be Hazardous to Your (Patient's) Health. Curr Sports Med Rep. 2004 Apr;3(2):59-61. PMID 14980132
- M83) Conaway DG, Sullivan RA, **McCullough PA**. Improved Symptoms, Physical Limitation, and Self-Efficacy After Resynchronization in a Patient with Heart Failure and a Prolonged QRS Duration. Rev Cardiovasc Med. 2004 Winter;5(1):53-7. PMID 15029112

Peter A. McCullough, M.D., M.P.H.

- M84) **McCullough PA**, Sandberg KR Chronic kidney disease and sudden death: strategies for prevention. *Blood Purif.* 2004;22(1):136-42. PMID 14732822
- M85) Knudsen, CW, Omland, T, Clopton P, Westheim, A, Abraham, WT, Storrow AB, J McCord, Nowak, RM, Steg, PG, Duc, P, **McCullough, PA**, Maisel, AS, for the BNP Multinational Study Investigators. Diagnostic Value of B-type Natriuretic Peptide and Chest Radiograph Findings in Patients with Acute Dyspnea. *Am J Med.* 2004 Mar 15;116(6):363-8. PMID 15006584
- M86) **McCullough PA**, Gibson CM, Dibattiste PM, Demopoulos LA, Murphy SA, Weintraub WS, Neumann FJ, Khanal S, Cannon CP; TACTICS-TIMI-18 INVESTIGATORS. Timing of Angiography and Revascularization in Acute Coronary Syndromes: *J Interv Cardiol.* 2004 Apr;17(2):81-86. PMID 15104769.
- M87) **McCullough PA**. B-type natriuretic peptide and its clinical implications in heart failure. *Am Heart Hosp J* 2004;2:26-33.
- M88) **McCullough PA**, Dorrell KA, Sandberg KR, Yerkey MW. Ximelagatran: a novel oral direct thrombin inhibitor for long-term anticoagulation. *Rev Cardiovasc Med.* 2004 Spring;5(2):99-103. PMID 15184843.
- M89) Maisel AS, Clopton P, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AH, Steg G, Westheim A, Knudsen CW, Perez A, Kazanegra R, Bhalla V, Herrmann HC, Aumont MC, **McCullough PA**; BNP Multinational Study Investigators. Impact of age, race, and sex on the ability of B-type natriuretic peptide to aid in the emergency diagnosis of heart failure: results from the Breathing Not Properly (BNP) multinational study. *Am Heart J.* 2004 Jun;147(6):1078-84. PMID 15199359.
- M90) **McCullough PA**. Cardiovascular risk reduction and preservation of renal function in the early nephropathy patient. *Adv Chronic Kidney Dis.* 2004 Apr;11(2):184-91. PMID 15216489.
- M91) Yerkey MW, Kernis SJ, Franklin BA, Sandberg KR, **McCullough PA**. Renal dysfunction and acceleration of coronary disease. *Heart.* 2004 Aug;90(8):961-6. PMID 15253986
- M92) **McCullough PA**, Soman S. Cardiovascular calcification in patients with chronic renal failure: Are we on target with this risk factor? *Kidney Int.* 2004 Sep;66 Suppl 90:S18-24. PMID 15296503
- M93) **McCullough PA**, Sandberg KR, Dumler F, Yanez JE. Determinants of coronary vascular calcification in patients with chronic kidney disease and end-stage renal disease: a systematic review. *J Nephrol.* 2004 Mar-Apr;17(2):205-15. PMID 15293519
- M94) **McCullough PA**. Opportunities for improvement in the cardiovascular care of patients with end-stage renal disease. *Adv Chronic Kidney Dis.* 2004 Jul;11(3):294-303. PMID 15241743

Peter A. McCullough, M.D., M.P.H.

- M95) Dumler F, **McCullough PA**. Optimal dialysis for the end-stage renal disease patient with cardiovascular disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):261-73. PMID 15241741
- M96) Keeley EC, **McCullough PA**. Coronary revascularization in patients with coronary artery disease and chronic kidney disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):254-60. PMID 15241740
- M97) **McCullough PA**. Guest editorial: Cardiovascular care in end-stage renal disease. *Adv Chronic Kidney Dis*. 2004 Jul;11(3):245. PMID 15241738
- M98) **McCullough PA**, Bakris GL, Owen WF Jr, Klassen PS, Califf RM. Slowing the progression of diabetic nephropathy and its cardiovascular consequences. *Am Heart J*. 2004 Aug;148(2):243-51. PMID 15308993
- M99) Best PJ, Reddan DN, Berger PB, Szczech LA, **McCullough PA**, Califf RM. Cardiovascular disease and chronic kidney disease: insights and an update. *Am Heart J*. 2004 Aug;148(2):230-42. PMID 15308992
- M100) Bakris GL, Toto RD, **McCullough PA**. Rationale and design of a study comparing two fixed-dose combination regimens to reduce albuminuria in patients with type II diabetes and hypertension. *J Hum Hypertens*. 2004 Sep 30 PMID 15457206.
- M101) Wu AH, Omland T, Duc P, McCord J, Nowak RM, Hollander JE, Herrmann HC, Steg PG, Wold Knudsen C, Storrow AB, Abraham WT, Perez A, Kamin R, Clopton P, Maisel AS, **McCullough PA**. Breathing Not Properly Multinational Study Investigators. The effect of diabetes on B-type natriuretic peptide concentrations in patients with acute dyspnea: an analysis from the Breathing Not Properly Multinational Study. *Diabetes Care*. 2004 Oct;27(10):2398-404. PMID 15451907
- M102) **McCullough PA**, Franklin BA. Conventional risk factors and cardiac events--debunking an old myth about prevalence. *Rev Cardiovasc Med*. 2004 Summer;5(3):185-6. PMID 15346104
- M103) Maisel A, Hollander JE, Guss D, **McCullough P**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalla MA, Bhalla V, Clopton P, Jesse R; Rapid Emergency Department Heart Failure Outpatient Trial investigators. Primary results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT): a multicenter study of B-type natriuretic peptide levels, emergency department decision making, and outcomes in patients presenting with shortness of breath. *J Am Coll Cardiol*. 2004 Sep 15;44(6):1328-33. PMID 15364340
- M104) **McCullough PA**. Cardiovascular disease in chronic kidney disease from a cardiologist's perspective. *Curr Opin Nephrol Hypertens*. 2004 Nov;13(6):591-600. PMID: 15483448

Peter A. McCullough, M.D., M.P.H.

- M105) McCord J, Mundy BJ, Hudson MP, Maisel AS, Hollander JE, Abraham WT, Steg PG, Omland T, Knudsen CW, Sandberg KR, **McCullough PA**. Relationship between obesity and B-type natriuretic Peptide levels. *Arch Intern Med*. 2004 Nov 8;164(20):2247-52. PMID: 15534162
- M106) Wase A, Basit A, Nazir R, Jamal A, Shah S, Khan T, Mohiuddin I, White C, Saklayen M, **McCullough PA**. Impact of chronic kidney disease upon survival among implantable cardioverter-defibrillator recipients. *J Interv Card Electrophysiol*. 2004 Dec;11(3):199-204. PMID: 15548886
- M107) **McCullough PA**. B-type natriuretic peptide and its clinical implications in heart failure. *Am Heart Hosp J*. 2004 Winter;2(1):26-33. PMID: 15604836
- M108) Silver MA, Maisel A, Yancy CW, **McCullough PA**, Burnett JC Jr., Francis GS, Mehra MR, Peacock WF 4th, Fonarow G, Gibler WB, Morrow DA, Hollander J; BNP Consensus Panel. BNP Consensus Panel 2004: A clinical approach for the diagnostic, prognostic, screening, treatment monitoring, and therapeutic roles of natriuretic peptides in cardiovascular diseases. *Congest Heart Fail*. 2004 Sep-Oct;10(5 Suppl 3):1-30. PMID: 15604859
- M109) **McCullough PA**. Preface. Ximelagatran and oral direct thrombin inhibition. *Rev Cardiovasc Med*. 2004;5 Suppl 5:S1. PMID: 15619609
- M110) Prystowsky EN, **McCullough PA**. Introduction: the role of oral direct thrombin inhibitors in cardiovascular disease. *Rev Cardiovasc Med*. 2004;5 Suppl 5:S2-3. PMID: 15619611
- M111) **McCullough PA**. Clinical applications of B-type natriuretic peptide levels in the care of cardiovascular patients. *Minerva Cardioangiol*. 2004 Dec;52(6):479-89. PMID: 15729209
- M112) Safley DM, Awad A, Sullivan RA, Sandberg KR, Mourad I, Boulware M, Merhi W, **McCullough PA**. Changes in B-type natriuretic peptide levels in hemodialysis and the effect of depressed left ventricular function. *Adv Chronic Kidney Dis*. 2005 Jan;12(1):117-24. PMID: 15719344.
- M113) **McCullough PA**, Khandelwal AK, McKinnon JE, Shenkman HJ, Pampati V, Nori D, Sullivan RA, Sandberg KR, Kaatz S. Outcomes and prognostic factors of systolic as compared with diastolic heart failure in urban America. *Congest Heart Fail*. 2005 Jan-Feb;11(1):6-11. PMID: 15722664.
- M114) **McCullough PA**, Lepor NE. The deadly triangle of anemia, renal insufficiency, and cardiovascular disease: implications for prognosis and treatment. *Rev Cardiovasc Med*. 2005 Winter;6(1):1-10. PMID: 15741920
- M115) El-Achkar TM, Ohmit SE, **McCullough PA**, Crook ED, Brown WW, Grimm R, Bakris GL, Keane WF, Flack JM. Higher prevalence of anemia with diabetes mellitus in moderate kidney insufficiency: The Kidney Early Evaluation Program. *Kidney Int*. 2005 Apr;67(4):1483-8. PMID: 15780101

Peter A. McCullough, M.D., M.P.H.

- M116) **McCullough PA**, Soman SS. Contrast-induced nephropathy. Crit Care Clin. 2005 Apr;21(2):261-80. PMID: 15781162
- M117) **McCullough PA**. Evaluation and treatment of coronary artery disease in patients with end-stage renal disease. Kidney Int Suppl. 2005 Jun;(95):s51-8. PMID: 15882314
- M118) Knudsen CW, Clopton P, Westheim A, Klemsdal TO, Wu AH, Duc P, McCord J, Nowak RM, Hollander JE, Storrow AB, Abraham WT, **McCullough PA**, Maisel AS, Omland T. Predictors of elevated B-type natriuretic peptide concentrations in dyspneic patients without heart failure: an analysis from the breathing not properly multinational study. Ann Emerg Med. 2005 Jun;45(6):573-80. PMID: 15940086
- M119) Gallagher MJ, Franklin BA, Ehrman JK, Keteyian SJ, Brawner CA, deJong AT, **McCullough PA**. Comparative Impact of Morbid Obesity vs Heart Failure on Cardiorespiratory Fitness. Chest. 2005 Jun;127(6):2197-203. PMID: 15947337
- M120) Mehta SR, Cannon CP, Fox KA, Wallentin L, Boden WE, Spacek R, Widimsky P, **McCullough PA**, Hunt D, Braunwald E, Yusuf S. Routine vs selective invasive strategies in patients with acute coronary syndromes: a collaborative meta-analysis of randomized trials. JAMA. 2005 Jun 15;293(23):2908-17. PMID: 15956636
- M121) Merhi W, Dixon SR, O'Neill WW, Hanzel GS, **McCullough PA**. Percutaneous left ventricular assist device in acute myocardial infarction and cardiogenic shock. Rev Cardiovasc Med. 2005 Spring;6(2):118-23. PMID: 15976733
- M122) Gallagher MJ, **McCullough PA**. The role of B-type natriuretic peptide in the diagnosis and treatment of decompensated heart failure. Int J Geriatric Cardiol 2004; September 1(1):21-28.
- M123) **McCullough PA**, Hassan SA, Pallekonda V, Sandberg KR, Nori DB, Soman SS, Bhatt S, Hudson MP, Weaver WD. Bundle branch block patterns, age, renal dysfunction, and heart failure mortality. Int J Cardiol. 2005 Jul 10;102(2):303-8. PMID: 15982501
- M124) Steg PG, Joubin L, McCord J, Abraham WT, Hollander JE, Omland T, Mentre F, **McCullough PA**, Maisel AS. B-type natriuretic Peptide and echocardiographic determination of ejection fraction in the diagnosis of congestive heart failure in patients with acute dyspnea. Chest. 2005 Jul;128(1):21-9. PMID 16002911
- M125) Gallagher MJ, **McCullough PA**. The emerging role of natriuretic peptides in the diagnosis and treatment of decompensated heart failure. Curr Heart Fail Rep. 2004 Sep;1(3):129-35. PMID: 16036036
- M126) **McCullough PA**, Sandberg KR, Miller WM, Odom JS, Sloan KC, de Jong AT, Nori KE, Irving SD, Krause KR, Franklin BA. Substantial weight gain during adulthood: the road to bariatric surgery. Prev Cardiol. 2005 Summer;8(3):155-9. PMID 16034218

Peter A. McCullough, M.D., M.P.H.

- M127) Miller WM, Nori Janosz KE, Yanez J, **McCullough PA**. Effects of weight loss and pharmacotherapy on inflammatory markers of cardiovascular disease. *Expert Rev Cardioasc Ther*. 2005 Jul;3(4):743-59. PMID 16076283
- M128) Nori Janosz KE, Miller WM, Odom J, Lillystone M, **McCullough PA**. Optimal diabetes management during medical weight loss for cardiovascular risk reduction. *Expert Rev Cardioasc Ther*. 2005 Jul;3(4):761-75. PMID 16076284
- M129) **McCullough PA**, Berman AD. Percutaneous coronary interventions in the high-risk renal patient: strategies for renal protection and vascular protection. *Cardiol Clin*. 2005 Aug;23(3):299-310. PMID 16084279
- M130) Luther SA, **McCullough PA**, Havranek EP, Rumsfeld JS, Jones PG, Heidenreich PA, Peterson ED, Rathore SS, Krumholz HM, Weintraub WS, Spertus JA, Masoudi FA; for the Cardiovascular Outcomes Research Consortium. The Relationship Between B-type Natriuretic Peptide and Health Status in Patients With Heart Failure. *J Card Fail*. 2005 Aug;11(6):414-21. PMID 16105631
- M131) Knudsen CW, Omland T, Clopton P, Westheim A, Wu AH, Duc P, McCord J, Nowak RM, Hollander JE, Storrow AB, Abraham WT, **McCullough PA**, Maisel A. Impact of atrial fibrillation on the diagnostic performance of B-type natriuretic Peptide concentration in dyspneic patients an analysis from the breathing not properly multinational study. *J Am Coll Cardiol*. 2005 Sep 6;46(5):838-44. PMID 16139134
- M132) **McCullough PA**. Chronic angina: new medical options for treatment. *Rev Cardioasc Med*. 2005 Summer;6(3):152-61. PMID 16195688
- M133) Spertus J, Peterson E, Conard MW, Heidenreich PA, Krumholz HM, Jones P, **McCullough PA**, Pina I, Tooley J, Weintraub WS, Rumsfeld JS; Cardiovascular Outcomes Research Consortium. Monitoring clinical changes in patients with heart failure: a comparison of methods. *Am Heart J*. 2005 Oct;150(4):707-15. PMID 16209970
- M134) **McCullough PA**. Effect of lipid modification on progression of coronary calcification. *J Am Soc Nephrol*. 2005 Nov;16 Suppl 2:S115-9. PMID 16251246
- M135) Wu AH, Omland T, Wold Knudsen C, McCord J, Nowak RM, Hollander JE, Duc P, Storrow AB, Abraham WT, Clopton P, Maisel AS, **McCullough PA**. For The Breathing Not Properly Multinational Study Investigators. Relationship of B-type natriuretic peptide and anemia in patients with and without heart failure: A substudy from the Breathing Not Properly (BNP) Multinational Study. *Am J Hematol*. 2005 Oct 24;80(3):174-180. PMID 16247751
- M136) Miller WM, Nori-Janosz KE, Lillystone M, Yanez J, **McCullough PA**. Obesity and lipids. *Curr Cardiol Rep*. 2005 Nov;7(6):465-70. PMID 16256017

Peter A. McCullough, M.D., M.P.H.

- M137) McCord J, Nowak RM, Jacobsen G, Sallach JA, Wu AH, Perez A, Omland T, Knudsen CW, Westheim A, Duc P, Steg PG, Hollander JE, Herrmann HC, Storrow AB, Abraham WT, Lamba S, **McCullough PA**, Maisel A. B-Type Natriuretic Peptide Levels in Patients in the Emergency Department with Possible Heart Failure and Previous Stable Angina Pectoris and/or Healed Myocardial Infarction. *Am J Cardiol*. 2005 Nov 15;96(10):1370-3. Epub 2005 Sep 23. PMID 16275180
- M138) Chinnaiyan KM, Alexander D, **McCullough PA**. Role of Angiotensin II in the Evolution of Diastolic Heart Failure. *J Clin Hypertens (Greenwich)*. 2005 Dec;7(12):740-7. PMID: 16330897
- M139) **McCullough PA**. Symposium: cardiovascular diseases and renal insufficiency. Introduction. *Int J Geriatric Cardiol* 2005; September 2005 2(3):130.
- M140) **McCullough PA**. Spectrum of cardiorenal disease. *Int J Geriatric Cardiol* 2005; September 2005 2(3):131-135.
- M141) **McCullough PA**, Lepor NE. Anemia: A Modifiable Risk Factor for Heart Disease. *Rev Cardiovasc Med*. 2005;6 Suppl. 3:1-3. PMID: 16340932
- M142) **McCullough PA**, Lepor NE. Piecing Together the Evidence on Anemia: The Link between Chronic Kidney Disease and Cardiovascular Disease. *Rev Cardiovasc Med*. 2005;6 Suppl. 3:4-12. PMID: 16340933
- M143) **McCullough PA**, Silver MA, Kennard ED, Kelsey SF, Michaels AD; IEPR Investigators. Impact of body mass index on outcomes of enhanced external counterpulsation therapy. *Am Heart J*. 2006 Jan;151(1):139. PMID: 16368306
- M144) Strunk A, Bhalla V, Clopton P, Nowak RM, McCord J, Hollander JE, Duc P, Storrow AB, Abraham WT, Wu AHB, Steg G, Perez A, Kazanegra R, Herrmann HC, Aumont MC, **McCullough PA**, Maisel A, for the BNP Multinational Study Investigators. Impact of the history of congestive heart failure on the utility of B-type natriuretic peptide in the emergency diagnosis of heart failure: Results from the Breathing Not Properly Multinational Study. *Am J Med* 119(1):69.e1-69.e11, 2006. PMID: 16431187
- M145) **McCullough P**. Outcomes of contrast-induced nephropathy: Experience in patients undergoing cardiovascular intervention. *Catheter Cardiovasc Interv*. 2006 Mar;67(3):335-43. PMID: 16489569.
- M146) **McCullough PA**, Mueller C, Yancy CW Jr. Overview of B-type natriuretic Peptide as a blood test. *Congest Heart Fail*. 2006 Mar-Apr;12(2):99-102. PMID: 16596044
- M147) **McCullough PA**. Ranolazine: Focusing on angina pectoris. *Drugs Today (Barc)*. 2006 Mar;42(3):177-83. PMID: 16628259

Peter A. McCullough, M.D., M.P.H.

- M148) Daniels LB, Clopton P, Bhalla V, Krishnaswamy P, Nowak RM, McCord J, Hollander JE, Duc P, Omland T, Storrow AB, Abraham WT, Wu AH, Steg PG, Westheim A, Knudsen CW, Perez A, Kazanegra R, Herrmann HC, **McCullough PA**, Maisel AS. How obesity affects the cut-points for B-type natriuretic peptide in the diagnosis of acute heart failure. Results from the Breathing Not Properly Multinational Study. *Am Heart J.* 2006 May;151(5):1006-12. PMID: 16644321
- M149) Brenden CK, Hollander JE, Guss D, **McCullough PA**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalla MA, Bhalla V, Clopton P, Jesse R, Maisel AS; REDHOT Investigators. Gray zone BNP levels in heart failure patients in the emergency department: results from the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT) multicenter study. *Am Heart J.* 2006 May;151(5):1013-8. PMID: 16644322
- M150) Daniels LB, Bhalla V, Clopton P, Hollander JE, Guss D, **McCullough PA**, Nowak R, Green G, Saltzberg M, Ellison SR, Bhalla MA, Jesse R, Maisel A. B-Type Natriuretic Peptide (BNP) Levels and Ethnic Disparities in Perceived Severity of Heart Failure Results From the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT) Multicenter Study of BNP Levels and Emergency Department Decision Making in Patients Presenting With Shortness of Breath. *J Card Fail.* 2006 May;12(4):281-5. PMID: 16679261
- M151) Hanzel GS, Downes M, **McCullough PA**. Editorial: Renal function after renal artery stenting. *J Geriatric Cardiol* 2005;2(4):196-197.
- M152) Foley RN, **McCullough PA**. Editorial: Anemia and left ventricular hypertrophy in non-dialysis chronic kidney disease. *J Geriatric Cardiol* 2005;2(4):195-196.
- M153) **McCullough PA**. Chronic kidney disease: tipping the scale to the benefit of angiotensin-converting enzyme inhibitors in patients with coronary artery disease. *Circulation.* 2006 Jul 4;114(1):6-7. PMID: 16818827
- M154) **McCullough PA**, Gallagher MJ, deJong AT, Sandberg KR, Trivax JE, Alexander D, Kasturi G, Jafri SM, Krause KR, Chengelis DL, Moy J, Franklin BA. Cardiorespiratory fitness and short-term complications after bariatric surgery. *Chest.* 2006 Aug;130(2):517-25. PMID: 16899853
- M155) Ochoa AB, DeJong A, Grayson D, Franklin B, **McCullough P**. Effect of enhanced external counterpulsation on resting oxygen uptake in patients having previous coronary revascularization and in healthy volunteers. *Am J Cardiol.* 2006 Sep 1;98(5):613-5. Epub 2006 Jun 30. PMID: 16923446
- M156) **McCullough PA**, Bertrand ME, Brinker JA, Stacul F. A meta-analysis of the renal safety of isosmolar iodixanol compared with low-osmolar contrast media. *J Am Coll Cardiol.* 2006 Aug 15;48(4):692-9. Epub 2006 Jul 24. PMID: 16904536

Peter A. McCullough, M.D., M.P.H.

- M157) **McCullough PA**, Wase A. Do implantable cardioverter-defibrillators improve survival in dialysis patients after cardiac arrest? *Nat Clin Pract Nephrol*. 2006 Feb;2(2):70-1. PMID: 16932394
- M158) **McCullough PA**, Stacul F, Davidson C, Becker CR, Adam A, Lameire N, Tumlin J; CIN Consensus Working Panel. Overview. *Am J Cardiol*. 2006 Sep 18;98(6S1):2-4. Epub 2006 Feb 13. PMID: 16949374.
- M159) **McCullough PA**, Adam A, Becker CR, Davidson C, Lameire N, Stacul F, Tumlin J; CIN Consensus Working Panel. Epidemiology and Prognostic Implications of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):5-13. Epub 2006 Feb 10. PMID: 16949375
- M160) Tumlin J, Stacul F, Adam A, Becker CR, Davidson C, Lameire N, **McCullough PA**; CIN Consensus Working Panel. Pathophysiology of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):14-20. Epub 2006 Feb 17. PMID: 16949376
- M161) Lameire N, Adam A, Becker CR, Davidson C, **McCullough PA**, Stacul F, Tumlin J; CIN Consensus Working Panel. Baseline Renal Function Screening. *Am J Cardiol*. 2006 Sep 18;98(6S1):21-26. Epub 2006 Feb 20. PMID: 16949377
- M162) **McCullough PA**, Adam A, Becker CR, Davidson C, Lameire N, Stacul F, Tumlin J; CIN Consensus Working Panel. Risk Prediction of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):27-36. Epub 2006 Feb 23. PMID: 16949378
- M163) Becker CR, Davidson C, Lameire N, **McCullough PA**, Stacul F, Tumlin J, Adam A; CIN Consensus Working Panel. High-Risk Situations and Procedures. *Am J Cardiol*. 2006 Sep 18;98(6S1):37-41. Epub 2006 Feb 20. PMID: 16949379
- M164) Davidson C, Stacul F, **McCullough PA**, Tumlin J, Adam A, Lameire N, Becker CR; CIN Consensus Working Panel. Contrast Medium Use. *Am J Cardiol*. 2006 Sep 18;98(6S1):42-58. Epub 2006 Mar 2. PMID: 16949380
- M165) Stacul F, Adam A, Becker CR, Davidson C, Lameire N, **McCullough PA**, Tumlin J; CIN Consensus Working Panel. Strategies to Reduce the Risk of Contrast-Induced Nephropathy. *Am J Cardiol*. 2006 Sep 18;98(6S1):59-77. Epub 2006 Mar 20. PMID: 16949381
- M166) Vanhecke TE, Miller WM, Franklin BA, Weber JE, **McCullough PA**. Awareness, knowledge, and perception of heart disease among adolescents. *Eur J Cardiovasc Prev Rehabil*. 2006 Oct;13(5):718-23. PMID: 17001210
- M167) Zalesin KC, **McCullough PA**. Bariatric surgery for morbid obesity: risks and benefits in chronic kidney disease patients. *Adv Chronic Kidney Dis*. 2006 Oct;13(4):403-17. PMID: 17045226

Peter A. McCullough, M.D., M.P.H.

- M168) Michaels AD, **McCullough PA**, Soran OZ, Lawson WE, Barsness GW, Henry TD, Linnemeier G, Ochoa A, Kelsey SF, Kennard ED, for the IEPR Investigators. Primer: practical approach to the selection of patients for and application of EECF. *Nature Clinical Practice Cardiovascular Medicine* 2006; 3: 623-632. PMID: 17063167
- M169) **McCullough PA**. Failure of beta-blockers in the reduction of perioperative events: where did we go wrong? *Am Heart J*. 2006 Nov;152(5):815-8. PMID: 17070139
- M170) **McCullough PA**. Renal safety of iodixanol. *Expert Rev Cardiovasc Ther*. 2006 Sep;4(5):655-61. PMID: 17081087
- M171) Vanhecke TE, Franklin BA, Lillystone MA, Sandberg KR, DeJong AT, Krause KR, Chengelis DL, **McCullough PA**. Caloric Expenditure in the Morbidly Obese Using Dual Energy X-ray Absorptiometry. *J Clin Densitom*. 2006 Oct-Dec;9(4):438-44. Epub 2006 Sep 28. PMID: 17097530
- M172) Conard MW, Haddock CK, Poston WS, Havranek E, **McCullough P**, Spertus J; Cardiovascular Outcomes Research Consortium. Impact of obesity on the health status of heart failure patients. *J Card Fail*. 2006 Dec;12(9):700-6. PMID: 17174231
- M173) **McCullough PA**, Stacul F, Becker CR, Adam A, Lameire N, Tumlin JA, Davidson CJ. Contrast-Induced Nephropathy (CIN) Consensus Working Panel: Executive Summary. *Rev Cardiovasc Med*. 2006 Fall;7(4):177-97. PMID: 17224862
- M174) Chinnaiyan KM, Alexander D, Maddens M, **McCullough PA**. Curriculum in cardiology: integrated diagnosis and management of diastolic heart failure. *Am Heart J*. 2007 Feb;153(2):189-200. PMID: 17239676
- M175) Vogel JA, Franklin BA, Zalesin KC, Trivax JE, Krause KR, Chengelis DL, **McCullough PA**. Reduction in predicted coronary heart disease risk after substantial weight reduction after bariatric surgery. *Am J Cardiol*. 2007 Jan 15;99(2):222-6. Epub 2006 Nov 16. PMID: 17223422
- M176) **McCullough PA**, Rocher LR. Statin therapy in renal disease: Harmful or protective. *Curr Atheroscler Rep*. 2007 Jan;9(1):18-24. PMID: 17169242
- M177) **McCullough PA**. [Cardiorenal intersection: crossroads to the future.] *Arq Bras Cardiol*. 2007 Jan;88(1):117-26. Portuguese Translation. PMID: 17364130
- M178) Mehta L, Devlin W, **McCullough PA**, O'Neill WW, Skelding KA, Stone GW, Boura JA, Grines CL. Impact of body mass index on outcomes after percutaneous coronary intervention in patients with acute myocardial infarction. *Am J Cardiol*. 2007 Apr 1;99(7):906-10. Epub 2007 Feb 12. PMID: 17398181

Peter A. McCullough, M.D., M.P.H.

- M179) **McCullough PA.** Kidney disease. Estimated glomerular filtration rate: why is it important? Rev Cardiovasc Med. 2007 Winter;8(1):46-9. PMID: 17401304
- M180) Lawson WE, Hui JC, Kennard ED, Soran O, **McCullough PA**, Kelsey SF; for the IEPR Investigators. Effect of enhanced external counterpulsation on medically refractory angina patients with erectile dysfunction. Int J Clin Pract. 2007 May;61(5):757-62. PMID: 17493089
- M181) **McCullough PA**, Jurkovitz CT, Pergola PE, McGill JB, Brown WW, Collins AJ, Chen SC, Li S, Singh A, Norris KC, Klag MJ, Bakris GL; for the KEEP Investigators. Independent Components of Chronic Kidney Disease as a Cardiovascular Risk State: Results From the Kidney Early Evaluation Program (KEEP). Arch Intern Med. 2007 Jun 11;167(11):1122-9. PMID: 17563019
- M182) **McCullough PA.** Coronary artery disease. Clin J Am Soc Nephrol. 2007 May;2(3):611-6. Epub 2007 Mar 21. PMID: 17699471
- M183) **McCullough PA**, Lepor NE. The rosiglitazone meta-analysis. Rev Cardiovasc Med. 2007 Spring;8(2):123-6. PMID: 17603430
- M184) **McCullough PA**, Henry TD, Kennard ED, Kelsey SF, Michaels AD; for the IEPR Investigators. Residual high-grade angina after enhanced external counterpulsation therapy. Cardiovasc Revasc Med. 2007 Jul-Sep;8(3):161-5. PMID: 17765644
- M185) Miller WM, Nori Janosz KE, Zalesin KC, **McCullough PA.** Nutraceutical meal replacements: more effective than all-food diets in the treatment of obesity. Therapy 2007, 4(5):623-639.
- M186) Zalesin KC, Miller WM, Nori Janosz KE, Yanez J, Krause K, Chengelis DL, **McCullough PA.** Controversies in vitamin D: deficiency and supplementation after Roux-en-Y gastric bypass surgery. Therapy 2007, 4(5):561-574.
- M187) Li S, Chen SC, Shlipak M, Bakris G, **McCullough PA**, Sowers J, Stevens L, Jurkovitz C, McFarlane S, Norris K, Vassalotti J, Klag MJ, Brown WW, Narva A, Calhoun D, Johnson B, Obialo C, Whaley-Connell A, Becker B, Collins AJ. Low birth weight is associated with chronic kidney disease only in men. Kidney Int. 2008 Mar;73(5):637-42. PMID: 18094674
- M188) Duru OK, Li S, Jurkovitz C, Bakris G, Brown W, Chen SC, Collins A, Klag M, **McCullough PA**, McGill J, Narva A, Pergola P, Singh A, Norris K. Race and Sex Differences in Hypertension Control in CKD: Results From the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2008 Feb;51(2):192-8. PMID: 18215697
- M189) **McCullough PA.** Multimodality prevention of contrast-induced acute kidney injury. Am J Kidney Dis. 2008 Feb;51(2):169-72. PMID: 18215694
- M190) **McCullough PA**, Rocher LR. Statin therapy in renal disease: harmful or protective? Curr Diab Rep. 2007 Dec;7(6):467-73. PMID: 18255012

Peter A. McCullough, M.D., M.P.H.

- M191) Nori Janosz KE, Koenig Berris KA, Leff C, Miller WM, Yanez J, Myers S, Vial C, Vanderlinden M, Franklin BA, **McCullough PA**. Clinical resolution of type 2 diabetes with reduction in body mass index using meal replacement based weight loss. *Vascular Disease Prevention* vol.5, 17-23(2008).
- M192) Bellomo R, Auriemma S, Fabbri A, D'Onofrio A, Katz N, **McCullough PA**, Ricci Z, Shaw A, Ronco C. The pathophysiology of cardiac surgery-associated acute kidney injury (CSA-AKI). *Int J Artif Organs*. 2008 Feb;31(2):166-78. PMID: 18311733
- M193) Bakris GL, Toto RD, **McCullough PA**, Rocha R, Purkayastha D, Davis P; GUARD (Gauging Albuminuria Reduction With Lotrel in Diabetic Patients With Hypertension) Study Investigators. Effects of different ACE inhibitor combinations on albuminuria: results of the GUARD study. *Kidney Int*. 2008 Jun;73(11):1303-9. Epub 2008 Mar 19. PMID: 18354383
- M194) **McCullough PA**, Li S, Jurkovitz CT, Stevens LA, Wang C, Collins AJ, Chen SC, Norris KC, McFarlane SI, Johnson B, Shlipak MG, Obialo CI, Brown WW, Vassalotti JA, Whaley-Connell AT; Kidney Early Evaluation Program Investigators. CKD and cardiovascular disease in screened high-risk volunteer and general populations: the Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S38-45. PMID: 18359407
- M195) McFarlane SI, Chen SC, Whaley-Connell AT, Sowers JR, Vassalotti JA, Salifu MO, Li S, Wang C, Bakris G, **McCullough PA**, Collins AJ, Norris KC; Kidney Early Evaluation Program Investigators. Prevalence and associations of anemia of CKD: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S46-55. PMID: 18359408
- M196) Vassalotti JA, Uribarri J, Chen SC, Li S, Wang C, Collins AJ, Calvo MS, Whaley-Connell AT, **McCullough PA**, Norris KC; Kidney Early Evaluation Program Investigators. Trends in mineral metabolism: Kidney Early Evaluation Program (KEEP) and the National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S56-68. PMID: 18359409
- M197) Whaley-Connell AT, Sowers JR, Stevens LA, McFarlane SI, Shlipak MG, Norris KC, Chen SC, Qiu Y, Wang C, Li S, Vassalotti JA, Collins AJ; **Kidney Early Evaluation Program Investigators**. CKD in the United States: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S13-20. PMID: 18359403
- M198) Whaley-Connell AT, Sowers JR, McFarlane SI, Norris KC, Chen SC, Li S, Qiu Y, Wang C, Stevens LA, Vassalotti JA, Collins AJ; **Kidney Early Evaluation Program Investigators**. Diabetes mellitus in CKD: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *Am J Kidney Dis*. 2008 Apr;51(4 Suppl 2):S21-9. PMID: 18359404

Peter A. McCullough, M.D., M.P.H.

- M199) **McCullough PA**. Acute kidney injury with iodinated contrast. *Crit Care Med*. 2008 Apr;36(4 Suppl):S204-11. PMID: 18382195
- M200) deJong AT, Gallagher MJ, Sandberg KR, Lillystone MA, Spring T, Franklin BA, **McCullough PA**. Peak oxygen consumption and the minute ventilation/carbon dioxide production relation slope in morbidly obese men and women: influence of subject effort and body mass index. *Prev Cardiol*. 2008 Spring;11(2):100-5. PMID: 18401238
- M201) **McCullough PA**. Contrast-induced acute kidney injury. *J Am Coll Cardiol*. 2008 Apr 15;51(15):1419-28. PMID: 18402894
- M202) Vanhecke TE, Gandhi M, **McCullough PA**, Lazar MH, Ravikrishnan KP, Kadaj P, Begle RL. Outcomes of patients considered for, but not admitted to, the intensive care unit. *Crit Care Med*. 2008 Mar;36(3):812-7. PMID: 18431268
- M203) Zalesin KC, Krause KR, Chengelis DL, **McCullough PA**. Determinants of resolution of type 2 diabetes after bariatric surgery. *Vascular Disease Prevention* 2008;5(2):75-80.
- M204) Miller W, Odom J, Veri S, Korponic S, Lillystone M, **McCullough PA**. Impact of short-term educational and behavioral therapy on childhood obesity. *Vascular Disease Prevention* 2008; 5(2):129-134.
- M205) Vanhecke TE, Franklin BA, Ajluni SC, Sangal RB, **McCullough PA**. Cardiorespiratory fitness and sleep-related breathing disorders. *Expert Rev Cardiovasc Ther*. 2008 Jun;6(5):745-58. PMID: 18510490
- M206) Gebreegziabher Y, **McCullough PA**, Bubb C, Loney-Hutchinson L, Makaryus JN, Anand N, Divakaran V, Akhrass P, Alam A, Gizycki H, McFarlane SI. Admission hyperglycemia and length of hospital stay in patients with diabetes and heart failure: a prospective cohort study. *Congest Heart Fail*. 2008 May-Jun;14(3):117-20. PMID: 18550921
- M207) O'Donoghue M, Boden WE, Braunwald E, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Wallentin L, Windhausen F, Sabatine MS. Early invasive vs conservative treatment strategies in women and men with unstable angina and non-ST-segment elevation myocardial infarction: a meta-analysis. *JAMA*. 2008 Jul 2;300(1):71-80. PMID: 18594042
- M208) Franklin BA, **McCullough PA**. The "Null Effect" of Low-Density Lipoprotein Cholesterol Lowering on a Modest Baseline Intima-Media Thickness: Lessons Learned From the ENHANCE Trial. *Prev Cardiol*. 2008 Summer;11(3):177-8.
- M209) Agrawal V, Kizilbash SH, **McCullough PA**. New therapeutic agents for diabetic kidney disease. *Therapy*. 2008 Jun;5(4):553-75.

Peter A. McCullough, M.D., M.P.H.

- M210) Vanhecke TE, Berman AD, **McCullough PA**. Body weight limitations of United States cardiac catheterization laboratories including restricted access for the morbidly obese. *Am J Cardiol*. 2008 Aug 1;102(3):285-6.
- M211) Saab G, Whaley-Connell AT, **McCullough PA**, Bakris GL. CKD awareness in the United States: the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2008 Aug;52(2):382-3.
- M212) **McCullough PA**, Li S, Jurkovitz CT, Stevens L, Collins AJ, Chen SC, Norris KC, McFarlane S, Johnson B, Shlipak MG, Obialo CI, Brown WW, Vassaloti J, Whaley-Connell AT, Brenner RM, Bakris GL; KEEP Investigators. Chronic kidney disease, prevalence of premature cardiovascular disease, and relationship to short-term mortality. *Am Heart J*. 2008 Aug;156(2):277-83. Epub 2008 Jun 4. PMID: 18657657
- M213) **McCullough PA**, Lepor NE. Lipids, biomarkers, and noninvasive imaging of atherosclerotic disease activity in clinical trials. *Rev Cardiovasc Med*. 2008 Spring;9(2):142-9. PMID: 18660735
- M214) **McCullough PA**, Agrawal V, Danielewicz E, Abela GS. Accelerated Atherosclerotic Calcification and Mönckeberg's Sclerosis: A Continuum of Advanced Vascular Pathology in Chronic Kidney Disease. *Clin J Am Soc Nephrol*. 2008 Nov;3(6):1585-98. PMID: 18667741
- M215) Boerrigter G, Costello-Boerrigter LC, Abraham WT, Sutton MG, Heublein DM, Kruger KM, Hill MR, **McCullough PA**, Burnett JC Jr. Cardiac resynchronization therapy improves renal function in human heart failure with reduced glomerular filtration rate. *J Card Fail*. 2008 Sep;14(7):539-46. Epub 2008 May 27. PMID: 18722318
- M216) Zalesin KC, Franklin BA, Miller WM, Peterson ED, **McCullough PA**. Impact of obesity on cardiovascular disease. *Endocrinol Metab Clin North Am*. 2008 Sep;37(3):663-84. PMID: 18775358
- M217) Vanhecke TE, Franklin BA, Zalesin KC, Sangal RB, deJong AT, Agrawal V, **McCullough PA**. Cardiorespiratory fitness and obstructive sleep apnea syndrome in morbidly obese patients. *Chest*. 2008 Sep;134(3):539-45. PMID: 18779193
- M218) Madala MC, Franklin BA, Chen AY, Berman AD, Roe MT, Peterson ED, Ohman EM, Smith SC Jr, Gibler WB, **McCullough PA**; CRUSADE Investigators. Obesity and Age of First Non-ST-Segment Elevation Myocardial Infarction. *J Am Coll Cardiol*. 2008 Sep 16;52(12):979-985. PMID: 18786477
- M219) Agrawal V, Khan I, Rai B, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA**. The effect of weight loss after bariatric surgery on albuminuria. *Clin Nephrol*. 2008 Sep;70(3):194-202. PMID: 18793560

Peter A. McCullough, M.D., M.P.H.

- M220) Efstratiadis S, Kennard ED, Kelsey SF, Michaels AD; International EECF Patient Registry-2 Investigators. **(McCullough PA, site Principal Investigator)** Passive tobacco exposure may impair symptomatic improvement in patients with chronic angina undergoing enhanced external counterpulsation. *BMC Cardiovasc Disord.* 2008 Sep 17;8:23. PMID: 18798998
- M221) **McCullough PA.** Radiocontrast-induced acute kidney injury. *Nephron Physiol.* 2008;109(4):p61-72. Epub 2008 Sep 18. PMID: 18802377
- M222) **McCullough PA.** The impact of systemic calcified atherosclerosis in patients with chronic kidney disease. *Adv Chronic Kidney Dis.* 2008 Oct;15(4):335-7. PMID: 18805378
- M223) **McCullough PA,** Chinnaiyan KM, Agrawal V, Danielewicz E, Abela GS. Amplification of atherosclerotic calcification and Mönckeberg's sclerosis: a spectrum of the same disease process. *Adv Chronic Kidney Dis.* 2008 Oct;15(4):396-412. PMID: 18805386
- M224) Agrawal V, Krause KR, Chengelis DL, Zalesin KC, Rocher LL, **McCullough PA.** Relation between degree of weight loss after bariatric surgery and reduction in albuminuria and C-reactive protein. *Surg Obes Relat Dis.* 2009 Jan-Feb;5(1):20-6. Epub 2008 Aug 5. PMID: 18951068
- M225) Agrawal V, Ghosh AK, Barnes MA, **McCullough PA.** Awareness and Knowledge of Clinical Practice Guidelines for CKD among Internal Medicine Residents: A National Online Survey. *Am J Kidney Dis.* 2008 Dec;52(6):1061-9. Epub 2008 Oct 30. PMID: 18976845
- M226) Jamerson K, Weber MA, Bakris GL, Dahlöf B, Pitt B, Shi V, Hester A, Gupte J, Gatlin M, Velazquez EJ; ACCOMPLISH Trial Investigators. Benazepril plus amlodipine or hydrochlorothiazide for hypertension in high-risk patients. **(McCullough PA, Site Principal Investigator)** *N Engl J Med.* 2008 Dec 4;359(23):2417-28. PMID: 19052124
- M227) Flemmer M, Rajab H, Mathena T, Paulson J, Perkins S, Whelan T, Chiu R, **McCullough PA.** Blood B-type natriuretic peptide and dialysis: present assessment and future analyses. *South Med J.* 2008 Nov;101(11):1094-100. PMID: 19088516
- M228) Agrawal V, Ghosh AK, Barnes MA, **McCullough PA.** Perception of Indications for Nephrology Referral among Internal Medicine Residents: A National Online Survey *Clin J Am Soc Nephrol.* 2009 Feb;4(2):323-8. PMID: 19218472
- M229) Fried LF, Duckworth W, Zhang JH, O'Connor T, Brophy M, Emanuele N, Huang GD, **McCullough PA,** Palevsky PM, Seliger S, Warren SR, Peduzzi P; for VA NEPHRON-D Investigators. Design of Combination Angiotensin Receptor Blocker and Angiotensin-Converting Enzyme Inhibitor for Treatment of Diabetic Nephropathy (VA NEPHRON-D). *Clin J Am Soc Nephrol.* 2009 Feb;4(2):361-8. Epub 2008 Dec 31. PMID: 19118120

Peter A. McCullough, M.D., M.P.H.

- M230) Chinnaiyan KM, **McCullough PA**. Optimizing Outcomes in Coronary CT Imaging. Rev Cardiovasc Med. 2008 Fall;9(4):215-24. PMID: 19122579
- M231) Cardenas GA, Lavie CJ, Cardenas V, Milani RV, **McCullough PA**. The importance of recognizing and treating low levels of high-density lipoprotein cholesterol: a new era in atherosclerosis management. Rev Cardiovasc Med. 2008 Fall;9(4):239-58. PMID: 19122582
- M232) Chinnaiyan KM, **McCullough PA**, Flohr TG, Wegner JH, Raff GL. Improved noninvasive coronary angiography in morbidly obese patients with dual-source computed tomography. J Cardiovasc Comput Tomogr. 2008 Dec 3. PMID: 19136325
- M233) Soman P, Lahiri A, Mieres JH, Calnon DA, Wolinsky D, Beller GA, Sias T, Burnham K, Conway L, **McCullough PA**, Daher E, Walsh MN, Wight J, Heller GV, Udelson JE. Etiology and pathophysiology of new-onset heart failure: Evaluation by myocardial perfusion imaging. J Nucl Cardiol. 2009 Jan-Feb;16(1):82-91. Epub 2009 Jan 20. PMID: 19152132
- M234) Goldfarb S, **McCullough PA**, McDermott J, Gay SB. Contrast-induced acute kidney injury: specialty-specific protocols for interventional radiology, diagnostic computed tomography radiology, and interventional cardiology. Mayo Clin Proc. 2009 Feb;84(2):170-9. PMID: 19181651
- M235) **McCullough PA**. Treatment disparities in patients with acute coronary syndromes and kidney disease. Eur Heart J. 2009 Mar;30(5):526-7. PMID: 19201760
- M236) Agrawal V, Ghosh AK, Barnes MA, **McCullough PA**. Perception of indications for nephrology referral among internal medicine residents: a national online survey. Clin J Am Soc Nephrol. 2009 Feb;4(2):323-8. PMID: 19218472
- M237) **McCullough PA**, Chinnaiyan KM. Hazards of contrast-induced acute kidney injury in elderly women. Women's Health (Lond Engl). 2009 Mar;5(2):123-5. PMID: 19245350
- M238) Vanhecke TE, Franklin BA, Miller WM, deJong AT, Coleman CJ, **McCullough PA**. Cardiorespiratory fitness and sedentary lifestyle in the morbidly obese. Clin Cardiol. 2009 Mar;32(3):121-4. PMID: 19301295
- M239) Agrawal V, Marinescu V, Agarwal M, **McCullough PA**. Cardiovascular implications of proteinuria: an indicator of chronic kidney disease. Nat Rev Cardiol. 2009 Apr;6(4):301-11. PMID:19352334
- M240) O'Connor CM, Whellan DJ, Lee KL, Keteyian SJ, Cooper LS, Ellis SJ, Leifer ES, Kraus WE, Kitzman DW, Blumenthal JA, Rendall DS, Miller NH, Fleg JL, Schulman KA, McKelvie RS, Zannad F, Piña IL; HF-ACTION Investigators.(**McCullough PA** Site Principal Investigator) Efficacy and safety of exercise training in patients with chronic heart failure: HF-ACTION randomized controlled trial. JAMA. 2009 Apr 8;301(14):1439-50. PMID: 19351941

Peter A. McCullough, M.D., M.P.H.

- M241) Vanhecke TE, Franklin BA, Maciejko J, Chinnaiyan K, **McCullough PA**. Lipoproteins, inflammatory biomarkers, and cardiovascular imaging in the assessment of atherosclerotic disease activity. *Rev Cardiovasc Med*. 2009 Winter;10(1):51-8. PMID:19367236
- M242) Miller WM, Franklin BA, Nori Janosz KE, Vial C, Kaitner R, **McCullough PA**. Advantages of group treatment and structured exercise in promoting short-term weight loss and cardiovascular risk reduction in adults with central obesity. *Metab Syndr Relat Disord* 2009 May 18. PMID: 19450156
- M243) Agrawal V, Swami A, Kosuri R, Alsabbagh M, Agarwal M, Samarapungavan D, Rocher LL, **McCullough PA**. Contrast-induced acute kidney injury in renal transplant recipients after cardiac catheterization. *Clin Nephrol*. 2009 Jun;71(6):687-96. PMID: 19473638
- M244) Janosz KE, Zalesin KC, Miller WM, **McCullough PA**, Franklin BA. Impact of surgical and nonsurgical weight loss on diabetes resolution and cardiovascular risk reduction. *Curr Diab Rep*. 2009 Jun;9(3):223-8. PMID: 19490824
- M245) **McCullough PA**, Neyou A. Comprehensive Review of the Relative Clinical Utility of B-Type Natriuretic Peptide and N-Terminal Pro-B-Type Natriuretic Peptide Assays in Cardiovascular Disease. *Open Heart Failure Journal*, 2009, 2, 6-17.
- M246) Odom J, Zalesin KC, Washington TL, Miller WW, Hakmeh B, Zaremba DL, Altattan M, Balasubramaniam M, Gibbs DS, Krause KR, Chengelis DL, Franklin BA, **McCullough PA**. Behavioral Predictors of Weight Regain after Bariatric Surgery. *Obes Surg*. 2010 Mar;20(3):349-56 PMID: 19554382
- M247) **McCullough PA**, Agarwal M, Agrawal V. Review article: Risks of coronary artery calcification in chronic kidney disease: do the same rules apply? *Nephrology (Carlton)*. 2009 Jun;14(4):428-36. PMID: 19563385
- M248) Agrawal V, Shah A, Rice C, Franklin BA, **McCullough PA**. Impact of treating the metabolic syndrome on chronic kidney disease. *Nat Rev Nephrol*. 2009 Sep;5(9):520-8. Epub 2009 Jul 28. Review. PMID: 19636332
- M249) Moe SM, Drüeke TB, Block GA, Cannata-Andía JB, Elder G, Fukagawa M, Jorgetti V, Ketteler M, Langman CB, Levin A, MacLeod AM, McCann L, **McCullough PA**, Ott SM, Wang AY, Weisinger JR, Wheeler DC, Eckardt KU, Kasiske BL, Uhlig K, Moorthi R, Earley A, Persson R. Introduction and definition of CKD-MBD and the development of the guideline statements. *Kidney Int Suppl*. 2009 Aug;(113):S1-130. PMID: 19644521
- M250) **McCullough PA**. Darapladib and atherosclerotic plaque: should lipoprotein-associated phospholipase A2 be a therapeutic target? *Curr Atheroscler Rep*. 2009 Sep;11(5):334-7. PMID: 19664375

Peter A. McCullough, M.D., M.P.H.

- M251) Agrawal V, Vanhecke TE, Rai B, Franklin BA, Sangal RB, **McCullough PA**. Albuminuria and Renal Function in Obese Adults Evaluated for Obstructive Sleep Apnea. *Nephron Clin Pract*. 2009 Aug 12;113(3):c140-c147. PMID: 19672111
- M252) Agrawal V, Barnes MA, Ghosh AK, **McCullough PA**. Questionnaire instrument to assess knowledge of chronic kidney disease clinical practice guidelines among internal medicine residents. *J Eval Clin Pract*. 2009 Aug;15(4):733-8. PMID: 19674226
- M253) Franklin BA, **McCullough PA**. Cardiorespiratory fitness: an independent and additive marker of risk stratification and health outcomes. *Mayo Clin Proc*. 2009 Sep;84(9):776-9. PMID: 19720774
- M254) Lele S, Shah S, **McCullough PA**, Rajapurkar M. Serum catalytic iron as a novel biomarker of vascular injury in acute coronary syndromes. *EuroIntervention*. 2009 Aug;5(3):336-42. PMID: 19736158
- M255) **McCullough PA**, Hanzel GS. B-type natriuretic peptide and echocardiography in the surveillance of severe mitral regurgitation prior to valve surgery. *J Am Coll Cardiol*. 2009 Sep 15;54(12):1107-9. PMID: 19744621
- M256) Pahle AS, Sørli D, Omland T, Knudsen CW, Westheim A, Wu AH, Steg PG, McCord J, Nowak RM, Hollander JE, Storrow AB, Abraham WT, **McCullough PA**, Maisel A. Impact of systemic hypertension on the diagnostic performance of B-type natriuretic peptide in patients with acute dyspnea. *Am J Cardiol*. 2009 Oct 1;104(7):966-71. PMID: 19766765
- M257) **McCullough PA**. Commentary: contrast-induced nephropathy and long-term adverse events: cause and effect? *Nephrol Dial Transplant*. 2009 Dec;24(12):3578-9. Epub 2009 Sep 25. PMID: 19783600
- M258) Saab G, Whaley-Connell A, McFarlane SI, Li S, Chen SC, Sowers JR, **McCullough PA**, Bakris GL; Kidney Early Evaluation Program Investigators. Obesity is associated with increased parathyroid hormone levels independent of glomerular filtration rate in chronic kidney disease. *Metabolism*. 2009 Oct 1. PMID: 19800639
- M259) McMurray MD, Trivax JE, **McCullough PA**. Serum cystatin C, renal filtration function, and left ventricular remodeling. *Circ Heart Fail*. 2009 Mar;2(2):86-9. PMID: 19808322
- M260) Nori Janosz KE, Zalesin KC, Miller WM, **McCullough PA**. Treating type 2 diabetes: incretin mimetics and enhancers. *Ther Adv Cardiovasc Dis*. 2009 Oct;3(5):387-95. PMID: 19808944
- M261) Thakkar BV, Hirsch AT, Satran D, Bart BA, Barsness G, **McCullough PA**, Kennard ED, Kelsey SF, Henry TD. The efficacy and safety of enhanced external counterpulsation in patients with

Peter A. McCullough, M.D., M.P.H.

peripheral arterial disease. *Vasc Med.* 2010 Feb;15(1):15-20. Epub 2009 Oct 19. PMID: 19841026

M262) Keteyian SJ, Isaac D, Thadani U, Roy BA, Bensimhon DR, McKelvie R, Russell SD, Hellkamp AS, Kraus WE; HF-ACTION Investigators (**McCullough PA** Site Investigator). Safety of symptom-limited cardiopulmonary exercise testing in patients with chronic heart failure due to severe left ventricular systolic dysfunction. *Am Heart J.* 2009 Oct;158(4 Suppl):S72-7. PMID: 19782792

M263) Flynn KE, Lin L, Ellis SJ, Russell SD, Spertus JA, Whellan DJ, Piña IL, Fine LJ, Schulman KA, Weinfurt KP; HF-ACTION Investigators (**McCullough PA** Site Investigator). Outcomes, health policy, and managed care: relationships between patient-reported outcome measures and clinical measures in outpatients with heart failure. *Am Heart J.* 2009 Oct;158(4 Suppl):S64-71. PMID: 19782791

M264) Forman DE, Clare R, Kitzman DW, Ellis SJ, Fleg JL, Chiara T, Fletcher G, Kraus WE; HF-ACTION Investigators (**McCullough PA**). Relationship of age and exercise performance in patients with heart failure: the HF-ACTION study. *Am Heart J.* 2009 Oct;158(4 Suppl):S6-S15. PMID: 19782790

M265) Atchley AE, Kitzman DW, Whellan DJ, Iskandrian AE, Ellis SJ, Pagnanelli RA, Kao A, Abdul-Nour K, O'Connor CM, Ewald G, Kraus WE, Borges-Neto S; HF-ACTION Investigators (**McCullough PA**). Myocardial perfusion, function, and dyssynchrony in patients with heart failure: baseline results from the single-photon emission computed tomography imaging ancillary study of the Heart Failure and A Controlled Trial Investigating Outcomes of Exercise Training (HF-ACTION) Trial. *Am Heart J.* 2009 Oct;158(4 Suppl):S53-63. PMID: 19782789

M266) Gardin JM, Leifer ES, Fleg JL, Whellan D, Kokkinos P, Leblanc MH, Wolfel E, Kitzman DW; HF-ACTION Investigators (**McCullough PA**). Relationship of Doppler-Echocardiographic left ventricular diastolic function to exercise performance in systolic heart failure: the HF-ACTION study. *Am Heart J.* 2009 Oct;158(4 Suppl):S45-52. PMID: 19782788

M267) Felker GM, Whellan D, Kraus WE, Clare R, Zannad F, Donahue M, Adams K, McKelvie R, Piña IL, O'Connor CM; HF-ACTION Investigators (**McCullough PA**). N-terminal pro-brain natriuretic peptide and exercise capacity in chronic heart failure: data from the Heart Failure and a Controlled Trial Investigating Outcomes of Exercise Training (HF-ACTION) study. *Am Heart J.* 2009 Oct;158(4 Suppl):S37-44. PMID: 19782787

M268) Horwich TB, Leifer ES, Brawner CA, Fitz-Gerald MB, Fonarow GC; HF-ACTION Investigators (**McCullough PA**). The relationship between body mass index and cardiopulmonary exercise testing in chronic systolic heart failure. *Am Heart J.* 2009 Oct;158(4 Suppl):S31-6. PMID: 19782786

M269) Russell SD, Saval MA, Robbins JL, Ellestad MH, Gottlieb SS, Handberg EM, Zhou Y, Chandler B; HF-ACTION Investigators (**McCullough PA**). New York Heart Association functional class predicts

Peter A. McCullough, M.D., M.P.H.

exercise parameters in the current era. *Am Heart J.* 2009 Oct;158(4 Suppl):S24-30. PMID: 19782785

M270) Piña IL, Kokkinos P, Kao A, Bittner V, Saval M, Clare B, Goldberg L, Johnson M, Swank A, Ventura H, Moe G, Fitz-Gerald M, Ellis SJ, Vest M, Cooper L, Whellan D; HF-ACTION Investigators (**McCullough PA**). Baseline differences in the HF-ACTION trial by sex. *Am Heart J.* 2009 Oct;158(4 Suppl):S16-23. PMID: 19782784

M271) O'Connor CM, Whellan DJ; HF-ACTION Investigators (**McCullough PA**). Understanding heart failure through the HF-ACTION baseline characteristics. *Am Heart J.* 2009 Oct;158(4 Suppl):S1-5. PMID: 19782783

M272) **McCullough PA**, Tumlin JA. Prostaglandin-Based Renal Protection Against Contrast-Induced Acute Kidney Injury. *Circulation.* 2009 Nov 3;120(18):1749-51. PMID: 19841295

M273) **McCullough PA**, Khan M, James J. Serum cystatin C in the estimation of glomerular filtration on chronic Angiotensin-converting enzyme inhibitor therapy: an illustrative case report. *J Clin Hypertens (Greenwich).* 2009 Nov;11(11):651-5. PMID: 19878376

M274) Agrawal V, Agarwal M, Ghosh AK, Barnes MA, **McCullough PA**. Identification and Management of Chronic Kidney Disease Complications by Internal Medicine Residents: A National Survey. *Am J Ther.* 2009 Nov 14. PMID: 19918169

M275) Zalesin KC, Franklin BA, Lillystone MA, Shamoun T, Krause KR, Chengelis DL, Mucci SJ, Shaheen KW, **McCullough PA**. Differential Loss of Fat and Lean Mass in the Morbidly Obese after Bariatric Surgery. *Metab Syndr Relat Disord.* 2010 Feb;8(1):15-20. PMID: 19929598

M276) Lubanski MS, **McCullough PA**. Kidney's role in hypertension. *Minerva Cardioangiol.* 2009 Dec;57(6):743-59. PMID: 19942846

M277) Agrawal V, Rai B, Fellows J, **McCullough PA**. In-hospital outcomes with thrombolytic therapy in patients with renal dysfunction presenting with acute ischaemic stroke. *Nephrol Dial Transplant.* 2010 Apr;25(4):1150-7. Epub 2009 Nov 27. PMID: 19945951

M278) **McCullough PA**, Chinnaiyan KM. Annual progression of coronary calcification in trials of preventive therapies: a systematic review. *Arch Intern Med.* 2009 Dec 14;169(22):2064-70. PMID: 20008688

M279) Ronco C, **McCullough P**, Anker SD, Anand I, Aspromonte N, Bagshaw SM, Bellomo R, Berl T, Bobek I, Cruz DN, Daliento L, Davenport A, Haapio M, Hillege H, House AA, Katz N, Maisel A, Mankad S, Zanco P, Mebazaa A, Palazzuoli A, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ponikowski P; for the Acute Dialysis Quality Initiative (ADQI) consensus group. Cardio-renal syndromes: report from the consensus conference of the Acute Dialysis Quality Initiative. *Eur Heart J.* 2010 Mar;31(6):703-11. Epub 2009 Dec 25. PMID: 20037146

Peter A. McCullough, M.D., M.P.H.

- M280) Whaley-Connell A, Pavey BS, **McCullough PA**, Saab G, Li S, McFarlane SI, Chen SC, Vassalotti JA, Collins AJ, Bakris G, Sowers JR; KEEP Investigators. Dysglycemia predicts cardiovascular and kidney disease in the Kidney Early Evaluation Program. *J Clin Hypertens (Greenwich)*. 2010 Jan;12(1):51-8. PMID: 20047632
- M281) **McCullough PA**, Whaley-Connell A, Brown WW, Collins AJ, Chen SC, Li S, Norris KC, Jurkovitz C, McFarlane S, Obialo C, Sowers J, Stevens L, Vassalotti JA, Bakris GL; on Behalf of the KEEP Investigators. Cardiovascular risk modification in participants with coronary disease screened by the Kidney Early Evaluation Program. *Intern Med J*. 2010 Dec;40(12):833-41. doi: 10.1111/j.1445-5994.2009.02158.x. PMID: 21199222
- M282) Vassalotti JA, Li S, **McCullough PA**, Bakris GL. Kidney Early Evaluation Program: A Community-Based Screening Approach to Address Disparities in Chronic Kidney Disease. *Semin Nephrol*. 2010 Jan;30(1):66-73. PMID: 20116650
- M283) Trivax JE, Franklin BA, Goldstein JA, Chinnaiyan KM, Gallagher MJ, Dejong AT, Colar JM, Haines DE, **McCullough PA**. Acute Cardiac Effects of Marathon Running. *J Appl Physiol*. 2010 May;108(5):1148-53. Epub 2010 Feb 11. PMID: 20150567
- M284) **McCullough PA**, Vassalotti JA, Collins AJ, Chen SC, Bakris GL. NKF's Kidney Early Evaluation Program (KEEP) annual data report 2009: executive summary. *Am J Kidney Dis*. 2010 Mar;55(3 Suppl 2):S1-3. PMID: 20172443
- M285) Stevens LA, Li S, Wang C, Huang C, Becker BN, Bombback AS, Brown WW, Burrows NR, Jurkovitz CT, McFarlane SI, Norris KC, Shlipak M, Whaley-Connell AT, Chen SC, Bakris GL, **McCullough PA**. Prevalence of CKD and comorbid illness in elderly patients in the United States: results from the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2010 Mar;55(3 Suppl 2):S23-33. PMID: 20172445
- M286) Bombback AS, Kshirsagar AV, Whaley-Connell AT, Chen SC, Li S, Klemmer PJ, **McCullough PA**, Bakris GL. Racial differences in kidney function among individuals with obesity and metabolic syndrome: results from the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2010 Mar;55(3 Suppl 2):S4-S14. PMID: 20172446
- M287) Bagshaw SM, Cruz DN, Aspromonte N, Daliento L, Ronco F, Sheinfeld G, Anker SD, Anand I, Bellomo R, Berl T, Bobek I, Davenport A, Haapio M, Hillege H, House A, Katz N, Maisel A, Mankad S, **McCullough P**, Mebazaa A, Palazzuoli A, Ponikowski P, Shaw A, Soni S, Vescovo G, Zamperetti N, Zanco P, Ronco C; for the Acute Dialysis Quality Initiative (ADQI) Consensus Group. Epidemiology of cardio-renal syndromes: workgroup statements from the 7th ADQI Consensus Conference. *Nephrol Dial Transplant*. 2010 May;25(5):1406-16. Epub 2010 Feb 25. PMID: 20185818
- M288) **McCullough PA**. Transplantation: Coronary angiography prior to renal transplantation. *Nat Rev Nephrol*. 2010 Mar;6(3):136-7. PMID: 20186230

Peter A. McCullough, M.D., M.P.H.

- M289) **McCullough PA**, Verrill TA. Cardiorenal interaction: appropriate treatment of cardiovascular risk factors to improve outcomes in chronic kidney disease. *Postgrad Med.* 2010 Mar;122(2):25-34.PMID: 20203453
- M290) Toth PP, **McCullough PA**, Wegner MS, Colley KJ. Lipoprotein-associated phospholipase A2: role in atherosclerosis and utility as a cardiovascular biomarker. *Expert Rev Cardiovasc Ther.* 2010 Mar;8(3):425-38.PMID: 20222820
- M291) Stolker JM, **McCullough PA**, Rao S, Inzucchi SE, Spertus JA, Maddox TM, Masoudi FA, Xiao L, Kosiborod M. Pre-procedural glucose levels and the risk for contrast-induced acute kidney injury in patients undergoing coronary angiography. *J Am Coll Cardiol.* 2010 Apr 6;55(14):1433-40.PMID: 20359592
- M292) House AA, Anand I, Bellomo R, Cruz D, Bobek I, Anker SD, Aspromonte N, Bagshaw S, Berl T, Daliento L, Davenport A, Haapio M, Hillege H, **McCullough P**, Katz N, Maisel A, Mankad S, Zanco P, Mebazaa A, Palazzuoli A, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ponikowski P, Ronco C; for the Acute Dialysis Quality Initiative (ADQI) consensus group. Definition and classification of Cardio-Renal Syndromes: workgroup statements from the 7th ADQI Consensus Conference. *Nephrol Dial Transplant.* 2010 May;25(5):1416-20. Epub 2010 Mar 12. PMID: 20228069
- M293) Zalesin KC, Franklin, BA, Miller WL, Nori Janosz KE, Veri Silvia, Odom JO, **McCullough PA**. Preventing Weight Regain After Bariatric Surgery: An Overview of Lifestyle and Psychosocial Modulators. *American Journal of Lifestyle Medicine*, Vol. 4, No. 2, 113-120 (2010)
DOI:10.1177/1559827609351227
- M294) **McCullough PA**, Haapio M, Mankad S, Zamperetti N, Massie B, Bellomo R, Berl T, Anker SD, Anand I, Aspromonte N, Bagshaw SM, Bobek I, Cruz DN, Daliento L, Davenport A, Hillege H, House AA, Katz N, Maisel A, Mebazaa A, Palazzuoli A, Ponikowski P, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zanco P, Ronco C, Berl T; for the Acute Dialysis Quality Initiative (ADQI) Consensus Group. Prevention of cardio-renal syndromes: workgroup statements from the 7th ADQI Consensus Conference. *Nephrol Dial Transplant.* 2010 Jun;25(6):1777-84. Epub 2010 Apr 6. PMID: 20375030
- M295) Vanhecke TE, Kim R, Raheem SZ, **McCullough PA**. Myocardial ischemia in patients with diastolic dysfunction and heart failure. *Curr Cardiol Rep.* 2010 May;12(3):216-22.PMID: 20424964
- M296) Ronco C, **McCullough PA**, Anker SD, Anand I, Aspromonte N, Bagshaw SM, Bellomo R, Berl T, Bobek I, Cruz DN, Daliento L, Davenport A, Haapio M, Hillege H, House A, Katz NM, Maisel A, Mankad S, Zanco P, Mebazaa A, Palazzuoli A, Ronco F, Shaw A, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ponikowski P. Cardiorenal Syndromes: An Executive Summary from the

Peter A. McCullough, M.D., M.P.H.

Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2010;165:54-67. Epub 2010 Apr 20. PMID: 20427956

M297) **McCullough PA.** Prevention of Cardiorenal Syndromes. *Contrib Nephrol.* 2010;165:101-111. Epub 2010 Apr 20. PMID: 20427960

M298) Signori C, Zalesin KC, Franklin B, Miller WL, **McCullough PA.** Effect of Gastric Bypass on Vitamin D and Secondary Hyperparathyroidism. *Obes Surg.* 2010 Jul;20(7):949-52. PMID: 20443152

M299) Davenport A, Anker SD, Mebazaa A, Palazzuoli A, Vescovo G, Bellomo R, Ponikowski P, Anand I, Aspromonte N, Bagshaw S, Berl T, Bobek I, Cruz DN, Daliento L, Haapio M, Hillege H, House A, Katz N, Maisel A, Mankad S, **McCullough P,** Ronco F, Shaw A, Sheinfeld G, Soni S, Zamperetti N, Zanco P, Ronco C; Acute Dialysis Quality Initiative (ADQI) consensus group. ADQI 7: the clinical management of the Cardio-Renal syndromes: work group statements from the 7th ADQI consensus conference. *Nephrol Dial Transplant.* 2010 Jul;25(7):2077-89. Epub 2010 May 20. PMID: 20494894

M300) Szczech LA, Granger CB, Dasta JF, Amin A, Peacock WF, **McCullough PA,** Devlin JW, Weir MR, Katz JN, Anderson FA Jr, Wyman A, Varon J; for the Studying the Treatment of Acute Hypertension Investigators. Acute Kidney Injury and Cardiovascular Outcomes in Acute Severe Hypertension. *Circulation.* 2010 May 25;121(20):2183-91. Epub 2010 May 10. PMID: 20458014

M301) Sica D, Oren RM, Gottwald MD, Mills RM; Scios 351 Investigators.(**McCullough PA,** Investigator) Natriuretic and neurohormonal responses to nesiritide, furosemide, and combined nesiritide and furosemide in patients with stable systolic dysfunction. *Clin Cardiol.* 2010 Jun;33(6):330-6. PMID: 20556802

M302) Soriano-Co M, Vanhecke TE, Franklin BA, Sangal RB, Hakmeh B, **McCullough PA.** Increased central adiposity in morbidly obese patients with obstructive sleep apnoea. *Intern Med J.* 2011 Jul;41(7):560-6. PMID: 20546056

M303) **McCullough PA,** Zerka M, Heimbach E, Musialczyk M, Spring T, deJong A, Jafri SS, Coleman C, Washington T, Raheem S, Vanhecke T, Zalesin KC. Audiocardiography in the cardiovascular evaluation of the morbidly obese. *Clin Physiol Funct Imaging.* 2010 Sep;30(5):369-74. PMID: 20618361

M304) **McCullough PA,** Verrill T. Lessons learned from acute myocardial infarction in patients with chronic kidney disease. *J Intern Med.* 2010 Jul;268(1):38-9. No abstract available. PMID: 20642644

M305) **McCullough PA,** Franklin BA, Leifer E, Fonarow GC. Impact of Reduced Kidney Function on Cardiopulmonary Fitness in Patients with Systolic Heart Failure. *Am J Nephrol.* 2010 Jul 22;32(3):226-233. PMID: 20664198

Peter A. McCullough, M.D., M.P.H.

- M306) Warnock DG, Muntner P, **McCullough PA**, Zhang X, McClure LA, Zakai N, Cushman M, Newsome BB, Kewalramani R, Steffes MW, Howard G, McClellan WM; REGARDS Investigators. Kidney Function, Albuminuria, and All-Cause Mortality in the REGARDS (Reasons for Geographic and Racial Differences in Stroke) Study. *Am J Kidney Dis.* 2010 Nov;56(5):861-71. Epub 2010 Aug 8. PMID: 20692752
- M307) **McCullough PA**. Editorial: Contrast-Induced Acute Kidney Injury: Shifting from Elective to Urgent Coronary Intervention. *J Interv Cardiol.* 2010 Oct;23(5):467-9. doi: 10.1111/j.1540-8183.2010.00589.x. Epub 2010 Aug 19. PMID: 20731756
- M308) Bombback AS, Rekhtman Y, Whaley-Connell AT, Kshirsagar AV, Sowers JR, Chen SC, Li S, Chinnaiyan KM, Bakris GL, **McCullough PA**. Gestational diabetes alone, in the absence of subsequent diabetes, is associated with microalbuminuria: results from the Kidney Early Evaluation Program (KEEP). *Diabetes Care.* 2010 Dec;33(12):2586-91. Epub 2010 Aug 31. PMID: 20807871
- M309) Neyou A, O'Neil B, Berman AD, Boura JA, **McCullough PA**. Determinants of markedly increased B-type natriuretic peptide in patients with ST-segment elevation myocardial infarction. *Am J Emerg Med.* 2011 Feb;29(2):141-7. Epub 2010 Mar 25. PMID: 20825778
- M310) **McCullough PA**. Integration of the clinical laboratory in cardiovascular medicine. *Rev Cardiovasc Med.* 2010;11 Suppl 2:S1-2. PMID: 20700097
- M311) Lepor NE, **McCullough PA**. Differential diagnosis and overlap of acute chest discomfort and dyspnea in the emergency department. *Rev Cardiovasc Med.* 2010;11 Suppl 2:S13-23. PMID: 20700098
- M312) de Lemos JA, Peacock WF, **McCullough PA**. Natriuretic peptides in the prognosis and management of acute coronary syndromes. *Rev Cardiovasc Med.* 2010;11 Suppl 2:S24-34. PMID: 20700099
- M313) **McCullough PA**, Peacock WF, O'Neil B, de Lemos JA. Capturing the pathophysiology of acute coronary syndromes with circulating biomarkers. *Rev Cardiovasc Med.* 2010;11 Suppl 2:S3-12. PMID: 20700100
- M314) **McCullough PA**, Peacock WF, O'Neil B, de Lemos JA, Lepor NE, Berkowitz R. An evidence-based algorithm for the use of B-type natriuretic testing in acute coronary syndromes. *Rev Cardiovasc Med.* 2010;11 Suppl 2:S51-65. PMID: 20700103
- M315) Zalesin KC, Miller WM, Franklin B, Mudugal D, Rao Buragadda A, Boura J, Nori-Janosz K, Chengelis DL, Krause KR, **McCullough PA**. Vitamin a deficiency after gastric bypass surgery: an underreported postoperative complication. *J Obes.* 2011;2011. pii: 760695. Epub 2010 Sep 14. PMID: 20871833

Peter A. McCullough, M.D., M.P.H.

- M316) Maisel AS, Katz N, Hillege HL, Shaw A, Zanco P, Bellomo R, Anand I, Anker SD, Aspromonte N, Bagshaw SM, Berl T, Bobek I, Cruz DN, Daliento L, Davenport A, Haapio M, House AA, Mankad S, **McCullough P**, Mebazaa A, Palazzuoli A, Ponikowski P, Ronco F, Sheinfeld G, Soni S, Vescovo G, Zamperetti N, Ronco C; for the Acute Dialysis Quality Initiative (ADQI) consensus group. Biomarkers in kidney and heart disease. *Nephrol Dial Transplant*. 2011 Jan;26(1):62-74. Epub 2010 Oct 26 PMID: 20978142
- M317) **McCullough PA**. Cardiorenal syndromes: pathophysiology to prevention. *Int J Nephrol*. 2010 Dec 1;2010:762590.PMID: 2115153
- M318) **McCullough PA**, Whaley-Connell A, Brown WW, Collins AJ, Chen SC, Li S, Norris KC, Jurkovitz C, McFarlane S, Obialo C, Sowers J, Stevens L, Vassalotti JA, Bakris GL. Cardiovascular risk modification in participants with coronary disease screened by the Kidney Early Evaluation Program. *Intern Med J*. 2010 Dec;40(12):833-41. doi: 10.1111/j.1445-5994.2009.02158.x.PMID: 21199222
- M319) Lubanski MS, Vanhecke TE, Chinnaiyan KM, Franklin BA, **McCullough PA**. Subclinical coronary atherosclerosis identified by coronary computed tomographic angiography in asymptomatic morbidly obese patients. *Heart Int*. 2010 Dec 31;5(2):e15. PubMed PMID: 21977300
- M320) Rose JJ, Vanhecke TE, **McCullough PA**. Subarachnoid hemorrhage with neurocardiogenic stunning. *Rev Cardiovasc Med*. 2010 Fall;11(4):254-63. PMID: 21389917
- M321) **McCullough PA**. Micronutrients and cardiorenal disease: insights into novel assessments and treatment. *Blood Purif*. 2011;31(1-3):177-85. Epub 2011 Jan 10. PMID: 21228587
- M322) Alexander P, David S, **McCullough PA**. Drug-eluting coronary stents in patients with kidney disease. *Am J Kidney Dis*. 2011 Feb;57(2):188-9. No abstract available. PMID: 21251538
- M323) **McCullough PA**, Chinnaiyan KM, Gallagher MJ, Colar JM, Geddes T, Gold JM, Trivax JE. Changes in renal markers and acute kidney injury after marathon running. *Nephrology (Carlton)*. 2011 Feb;16(2):194-9. doi: 10.1111/j.1440-1797.2010.01354.x. PMID: 21272132
- M324) **McCullough PA**, Ahmad A. Cardiorenal syndromes. *World J Cardiol*. 2011 Jan 26;3(1):1-9. PMID: 21286212
- M325) Poirier P, Cornier MA, Mazzone T, Stiles S, Cummings S, Klein S, **McCullough PA**, Ren Fielding C, Franklin BA; on behalf of the AHA Obesity Committee of the Council on Nutrition, Physical Activity, and Metabolism. Bariatric Surgery and Cardiovascular Risk Factors: A Scientific Statement From the AHA. *Circulation*. 2011 Apr 19;123(15):1683-701. Epub 2011 Mar 14. PMID: 21403092

Peter A. McCullough, M.D., M.P.H.

- M326) Goel SK, Bellovich K, **McCullough PA**. Treatment of severe metastatic calcification and calciphylaxis in dialysis patients. Goel SK, Bellovich K, McCullough PA. *Int J Nephrol*. 2011 Feb 24;2011:701603. PMID: 21423552
- M327) **McCullough PA**, El-Ghoroury M, Yamasaki H. Early detection of acute kidney injury with neutrophil gelatinase-associated lipocalin. *J Am Coll Cardiol*. 2011 Apr 26;57(17):1762-4. PMID: 21511112
- M328) Madder RD, Hickman L, Crimmins GM, Puri M, Marinescu V, **McCullough PA**, Safian RD. Validity of Estimated Glomerular Filtration Rates for Assessment of Baseline and Serial Renal Function in Patients with Atherosclerotic Renal Artery Stenosis: Implications for Clinical Trials of Renal Revascularization. *Circ Cardiovasc Interv*. 2011 Jun 1;4(3):219-25. Epub 2011 Apr 26. PMID: 21521835
- M329) Whaley-Connell A, Sowers JR, **McCullough PA**. The role of oxidative stress in the metabolic syndrome. *Rev Cardiovasc Med*. 2011;12(1):21-9. PMID: 21546885
- M330) **McCullough PA**, Capasso P. Patient Discomfort Associated with the Use of Intra-arterial Iodinated Contrast Media: A Meta-Analysis of Comparative Randomized Controlled Trials. *BMC Med Imaging*. 2011 May 24;11:12. doi:10.1186/1471-2342-11-12. PMID: 21609484
- M331) Friedewald VE, Emmett M, **McCullough P**, Yancy CW, Roberts WC. The Editor's Roundtable: Anemia and Cardiovascular Disease. *Am J Cardiol*. 2011 Jun 1;107(11):1630-5. PMID: 21575751
- M332) **McCullough PA**, Maynard RC. Treatment disparities in acute coronary syndromes, heart failure, and kidney disease. *Contrib Nephrol*. 2011;171:68-73. Epub 2011 May 23. PMID: 21625092
- M333) **McCullough PA**, Vassalotti JA, Collins AJ, Chen SC, Bakris GL, Whaley-Connell AT. National Kidney Foundation's Kidney Early Evaluation Program (KEEP) Annual Data Report 2010: Executive Summary. *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S1-3. PMID: 21338845
- M334) McFarlane SI, **McCullough PA**, Sowers JR, Soe K, Chen SC, Li S, Vassalotti JA, Stevens LA, Salifu MO, Kurella Tamura M, Bombback AS, Norris KC, Collins AJ, Bakris GL, Whaley-Connell AT; KEEP Steering Committee. Comparison of the CKD Epidemiology Collaboration (CKD-EPI) and Modification of Diet in Renal Disease (MDRD) Study Equations: Prevalence of and Risk Factors for Diabetes Mellitus in CKD in the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S24-31. PMID: 21338847
- M335) **McCullough PA**, Brown WW, Gannon MR, Vassalotti JA, Collins AJ, Chen SC, Bakris GL, Whaley-Connell AT. Sustainable Community-Based CKD Screening Methods Employed by the National Kidney Foundation's Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2011 Mar;57(3 Suppl 2):S4-8. PMID: 21338848

Peter A. McCullough, M.D., M.P.H.

- M336) Stevens LA, Li S, Kurella Tamura M, Chen SC, Vassalotti JA, Norris KC, Whaley-Connell AT, Bakris GL, **McCullough PA**. Comparison of the CKD Epidemiology Collaboration (CKD-EPI) and Modification of Diet in Renal Disease (MDRD) Study Equations: Risk Factors for and Complications of CKD and Mortality in the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis.* 2011 Mar;57(3 Suppl 2):S9-S16. PMID: 21338849
- M337) Herzog CA, Asinger RW, Berger AK, Charytan DM, Díez J, Hart RG, Eckardt KU, Kasiske BL, **McCullough PA**, Passman RS, DeLoach SS, Pun PH, Ritz E. Cardiovascular disease in chronic kidney disease. A clinical update from Kidney Disease: Improving Global Outcomes (KDIGO). *Kidney Int.* 2011 Sep;80(6):572-86. PMID: 21750584
- M338) Gorges RD, Burke P, David W, Cole A, **McCullough PA**, David SW. Emerging practice patterns and outcomes of percutaneous aortic balloon valvuloplasty in patients with severe aortic stenosis. *Rev Cardiovasc Med.* 2011;12(2):e60-7. PMID: 21796084
- M339) Hanna K, Seder CW, Chengelis D, **McCullough PA**, Krause K. Shorter circular staple is height associated with lower anastomotic stricture rate in laparoscopic gastric bypass. *Surg Obes Relat Dis.* 2012 Mar-Apr;8(2):181-4. PMID: 21798822
- M340) Miller WM, Spring TJ, Zalesin KC, Kaeding KR, Nori Janosz KE, **McCullough PA**, Franklin BA. Lower Than Predicted Resting Metabolic Rate Is Associated With Severely Impaired Cardiorespiratory Fitness in Obese Individuals. *Obesity (Silver Spring).* 2012 Mar;20(3):505-11. PMID: 21836645
- M341) Zalesin KC, Franklin BA, Miller WM, Peterson ED, **McCullough PA**. Impact of obesity on cardiovascular disease. *Med Clin North Am.* 2011 Sep;95(5):919-37. PMID: 21855700
- M342) Khouri Y, Steigerwalt SP, Alsamara M, **McCullough PA**. What is the Ideal Blood Pressure Goal for Patients with Stage III or Higher Chronic Kidney Disease? *Curr Cardiol Rep.* 2011 Dec;13(6):492-501. PMID: 21887524
- M343) Brown JR, **McCullough PA**, Splaine ME, Davies L, Ross CS, Dauerman HL, Robb JF, Boss R, Goldberg DJ, Fedele FA, Kellett MA, Phillips WJ, Ver Lee PN, Nelson EC, Mackenzie TA, O'Connor GT, Sarnak MJ, Malenka DJ; for the Northern New England Cardiovascular Disease Study Group. How do centres begin the process to prevent contrast-induced acute kidney injury: a report from a new regional collaborative. *BMJ Qual Saf.* 2012 Jan;21(1):54-62. PMID: 21890755
- M344) Horwich TB, Broderick S, Chen L, **McCullough PA**, Strzelczyk T, Kitzman DW, Fletcher G, Safford RE, Ewald G, Fine LJ, Ellis SJ, Fonarow GC. Relation Among Body Mass Index, Exercise Training, and Outcomes in Chronic Systolic Heart Failure. *Am J Cardiol.* 2011 Dec 15;108(12):1754-9. PMID: 21907317
- M345) **McCullough PA**, Khambatta S, Jazrawi A. Minimizing the renal toxicity of iodinated contrast. *Circulation.* 2011 Sep 13;124(11):1210-1. PMID: 21911794

Peter A. McCullough, M.D., M.P.H.

- M346) Marinescu V, **McCullough PA**. Nutritional and micronutrient determinants of idiopathic dilated cardiomyopathy: diagnostic and therapeutic implications. *Expert Rev Cardiovasc Ther*. 2011 Sep;9(9):1161-70. PubMed PMID: 21932959
- M347) **McCullough PA**, Brown JR. Effects of Intra-Arterial and Intravenous Iso-Osmolar Contrast Medium (Iodixanol) on the Risk of Contrast-Induced Acute Kidney Injury: A Meta-Analysis. *Cardiorenal Med*. 2011;1(4):220-234. PMID: 22164156
- M348) **McCullough PA**, Al-Ejel F, Maynard RC. Lipoprotein subfractions and particle size in end-stage renal disease. *Clin J Am Soc Nephrol*. 2011 Dec;6(12):2738-9. PMID: 22157706
- M349) Lepor NE, **McCullough PA**. Assessing appropriateness of coronary intervention. *Rev Cardiovasc Med*. 2011;12(3):170-1. PMID: 22145194
- M350) **McCullough PA**, Ahmed AB, Zughuib MT, Glanz ED, Di Loreto MJ. Treatment of hypertriglyceridemia with fibric Acid derivatives: impact on lipid subfractions and translation into a reduction in cardiovascular events. *Rev Cardiovasc Med*. 2011;12(4):173-85. PMID: 22249508.
- M351) Palazzuoli A, Beltrami M, Nodari S, **McCullough PA**, Ronco C. Clinical impact of renal dysfunction in heart failure. *Rev Cardiovasc Med*. 2011;12(4):186-99. PMID: 22249509.
- M352) **McCullough PA**, Olobatoke A, Vanhecke TE. Galectin-3: a novel blood test for the evaluation and management of patients with heart failure. *Rev Cardiovasc Med*. 2011;12(4):200-10. PMID: 22249510.
- M353) Vanhecke TE, Franklin BA, Soman P, Lahiri A, Mieres JH, Sias T, Calnon DA, Wolinsky D, Udelson JE, **McCullough PA**. Influence of myocardial ischemia on outcomes in patients with systolic versus non-systolic heart failure. *Am J Cardiovasc Dis*. 2011;1(2):167-75. Epub 2011 Jul 27. PMID: 22254196.
- M354) Whaley-Connell A, Bombback AS, McFarlane SI, Li S, Roberts T, Chen SC, Collins AJ, Norris K, Bakris GL, Sowers JR, **McCullough PA**; on behalf of the Kidney Early Evaluation Program Investigators. Diabetic Cardiovascular Disease Predicts Chronic Kidney Disease Awareness in the Kidney Early Evaluation Program. *Cardiorenal Med*. 2011 Jan;1(1):45-52. Epub 2011 Jan 17. PMID: 22258465.
- M355) Saab G, Whaley-Connell A, Bombeck A, Kurella Tamura M, Li S, Chen SC, McFarlane SI, Sowers JR, Norris K, Bakris GL, **McCullough PA**; for the Kidney Early Evaluation Program Investigators. The Association between Parathyroid Hormone Levels and the Cardiorenal Metabolic Syndrome in Non-Diabetic Chronic Kidney Disease. *Cardiorenal Med*. 2011;1(2):123-130. Epub 2011 Apr 15. PMID: 22258399.

Peter A. McCullough, M.D., M.P.H.

- M356) Trivax JE, **McCullough PA**. Phidippides Cardiomyopathy: A Review and Case Illustration. Clin Cardiol. 2012 Feb;35(2):69-73. PMID: 22222888.
- M357) Peralta CA, Norris KC, Li S, Chang TI, Tamura MK, Jolly SE, Bakris G, **McCullough PA**, Shlipak M; for the KEEP Investigators. Blood Pressure Components and End-stage Renal Disease in Persons With Chronic Kidney Disease: The Kidney Early Evaluation Program (KEEP). Arch Intern Med. 2012 Jan 9;172(1):41-47. PMID: 22232147.
- M358) **McCullough PA**, Assad H. Diagnosis of Cardiovascular Disease in Patients with Chronic Kidney Disease. Blood Purif. 2012 Jan 20;33(1-3):112-118. [Epub ahead of print] PubMed PMID: 22269967.
- M359) Amin AP, Salisbury AC, **McCullough PA**, Gosch K, Spertus JA, Venkitachalam L, Stolker JM, Parikh CR, Masoudi FA, Jones PG, Kosiborod M. Trends in the incidence of acute kidney injury in patients hospitalized with acute myocardial infarction. Arch Intern Med. 2012 Feb 13;172(3):246-53. PubMed PMID: 22332157.
- M360) Whaley-Connell AT, Vassalotti JA, Collins AJ, Chen SC, **McCullough PA**. National Kidney Foundation's Kidney Early Evaluation Program (KEEP) Annual Data Report 2011: Executive Summary. Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S1-4. PubMed PMID: 22339897; PubMed Central PMCID: PMC3285421.
- M361) Shah A, Fried LF, Chen SC, Qiu Y, Li S, Cavanaugh KL, Norris KC, Whaley-Connell AT, **McCullough PA**, Mehrotra R; KEEP Investigators. Associations Between Access to Care and Awareness of CKD. Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S16-23. PubMed PMID: 22339898.
- M362) Jurkovitz CT, Elliott D, Li S, Saab G, Bomback AS, Norris KC, Chen SC, **McCullough PA**, Whaley-Connell AT; KEEP Investigators. Physician Utilization, Risk-Factor Control, and CKD Progression Among Participants in the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S24-33. PubMed PMID: 22339899.
- M363) Saab G, Chen SC, Li S, Bomback AS, Whaley-Connell AT, Jurkovitz CT, Norris KC, **McCullough PA**; KEEP Investigators. Association of Physician Care With Mortality in Kidney Early Evaluation Program (KEEP) Participants. Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S34-9. PubMed PMID: 22339900.
- M364) Agrawal V, Jaar BG, Frisby XY, Chen SC, Qiu Y, Li S, Whaley-Connell AT, **McCullough PA**, Bomback AS; KEEP Investigators. Access to Health Care Among Adults Evaluated for CKD: Findings From the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis. 2012 Mar;59(3 Suppl 2):S5-S15. PubMed PMID: 22339901.
- M365) Ismail Y, Kasmikha Z, Green HL, **McCullough PA**. Cardio-renal syndrome type 1: epidemiology, pathophysiology, and treatment. Semin Nephrol. 2012 Jan;32(1):18-25. PubMed PMID: 22365158.

Peter A. McCullough, M.D., M.P.H.

- M366) Khambatta S, Farkouh ME, Wright RS, Reeder GS, **McCullough PA**, Smars PA, Hickson LJ, Best PJ. Chronic kidney disease as a risk factor for acute coronary syndromes in patients presenting to the emergency room with chest pain. *Transl Res.* 2012 May;159(5):391-6. Epub 2012 Jan 9. PubMed PMID: 22500512.
- M367) Whaley-Connell A, Shlipak MG, Inker LA, Kurella Tamura M, Bombback AS, Saab G, Szpunar SM, McFarlane SI, Li S, Chen SC, Norris K, Bakris GL, **McCullough PA**; Kidney Early Evaluation Program Investigators. Awareness of Kidney Disease and Relationship to End-stage Renal Disease and Mortality. *Am J Med.* 2012 Jul;125(7):661-9. PubMed PMID: 22626510.
- M368) **McCullough PA**, Williams FJ, Stivers DN, Cannon L, Dixon S, Alexander P, Runyan D, David S. Neutrophil Gelatinase-Associated Lipocalin: A Novel Marker of Contrast Nephropathy Risk. *Am J Nephrol.* 2012 May 23;35(6):509-514. PubMed PMID: 22627273.
- M369) O'Keefe JH, Patil HR, Lavie CJ, Magalski A, Vogel RA, **McCullough PA**. Potential adverse cardiovascular effects from excessive endurance exercise. *Mayo Clin Proc.* 2012 Jun;87(6):587-95. PubMed PMID: 22677079.
- M370) **McCullough PA**, Ali S. Cardiac and renal function in patients with type 2 diabetes who have chronic kidney disease: potential effects of bardoxolone methyl. *Drug Des Devel Ther.* 2012;6:141-9. Epub 2012 Jun 14. PubMed PMID: 22787387; PubMed Central PMCID: PMC3392144.
- M371) O'Donoghue ML, Vaidya A, Afsal R, Alfredsson J, Boden WE, Braunwald E, Cannon CP, Clayton TC, de Winter RJ, Fox KA, Lagerqvist B, **McCullough PA**, Murphy SA, Spacek R, Swahn E, Windhausen F, Sabatine MS. An Invasive or Conservative Strategy in Patients With Diabetes Mellitus and Non-ST-Segment Elevation Acute Coronary Syndromes: A Collaborative Meta-Analysis of Randomized Trials. *J Am Coll Cardiol.* 2012 Jul 10;60(2):106-11. PubMed PMID: 22766336.
- M372) Ronco C, Cicoira M, **McCullough PA**. Cardiorenal Syndrome Type 1: Pathophysiological Crosstalk Leading to Combined Heart and Kidney Dysfunction in the Setting of Acutely Decompensated Heart Failure. *J Am Coll Cardiol.* 2012 Sep 18;60(12):1031-42. PubMed PMID: 22840531.
- M373) Ronco C, Stacul F, **McCullough PA**. Subclinical acute kidney injury (AKI) due to iodine-based contrast media. *Eur Radiol.* 2013 Feb;23(2):319-23. PubMed PMID: 22895617.
- M374) **McCullough PA**, Larsen T, Brown JR. Theophylline or aminophylline for the prevention of contrast-induced acute kidney injury. *Am J Kidney Dis.* 2012 Sep;60(3):338-9. PubMed PMID: 22901629.

Peter A. McCullough, M.D., M.P.H.

- M375) Patil HR, O'Keefe JH, Lavie CJ, Magalski A, Vogel RA, **McCullough PA**. Cardiovascular damage resulting from chronic excessive endurance exercise. *Mo Med*. 2012 Jul-Aug;109(4):312-21. PubMed PMID: 22953596.
- M376) Bose S, Bombback AS, Mehta NN, Chen SC, Li S, Whaley-Connell A, Benjamin J, **McCullough PA**. Dysglycemia but not lipids is associated with abnormal urinary albumin excretion in diabetic kidney disease: a report from the Kidney Early Evaluation Program (KEEP). *BMC Nephrol*. 2012 Sep 7;13:104. doi:10.1186/1471-2369-13-104. PubMed PMID: 22958709.
- M377) Wilson GD, Geddes TJ, Pruetz BL, Thibodeau BJ, Murawka A, Colar JM, **McCullough PA**, Trivax JE. SELDI-TOF-MS Serum Profiling Reveals Predictors of Cardiac MRI Changes in Marathon Runners. *Int J Proteomics*. 2012;2012:679301. Epub 2012 Sep 3. PubMed PMID: 22988506; PubMed Central PMCID: PMC3439948.
- M378) **McCullough PA**, Cowan S. Mineralocorticoid receptor antagonists and mortality in heart failure with concurrent atrial fibrillation. *Circ Heart Fail*. 2012 Sep 1;5(5):550-1. PubMed PMID: 22991404.
- M379) Saab G, Bombback AS, McFarlane SI, Li S, Chen SC, **McCullough PA**, Whaley-Connell A; for the Kidney Early Evaluation Program Investigators. The Association of Parathyroid Hormone with ESRD and Pre-ESRD Mortality in the Kidney Early Evaluation Program. *J Clin Endocrinol Metab*. 2012 Dec;97(12):4414-21. PubMed PMID: 23066118.
- M380) Whaley-Connell A, Kurella Tamura M, **McCullough PA**. A Decade After the KDOQI CKD Guidelines: Impact on the National Kidney Foundation's Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2012 Nov;60(5):692-3. doi: 10.1053/j.ajkd.2012.08.008. PubMed PMID: 23067631.
- M381) **McCullough PA**, Di Loreto MJ. Fibrates and cardiorenal outcomes. *J Am Coll Cardiol*. 2012 Nov 13;60(20):2072-3. doi: 10.1016/j.jacc.2012.06.058. Epub 2012 Oct 17. PubMed PMID: 23083778.
- M382) Babayev R, Whaley-Connell A, Kshirsagar A, Klemmer P, Navaneethan S, Chen SC, Li S, **McCullough PA**, Bakris G, Bombback A; KEEP Investigators. Association of Race and Body Mass Index With ESRD and Mortality in CKD Stages 3-4: Results From the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2013 Mar;61(3):404-12. PubMed PMID: 23260275.
- M383) Pinto de Carvalho L, **McCullough PA**, Gao F, Sim LL, Tan HC, Foo D, Ooi YW, Richards AM, Chan MY, Yeo TC. Renal function and anaemia in acute myocardial infarction. *Int J Cardiol*. 2013 Sep 30;168(2):1397-401. PubMed PMID: 23305857.
- M384) Kashani K, Al-Khafaji A, Ardiles T, Artigas A, Bagshaw SM, Bell M, Bihorac A, Birkhahn R, Cely CM, Chawla LS, Davison DL, Feldkamp T, Forni LG, Gong MN, Gunnerson KJ, Haase M, Hackett J, Honore PM, Hoste EA, Joannes-Boyau O, Joannidis M, Kim P, Koyner JL, Laskowitz DT, Lissauer

Peter A. McCullough, M.D., M.P.H.

ME, Marx G, **McCullough PA**, Mullaney S, Ostermann M, Rimmele T, Shapiro NI, Shaw AD, Shi J, Sprague AM, Vincent JL, Vinsonneau C, Wagner L, Walker MG, Wilkerson RG, Zacharowski K, Kellum JA. Discovery and validation of cell cycle arrest biomarkers in human acute kidney injury. *Crit Care*. 2013 Feb 6;17(1):R25. [Epub ahead of print] PubMed PMID: 23388612.

M385) Smith SW, Diercks DB, Nagurney JT, Hollander JE, Miller CD, Schrock JW, Singer AJ, Apple FS, **McCullough PA**, Ruff CT, Sesma A Jr, Peacock WF. Central versus local adjudication of myocardial infarction in a cardiac biomarker trial. *Am Heart J*. 2013 Mar;165(3):273-279.e1. doi: 10.1016/j.ahj.2012.12.012. Epub 2013 Jan 26. PubMed PMID: 23453092.

M386) Whaley-Connell AT, Kurella Tamura M, Jurkovitz CT, Kosiborod M, **McCullough PA**. Advances in CKD Detection and Determination of Prognosis: Executive Summary of the National Kidney Foundation-Kidney Early Evaluation Program (KEEP) 2012 Annual Data Report. *Am J Kidney Dis*. 2013 Apr;61(4 Suppl 2):S1-3. doi: 10.1053/j.ajkd.2013.01.006. PubMed PMID: 23507265; PubMed Central PMCID: PMC3608929.

M387) Amin AP, Whaley-Connell AT, Li S, Chen SC, **McCullough PA**, Kosiborod MN; KEEP Investigators. The Synergistic Relationship Between Estimated GFR and Microalbuminuria in Predicting Long-term Progression to ESRD or Death in Patients With Diabetes: Results From the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2013 Apr;61(4 Suppl 2):S12-23. doi: 10.1053/j.ajkd.2013.01.005. PubMed PMID: 23507266.

M388) Jurkovitz CT, Li S, Norris KC, Saab G, Bomback AS, Whaley-Connell AT, **McCullough PA**; KEEP Investigators. Association Between Lack of Health Insurance and Risk of Death and ESRD: Results From the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2013 Apr;61(4 Suppl 2):S24-32. doi: 10.1053/j.ajkd.2012.12.015. PubMed PMID: 23507267.

M389) Chang TI, Li S, Chen SC, Peralta CA, Shlipak MG, Fried LF, Whaley-Connell AT, **McCullough PA**, Kurella Tamura M; KEEP Investigators. Risk Factors for ESRD in Individuals With Preserved Estimated GFR With and Without Albuminuria: Results From the Kidney Early Evaluation Program (KEEP). *Am J Kidney Dis*. 2013 Apr;61(4 Suppl 2):S4-S11. doi: 10.1053/j.ajkd.2012.12.016. PubMed PMID: 23507268.

M390) Narala KR, Hassan S, Lalonde TA, **McCullough PA**. Management of coronary atherosclerosis and acute coronary syndromes in patients with chronic kidney disease. *Curr Probl Cardiol*. 2013 May;38(5):165-206. doi: 10.1016/j.cpcardiol.2012.12.004. PubMed PMID: 23590761.

M391) Mehrotra R, Peralta CA, Chen SC, Li S, Sachs M, Shah A, Norris K, Saab G, Whaley-Connell A, Kestenbaum B, **McCullough PA**. No independent association of serum phosphorus with risk for death or progression to end-stage renal disease in a large screen for chronic kidney disease. *Kidney Int*. 2013 Nov;84(5):989-97. PubMed PMID: 23615501.

Peter A. McCullough, M.D., M.P.H.

- M392) Runyan D, Feldman D, **McCullough PA**, David S, Saba S, Gorges R. Long-term Follow-up of Lesion-specific Outcomes Comparing Drug-eluting Stents and Bare Metal Stents in Diseased Saphenous Vein Grafts. *Rev Cardiovasc Med.* 2013;14(1):1-6. PubMed PMID: 23651982.
- M393) Lepor NE, Fouchia DD, **McCullough PA**. New vistas for the treatment of obesity: turning the tide against the leading cause of morbidity and cardiovascular mortality in the developed world. *Rev Cardiovasc Med.* 2013;14(1):20-40. PubMed PMID: 23651984.
- M394) Weisbord SD, Gallagher M, Kaufman J, Cass A, Parikh CR, Chertow GM, Shunk KA, **McCullough PA**, Fine MJ, Mor MK, Lew RA, Huang GD, Conner TA, Brophy MT, Lee J, Soliva S, Palevsky PM. Prevention of Contrast-Induced AKI: A Review of Published Trials and the Design of the Prevention of Serious Adverse Events following Angiography (PRESERVE) Trial. *Clin J Am Soc Nephrol.* 2013 Sep;8(9):1618-31. PubMed PMID: 23660180
- M395) **McCullough PA**, Bouchard J, Waikar SS, Siew ED, Endre ZH, Goldstein SL, Koyner JL, Macedo E, Doi K, Di Somma S, Lewington A, Thadhani R, Chakravarthi R, Ice C, Okusa MD, Duranteau J, Doran P, Yang L, Jaber BL, Meehan S, Kellum JA, Haase M, Murray PT, Cruz D, Maisel A, Bagshaw SM, Chawla LS, Mehta RL, Shaw AD, Ronco C. Implementation of Novel Biomarkers in the Diagnosis, Prognosis, and Management of Acute Kidney Injury: Executive Summary from the Tenth Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:5-12. doi: 10.1159/000349962. Epub 2013 May 13. PubMed PMID: 23689652.
- M396) **McCullough PA**, Shaw AD, Haase M, Bouchard J, Waikar SS, Siew ED, Murray PT, Mehta RL, Ronco C. Diagnosis of acute kidney injury using functional and injury biomarkers: workgroup statements from the tenth acute dialysis quality initiative consensus conference. *Contrib Nephrol.* 2013;182:13-29. doi: 10.1159/000349963. Epub 2013 May 13. PubMed PMID: 23689653.
- M397) **McCullough PA**, Kellum JA, Haase M, Müller C, Damman K, Murray PT, Cruz D, House AA, Schmidt-Ott KM, Vescovo G, Bagshaw SM, Hoste EA, Briguori C, Braam B, Chawla LS, Costanzo MR, Tumlin JA, Herzog CA, Mehta RL, Rabb H, Shaw AD, Singbartl K, Ronco C. Pathophysiology of the Cardiorenal Syndromes: Executive Summary from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:82-98. doi: 10.1159/000349966. Epub 2013 May 13. PubMed PMID: 23689657.
- M398) Haase M, Müller C, Damman K, Murray PT, Kellum JA, Ronco C, **McCullough PA**. Pathogenesis of Cardiorenal Syndrome Type 1 in Acute Decompensated Heart Failure: Workgroup Statements from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:99-116. doi: 10.1159/000349969. Epub 2013 May 13. PubMed PMID: 23689658.
- M399) Cruz DN, Schmidt-Ott KM, Vescovo G, House AA, Kellum JA, Ronco C, **McCullough PA**. Pathophysiology of Cardiorenal Syndrome Type 2 in Stable Chronic Heart Failure: Workgroup Statements from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative

Peter A. McCullough, M.D., M.P.H.

(ADQI). *Contrib Nephrol.* 2013;182:117-36. doi: 10.1159/000349968. Epub 2013 May 13. PubMed PMID: 23689659.

- M400) Bagshaw SM, Hoste EA, Braam B, Briguori C, Kellum JA, **McCullough PA**, Ronco C. Cardiorenal syndrome type 3: pathophysiologic and epidemiologic considerations. *Contrib Nephrol.* 2013;182:137-57. doi: 10.1159/000349971. Epub 2013 May 13. PubMed PMID: 23689660.
- M401) Tumlin JA, Costanzo MR, Chawla LS, Herzog CA, Kellum JA, **McCullough PA**, Ronco C. Cardiorenal Syndrome Type 4: Insights on Clinical Presentation and Pathophysiology from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:158-73. doi: 10.1159/000349972. Epub 2013 May 13. PubMed PMID: 23689661.
- M402) Mehta RL, Rabb H, Shaw AD, Singbartl K, Ronco C, **McCullough PA**, Kellum JA. Cardiorenal Syndrome Type 5: Clinical Presentation, Pathophysiology and Management Strategies from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Contrib Nephrol.* 2013;182:174-94. doi: 10.1159/000349970. Epub 2013 May 13. PubMed PMID: 23689662.
- M403) **McCullough PA**, Barnhart HX, Inrig JK, Reddan D, Sapp S, Patel UD, Singh AK, Szczech LA, Califf RM. Cardiovascular Toxicity of Epoetin-Alfa in Patients with Chronic Kidney Disease. *Am J Nephrol.* 2013 May 25;37(6):549-558. PubMed PMID: 23735819.
- M404) Memon I, Norris KC, Bomback AS, Peralta C, Li S, Chen SC, **McCullough PA**, Whaley-Connell A, Jurkowitz C, Tamura MK, Saab G; for the Kidney Early Evaluation Program Investigators. The Association between Parathyroid Hormone Levels and Hemoglobin in Diabetic and Nondiabetic Participants in the National Kidney Foundation's Kidney Early Evaluation Program. *Cardiorenal Med.* 2013 Jul;3(2):120-127. Epub 2013 Jun 1. PubMed PMID: 23922552; PubMed Central PMCID: PMC3721130.
- M405) **McCullough PA**, Barnard D, Clare R, Ellis SJ, Fleg JL, Fonarow GC, Franklin BA, Kilpatrick RD, Kitzman DW, O'Connor CM, Piña IL, Thadani U, Thohan V, Whellan DJ; for the HF-ACTION Investigators. Anemia and Associated Clinical Outcomes in Patients With Heart Failure Due to Reduced Left Ventricular Systolic Function. *Clin Cardiol.* 2013 Oct;36(10):611-20. PubMed PMID: 23929781.
- M406) Akrawinthewong K, Shaw MK, Kachner J, Apostolov EO, Basnakian AG, Shah S, Tilak J, **McCullough PA**. Urine catalytic iron and neutrophil gelatinase-associated lipocalin as companion early markers of acute kidney injury after cardiac surgery: a prospective pilot study. *Cardiorenal Med.* 2013 Apr;3(1):7-16. doi: 10.1159/000346815. Epub 2013 Feb 6. PubMed PMID: 23946721; PubMed Central PMCID: PMC3743453.
- M407) White WB, Cannon CP, Heller SR, Nissen SE, Bergenstal RM, Bakris GL, Perez AT, Fleck PR, Mehta CR, Kupfer S, Wilson C, Cushman WC, Zannad F; EXAMINE Investigators. (**McCullough PA**,

Peter A. McCullough, M.D., M.P.H.

Data Safety Monitoring Board) Alogliptin after acute coronary syndrome in patients with type 2 diabetes. *N Engl J Med.* 2013 Oct 3;369(14):1327-35.

- M408) **McCullough PA**, Akrawinthewong K. Ascorbic Acid for the Prevention of Contrast-Induced Acute Kidney Injury. *J Am Coll Cardiol.* 2013 Dec 10;62(23):2176-7. PubMed PMID: 23994411.
- M409) Ronco C, **McCullough PA**, Chawla LS. Kidney attack versus heart attack: evolution of classification and diagnostic criteria. *Lancet.* 2013 Sep 14;382(9896):939-40. doi: 10.1016/S0140-6736(13)61932-7. PubMed PMID: 24034297.
- M410) Kurella Tamura M, Li S, Chen SC, Cavanaugh KL, Whaley-Connell AT, **McCullough PA**, Mehrotra RL. Educational programs improve the preparation for dialysis and survival of patients with chronic kidney disease. *Kidney Int.* 2013 Sep 25. doi:10.1038/ki.2013.369. [Epub ahead of print] PubMed PMID: 24067435.
- M411) Nasser M, Larsen TR, Waanbah B, Sidiqi I, **McCullough PA**. Hyperacute drug-induced hepatitis with intravenous amiodarone: case report and review of the literature. *Drug Health Patient Saf.* 2013 Sep 26;5:191-198. PubMed PMID: 24109195.
- M412) Larsen TR, Kinni V, Zaks J, David S, **McCullough PA**. A Lethal Case of Influenza and Type 5 Cardiorenal Syndrome. *Blood Purif.* 2013 Nov 1;36(2):112-115. PubMed PMID: 24192807.
- M413) Fried LF, Emanuele N, Zhang JH, Brophy M, Conner TA, Duckworth W, Leehey DJ, **McCullough PA**, O'Connor T, Palevsky PM, Reilly RF, Seliger SL, Warren SR, Watnick S, Peduzzi P, Guarino P; VA NEPHRON-D Investigators. Combined Angiotensin inhibition for the treatment of diabetic nephropathy. *N Engl J Med.* 2013 Nov 14;369(20):1892-903.
- M414) Parsa A, Kao WH, Xie D, Astor BC, Li M, Hsu CY, Feldman HI, Parekh RS, Kusek JW, Greene TH, Fink JC, Anderson AH, Choi MJ, Wright JT Jr, Lash JP, Freedman BI, Ojo A, Winkler CA, Raj DS, Kopp JB, He J, Jensvold NG, Tao K, Lipkowitz MS, Appel LJ; AASK Study Investigators; CRIC Study Investigators (**McCullough PA**, External Advisory Panel). APOL1 risk variants, race, and progression of chronic kidney disease. *N Engl J Med.* 2013 Dec 5;369(23):2183-96.
- M415) Costanzo MR, Chawla LS, Tumlin JA, Herzog CA, **McCullough PA**, Kellum JA, Ronco C. The role of early and sufficient isolated venovenous ultrafiltration in heart failure patients with pulmonary and systemic congestion. *Rev Cardiovasc Med.* 2013;14(2-4):e123-33. PubMed PMID: 24448253.
- M416) Maioli M, Toso A, Leoncini M, Musilli N, Bellandi F, Rosner MH, **McCullough PA**, Ronco C. Pre-procedural Bioimpedance Vectorial Analysis of fluid status and prediction of Contrast-Induced Acute Kidney Injury. *J Am Coll Cardiol.* 2014 Jan 30. pii: S0735-1097(14)00339-8. doi: 10.1016/j.jacc.2014.01.025. [Epub ahead of print] PubMed PMID: 24530668.

Peter A. McCullough, M.D., M.P.H.

- M417) Chawla LS, Herzog CA, Costanzo MR, Tumlin J, Kellum JA, **McCullough PA**, Ronco C; Acute Dialysis Quality Initiative (ADQI) XI Workgroup. Viewpoint: Proposal for a Functional Classification System of Heart Failure in Patients with End-Stage Renal Disease: Proceedings of the Acute Dialysis Quality Initiative (ADQI) XI Workgroup. *J Am Coll Cardiol*. 2014 Jan 30. pii: S0735-1097(14)00331-3. doi: 10.1016/j.jacc.2014.01.020. [Epub ahead of print] Review. PubMed PMID: 24530671.
- M418) **McCullough PA**. Calling for Targeted Trials in Cardiorenal Syndromes. *Am J Kidney Dis*. 2014 Apr 5. pii: S0272-6386(14)00616-7. doi:10.1053/j.ajkd.2014.03.006. [Epub ahead of print] PubMed PMID: 24713221.
- M419) Toth PP, Shah PK, Wilkinson MJ, Davidson MH, **McCullough PA**. Use of microsomal triglyceride transfer protein inhibitors in patients with homozygous familial hypercholesterolemia: translating clinical trial experience into clinical practice. *Rev Cardiovasc Med*. 2014;15(1):1-10. PubMed PMID: 24762461.
- M420) **McCullough PA**, Beaver TM, Bennett-Guerrero E, Emmett M, Fonarow GC, Goyal A, Herzog CA, Kosiborod M, Palmer BF. Acute and chronic cardiovascular effects of hyperkalemia: new insights into prevention and clinical management. *Rev Cardiovasc Med*. 2014;15(1):11-23. PubMed PMID: 24762462.
- M421) **McCullough PA**. Practical experience using galectin-3 in heart failure. *Clin Chem Lab Med*. 2014 May 8. pii:/j/cclm.ahead-of-print/cclm-2014-0278/cclm-2014-0278.xml. doi: 10.1515/cclm-2014-0278. [Epub ahead of print] PubMed PMID: 24810562
- M422) Chin MP, Reisman SA, Bakris GL, O'Grady M, Linde PG, **McCullough PA**, Packham D, Vaziri ND, Ward KW, Warnock DG, Meyer CJ. Mechanisms Contributing to Adverse Cardiovascular Events in Patients with Type 2 Diabetes Mellitus and Stage 4 Chronic Kidney Disease Treated with Bardoxolone Methyl. *Am J Nephrol*. 2014 Jun 3;39(6):499-508. [Epub ahead of print] PubMed PMID: 24903467.
- M423) **McCullough PA**, Whaley-Connell AT, Vassalotti JA. The future of CKD detection: the role for the Kidney Early Evaluation Program. *Nephrol News Issues*. 2014 Apr;28(4):41-2. PubMed PMID: 24960988.
- M424) Palazzuoli A, Pellegrini M, Ruocco G, Martini G, Franci B, Campagna MS, Gillemann M, Nuti R, **McCullough PA**, Ronco C. Continuous versus bolus intermittent loop diuretic infusion in acutely decompensated heart failure: a prospective randomized trial. *Crit Care*. 2014 Jun 28;18(3):R134. doi: 10.1186/cc13952. PubMed PMID: 24974232.
- M425) Manatsathit W, Al-Hamid H, Leelasinjaroen P, Hashmi U, **McCullough PA**. Management of gastrointestinal bleeding in patients anticoagulated with dabigatran compared with warfarin: a retrospective, comparative case review. *Cardiovasc Diagn Ther*. 2014 Jun;4(3):224-31. doi:

Peter A. McCullough, M.D., M.P.H.

10.3978/j.issn.2223-3652.2014.03.07. PubMed PMID: 25009791; PubMed Central PMCID: PMC4069982.

- M426) Neath SX, Jefferies JL, Berger JS, Wu AH, McConnell JP, Boone JL, **McCullough PA**, Jesse RL, Maisel AS. The current and future landscape of urinary thromboxane testing to evaluate atherothrombotic risk. *Rev Cardiovasc Med*. 2014;15(2):119-30. Review. PubMed PMID: 25051129.
- M427) Brown JR, Solomon RJ, Sarnak MJ, **McCullough PA**, Splaine ME, Davies L, Ross CS, Dauerman HL, Stender JL, Conley SM, Robb JF, Chaisson K, Boss R, Lambert P, Goldberg DJ, Lucier D, Fedele FA, Kellett MA, Horton S, Phillips WJ, Downs C, Wiseman A, MacKenzie TA, Malenka DJ; for the Northern New England Cardiovascular Disease Study Group. Reducing Contrast-Induced Acute Kidney Injury Using a Regional Multicenter Quality Improvement Intervention. *Circ Cardiovasc Qual Outcomes*. 2014 Jul 29. pii: CIRCOUTC0MES.114.000903. [Epub ahead of print] PubMed PMID: 25074372.
- M428) Zimering MB, Zhang JH, Guarino PD, Emanuele N, **McCullough PA**, Fried LF; Investigators for the VA NEPHRON-D. Endothelial cell autoantibodies in predicting declining renal function, end-stage renal disease, or death in adult type 2 diabetic nephropathy. *Front Endocrinol (Lausanne)*. 2014 Aug 11;5:128. doi: 10.3389/fendo.2014.00128. eCollection 2014. PubMed PMID: 25157242; PubMed Central PMCID: PMC4127944.
- M429) **McCullough PA**, Kellum JA, Haase M, Müller C, Damman K, Murray PT, Cruz D, House AA, Schmidt-Ott KM, Vescovo G, Bagshaw SM, Hoste EA, Briguori C, Braam B, Chawla LS, Costanzo MR, Tumlin JA, Herzog CA, Mehta RL, Rabb H, Shaw AD, Singbartl K, Ronco C. Pathophysiology of the Cardiorenal Syndromes: Executive Summary from the Eleventh Consensus Conference of the Acute Dialysis Quality Initiative (ADQI). *Blood Purif*. 2014;37 Suppl 2:2-13. doi: 10.1159/000361059. Epub 2014 Jul 31. PubMed PMID: 25196564.
- M430) Hoste EA, **McCullough PA**, Kashani K, Chawla LS, Joannidis M, Shaw AD, Feldkamp T, Uettwiller-Geiger DL, McCarthy P, Shi J, Walker MG, Kellum JA; for the Sapphire Investigators. Derivation and validation of cutoffs for clinical use of cell cycle arrest biomarkers. *Nephrol Dial Transplant*. 2014 Sep 18. pii: gfu292. [Epub ahead of print] PubMed PMID: 25237065.
- M431) Chin MP, Wrolstad D, Bakris GL, Chertow GM, de Zeeuw D, Goldsberry A, Linde PG, **McCullough PA**, McMurray JJ, Wittes J, Meyer CJ. Risk factors for heart failure in patients with type 2 diabetes mellitus and stage 4 chronic kidney disease treated with bardoxolone methyl. *J Card Fail*. 2014 Dec;20(12):953-8. doi:10.1016/j.cardfail.2014.10.001. Epub 2014 Oct 13. PubMed PMID: 25307295.
- M432) **McCullough PA**, Fazel P, Choi JW. Screening, diagnosis, and management of CAD in asymptomatic diabetic patients. *JACC Cardiovasc Imaging*. 2014 Oct;7(10):1011-2. doi: 10.1016/j.jcmg.2014.08.001. PubMed PMID: 25323163.

Peter A. McCullough, M.D., M.P.H.

- M433) Hundae A, **McCullough PA**. Cardiac and renal fibrosis in chronic cardiorenal syndromes. *Nephron Clin Pract*. 2014;127(1-4):106-12. doi: 10.1159/000363705. Epub 2014 Sep 24. PubMed PMID: 25343831.
- M434) Shin HJ, **McCullough PA**. Focus on lipids: high-density lipoprotein cholesterol and its associated lipoproteins in cardiac and renal disease. *Nephron Clin Pract*. 2014;127(1-4):158-64. doi: 10.1159/000363552. Epub 2014 Sep 24. PubMed PMID:25343842.
- M435) Ball T, **McCullough PA**. Statins for the prevention of contrast-induced acute kidney injury. *Nephron Clin Pract*. 2014;127(1-4):165-71. doi: 10.1159/000363202. Epub 2014 Sep 24. PubMed PMID: 25343843.
- M436) Szczech LA, Stewart RC, Su HL, DeLoskey RJ, Astor BC, Fox CH, **McCullough PA**, Vassalotti JA. Primary Care Detection of Chronic Kidney Disease in Adults with Type-2 Diabetes: The ADD-CKD Study (Awareness, Detection and Drug Therapy in Type 2 Diabetes and Chronic Kidney Disease). *PLoS One*. 2014 Nov 26;9(11):e110535. doi: 10.1371/journal.pone.0110535. eCollection 2014. PubMed PMID: 25427285; PubMed Central PMCID: PMC4245114.
- M437) **McCullough PA**, Roberts WC. Peter Andrew McCullough, MD, MPH: An Interview With the Editor. *Am J Cardiol*. 2014 Dec 1;114(11):1772-85. doi: 10.1016/j.amjcard.2014.08.034. Epub 2014 Sep 16. PubMed PMID: 25439453.
- M438) Roberts JK, **McCullough PA**. The Management of Acute Coronary Syndromes in Patients With Chronic Kidney Disease. *Adv Chronic Kidney Dis*. 2014 Nov;21(6):472-479. doi: 10.1053/j.ackd.2014.08.005. Epub 2014 Oct 24. Review. PubMed PMID: 25443572.
- M439) **McCullough PA**, Jefferies JL. Novel Markers and Therapies for Patients with Acute Heart Failure and Renal Dysfunction. *Am J Med*. 2014 Nov 13. pii: S0002-9343(14)00977-2. doi: 10.1016/j.amjmed.2014.10.035. [Epub ahead of print] PubMed PMID: 25446297.
- M440) Ball T, Wheelan K, **McCullough PA**. Chronic anticoagulation in chronic kidney disease. *J Am Coll Cardiol*. 2014 Dec 16;64(23):2483-5. doi: 10.1016/j.jacc.2014.09.052. PubMed PMID: 25500232.
- M441) Akrawinthawong K, Ricci J, Cannon L, Dixon S, Kupfer K, Stivers D, Alexander P, David S, **McCullough PA**. Subclinical and clinical contrast-induced acute kidney injury: data from a novel blood marker for determining the risk of developing contrast-induced nephropathy (ENCINO), a prospective study. *Ren Fail*. 2014 Dec 18:1-5. [Epub ahead of print] PubMed PMID: 25519207.
- M442) **McCullough PA**, Mehta A, Szerlip H. Improving detection of cardiac surgery-associated acute kidney injury. *J Am Coll Cardiol*. 2014 Dec 30;64(25):2763-4. doi: 10.1016/j.jacc.2014.09.065. PubMed PMID: 25541129.

Peter A. McCullough, M.D., M.P.H.

- M443) Lepor NE, Fouchia DD, **McCullough PA**. New vistas for the treatment of obesity: turning the tide against the leading cause of morbidity and cardiovascular mortality in the developed world. *Rev Cardiovasc Med*. 2014;15 Suppl 2:S1-19; quiz S20-1. Review. PubMed PMID: 25662755.
- M444) Watson KE, Stocker EH, Jacoby DS, **McCullough PA**. Advanced lipid testing: when, why, and in whom? *Rev Cardiovasc Med*. 2014;15(4):310-7; quiz 318-9. Review. PubMed PMID: 25662925.
- M445) Charytan DM, Fishbane S, Malyszko J, **McCullough PA**, Goldsmith D. Cardiorenal Syndrome and the Role of the Bone-Mineral Axis and Anemia. *Am J Kidney Dis*. 2015 Feb 26. pii: S0272-6386(15)00084-0. doi: 10.1053/j.ajkd.2014.12.016. [Epub ahead of print] PubMed PMID: 25727384.
- M446) Kassis HM, Minsinger KD, **McCullough PA**, Block CA, Sidhu MS, Brown JR. A Review of the Use of Iloprost, A Synthetic Prostacyclin, in the Prevention of Radiocontrast Nephropathy in Patients Undergoing Coronary Angiography and Intervention. *Clin Cardiol*. 2015 May 12. doi: 10.1002/clc.22407. [Epub ahead of print] PubMed PMID: 25963191.
- M447) Palazzuoli A, **McCullough PA**, Ronco C, Nuti R. Kidney disease in heart failure: the importance of novel biomarkers for type 1 cardio-renal syndrome detection. *Intern Emerg Med*. 2015 May 14. [Epub ahead of print] PubMed PMID: 25972236.
- M448) Robinson JG, Farnier M, Krempf M, Bergeron J, Luc G, Averna M, Stroes ES, Langslet G, Raal FJ, El Shahawy M, Koren MJ, Lepor NE, Lorenzato C, Pordy R, Chaudhari U, Kastelein JJ; ODYSSEY LONG TERM Investigators (**McCullough PA** Site PI). Efficacy and safety of alirocumab in reducing lipids and cardiovascular events. *N Engl J Med*. 2015 Apr 16;372(16):1489-99. doi: 10.1056/NEJMoa1501031. Epub 2015 Mar 15. PubMed PMID: 25773378.
- M449) **McCullough PA**, Costanzo MR, Silver M, Spinowitz B, Zhang J, Lepor NE. Novel Agents for the Prevention and Management of Hyperkalemia. *Rev Cardiovasc Med*. 2015;16(2):140-55. PubMed PMID: 26198561.
- M450) **McCullough PA**, Patanker G, Stoler RC. Estimating Renal Filtration, Drug Dosing, and Clinical Outcomes. *J Am Coll Cardiol*. 2015 Jun 30;65(25):2724-5. doi: 10.1016/j.jacc.2015.05.015. PubMed PMID: 26112196.
- M451) Husain-Syed F, **McCullough PA**, Birk HW, Renker M, Brocca A, Seeger W, Ronco C. Cardio-Pulmonary-Renal Interactions: A Multidisciplinary Approach. *J Am Coll Cardiol*. 2015 Jun 9;65(22):2433-48. doi: 10.1016/j.jacc.2015.04.024. Review. PubMed PMID: 26046738.
- M452) Anker SD, Kosiborod M, Zannad F, Piña IL, **McCullough PA**, Filippatos G, van der Meer P, Ponikowski P, Rasmussen HS, Lavin PT, Singh B, Yang A, Deedwania P. Maintenance of serum potassium with sodium zirconium cyclosilicate (ZS-9) in heart failure patients: results from a

Peter A. McCullough, M.D., M.P.H.

phase 3 randomized, double-blind, placebo-controlled trial. *Eur J Heart Fail.* 2015 May 23. doi: 10.1002/ejhf.300. [Epub ahead of print] PubMed PMID: 26011677.

- M453) Palazzuoli A, Ruocco G, Ronco C, **McCullough PA**. Loop diuretics in acute heart failure: beyond the decongestive relief for the kidney. *Crit Care.* 2015 Sep 3;19:296. doi: 10.1186/s13054-015-1017-3. PubMed PMID: 26335137; PubMed Central PMCID: PMC4559070.
- M454) **McCullough PA**, Young A, Shutze WP. Acute Kidney Injury After Carotid Artery Stenting. *JACC Cardiovasc Interv.* 2015 Sep;8(11):1515-7. doi: 10.1016/j.jcin.2015.07.006. PubMed PMID: 26404205.
- M455) Fallahzadeh MK, **McCullough PA**. Cardiac Electromechanical Abnormalities in Hemodialysis Patients: Indicators of Cardiomyopathy and Future Risk. *Am J Nephrol.* 2015;42(3):237-8. doi: 10.1159/000441100. Epub 2015 Oct 20. PubMed PMID: 26484657.
- M456) Thompson-Martin Y, **McCullough PA**, Agrawal V. Impact of an Educational Program for Advanced Practice Nurses on Knowledge of Kidney Disease Outcomes Quality Initiative Guidelines. *Nephrol Nurs J.* 2015 Sep-Oct;42(5):455-60, 496; quiz 461. PubMed PMID: 26591270.
- M457) Larsen TR, Singh G, Velocci V, Nasser M, **McCullough PA**. Frequency of fluid overload and usefulness of bioimpedance in patients requiring intensive care for sepsis syndromes. *Proc (Bayl Univ Med Cent).* 2016 Jan;29(1):12-5. PubMed PMID: 26722156; PubMed Central PMCID: PMC4677841.
- M458) Charytan DM, Foley R, **McCullough PA**, Rogers JD, Zimetbaum P, Herzog CA, Tumlin JA; MiD Investigators and Committees. Arrhythmia and Sudden Death in Hemodialysis Patients: Protocol and Baseline Characteristics of the Monitoring in Dialysis Study. *Clin J Am Soc Nephrol.* 2016 Jan 13. pii: CJN.09350915. [Epub ahead of print] PubMed PMID: 26763255.
- M459) Roberts WC, Hall SA, Ko JM, **McCullough PA**, Lima B. Atrophy of the Heart After Insertion of a Left Ventricular Assist Device and Closure of the Aortic Valve. *Am J Cardiol.* 2016 Mar 1;117(5):878-9. doi: 10.1016/j.amjcard.2015.12.008. Epub 2015 Dec 13. PubMed PMID: 26792135.
- M460) Tecson KM, Silver MA, Brune SD, Cauthen C, Kwan MD, Schussler JM, Vasudevan A, Watts JA, **McCullough PA**. Impact of Enhanced External Counterpulsation on Heart Failure Rehospitalization in Patients With Ischemic Cardiomyopathy. *Am J Cardiol.* 2015 Dec 31. pii: S0002-9149(15)30069-2. doi: 10.1016/j.amjcard.2015.12.024. [Epub ahead of print] PubMed PMID: 26813739.
- M461) **McCullough PA**, Roberts WC. Influence of Chronic Renal Failure on Cardiac Structure. *J Am Coll Cardiol.* 2016 Mar 15;67(10):1183-5. doi:10.1016/j.jacc.2015.11.065. PubMed PMID: 26965539.

Peter A. McCullough, M.D., M.P.H.

- M462) Palazzuoli A, Ruocco G, Pellegrini M, Beltrami M, Giordano N, Nuti R, **McCullough PA**. Prognostic Significance of Hyperuricemia in Patients With Acute Heart Failure. *Am J Cardiol*. 2016 May 15;117(10):1616-21. doi: 10.1016/j.amjcard.2016.02.039. Epub 2016 Mar 2. PubMed PMID: 27040576.
- M463) **McCullough PA**, Fallahzadeh MK, Tecson KM. Predicting Acute Kidney Injury in the Catheterization Laboratory. *J Am Coll Cardiol*. 2016 Apr 12;67(14):1723-4. doi: 10.1016/j.jacc.2016.02.007. PubMed PMID: 27056779.
- M464) Grodzinsky A, Goyal A, Gosch K, **McCullough PA**, Fonarow GC, Mebazaa A, Masoudi FA, Spertus JA, Palmer BF, Kosiborod M. Prevalence and Prognosis of Hyperkalemia in Patients with Acute Myocardial Infarction. *Am J Med*. 2016 Apr 7. pii:S0002-9343(16)30317-5. doi: 10.1016/j.amjmed.2016.03.008. [Epub ahead of print] PubMed PMID: 27060233.
- M465) Sherwood M, **McCullough PA**. Chronic kidney disease from screening, detection, and awareness, to prevention. *Lancet Glob Health*. 2016 May;4(5):e288-9. doi: 10.1016/S2214-109X(16)30049-3. PubMed PMID: 27102186.
- M466) **McCullough PA**, Afzal A, Kale P. Goal-Directed Heart Failure Care in Patients With Chronic Kidney Disease and End-Stage Renal Disease. *JACC Heart Fail*. 2016 May 30. pii: S2213-1779(16)30084-1. doi: 10.1016/j.jchf.2016.03.014. [Epub ahead of print] PubMed PMID: 27289405.
- M467) Prasad A, Sohn A, Morales J, Williams K, Bailey SR, Levin D, **McCullough PA**, Mehran R, Lopez-Cruz G, Harder J. Contemporary practice patterns related to the risk of acute kidney injury in the catheterization laboratory: Results from a survey of Society of Cardiovascular Angiography and Intervention (SCAI) cardiologists. *Catheter Cardiovasc Interv*. 2016 Jun 17. doi: 10.1002/ccd.26628. [Epub ahead of print] PubMed PMID: 27315581.
- M468) Schussler JM, Vasudevan A, von Bose LJ, Won JI, **McCullough PA**. Comparative Efficacy of Transradial Versus Transfemoral Approach for Coronary Angiography and Percutaneous Coronary Intervention. *Am J Cardiol*. 2016 Aug 15;118(4):482-8. doi: 10.1016/j.amjcard.2016.05.038. PubMed PMID: 27378143.
- M469) Zannad F, Stough WG, Lipicky RJ, Tamargo J, Bakris GL, Borer JS, Alonso García Mde L, Hadjadj S, Koenig W, Kupfer S, **McCullough PA**, Mosenzon O, Pocock S, Scheen AJ, Sourij H, Van der Schueren B, Stahre C, White WB, Calvo G. Assessment of cardiovascular risk of new drugs for the treatment of diabetes mellitus: risk assessment vs. risk aversion. *Eur Heart J Cardiovasc Pharmacother*. 2016 Jul;2(3):200-5. doi: 10.1093/ehjcvp/pvw007. Review. PubMed PMID: 27418973; PubMed Central PMCID: PMC4907355.
- M470) **McCullough PA**, Bennett-Guerrero E, Chawla LS, Beaver T, Mehta RL, Molitoris BA, Eldred A, Ball G, Lee HJ, Houser MT, Khan S. ABT-719 for the Prevention of Acute Kidney Injury in Patients

Peter A. McCullough, M.D., M.P.H.

Undergoing High-Risk Cardiac Surgery: A Randomized Phase 2b Clinical Trial. *J Am Heart Assoc.* 2016 Aug 20;5(8). pii:e003549. doi: 10.1161/JAHA.116.003549. PubMed PMID: 27543797; PubMed Central PMCID: PMC5015281.

- M471) Brown JR, **McCullough PA**, Matheny ME. Novel Developments in Acute Kidney Injury. *Biomed Res Int.* 2016;2016:2756204. doi: 10.1155/2016/2756204. PubMed PMID: 27595099; PubMed Central PMCID: PMC4995325.
- M472) **McCullough PA**, Choi JP, Feghali GA, Schussler JM, Stoler RM, Vallabahn RC, Mehta A. Contrast-Induced Acute Kidney Injury. *J Am Coll Cardiol.* 2016 Sep 27;68(13):1465-73. doi: 10.1016/j.jacc.2016.05.099. Review. PubMed PMID:27659469.
- M473) Villa G, Neri M, Bellomo R, Cerda J, De Gaudio AR, De Rosa S, Garzotto F, Honore PM, Kellum J, Lorenzin A, Payen D, Ricci Z, Samoni S, Vincent JL, Wendon J, Zaccaria M, Ronco C; Nomenclature Standardization Initiative (NSI) Alliance (**McCullough PA** member). Nomenclature for renal replacement therapy and blood purification techniques in critically ill patients: practical applications. *Crit Care.* 2016 Oct 10;20(1):283. Review. PubMed PMID: 27719676; PubMed Central PMCID: PMC5056485.
- M474) **McCullough PA**, Fallahzadeh MK, Hegazi RM. Nutritional Deficiencies and Sarcopenia in Heart Failure: A Therapeutic Opportunity to Reduce Hospitalization and Death. *Rev Cardiovasc Med.* 2016;17(S1):S30-S39. PubMed PMID: 27725625.
- M475) Bakris GL, Burkart JM, Weinhandl ED, **McCullough PA**, Kraus MA. Intensive Hemodialysis, Blood Pressure, and Antihypertensive Medication Use. *Am J Kidney Dis.* 2016 Nov;68(5S1):S15-S23. doi: 10.1053/j.ajkd.2016.05.026. PubMed PMID:27772639.
- M476) Copland M, Komenda P, Weinhandl ED, **McCullough PA**, Morfin JA. Intensive Hemodialysis, Mineral and Bone Disorder, and Phosphate Binder Use. *Am J Kidney Dis.* 2016 Nov;68(5S1):S24-S32. doi: 10.1053/j.ajkd.2016.05.024. PubMed PMID:27772640.
- M477) Morfin JA, Fluck RJ, Weinhandl ED, Kansal S, **McCullough PA**, Komenda P. Intensive Hemodialysis and Treatment Complications and Tolerability. *Am J Kidney Dis.* 2016 Nov;68(5S1):S43-S50. doi: 10.1053/j.ajkd.2016.05.021. PubMed PMID:27772642.
- M478) **McCullough PA**, Chan CT, Weinhandl ED, Burkart JM, Bakris GL. Intensive Hemodialysis, Left Ventricular Hypertrophy, and Cardiovascular Disease. *Am J Kidney Dis.* 2016 Nov;68(5S1):S5-S14. doi: 10.1053/j.ajkd.2016.05.025. PubMed PMID: 27772643.
- M479) **McCullough PA**, Ball T, Cox KM, Assar MD. Use of Oral Anticoagulation in the Management of Atrial Fibrillation in Patients with ESRD: Pro. *Clin J Am Soc Nephrol.* 2016 Nov 7;11(11):2079-2084. PubMed PMID: 27797888; PubMed Central PMCID: PMC5108189.

Peter A. McCullough, M.D., M.P.H.

- M480) Zhang J, **McCullough PA**. Lipoic Acid in the Prevention of Acute Kidney Injury. *Nephron*. 2016;134(3):133-140. PubMed PMID: 27603173.
- M481) **McCullough PA**, Vasudevan A, Lopez LR, Swift C, Peterson M, Bennett-Firmin J, Schiffmann R, Bottiglieri T. Oxidative stress reflected by increased F(2)-isoprostanes is associated with increasing urinary 11-dehydro thromboxane B(2) levels in patients with coronary artery disease. *Thromb Res*. 2016 Oct 26;148:85-88. doi: 10.1016/j.thromres.2016.10.022. [Epub ahead of print] PubMed PMID: 27815971.
- M482) Zhang J, Fallahzadeh MK, **McCullough PA**. Aging Male Spontaneously Hypertensive Rat as an Animal Model for the Evaluation of the Interplay between Contrast-Induced Acute Kidney Injury and Cardiorenal Syndrome in Humans. *Cardiorenal Med*. 2016 Nov;7(1):1-10. Epub 2016 Jul 21. Review. PubMed PMID:27994597; PubMed Central PMCID: PMC5159736.
- M483) Vasudevan A, Bottiglieri T, Tecson KM, Sathyamoorthy M, Schussler JM, Velasco CE, Lopez LR, Swift C, Peterson M, Bennett-Firmin J, Schiffmann R, **McCullough PA**. Residual thromboxane activity and oxidative stress: influence on mortality in patients with stable coronary artery disease. *Coron Artery Dis*. 2017 Jun;28(4):287-293. doi: 10.1097/MCA.0000000000000461. PubMed PMID: 28005558.
- M484) Krishnan DK, Pawlaczyk B, **McCullough PA**, Enright S, Kunadi A, Vanhecke TE. Point-of-Care, Ultraportable Echocardiography Predicts Diuretic Response in Patients Admitted with Acute Decompensated Heart Failure. *Clin Med Insights Cardiol*. 2016 Dec 19;10:201-208. doi: 10.4137/CMC.S38896. eCollection 2016. PubMed PMID: 28008296; PubMed Central PMCID: PMC5170880.
- M485) Singer AJ, Than MP, Smith S, **McCullough P**, Barrett TW, Birkhahn R, Reed M, Thode HC, Arnold WD, Daniels LB, de Filippi C, Headden G, Peacock WF. Missed myocardial infarctions in ED patients prospectively categorized as low risk by established risk scores. *Am J Emerg Med*. 2017 Jan 5. pii: S0735-6757(17)30003-7. doi: 10.1016/j.ajem.2017.01.003. [Epub ahead of print] PubMed PMID: 28108220.
- M486) Tecson KM, Arnold W, Barrett T, Birkhahn R, Daniels LB, DeFilippi C, Headden G, Peacock WF, Reed M, Singer AJ, Schussler JM, Smith S, Than MP, **McCullough PA**. Interpretation of positive troponin results among patients with and without myocardial infarction. *Proc (Bayl Univ Med Cent)*. 2017 Jan;30(1):11-15. PubMed PMID: 28127121; PubMed Central PMCID: PMC5242102.
- M487) Tecson KM, Panettiere-Kennedy KS, Won JI, Garg P, Olugbode O, **McCullough PA**. Relation between proprotein convertase subtilisin/kexin type 9 and directly measured low-density lipoprotein cholesterol. *Proc (Bayl Univ Med Cent)*. 2017 Jan;30(1):16-20. PubMed PMID: 28127122; PubMed Central PMCID: PMC5242103.
- M488) **McCullough PA**, Vasudevan A, Sathyamoorthy M, Schussler JM, Velasco CE, Lopez LR, Swift C, Peterson M, Bennett-Firmin J, Schiffmann R, Bottiglieri T. Urinary 11-Dehydro-Thromboxane

Peter A. McCullough, M.D., M.P.H.

B(2) and Mortality in Patients With Stable Coronary Artery Disease. *Am J Cardiol.* 2017 Apr 1;119(7):972-977. doi: 10.1016/j.amjcard.2016.12.004. Epub 2017 Jan 5. PubMed PMID: 28139223

M489) Vasudevan A, Singer AJ, DeFilippi C, Headden G, Schussler JM, Daniels LB, Reed M, Than MP, Birkhahn R, Smith SW, Barrett TW, Arnold W, Peacock WF, **McCullough PA**. Renal Function and Scaled Troponin in Patients Presenting to the Emergency Department with Symptoms of Myocardial Infarction. *Am J Nephrol.* 2017;45(4):304-309. doi: 10.1159/000458451. Epub 2017 Feb 14. PubMed PMID:28192777.

M490) **McCullough PA**, Zhang J, Ronco C. Volume expansion and contrast-induced acute kidney injury. *Lancet.* 2017 Apr 1;389(10076):1277-1278. doi:10.1016/S0140-6736(17)30540-8. Epub 2017 Feb 21. PubMed PMID: 28236468.

M491) Elbehary S, Szerlip HM, **McCullough PA**. Potassium Excretion and Outcomes in CKD: Is K Intake OK? *Am J Kidney Dis.* 2017 Mar;69(3):325-327. doi:10.1053/j.ajkd.2016.11.009. PubMed PMID: 28236878.

M492) **McCullough PA**, Rios A, Smith B. Dialysis fistulas and heart failure. *Eur Heart J.* 2017 Mar 17. doi: 10.1093/eurheartj/ehx114. [Epub ahead of print] PubMed PMID:28329218.

M493) Howard CE, **McCullough PA**. Decoding Acute Myocardial Infarction among Patients on Dialysis. *J Am Soc Nephrol.* 2017 May;28(5):1337-1339. doi:10.1681/ASN.2017030226. Epub 2017 Apr 12. PubMed PMID: 28404663.

M494) Vasudevan A, Jazi HH, Won JI, Ball T, Patankar GR, Sarmast SA, Shin HJ, **McCullough PA**. Personalized treatment of heart failure with biomarker guidance using a novel disease severity score. *Proc (Bayl Univ Med Cent).* 2017 Apr;30(2):139-142. PubMed PMID: 28405060; PubMed Central PMCID: PMC5349806.

M495) Won JI, Zhang J, Tecson KM, **McCullough PA**. Balancing Low-density Lipoprotein Cholesterol Reduction and Hepatotoxicity With Lomitapide Mesylate and Mipomersen in Patients With Homozygous Familial Hypercholesterolemia. *Rev Cardiovasc Med.* 2017;18(1):21-28. PubMed PMID: 28509890.

M496) Afzal A, Sarmast S, Choi JW, **McCullough PA**, Schussler JM. Spontaneous Coronary Artery Dissection: A Review of Pathogenesis, Presentations, Treatment, and Outcomes. *Rev Cardiovasc Med.* 2017;18(1):29-36. PubMed PMID: 28509891.

M497) **McCullough PA**. How Trialists and Pharmaceutical Sponsors Have Failed Us by Thinking That Acute Heart Failure Is a 48-Hour Illness. *Am J Cardiol.* 2017 May 11. pii: S0002-9149(17)30795-6. doi: 10.1016/j.amjcard.2017.04.056. [Epub ahead of print] PubMed PMID: 28583677.

Peter A. McCullough, M.D., M.P.H.

- M498) Zhang J, Bottiglieri T, **McCullough PA**. The Central Role of Endothelial Dysfunction in Cardiorenal Syndrome. *Cardiorenal Med.* 2017 Feb;7(2):104-117. doi: 10.1159/000452283. Epub 2016 Dec 29. Review. PubMed PMID: 28611784; PubMed Central PMCID: PMC5465690.
- M499) Tecson KM, Erhardtsen E, Eriksen PM, Gaber AO, Germain M, Golestaneh L, Lavoria MLA, Moore LW, **McCullough PA**. Optimal cut points of plasma and urine neutrophil gelatinase-associated lipocalin for the prediction of acute kidney injury among critically ill adults: retrospective determination and clinical validation of a prospective multicentre study. *BMJ Open.* 2017 Jul 10;7(7):e016028. doi: 10.1136/bmjopen-2017-016028. PubMed PMID: 28698338
- M500) Vasudevan A, Schussler JM, Won JI, Ashcraft P, Bolanos I, Williams M, Bottiglieri T, Velasco CE, **McCullough PA**. Urinary metabolites in patients undergoing coronary catheterization via the radial versus femoral artery approach. *Proc (Bayl Univ Med Cent).* 2017 Oct;30(4):404-409. PubMed PMID: 28966445; PubMed Central PMCID: PMC5595375.
- M501) Azzalini L, Candilio L, **McCullough PA**, Colombo A. Current Risk of Contrast-Induced Acute Kidney Injury After Coronary Angiography and Intervention: A Reappraisal of the Literature. *Can J Cardiol.* 2017 Oct;33(10):1225-1228. doi: 10.1016/j.cjca.2017.07.482. Epub 2017 Aug 3. Review. PubMed PMID: 28941604.
- M502) Palazzuoli A, Ruocco G, De Vivo O, Nuti R, **McCullough PA**. Prevalence of Hyperuricemia in Patients With Acute Heart Failure With Either Reduced or Preserved Ejection Fraction. *Am J Cardiol.* 2017 Oct 1;120(7):1146-1150. doi: 10.1016/j.amjcard.2017.06.057. Epub 2017 Jul 17. PubMed PMID: 28807403.
- M503) Kovesdy CP, Appel LJ, Grams ME, Gutekunst L, **McCullough PA**, Palmer BF, Pitt B, Sica DA, Townsend RR. Potassium homeostasis in health and disease: A scientific workshop cosponsored by the National Kidney Foundation and the American Society of Hypertension. *J Am Soc Hypertens.* 2017 Oct 10. pii: S1933-1711(17)30337-6. doi: 10.1016/j.jash.2017.09.011. [Epub ahead of print] PubMed PMID: 29030153.
- M504) Afzal A, Vallabhan RC, **McCullough PA**. Acute kidney injury in cardiogenic shock: in search of early detection and clinical certainty. *Eur J Heart Fail.* 2017 Oct 12. doi: 10.1002/ejhf.1032. [Epub ahead of print] PubMed PMID: 29027337.
- M505) Ronco C, Ronco F, **McCullough PA**. A Call to Action to Develop Integrated Curricula in Cardiorenal Medicine. *Blood Purif.* 2017 Oct 25;44(4):251-259. doi: 10.1159/000480318. [Epub ahead of print] PubMed PMID: 29065398.
- M506) Ronco C, Ronco F, **McCullough PA**. A Call to Action to Develop Integrated Curricula in Cardiorenal Medicine. *Rev Cardiovasc Med.* 2017;18(3):93-99. PubMed PMID: 29111542.
- M507) Butler J, Hamo CE, Filippatos G, Pocock SJ, Bernstein RA, Brueckmann M, Cheung AK, George JT, Green JB, Januzzi JL, Kaul S, Lam CSP, Lip GYH, Marx N, **McCullough PA**, Mehta CR,

Peter A. McCullough, M.D., M.P.H.

Ponikowski P, Rosenstock J, Sattar N, Salsali A, Scirica BM, Shah SJ, Tsutsui H, Verma S, Wanner C, Woerle HJ, Zannad F, Anker SD; EMPEROR Trials Program. The potential role and rationale for treatment of heart failure with sodium-glucose co-transporter 2 inhibitors. *Eur J Heart Fail.* 2017 Nov;19(11):1390-1400. doi: 10.1002/ejhf.933. Epub 2017 Aug 24. Review. PubMed PMID: 28836359.

- M508) **McCullough PA**, David G, Todoran TM, Brilakis ES, Ryan MP, Gunnarsson C. Iso-osmolar contrast media and adverse renal and cardiac events after percutaneous cardiovascular intervention. *J Comp Eff Res.* 2017 Nov 9. doi: 10.2217/cer-2017-0052. [Epub ahead of print] PubMed PMID: 29117715.
- M509) Rocha NA, East C, Zhang J, **McCullough PA**. ApoCIII as a Cardiovascular Risk Factor and Modulation by the Novel Lipid-Lowering Agent Volanesorsen. *Curr Atheroscler Rep.* 2017 Nov 9;19(12):62. doi: 10.1007/s11883-017-0697-3. Review. PubMed PMID: 29124482.
- M510) Rangaswami J, Mathew RO, **McCullough PA**. Resuscitation for the specialty of nephrology: is cardioneurology the answer? *Kidney Int.* 2017 Nov 11. pii: S0085-2538(17)30727-5. doi: 10.1016/j.kint.2017.10.002. [Epub ahead of print] PubMed PMID: 29137816.
- M511) Kovesdy CP, Appel LJ, Grams ME, Gutekunst L, **McCullough PA**, Palmer BF, Pitt B, Sica DA, Townsend RR. Potassium Homeostasis in Health and Disease: A Scientific Workshop Cosponsored by the National Kidney Foundation and the American Society of Hypertension. *Am J Kidney Dis.* 2017 Dec;70(6):844-858. doi: 10.1053/j.ajkd.2017.09.003. Epub 2017 Oct 10. PubMed PMID: 29029808.
- M512) Ostermann M, **McCullough PA**, Forni LG, Bagshaw SM, Joannidis M, Shi J, Kashani K, Honore PM, Chawla LS, Kellum JA; all SAPPHERE Investigators. Kinetics of Urinary Cell Cycle Arrest Markers for Acute Kidney Injury Following Exposure to Potential Renal Insults. *Crit Care Med.* 2017 Nov 20. doi:10.1097/CCM.0000000000002847. [Epub ahead of print] PubMed PMID: 29189343
- M513) Vasudevan A, Tecson KM, Bennett-Firmin J, Bottiglieri T, Lopez LR, Peterson M, Sathyamoorthy M, Schiffmann R, Schussler JM, Swift C, Velasco CE, **McCullough PA**. Prognostic value of urinary 11-dehydro-thromboxane B(2) for mortality: A cohort study of stable coronary artery disease patients treated with aspirin. *Catheter Cardiovasc Interv.* 2017 Nov 29. doi: 10.1002/ccd.27437. [Epub ahead of print] PubMed PMID: 29193683.
- M514) Himmelfarb J, Chertow GM, **McCullough PA**, Mesana T, Shaw AD, Sundt TM, Brown C, Cortville D, Dagenais F, de Varennes B, Fontes M, Rossert J, Tardif JC. Perioperative THR-184 and AKI after Cardiac Surgery. *J Am Soc Nephrol.* 2017 Dec 4. pii: ASN.2017020217. doi: 10.1681/ASN.2017020217. [Epub ahead of print] PubMed PMID: 29203473.

Peter A. McCullough, M.D., M.P.H.

- M515) **McCullough PA**, Rangaswami J. Real or Perceived: Hyperkalemia Is a Major Deterrent for Renin-Angiotensin Aldosterone System Inhibition in Heart Failure. *Nephron*. 2017 Dec 5. doi: 10.1159/000485645. [Epub ahead of print] PubMed PMID: 29207385.
- M516) Keuffel E, **McCullough PA**, Todoran TM, Brilakis ES, Palli SR, Ryan MP, Gunnarsson C. The effect of major adverse renal cardiovascular event (MARCE) incidence, procedure volume, and unit cost on the hospital savings resulting from contrast media use in inpatient angioplasty. *J Med Econ*. 2017 Dec 15;1-9. doi: 10.1080/13696998.2017.1415912. [Epub ahead of print] PubMed PMID: 29226736.
- M517) Tecson KM, Brown D, Choi JW, Feghali G, Gonzalez-Stawinski GV, Hamman BL, Hebel R, Lander SR, Lima B, Potluri S, Schussler JM, Stoler RC, Velasco C, **McCullough PA**. Major Adverse Renal and Cardiac Events After Coronary Angiography and Cardiac Surgery. *Ann Thorac Surg*. 2018 Jun;105(6):1724-1730. doi:10.1016/j.athoracsur.2018.01.010. Epub 2018 Feb 2. PubMed PMID: 29408241.
- M518) Haase VH, Chertow GM, Block GA, Pergola PE, deGoma EM, Khawaja Z, Sharma A, Maroni BJ, **McCullough PA**. Effects of vadadustat on hemoglobin concentrations in patients receiving hemodialysis previously treated with erythropoiesis-stimulating agents. *Nephrol Dial Transplant*. 2018 Apr 16. doi: 10.1093/ndt/gfy055. [Epub ahead of print] PubMed PMID: 29672740.
- M519) **McCullough PA**, Ballantyne CM, Sanganalmath SK, Langslet G, Baum SJ, Shah PK, Koren A, Mandel J, Davidson MH. Efficacy and Safety of Alirocumab in High-Risk Patients With Clinical Atherosclerotic Cardiovascular Disease and/or Heterozygous Familial Hypercholesterolemia (from 5 Placebo-Controlled ODYSSEY Trials). *Am J Cardiol*. 2018 Apr 15;121(8):940-948. doi: 10.1016/j.amjcard.2017.12.040. Epub 2018 Feb 2. PubMed PMID: 29472008.
- M520) Zhang J, Tecson KM, Rocha NA, **McCullough PA**. Usefulness of alirocumab and evolocumab for the treatment of patients with diabetic dyslipidemia. *Proc (Bayl Univ Med Cent)*. 2018 Apr 11;31(2):180-184. doi: 10.1080/08998280.2018.1441255. eCollection 2018 Apr. Review. PubMed PMID: 29706812; PubMed Central PMCID: PMC5914471.
- M521) **McCullough PA**. Editorial: Robertsonian Perspectives on Atherosclerosis: The Power of Direct Observation. *Am J Cardiol*. 2018 Apr 3. pii: S0002-9149(18)30255-8. doi: 10.1016/j.amjcard.2018.02.019. [Epub ahead of print] PubMed PMID: 29724407.
- M522) Maisel AS, Daniels LB, Anand IS, **McCullough PA**, Chow SL. Utility of natriuretic peptides to assess and manage patients with heart failure receiving angiotensin receptor blocker/neprilysin inhibitor therapy. *Postgrad Med*. 2018 Apr;130(3):299-307. doi: 10.1080/00325481.2018.1440873. Epub 2018 Mar 29. Review. PubMed PMID: 29596012.
- M523) **McCullough PA**, Kluger AY. Interpreting the Wide Range of NT-proBNP Concentrations in Clinical Decision Making. *J Am Coll Cardiol*. 2018 Mar 20;71(11):1201-1203. doi: 10.1016/j.jacc.2018.01.056. PubMed PMID: 29544602.

Peter A. McCullough, M.D., M.P.H.

- M524) Turakhia MP, Blankestijn PJ, Carrero JJ, Clase CM, Deo R, Herzog CA, Kasner SE, Passman RS, Pecoits-Filho R, Reinecke H, Shroff GR, Zareba W, Cheung M, Wheeler DC, Winkelmayr WC, Wanner C; Conference Participants (**McCullough PA**) . Chronic kidney disease and arrhythmias: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Eur Heart J*. 2018 Mar 7. doi:10.1093/eurheartj/ehy060. [Epub ahead of print] PubMed PMID: 29522134.
- M525) Cherney DZI, Lytvyn Y, **McCullough PA**. Cardiovascular Risk Reduction in Patients With Chronic Kidney Disease: Potential for Targeting Inflammation With Canakinumab. *J Am Coll Cardiol*. 2018 May 29;71(21):2415-2418. doi:10.1016/j.jacc.2018.04.008. PubMed PMID: 29793630.
- M526) Barbin CM, Vasudevan A, Choi JW, **McCullough PA**, Schussler JM, Vallabhan RC, Stoler RC. Frequency of abnormal fractional flow reserve measurements among major coronary arteries. *Cardiovasc Revasc Med*. 2018 Apr 25. pii: S1553-8389(18)30145-3. doi: 10.1016/j.carrev.2018.04.015. [Epub ahead of print] PubMed PMID: 29807815.
- M527) Vasudevan A, Hundae A, Borodge D, **McCullough PA**, Wells PJ. Frequency of atrial arrhythmias after atrial flutter ablation and the effect of presenting rhythm on the day of ablation. *Proc (Bayl Univ Med Cent)*. 2018 May 14;31(3):280-283. doi: 10.1080/08998280.2018.1464305. eCollection 2018 Jul. PubMed PMID: 29904288; PubMed Central PMCID: PMC5997080.
- M528) Rengarajan R, **McCullough PA**, Chowdhury A, Tecson KM. Identifying suspected familial chylomicronemia syndrome. *Proc (Bayl Univ Med Cent)*. 2018 May 21;31(3):284-288. doi: 10.1080/08998280.2018.1463784. eCollection 2018 Jul. PubMed PMID: 29904289; PubMed Central PMCID: PMC5997083.
- M529) Maioli M, Toso A, Leoncini M, Musilli N, Grippo G, Ronco C, **McCullough PA**, Bellandi F. Bioimpedance-Guided Hydration for the Prevention of Contrast-Induced Kidney Injury: The HYDRA Study. *J Am Coll Cardiol*. 2018 Jun 26;71(25):2880-2889. doi: 10.1016/j.jacc.2018.04.022. PubMed PMID: 29929610.
- M530) **McCullough PA**, Uhlig K, Neylan JF, Pergola PE, Fishbane S. Usefulness of Oral Ferric Citrate in Patients With Iron-Deficiency Anemia and Chronic Kidney Disease With or Without Heart Failure. *Am J Cardiol*. 2018 Aug 15;122(4):683-688. doi: 10.1016/j.amjcard.2018.04.062. Epub 2018 May 19. PubMed PMID: 29961562.
- M531) de Albuquerque Rocha N, Neeland IJ, **McCullough PA**, Toto RD, McGuire DK. Effects of sodium glucose co-transporter 2 inhibitors on the kidney. *Diab Vasc Dis Res*. 2018 Sep;15(5):375-386. doi: 10.1177/1479164118783756. Epub 2018 Jul 2. Review. PubMed PMID: 29963920.

Peter A. McCullough, M.D., M.P.H.

- M532) Chaudhry RI, Mathew RO, Sidhu MS, Sidhu-Adler P, Lyubarova R, Rangaswami J, Salman L, Asif A, Fleg JL, **McCullough PA**, Maddux F, Bangalore S. Detection of Atherosclerotic Cardiovascular Disease in Patients with Advanced Chronic Kidney Disease in the Cardiology and Nephrology Communities. *Cardiorenal Med.* 2018;8(4):285-295. doi: 10.1159/000490768. Epub 2018 Aug 3. PubMed PMID:30078001.
- M533) Kazory A, **McCullough PA**, Rangaswami J, Ronco C. Cardioneurology: Proposal for a Futuristic Educational Approach to a Contemporary Need. *Cardiorenal Med.* 2018;8(4):296-301. doi: 10.1159/000490744. Epub 2018 Aug 8. Review. PubMed PMID: 30089281.
- M534) Kluger AY, **McCullough PA**. Semaglutide and GLP-1 analogues as weight-loss agents. *Lancet.* 2018 Aug 25;392(10148):615-616. doi: 10.1016/S0140-6736(18)31826-9. Epub 2018 Aug 16. PubMed PMID: 30122306.
- M535) Ambrosy AP, Mulder H, Coles A, Krauss WE, Lam CSP, **McCullough PA**, Pina I, Tromp J, Whellan DJ, O'Connor CM, Mentz RJ. Renal Function and Exercise Training in Ambulatory Heart Failure Patients With a Reduced Ejection Fraction. *Am J Cardiol.* 2018 Sep 15;122(6):999-1007. doi: 10.1016/j.amjcard.2018.06.011. Epub 2018 Jun 23. PubMed PMID: 30269900.
- M536) **McCullough PA**, Todoran TM, Brilakis ES, Ryan MP, Gunnarsson C. Rate of major adverse renal or cardiac events with iohexol compared to other low osmolar contrast media during interventional cardiovascular procedures. *Catheter Cardiovasc Interv.* 2018 Oct 2. doi: 10.1002/ccd.27807. [Epub ahead of print] PubMed PMID: 30280476.
- M537) **McCullough PA**, Soman S. Cardiorenal Syndrome: A Call to Action for a Pressing Medical Issue. *Adv Chronic Kidney Dis.* 2018 Sep;25(5):379-381. doi: 10.1053/j.ackd.2018.08.011. PubMed PMID: 30309454.
- M538) Rangaswami J, **McCullough PA**. Heart Failure in End-Stage Kidney Disease: Pathophysiology, Diagnosis, and Therapeutic Strategies. *Semin Nephrol.* 2018 Nov;38(6):600-617. doi: 10.1016/j.semnephrol.2018.08.005. Review. PubMed PMID: 30413254.
- M539) Goyal A, Chatterjee K, Mathew RO, Sidhu MS, Bangalore S, **McCullough PA**, Rangaswami J. In-Hospital Mortality and Major Adverse Cardiovascular Events after Kidney Transplantation in the United States. *Cardiorenal Med.* 2018 Nov 14;9(1):51-60. doi: 10.1159/000492731. [Epub ahead of print] PubMed PMID: 30428461.
- M540) **McCullough PA**. Treatment of Orthostatic Hypotension Due to Autonomic Dysfunction (Neurogenic Orthostatic Hypotension) in a Patient with Cardiovascular Disease and Parkinson's Disease. *Cardiol Ther.* 2019 Jun;8(1):145-150. Doi: 10.1007/s40119-018-0124-z. Epub 2019 Jan 9. PubMed PMID: 30627953.
- M541) Vasudevan A, Choi JW, Feghali GA, Lander SR, Jialiang L, Schussler JM, Stoler RC, Vallabhan RC, Velasco CE, **McCullough PA**. Event dependence in the analysis of cardiovascular

Peter A. McCullough, M.D., M.P.H.

readmissions postpercutaneous coronary intervention. *J Investig Med*. 2019 Jan 18. pii: jim-2018-000873. doi: 10.1136/jim-2018-000873. [Epub ahead of print] PubMed PMID: 30659091.

- M542) Rocha NA, **McCullough PA**. Cardiovascular outcomes in diabetic kidney disease: insights from recent clinical trials. *Kidney Int Suppl* (2011). 2018 Jan;8(1):8-17. doi: 10.1016/j.kisu.2017.10.004. Epub 2017 Dec 29. Review. PubMed PMID: 30675434; PubMed Central PMCID: PMC6336216.
- M543) Rangaswami J, Bhalla V, Blair JEA, Chang TI, Costa S, Lentine KL, Lerma EV, Mezue K, Molitch M, Mullens W, Ronco C, Tang WHW, **McCullough PA**; American Heart Association Council on the Kidney in Cardiovascular Disease and Council on Clinical Cardiology. Cardiorenal Syndrome: Classification, Pathophysiology, Diagnosis, and Treatment Strategies: A Scientific Statement From the American Heart Association. *Circulation*. 2019 Apr 16;139(16):e840-e878. doi: 10.1161/CIR.0000000000000664. PubMed PMID: 30852913.
- M544) Ball TN, Vasudevan A, Mi Ko J, Assar MD, **McCullough PA**, Stoler RC. Analysis of electrocardiographic intervals before and after transcatheter aortic valve implantation to predict the need for permanent pacing. *Proc (Bayl Univ Med Cent)*. 2018 Sep 11;31(4):407-413. doi: 10.1080/08998280.2018.1471884. eCollection 2018 Oct. PubMed PMID: 30948968; PubMed Central PMCID: PMC6413979.
- M545) Brown K, Adams J, **McCullough PA**. Comparison of reflex, resistance training, and core activities using change in blood pressure over time after spontaneous coronary artery dissection. *Proc (Bayl Univ Med Cent)*. 2019 Jan 14;32(1):113-115. doi: 10.1080/08998280.2018.1533308. eCollection 2019 Jan. PubMed PMID: 30956602; PubMed Central PMCID: PMC6442865.
- M546) Sudhakaran S, **McCullough PA**. Common laboratory parameters as indicators of multi-organ dysfunction in acute heart failure. *Eur J Heart Fail*. 2019 Apr 11. doi: 10.1002/ejhf.1466. [Epub ahead of print] PubMed PMID: 30972928.
- M547) Rangaswami J, Mathew RO, Parasuraman R, Tantisattamo E, Lubetzky M, Rao S, Yaqub MS, Birdwell KA, Bennett W, Dalal P, Kapoor R, Lerma EV, Lerman M, McCormick N, Bangalore S, **McCullough PA**, Dadhania DM. Cardiovascular disease in the kidney transplant recipient: epidemiology, diagnosis and management strategies. *Nephrol Dial Transplant*. 2019 May 1;34(5):760-773. doi: 10.1093/ndt/gfz053. PubMed PMID: 30984976.
- M548) Rangaswami J, Soman S, **McCullough PA**. Key Updates in Cardio-Nephrology from 2018: Springboard to a Bright Future. *Cardiorenal Med*. 2019 Apr 17;9(4):222-228. doi: 10.1159/000498916. [Epub ahead of print] PubMed PMID: 30995636.
- M549) Zhang J, Rocha NA, **McCullough PA**. Contribution of ApoCIII to Diabetic Dyslipidemia and Treatment With Volanesorsen. *Rev Cardiovasc Med*. 2018 Mar 30;19(1):13-19. doi: 10.31083/j.rcm.2018.01.890. PubMed PMID: 31032598.

Peter A. McCullough, M.D., M.P.H.

- M550) Tumlin JA, Roy-Chaudhury P, Koplan BA, Costea AI, Kher V, Williamson D, Pokhariyal S, Charytan DM; MiD investigators and Committees (**McCullough PA**). Relationship between dialytic parameters and reviewer confirmed arrhythmias in hemodialysis patients in the monitoring in dialysis study. *BMC Nephrol.* 2019 Mar 5;20(1):80. doi: 10.1186/s12882-019-1212-6. PubMed PMID: 30836948; PubMed Central PMCID: PMC6402171.
- M551) Kluger AY, Tecson KM, Barbin CM, Lee AY, Lerma EV, Rosol ZP, Rangaswami J, Lepor NE, Cobble ME, **McCullough PA**. Cardiorenal Outcomes in the CANVAS, DECLARE-TIMI 58, and EMPA-REG OUTCOME Trials: A Systematic Review. *Rev Cardiovasc Med.* 2018 Jun 30;19(2):41-49. doi: 10.31083/j.rcm.2018.02.907. PubMed PMID: 31032602.
- M552) **McCullough PA**, Kluger AY, Tecson KM, Barbin CM, Lee AY, Lerma EV, Rosol ZP, Kluger SL, Rangaswami J. Inhibition of the Sodium-Proton Antiporter (Exchanger) is a Plausible Mechanism of Potential Benefit and Harm for Drugs Designed to Block Sodium Glucose Co-transporter 2. *Rev Cardiovasc Med.* 2018 Jun 30;19(2):51-63. doi: 10.31083/j.rcm.2018.02.021. PubMed PMID: 31032603.
- M553) Zanolli L, Lentini P, Briet M, Castellino P, House AA, London GM, Malatino L, **McCullough PA**, Mikhailidis DP, Boutouyrie P. Arterial Stiffness in the Heart Disease of CKD. *J Am Soc Nephrol.* 2019 Apr 30. pii: ASN.2019020117. doi: 10.1681/ASN.2019020117. [Epub ahead of print] PubMed PMID: 31040188.
- M554) House AA, Wanner C, Sarnak MJ, Piña IL, McIntyre CW, Komenda P, Kasiske BL, Deswal A, deFilippi CR, Cleland JGF, Anker SD, Herzog CA, Cheung M, Wheeler DC, Winkelmayr WC, **McCullough PA**; Conference Participants. Heart failure in chronic kidney disease: conclusions from a Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference. *Kidney Int.* 2019 Apr 30. pii: S0085-2538(19)30276-5. doi: 10.1016/j.kint.2019.02.022. [Epub ahead of print] PubMed PMID: 31053387.
- M555) Sudhakaran S, Bottiglieri T, Tecson KM, Kluger AY, **McCullough PA**. Alteration of lipid metabolism in chronic kidney disease, the role of novel antihyperlipidemic agents, and future directions. *Rev Cardiovasc Med.* 2018 Sep 30;19(3):77-88. doi: 10.31083/j.rcm.2018.03.908. PubMed PMID: 31054556.
- M556) Rangaswami J, Soman S, **McCullough PA**. Key updates in Cardio-Nephrology from 2018: springboard to a bright Future. *Rev Cardiovasc Med.* 2018 Dec 30;19(4):113-116. doi: 10.31083/j.rcm.2018.04.896. PubMed PMID: 31064161.
- M557) Tecson KM, Hashemi H, Afzal A, Gong TA, Kale P, **McCullough PA**. Community-Acquired Acute Kidney Injury as a Risk Factor of de novo Heart Failure Hospitalization. *Cardiorenal Med.* 2019 May 10;9(4):252-260. doi: 10.1159/000499669. [Epub ahead of print] PubMed PMID: 31079099.

Peter A. McCullough, M.D., M.P.H.

- M558) Tumlin JA, Roy-Chaudhury P, Koplan BA, Costea AI, Kher V, Williamson D, Pokhariyal S, Charytan DM; MiD investigators and Committees (**McCullough PA**). Relationship between dialytic parameters and reviewer confirmed arrhythmias in hemodialysis patients in the monitoring in dialysis study. *BMC Nephrol*. 2019 Mar 5;20(1):80. doi:10.1186/s12882-019-1212-6. PubMed PMID: 30836948; PubMed Central PMCID:PMC6402171.
- M559) Vijayaraghavan K, **McCullough PA**, Singh B, Gupta M, Enas E, Mohan V, Misra A, Deedwania P, Brinton EA; for the Consensus Panel Steering Committee . Cardiometabolic-Renal Disease in South Asians: Consensus Recommendations from the Cardio Renal Society of America. *Cardiorenal Med*. 2019 May 10;9(4):240-251. doi: 10.1159/000499341. [Epub ahead of print] PubMed PMID: 31079117.
- M560) **McCullough PA**, Mehta HS, Cork DP, Barker CM, Gunnarsson C, Mollenkopf S, Van Houten J, Verta P. The healthcare burden of disease progression in Medicare patients with functional mitral regurgitation. *J Med Econ*. 2019 May 20:1. doi: 10.1080/13696998.2019.1621325. [Epub ahead of print] PubMed PMID: 31104524.
- M561) Spinowitz BS, Fishbane S, Pergola PE, Roger SD, Lerma EV, Butler J, von Haehling S, Adler SH, Zhao J, Singh B, Lavin PT, **McCullough PA**, Kosiborod M, Packham DK; ZS-005 Study Investigators. Sodium Zirconium Cyclosilicate among Individuals with Hyperkalemia: A 12-Month Phase 3 Study. *Clin J Am Soc Nephrol*. 2019 May 20. pii: CJN.12651018. doi: 10.2215/CJN.12651018. [Epub ahead of print] PubMed PMID: 31110051.
- M562) Rangaswami J, **McCullough PA**. Clinical Context of Dyskalemias Across the Heart Failure Spectrum and Their Associated Adverse Outcomes. *JACC Heart Fail*. 2019 Jun;7(6):533. doi: 10.1016/j.jchf.2019.01.005. PubMed PMID: 31146878.
- M563) Ahmad FS, Kallen MA, Schifferdecker KE, Carluzzo KL, Yount SE, Gelow JM, **McCullough PA**, Kimmel SE, Fisher ES, Cella D. Development and Initial Validation of the PROMIS®-Plus-HF Profile Measure. *Circ Heart Fail*. 2019 Jun;12(6):e005751. doi: 10.1161/CIRCHEARTFAILURE.118.005751. Epub 2019 Jun 5. PubMed PMID: 31163985; PubMed Central PMCID: PMC6711378.
- M564) Rizk DV, Silva AL, Pergola PE, Toto R, Warnock DG, Chin MP, Goldsberry A, O'Grady M, Meyer CJ, **McCullough PA**. Effects of Bardoxolone Methyl on Magnesium in Patients with Type 2 Diabetes Mellitus and Chronic Kidney Disease. *Cardiorenal Med*. 2019;9(5):316-325. doi: 10.1159/000500612. Epub 2019 Jun 6. PubMed PMID: 31170712.
- M565) Vasudevan A, Choi JW, Feghali GA, Kluger AY, Lander SR, Tecson KM, Sathyamoorthy M, Schussler JM, Stoler RC, Vallabhan RC, Velasco CE, Yoon A, **McCullough PA**. First and recurrent events after percutaneous coronary intervention: implications for survival analyses. *Scand Cardiovasc J*. 2019 Jul 25:1-6. doi: 10.1080/14017431.2019.1645349. [Epub ahead of print] PubMed PMID: 31315473.

Peter A. McCullough, M.D., M.P.H.

- M566) Cedars A, Tecson KM, Zaidi AN, Lorts A, **McCullough PA**. Impact of Durable Ventricular Assist Device Support on Outcomes of Patients with Congenital Heart Disease Waiting for Heart Transplant. *ASAIO J*. 2019 Jul 15. doi:10.1097/MAT.0000000000001041. [Epub ahead of print] PubMed PMID: 31335373.
- M567) Rangaswami J, Bangalore S, Kaplan B, Birdwell KA, Wiseman AC, **McCullough PA**, Dadhania DM. Cardiovascular disease care fragmentation in kidney transplantation: a call for action. *Kidney Int*. 2019 Sep;96(3):568-571. doi: 10.1016/j.kint.2019.04.042. Epub 2019 Jun 10. PubMed PMID: 31349974.
- M568) Rossing P, Block GA, Chin MP, Goldsberry A, Heerspink HJL, **McCullough PA**, Meyer CJ, Packham D, Pergola PE, Spinowitz B, Sprague SM, Warnock DG, Chertow GM. Effect of bardoxolone methyl on the urine albumin-to-creatinine ratio in patients with type 2 diabetes and stage 4 chronic kidney disease. *Kidney Int*. 2019 May 16. pii: S0085-2538(19)30503-4. doi: 10.1016/j.kint.2019.04.027. [Epub ahead of print] PubMed PMID: 31377056.
- M569) Kluger AY, Tecson KM, Lee AY, Lerma EV, Rangaswami J, Lepor NE, Cobble ME, **McCullough PA**. Class effects of SGLT2 inhibitors on cardiorenal outcomes. *Cardiovasc Diabetol*. 2019 Aug 5;18(1):99. doi: 10.1186/s12933-019-0903-4. Review. PubMed PMID: 31382965; PubMed Central PMCID: PMC6683461.
- M570) **McCullough PA**, Mehta HS, Barker CM, Cork DP, Gunnarsson C, Ryan MP, Baker ER, Van Houten J, Mollenkopf S, Verta P. The Economic Impact of Mitral Regurgitation on Patients With Medically Managed Heart Failure. *Am J Cardiol*. 2019 Oct 15;124(8):1226-1231. doi: 10.1016/j.amjcard.2019.07.033. Epub 2019 Jul 30. PubMed PMID: 31470974.
- M571) Singhanian G, Ejaz AA, **McCullough PA**, Kluger AY, Balamuthusamy S, Dass B, Singhanian N, Agarwal A. Continuation of Chronic Heart Failure Therapies During Heart Failure Hospitalization - a Review. *Rev Cardiovasc Med*. 2019 Sep 30;20(3):111-120. doi: 10.31083/j.rcm.2019.03.562. Review. PubMed PMID: 31601085.
- M572) **McCullough PA**, Ostermann M, Forni LG, Bihorac A, Koyner JL, Chawla LS, Shi J, Kampf JP, McPherson P, Kellum JA; the Sapphire Investigators. Serial Urinary Tissue Inhibitor of Metalloproteinase-2 and Insulin-Like Growth Factor-Binding Protein 7 and the Prognosis for Acute Kidney Injury over the Course of Critical Illness. *Cardiorenal Med*. 2019;9(6):358-369. doi: 10.1159/000502837. Epub 2019 Oct 16. PubMed PMID: 31618746.
- M573) Husain-Syed F, Birk HW, Ronco C, Schörmann T, Tello K, Richter MJ, Wilhelm J, Sommer N, Steyerberg E, Bauer P, Walmrath HD, Seeger W, **McCullough PA**, Gall H, Ghofrani HA. Doppler-Derived Renal Venous Stasis Index in the Prognosis of Right Heart Failure. *J Am Heart Assoc*. 2019 Nov 5;8(21):e013584. doi: 10.1161/JAHA.119.013584. Epub 2019 Oct 19. PubMed PMID: 31630601; PubMed Central PMCID: PMC6898799.

Peter A. McCullough, M.D., M.P.H.

- M574) Haq A, **McCullough PA**. The Promise of next generation sequencing micro RNA for the discovery of new targets in contrast induced acute kidney injury. *Ann Transl Med*. 2019 Sep;7(18):424. doi: 10.21037/atm.2019.07.83. PubMed PMID: 31700860; PubMed Central PMCID: PMC6803241.
- M575) Lo KB, Gul F, Ram P, Kluger AY, Tecson KM, **McCullough PA**, Rangaswami J. The Effects of SGLT2 Inhibitors on Cardiovascular and Renal Outcomes in Diabetic Patients: A Systematic Review and Meta-Analysis. *Cardiorenal Med*. 2020;10(1):1-10. doi: 10.1159/000503919. Epub 2019 Nov 19. PubMed PMID: 31743918.
- M576) Raju B, **McCullough PA**. Circulating plasma dipeptidyl dipeptidase 3 and the prognosis of cardiogenic shock. *Eur J Heart Fail*. 2020 Feb;22(2):287-289. doi:10.1002/ejhf.1623. Epub 2019 Nov 28. PubMed PMID: 31779037.
- M577) Husain-Syed F, Birk HW, Tello K, Richter MJ, Ronco C, **McCullough PA**, Schörmann T, Ferrari F, Yücel G, Yazdani B, Walmrath HD, Seeger W, Gall H, Ghofrani HA. Alterations in Doppler-derived renal venous stasis index during decompensation of right heart failure and fluid overload in a patient with pulmonary hypertension. *Rev Cardiovasc Med*. 2019 Dec 30;20(4):263-266. doi: 10.31083/j.rcm.2019.04.564. PubMed PMID: 31912717.
- M578) Weir MR, **McCullough PA**, Buse JB, Anderson J. Renal and Cardiovascular Effects of Sodium Glucose Co-Transporter 2 Inhibitors in Patients with Type 2 Diabetes and Chronic Kidney Disease: Perspectives on the Canagliflozin and Renal Events in Diabetes with Established Nephropathy Clinical Evaluation Trial Results. *Am J Nephrol*. 2020;51(4):276-288. doi: 10.1159/000506533. Epub 2020 Mar 13. PMID: 32172239.
- M579) Cork DP, **McCullough PA**, Mehta HS, Barker CM, Van Houten J, Gunnarsson C, Ryan MP, Baker ER, Mollenkopf S, Verta P. The economic impact of clinically significant tricuspid regurgitation in a large, administrative claims database. *J Med Econ*. 2020 Mar 2:1-8. doi: 10.1080/13696998.2020.1718681. [Epub ahead of print] PubMed PMID: 31952454.
- M580) Xu MX, Teng RL, Ruddy TD, Schoenhagen P, Bartel T, Di Bartolomeo R, Aksoy O, Desai M, von Kodolitsch Y, Escaned J, **McCullough PA**, Vasudevan A, Shen CX, Zhao X, Zhou YF, Xu HF, Cheng XJ, He YM; written on behalf of the AME Interventional Cardiology Collaborative Group. The CatLet score: a new coronary angiographic scoring tool accommodating the variable coronary anatomy for the first time. *J Thorac Dis*. 2019 Dec;11(12):5199-5209. doi: 10.21037/jtd.2019.12.18. PubMed PMID: 32030237; PubMed Central PMCID: PMC6988012.
- M581) Gopalakrishnan A, Mossaid A, Lo KB, Vasudevan V, **McCullough PA**, Rangaswami J. Fulminant Acute Kidney Injury in a Young Patient with Novel Coronavirus 2019. *Cardiorenal Med*. 2020;10(4):217-222. doi: 10.1159/000508179. Epub 2020 May 6. PMID: 32375150; PMCID: PMC7251584.

Peter A. McCullough, M.D., M.P.H.

- M582) **McCullough PA**. Prevention Guidelines as Failed Minimal Standards of Care. *Am J Cardiol*. 2020 May 1;125(9):1441-1442. doi: 10.1016/j.amjcard.2020.02.001. Epub 2020 Feb 13. PMID: 32145899.
- M583) Rosol ZP, Kopecky KF, Minehart BR, Tecson KM, Vasudevan A, **McCullough PA**, Grayburn PA, Schussler JM. Limitations of transoesophageal echocardiogram in acute ischaemic stroke. *Open Heart*. 2020 Mar 24;7(1):e001176. doi: 10.1136/openhrt-2019-001176. PMID: 32257245; PMCID: PMC7103838.
- M584) Lo KB, **McCullough PA**, Rangaswami J. Antihypertensive drugs and risk of COVID-19? *Lancet Respir Med*. 2020 May;8(5):e29. doi: 10.1016/S2213-2600(20)30156-9. Epub 2020 Mar 26. PMID: 32222167; PMCID: PMC7194509.
- M585) Spertus JA, Jones PG, Maron DJ, O'Brien SM, Reynolds HR, Rosenberg Y, Stone GW, Harrell FE Jr, Boden WE, Weintraub WS, Baloch K, Mavromatis K, Diaz A, Gosselin G, Newman JD, Mavromichalis S, Alexander KP, Cohen DJ, Bangalore S, Hochman JS, Mark DB; ISCHEMIA Research Group (**McCullough PA**, Optimal Medical Management Committee). Health-Status Outcomes with Invasive or Conservative Care in Coronary Disease. *N Engl J Med*. 2020 Apr 9;382(15):1408-1419. doi: 10.1056/NEJMoa1916370. Epub 2020 Mar 30. PMID: 32227753; PMCID: PMC7261489.
- M586) Spertus JA, Jones PG, Maron DJ, Mark DB, O'Brien SM, Fleg JL, Reynolds HR, Stone GW, Sidhu MS, Chaitman BR, Chertow GM, Hochman JS, Bangalore S; ISCHEMIA-CKD Research Group (**McCullough PA** Steering Committee). Health Status after Invasive or Conservative Care in Coronary and Advanced Kidney Disease. *N Engl J Med*. 2020 Apr 23;382(17):1619-1628. doi: 10.1056/NEJMoa1916374. Epub 2020 Mar 30. PMID: 32227754; PMCID: PMC7255621.
- M587) Maron DJ, Hochman JS, Reynolds HR, Bangalore S, O'Brien SM, Boden WE, Chaitman BR, Senior R, López-Sendón J, Alexander KP, Lopes RD, Shaw LJ, Berger JS, Newman JD, Sidhu MS, Goodman SG, Ruzyllo W, Gosselin G, Maggioni AP, White HD, Bhargava B, Min JK, Mancini GBJ, Berman DS, Picard MH, Kwong RY, Ali ZA, Mark DB, Spertus JA, Krishnan MN, Elghamaz A, Moorthy N, Hueb WA, Demkow M, Mavromatis K, Bockeria O, Peteiro J, Miller TD, Szwed H, Doerr R, Keltai M, Selvanayagam JB, Steg PG, Held C, Kohsaka S, Mavromichalis S, Kirby R, Jeffries NO, Harrell FE Jr, Rockhold FW, Broderick S, Ferguson TB Jr, Williams DO, Harrington RA, Stone GW, Rosenberg Y; ISCHEMIA Research Group (**McCullough PA**, Optimal Medical Management Committee). Initial Invasive or Conservative Strategy for Stable Coronary Disease. *N Engl J Med*. 2020 Apr 9;382(15):1395-1407. doi: 10.1056/NEJMoa1915922. Epub 2020 Mar 30. PMID: 32227755; PMCID: PMC7263833.
- M588) Bangalore S, Maron DJ, O'Brien SM, Fleg JL, Kretov EI, Briguori C, Kaul U, Reynolds HR, Mazurek T, Sidhu MS, Berger JS, Mathew RO, Bockeria O, Broderick S, Pracon R, Herzog CA, Huang Z, Stone GW, Boden WE, Newman JD, Ali ZA, Mark DB, Spertus JA, Alexander KP, Chaitman BR, Chertow GM, Hochman JS; ISCHEMIA-CKD Research Group (**McCullough PA** Steering Committee). Management of Coronary Disease in Patients with Advanced Kidney

Peter A. McCullough, M.D., M.P.H.

Disease. *N Engl J Med.* 2020 Apr 23;382(17):1608-1618. doi: 10.1056/NEJMoa1915925. Epub 2020 Mar 30. PMID: 32227756; PMCID: PMC7274537.

- M589) Packer M, Butler J, Filippatos GS, Jamal W, Salsali A, Schnee J, Kimura K, Zeller C, George J, Brueckmann M, Anker SD, Zannad F; EMPEROR-Reduced Trial Committees and Investigators (**McCullough PA**, Steering Committee). Evaluation of the effect of sodium-glucose co-transporter 2 inhibition with empagliflozin on morbidity and mortality of patients with chronic heart failure and a reduced ejection fraction: rationale for and design of the EMPEROR-Reduced trial. *Eur J Heart Fail.* 2019 Oct;21(10):1270-1278. doi: 10.1002/ejhf.1536. Epub 2019 Jul 16. PubMed PMID:31584231.
- M590) Anker SD, Butler J, Filippatos GS, Jamal W, Salsali A, Schnee J, Kimura K, Zeller C, George J, Brueckmann M, Zannad F, Packer M; EMPEROR-Preserved Trial Committees and Investigators (**McCullough PA**, Steering Committee). Evaluation of the effects of sodium-glucose co-transporter 2 inhibition with empagliflozin on morbidity and mortality in patients with chronic heart failure and a preserved ejection fraction: rationale for and design of the EMPEROR-Preserved Trial. *Eur J Heart Fail.* 2019 Oct;21(10):1279-1287. doi: 10.1002/ejhf.1596. Epub 2019 Sep 16. PubMed PMID: 31523904.
- M591) Roger SD, Lavin PT, Lerma EV, **McCullough PA**, Butler J, Spinowitz BS, von Haehling S, Kosiborod M, Zhao J, Fishbane S, Packham DK. Long-term safety and efficacy of sodium zirconium cyclosilicate for hyperkalaemia in patients with mild/moderate versus severe/end-stage chronic kidney disease: comparative results from an open-label, Phase 3 study. *Nephrol Dial Transplant.* 2020 Feb 6. pii:gfz285. doi: 10.1093/ndt/gfz285. [Epub ahead of print] PubMed PMID: 32030422.
- M592) Oliveros E, Oni ET, Shahzad A, Kluger AY, Lo KB, Rangaswami J, **McCullough PA**. Benefits and Risks of Continuing Angiotensin-Converting Enzyme Inhibitors, Angiotensin II Receptor Antagonists, and Mineralocorticoid Receptor Antagonists during Hospitalizations for Acute Heart Failure. *Cardiorenal Med.* 2020;10(2):69-84. doi: 10.1159/000504167. Epub 2020 Feb 14. Review. PubMed PMID: 32062648.
- M593) **McCullough PA**, Eidt J, Rangaswami J, Lerma E, Tumlin J, Wheelan K, Katz N, Lepor NE, Vijay K, Soman S, Singh B, McCullough SP, McCullough HB, Palazzuoli A, Ruocco GM, Ronco C. Urgent need for individual mobile phone and institutional reporting of at home, hospitalized, and intensive care unit cases of SARS-CoV-2 (COVID-19) infection. *Rev Cardiovasc Med.* 2020 Mar 30;21(1):1-7. doi: 10.31083/j.rcm.2020.01.42. PMID: 32259899.
- M594) Ronco F, Tarantini G, **McCullough PA**. Contrast induced acute kidney injury in interventional cardiology: an update and key guidance for clinicians. *Rev Cardiovasc Med.* 2020 Mar 30;21(1):9-23. doi: 10.31083/j.rcm.2020.01.44. PMID: 32259900.
- M595) Agrawal A, Virk HUH, Riaz I, Jain D, Tripathi B, Krittanawong C, Bozorgnia B, Figueredo V, **McCullough PA**, Rangaswami J. Predictors of 30-day re-admissions in patients with infective

Peter A. McCullough, M.D., M.P.H.

endocarditis: a national population based cohort study. *Rev Cardiovasc Med.* 2020 Mar 30;21(1):123-127. doi: 10.31083/j.rcm.2020.01.552. PMID: 32259911.

- M596) Kazory A, Ronco C, **McCullough PA**. SARS-CoV-2 (COVID-19) and intravascular volume management strategies in the critically ill. *Proc (Bayl Univ Med Cent)*. 2020 Apr 16;0(0):1-6. doi: 10.1080/08998280.2020.1754700. PMID: 32336959; PMCID: PMC7171388.
- M597) Cedars A, Tecson KM, Zaidi AN, Lorts A, **McCullough PA**. Impact of Durable Ventricular Assist Device Support on Outcomes of Patients with Congenital Heart Disease Waiting for Heart Transplant. *ASAIO J.* 2020 May;66(5):513-519. doi: 10.1097/MAT.0000000000001041. PMID: 31335373.
- M598) Lo KB, **McCullough PA**, Rangaswami J. Mediators of the Effects of Canagliflozin on Heart Failure: Central Role of the Cardiorenal Axis. *JACC Heart Fail.* 2020 May;8(5):426. doi: 10.1016/j.jchf.2020.01.013. PMID: 32354418.
- M599) Glenister RT, **McCullough PA**. Analysing risk in heart failure: a Kalium check. *Eur J Heart Fail.* 2020 May 10. doi: 10.1002/ejhf.1855. Epub ahead of print. PMID: 32390265.
- M600) **McCullough PA**, Arunthamakun J. Disconnect between community testing and hospitalization for SARS-CoV-2 (COVID-19) infection. *Proc (Bayl Univ Med Cent)*. 2020 May 14;33(3):481. doi: 10.1080/08998280.2020.1762439. PMID: 32675999; PMCID: PMC7340440.
- M601) Cork DP, **McCullough PA**, Mehta HS, Barker CM, Gunnarsson C, Ryan MP, Baker ER, Van Houten J, Mollenkopf S, Verta P. Impact of mitral regurgitation on cardiovascular hospitalization and death in newly diagnosed heart failure patients. *ESC Heart Fail.* 2020 Aug;7(4):1502-1509. doi: 10.1002/ehf2.12653. Epub 2020 May 29. PMID: 32469120; PMCID: PMC7373926.
- M602) Gul F, Lo KB, Peterson J, **McCullough PA**, Goyal A, Rangaswami J. Meta-analysis of outcomes of patients with COVID-19 infection with versus without gastrointestinal symptoms. *Proc (Bayl Univ Med Cent)*. 2020 May 29;33(3):366-369. doi: 10.1080/08998280.2020.1771164. PMID: 32669979; PMCID: PMC7265105.
- M603) Briedis K, Aldujeli A, Aldujeili M, Briede K, Zaliunas R, Hamadeh A, Stoler RC, **McCullough PA**. Considerations for Management of Acute Coronary Syndromes During the SARS-CoV-2 (COVID-19) Pandemic. *Am J Cardiol.* 2020 Sep 15;131:115-119. doi: 10.1016/j.amjcard.2020.06.039. Epub 2020 Jun 30. PMID: 32723554; PMCID: PMC7324338.
- M604) Hamadeh A, Aldujeli A, Briedis K, Tecson KM, Sanz-Sánchez J, Al Dujeli M, Al-Obeidi A, Diez JL, Žaliūnas R, Stoler RC, **McCullough PA**. Characteristics and Outcomes in Patients Presenting With COVID-19 and ST-Segment Elevation Myocardial Infarction. *Am J Cardiol.* 2020 Sep 15;131:1-6. doi: 10.1016/j.amjcard.2020.06.063. Epub 2020 Jul 3. PMID: 32732010; PMCID: PMC7333635.

Peter A. McCullough, M.D., M.P.H.

- M605) Raju B, Roberts CS, Sathyamoorthy M, Schiffman R, Swift C, **McCullough PA**. Ventricular Septal Myectomy for the Treatment of Left Ventricular Outflow Tract Obstruction Due to Fabry Disease. *Am J Cardiol*. 2020 Oct 1;132:160-164. doi: 10.1016/j.amjcard.2020.07.020. Epub 2020 Jul 13. PMID: 32773220.
- M606) Velasco CE, Suarez NP, Roullard CP, **McCullough PA**, Roberts WC. Usefulness of coronary angiography in patients with left atrial myxoma. *Proc (Bayl Univ Med Cent)*. 2020 Jul 6;33(4):529-531. doi: 10.1080/08998280.2020.1776024. PMID: 33100521; PMCID: PMC7549987.
- M607) Gupta S, Hayek SS, Wang W, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Sutherland A, Green A, Shehata AM, Goyal N, Vijayan A, Velez JCQ, Shaefi S, Parikh CR, Arunthamakun J, Athavale AM, Friedman AN, Short SAP, Kibbelaar ZA, Abu Omar S, Admon AJ, Donnelly JP, Gershengorn HB, Hernán MA, Semler MW, Leaf DE; STOP-COVID Investigators (**McCullough PA**, Site Investigator). Factors Associated With Death in Critically Ill Patients With Coronavirus Disease 2019 in the US. *JAMA Intern Med*. 2020 Jul 15:e203596. doi: 10.1001/jamainternmed.2020.3596. Epub ahead of print. PMID: 32667668; PMCID: PMC7364338.
- M608) Molnar MZ, Bhalla A, Azhar A, Tsujita M, Talwar M, Balaraman V, Sodhi A, Kadaria D, Eason JD, Hayek SS, Coca SG, Shaefi S, Neyra JA, Gupta S, Leaf DE, Kovesdy CP; STOP-COVID Investigators (**McCullough PA**, Site Investigator). Outcomes of critically ill solid organ transplant patients with COVID-19 in the United States. *Am J Transplant*. 2020 Nov;20(11):3061-3071. doi: 10.1111/ajt.16280. Epub 2020 Sep 15. PMID: 32844546; PMCID: PMC7460925.
- M609) Singhania N, Bansal S, Nimmatoori DP, Ejaz AA, **McCullough PA**, Singhania G. Current Overview on Hypercoagulability in COVID-19. *Am J Cardiovasc Drugs*. 2020 Aug 4:1–11. doi: 10.1007/s40256-020-00431-z. Epub ahead of print. PMID: 32748336; PMCID: PMC7398761.
- M610) **McCullough PA**, Kelly RJ, Ruocco G, Lerma E, Tumlin J, Wheelan KR, Katz N, Lepor NE, Vijay K, Carter H, Singh B, McCullough SP, Bhambi BK, Palazzuoli A, De Ferrari GM, Milligan GP, Safder T, Tecson KM, Wang DD, McKinnon JE, O'Neill WW, Zervos M, Risch HA. Pathophysiological Basis and Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection. *Am J Med*. 2020 Aug 7:S0002-9343(20)30673-2. doi: 10.1016/j.amjmed.2020.07.003. Epub ahead of print. PMID: 32771461; PMCID: PMC7410805.
- M611) Raal FJ, Rosenson RS, Reeskamp LF, Hovingh GK, Kastelein JJP, Rubba P, Ali S, Banerjee P, Chan KC, Gipe DA, Khillan N, Pordy R, Weinreich DM, Yancopoulos GD, Zhang Y, Gaudet D; ELIPSE HoFH Investigators (**McCullough PA** Site Investigator). Evinacumab for Homozygous Familial Hypercholesterolemia. *N Engl J Med*. 2020 Aug 20;383(8):711-720. doi: 10.1056/NEJMoa2004215. PMID: 32813947.

Peter A. McCullough, M.D., M.P.H.

- M612) Elsaid O, **McCullough PA**, Tecson KM, Williams RS, Yoon A. Ventricular Fibrillation Storm in Coronavirus 2019. *Am J Cardiol.* 2020 Aug 29;S0002-9149(20)30890-0. doi: 10.1016/j.amjcard.2020.08.033. Epub ahead of print. PMID: 32871109; PMCID: PMC7455792.
- M613) Goyal A, Lo KB, Chatterjee K, Mathew RO, **McCullough PA**, Bangalore S, Rangaswami J. Acute coronary syndromes in the peri-operative period after kidney transplantation in United States. *Clin Transplant.* 2020 Sep 18:e14083. doi: 10.1111/ctr.14083. Epub ahead of print. PMID: 32946629.
- M614) Palazzuoli A, Ruberto F, De Ferrari GM, Forleo G, Secco GG, Ruocco GM, D'Ascenzo F, Mojoli F, Monticone S, Paggi A, Vicenzi M, Corcione S, Palazzo AG, Landolina M, Taravelli E, Tavazzi G, Blasi F, Mancone M, Birtolo LI, Alessandri F, Infusino F, Pugliese F, Fedele F, De Rosa FG, Emmett M, Schussler JM, **McCullough PA**, Tecson KM. Inpatient Mortality According to Level of Respiratory Support Received for Severe Acute Respiratory Syndrome Coronavirus 2 (Coronavirus Disease 2019) Infection: A Prospective Multicenter Study. *Crit Care Explor.* 2020 Sep 18;2(9):e0220. doi: 10.1097/CCE.000000000000220. PMID: 32984838; PMCID: PMC7505344.
- M615) **McCullough PA**. Favipiravir and the Need for Early Ambulatory Treatment of SARS-CoV-2 Infection (COVID-19). *Antimicrob Agents Chemother.* 2020 Nov 17;64(12):e02017-20. doi: 10.1128/AAC.02017-20. PMID: 32967849; PMCID: PMC7674042.
- M616) Rangaswami J, Bhalla V, de Boer IH, Staruschenko A, Sharp JA, Singh RR, Lo KB, Tuttle K, Vaduganathan M, Ventura H, **McCullough PA**; American Heart Association Council on the Kidney in Cardiovascular Disease; Council on Arteriosclerosis, Thrombosis and Vascular Biology; Council on Cardiovascular and Stroke Nursing; Council on Clinical Cardiology; and Council on Lifestyle and Cardiometabolic Health. Cardiorenal Protection With the Newer Antidiabetic Agents in Patients With Diabetes and Chronic Kidney Disease: A Scientific Statement From the American Heart Association. *Circulation.* 2020 Sep 28;CIR0000000000000920. doi: 10.1161/CIR.0000000000000920. Epub ahead of print. PMID: 32981345.
- M617) Ruocco G, **McCullough PA**, Tecson KM, Mancone M, De Ferrari GM, D'Ascenzo F, De Rosa FG, Paggi A, Forleo G, Secco GG, Pistis G, Monticone S, Vicenzi M, Rota I, Blasi F, Pugliese F, Fedele F, Palazzuoli A. Mortality Risk Assessment Using CHA(2)DS(2)-VASc Scores in Patients Hospitalized With Coronavirus Disease 2019 Infection. *Am J Cardiol.* 2020 Sep 28;S0002-9149(20)31004-3. doi: 10.1016/j.amjcard.2020.09.029. Epub ahead of print. PMID: 32991860; PMCID: PMC7521434.
- M618) Hayek SS, Brenner SK, Azam TU, Shadid HR, Anderson E, Berlin H, Pan M, Meloche C, Feroz R, O'Hayer P, Kaakati R, Bitar A, Padalia K, Perry D, Blakely P, Gupta S, Shaefi S, Srivastava A, Charytan DM, Bansal A, Mallappallil M, Melamed ML, Shehata AM, Sunderram J, Mathews KS, Sutherland AK, Nallamotheu BK, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). In-hospital cardiac arrest in critically ill patients with covid-19: multicenter cohort

Peter A. McCullough, M.D., M.P.H.

study. *BMJ*. 2020 Sep 30;371:m3513. doi: 10.1136/bmj.m3513. PMID: 32998872; PMCID: PMC7525342.

M619) Lo KB, Bhargav R, Salacup G, Pelayo J, Albano J, **McCullough PA**, Rangaswami J. Angiotensin converting enzyme inhibitors and angiotensin II receptor blockers and outcomes in patients with COVID-19: a systematic review and meta-analysis. *Expert Rev Cardiovasc Ther*. 2020 Oct 5:1-12. doi: 10.1080/14779072.2020.1826308. Epub ahead of print. PMID: 32945216.

M620) Palazzuoli A, Mancone M, De Ferrari GM, Forleo G, Secco GG, Ruocco GM, D'Ascenzo F, Monticone S, Paggi A, Vicenzi M, Palazzo AG, Landolina M, Taravelli E, Tavazzi G, Blasi F, Infusino F, Fedele F, De Rosa FG, Emmett M, Schussler JM, Tecson KM, **McCullough PA**. Antecedent Administration of Angiotensin Converting Enzyme Inhibitors or Angiotensin II Receptor Antagonists and Survival After Hospitalization for SARS-CoV-2 (COVID-19). *J Am Heart Assoc*. 2020 Oct 7:e017364. doi: 10.1161/JAHA.120.017364. Epub ahead of print. PMID: 33023356.

M621) Zhang J, Tecson KM, **McCullough PA**. Endothelial dysfunction contributes to COVID-19-associated vascular inflammation and coagulopathy. *Reviews in Cardiovascular Medicine*, 2020, 21(3): 315-319. DOI: 10.31083/j.rcm.2020.03.126
<https://rcm.imrpress.com/EN/10.31083/j.rcm.2020.03.126>

M622) Zhang J, **McCullough PA**, Tecson KM. Vitamin D deficiency in association with endothelial dysfunction: Implications for patients with COVID-19. *Reviews in Cardiovascular Medicine*, 2020, 21(3): 339-344. DOI: 10.31083/j.rcm.2020.03.131
<https://rcm.imrpress.com/EN/10.31083/j.rcm.2020.03.131>

M623) **McCullough PA** Innovative Early Sequenced Multidrug Therapy for Sars-Cov-2 (Covid-19) Infection to Reduce Hospitalization and Death International Journal of Medical Science and Clinical Invention7(12): 5139-5150, 2020 DOI:10.18535/ijmsci/v7i12.02

M624) Flythe JE, Assimon MM, Tugman MJ, Chang EH, Gupta S, Shah J, Sosa MA, Renaghan AD, Melamed ML, Wilson FP, Neyra JA, Rashidi A, Boyle SM, Anand S, Christov M, Thomas LF, Edmonston D, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). Characteristics and Outcomes of Individuals With Pre-existing Kidney Disease and COVID-19 Admitted to Intensive Care Units in the United States. *Am J Kidney Dis*. 2020 Sep 19:S0272-6386(20)30999-9. doi: 10.1053/j.ajkd.2020.09.003. Epub ahead of print. PMID: 32961244; PMCID: PMC7501875.

M625) Gupta S, Coca SG, Chan L, Melamed ML, Brenner SK, Hayek SS, Sutherland A, Puri S, Srivastava A, Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Schenck EJ, Goyal N, Hedayati SS, Dy R, Bansal A, Athavale A, Nguyen HB, Vijayan A, Charytan DM, Schulze CE, Joo MJ, Friedman AN, Zhang J, Sosa MA, Judd E, Velez JCQ, Mallappallil M, Redfern RE, Bansal AD, Neyra JA, Liu KD, Renaghan AD, Christov M, Molnar MZ, Sharma S, Kamal O, Boateng JO, Short SAP, Admon AJ, Sise ME, Wang W, Parikh CR, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). AKI Treated with Renal Replacement Therapy in Critically Ill Patients with COVID-

Peter A. McCullough, M.D., M.P.H.

19. J Am Soc Nephrol. 2020 Oct 16:ASN.2020060897. doi: 10.1681/ASN.2020060897. Epub ahead of print. PMID: 33067383.

M626) Gupta S, Wang W, Hayek SS, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Finkel D, Green A, Mallappallil M, Faugno AJ, Zhang J, Velez JCQ, Shaefi S, Parikh CR, Charytan DM, Athavale AM, Friedman AN, Redfern RE, Short SAP, Correa S, Pokharel KK, Admon AJ, Donnelly JP, Gershengorn HB, Douin DJ, Semler MW, Hernán MA, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). Association Between Early Treatment With Tocilizumab and Mortality Among Critically Ill Patients With COVID-19. JAMA Intern Med. 2020 Oct 20:e206252. doi: 10.1001/jamainternmed.2020.6252. Epub ahead of print. PMID: 33080002; PMCID: PMC7577201.

M627) Chertow GM, Pergola PE, Agarwal R, Block GA, Farag YMK, Jardine AG, Koury MJ, Luo W, Khawaja Z, Lewis EF, Matsushita K, **McCullough PA**, Parfrey PS, Wittes J, Walters KA, Tseng C, Lin T, Sarnak MJ, Vargo DL, Winkelmayer WC, Eckardt KU. Cardiovascular Safety and Efficacy of Vadadustat for the Treatment of Anemia in Non-Dialysis Dependent CKD: Design and Baseline Characteristics. Am Heart J. 2020 Oct 29:S0002-8703(20)30354-9. doi: 10.1016/j.ahj.2020.10.068. Epub ahead of print. PMID: 33129989.

M628) **McCullough PA**, Goldstein JA. A novel strategy to prevent contrast nephropathy: "Continuous hemodiafiltration". Catheter Cardiovasc Interv. 2020 Nov;96(6):1182-1183. doi: 10.1002/ccd.29356. PMID: 33217180.

M629) Aldujeli A, Hamadeh A, Briedis K, Tecson KM, Rutland J, Krivickas Z, Stikloraitis S, Briede K, Aldujeili M, Unikas R, Zaliaduonyte D, Zaliunas R, Vallabhan RC, **McCullough PA**. Delays in Presentation in Patients With Acute Myocardial Infarction During the COVID-19 Pandemic. Cardiol Res. 2020 Dec;11(6):386-391. doi: 10.14740/cr1175. Epub 2020 Nov 2. PMID: 33224384; PMCID: PMC7666599.

M630) Barker CM, Cork DP, **McCullough PA**, Mehta HS, Houten JV, Gunnarsson C, Mollenkopf S, Verta P. Healthcare utilization in clinically significant tricuspid regurgitation patients with and without heart failure. J Comp Eff Res. 2020 Nov 11. doi: 10.2217/cer-2020-0198. Epub ahead of print. PMID: 33174767.

M631) Eckardt KU, Agarwal R, Farag YM, Jardine AG, Khawaja Z, Koury MJ, Luo W, Matsushita K, **McCullough PA**, Parfrey P, Ross G, Sarnak MJ, Vargo D, Winkelmayer WC, Chertow GM. Global Phase 3 programme of vadadustat for treatment of anaemia of chronic kidney disease: rationale, study design and baseline characteristics of dialysis-dependent patients in the INNO2VATE trials. Nephrol Dial Transplant. 2020 Nov 14:gfaa204. doi: 10.1093/ndt/gfaa204. Epub ahead of print. PMID: 33188693.

M632) Rahimi G, Tecson KM, Elsaid O, **McCullough PA**. Role of Ischemic Heart Disease in Major Adverse Renal and Cardiac Events Among Individuals With Heart Failure With Preserved Ejection

Peter A. McCullough, M.D., M.P.H.

Fraction (from the TOPCAT Trial). *Am J Cardiol.* 2020 Dec 3;S0002-9149(20)31296-0. doi: 10.1016/j.amjcard.2020.11.034. Epub ahead of print. PMID: 33279481.

- M633) Roger SD, Lavin PT, Lerma EV, **McCullough PA**, Butler J, Spinowitz BS, von Haehling S, Kosiborod M, Zhao J, Fishbane S, Packham DK. Long-term safety and efficacy of sodium zirconium cyclosilicate for hyperkalaemia in patients with mild/moderate versus severe/end-stage chronic kidney disease: comparative results from an open-label, Phase 3 study. *Nephrol Dial Transplant.* 2021 Jan 1;36(1):137-150. doi: 10.1093/ndt/gfz285. PMID: 32030422.
- M634) **McCullough PA**, Oskoui R. Early multidrug regimens in new potentially fatal medical problems. *Rev Cardiovasc Med.* 2020 Dec 30;21(4):507-508. doi: 10.31083/j.rcm.2020.04.270. PMID: 33387995.
- M635) **McCullough PA**, Alexander PE, Armstrong R, Arvinte C, Bain AF, Bartlett RP, Berkowitz RL, Berry AC, Borody TJ, Brewer JH, Brufsky AM, Clarke T, Derwand R, Eck A, Eck J, Eisner RA, Fareed GC, Farella A, Fonseca SNS, Geyer CE Jr, Gonnering RS, Graves KE, Gross KBV, Hazan S, Held KS, Hight HT, Immanuel S, Jacobs MM, Ladapo JA, Lee LH, Littell J, Lozano I, Mangat HS, Marble B, McKinnon JE, Merritt LD, Orient JM, Oskoui R, Pompan DC, Procter BC, Prodromos C, Rajter JC, Rajter JJ, Ram CVS, Rios SS, Risch HA, Robb MJA, Rutherford M, Scholz M, Singleton MM, Tumlin JA, Tyson BM, Urso RG, Victory K, Vliet EL, Wax CM, Wolkoff AG, Wooll V, Zelenko V. Multifaceted highly targeted sequential multidrug treatment of early ambulatory high-risk SARS-CoV-2 infection (COVID-19). *Rev Cardiovasc Med.* 2020 Dec 30;21(4):517-530. doi: 10.31083/j.rcm.2020.04.264. PMID: 33387997.
- M636) Procter BC, Ross C, Pickard V, Smith E, Hanson C, **McCullough PA**. Clinical outcomes after early ambulatory multidrug therapy for high-risk SARS-CoV-2 (COVID-19) infection. *Rev Cardiovasc Med.* 2020 Dec 30;21(4):611-614. doi: 10.31083/j.rcm.2020.04.260. PMID: 33388006.
- M637) Gupta S, Wang W, Hayek SS, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Finkel D, Green A, Mallappallil M, Faugno AJ, Zhang J, Velez JCQ, Shaefi S, Parikh CR, Charytan DM, Athavale AM, Friedman AN, Redfern RE, Short SAP, Correa S, Pokharel KK, Admon AJ, Donnelly JP, Gershengorn HB, Douin DJ, Semler MW, Hernán MA, Leaf DE; STOP-COVID Investigators. (**McCullough PA** Site Investigator). Association Between Early Treatment With Tocilizumab and Mortality Among Critically Ill Patients With COVID-19. *JAMA Intern Med.* 2021 Jan 1;181(1):41-51. doi: 10.1001/jamainternmed.2020.6252. PMID: 33080002; PMCID: PMC7577201.
- M638) Palazzuoli A, Ruocco G, Tecson KM, **McCullough PA**. Screening, detection, and management of heart failure in the SARS-CoV2 (COVID-19) pandemic. *Heart Fail Rev.* 2021 Jan 6:1–7. doi: 10.1007/s10741-020-10068-4. Epub ahead of print. PMID: 33405001; PMCID: PMC7786335.
- M639) Al-Samkari H, Gupta S, Leaf RK, Wang W, Rosovsky RP, Brenner SK, Hayek SS, Berlin H, Kapoor R, Shaefi S, Melamed ML, Sutherland A, Radbel J, Green A, Garibaldi BT, Srivastava A,

Peter A. McCullough, M.D., M.P.H.

Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Goyal N, Chan L, Mathews KS, Hedayati SS, Dy R, Toth-Manikowski SM, Zhang J, Mallappallil M, Redfern RE, Bansal AD, Short SAP, Vangel MG, Admon AJ, Semler MW, Bauer KA, Hernán MA, Leaf DE; STOP-COVID-19 Investigators (**McCullough PA** Site Investigator). Thrombosis, Bleeding, and the Observational Effect of Early Therapeutic Anticoagulation on Survival in Critically Ill Patients With COVID-19. *Ann Intern Med*. 2021 Jan 26:M20-6739. doi: 10.7326/M20-6739. Epub ahead of print. PMID: 33493012; PMCID: PMC7863679.

- M640) Zhang J, Tecson KM, **McCullough PA**. Role of endothelial cell receptors in the context of SARS-CoV-2 infection (COVID-19). *Proc (Bayl Univ Med Cent)*. 2021 Jan 26;34(2):262-268. doi: 10.1080/08998280.2021.1874231. PMID: 33664552; PMCID: PMC7852287.
- M641) Shaefi S, Brenner SK, Gupta S, O'Gara BP, Krajewski ML, Charytan DM, Chaudhry S, Mirza SH, Peev V, Anderson M, Bansal A, Hayek SS, Srivastava A, Mathews KS, Johns TS, Leonberg-Yoo A, Green A, Arunthamakun J, Wille KM, Shaukat T, Singh H, Admon AJ, Semler MW, Hernán MA, Mueller AL, Wang W, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). Extracorporeal membrane oxygenation in patients with severe respiratory failure from COVID-19. *Intensive Care Med*. 2021 Feb;47(2):208-221. doi: 10.1007/s00134-020-06331-9. Epub 2021 Feb 2. PMID: 33528595; PMCID: PMC7851810.
- M642) Short SAP, Gupta S, Brenner SK, Hayek SS, Srivastava A, Shaefi S, Singh H, Wu B, Bagchi A, Al-Samkari H, Dy R, Wilkinson K, Zakai NA, Leaf DE; STOP-COVID Investigators(**McCullough PA** Site Investigator). D-dimer and Death in Critically Ill Patients With Coronavirus Disease 2019. *Crit Care Med*. 2021 Feb 12. doi: 10.1097/CCM.0000000000004917. Epub ahead of print. PMID: 33591017.
- M643) Mathews KS, Soh H, Shaefi S, Wang W, Bose S, Coca S, Gupta S, Hayek SS, Srivastava A, Brenner SK, Radbel J, Green A, Sutherland A, Leonberg-Yoo A, Shehata A, Schenck EJ, Short SAP, Hernán MA, Chan L, Leaf DE; Study of the Treatment and Outcomes in Critically Ill Patients with Coronavirus Disease (STOP-COVID) Investigators(**McCullough PA** Site Investigator). Prone Positioning and Survival in Mechanically Ventilated Patients With Coronavirus Disease 2019-Related Respiratory Failure. *Crit Care Med*. 2021 Feb 17. doi: 10.1097/CCM.0000000000004938. Epub ahead of print. PMID: 33595960.
- M644) Aldujeli A, Hamadeh A, Tecson KM, Krivickas Z, Maciulevicius L, Stikloraitis S, Sukys M, Briedis K, Aldujeili M, Briede K, Braukyliene R, Pranculis A, Unikas R, Zaliaduonyte D, **McCullough PA**. Six-Month Outcomes for COVID-19 Negative Patients with Acute Myocardial Infarction Before Versus During the COVID-19 Pandemic. *Am J Cardiol*. 2021 Feb 23:S0002-9149(21)00161-2. doi: 10.1016/j.amjcard.2021.01.043. Epub ahead of print. PMID: 33631113; PMCID: PMC7900754.
- M645) **McCullough PA**, Rahimi G, Tecson KM. Ambulatory Worsening of Renal Function in Heart Failure With Preserved Ejection Fraction. *J Am Coll Cardiol*. 2021 Mar 9;77(9):1222-1224. doi: 10.1016/j.jacc.2021.01.007. PMID: 33663740.

Peter A. McCullough, M.D., M.P.H.

- M646) Kalantar-Zadeh K, **McCullough PA**, Agarwal SK, Beddhu S, Boaz M, Bruchfeld A, Chauveau P, Chen J, de Sequera P, Gedney N, Golper TA, Gupta M, Harris T, Hartwell L, Liakopoulos V, Kopple JD, Kovesdy CP, Macdougall IC, Mann JFE, Molony D, Norris KC, Perlmutter J, Rhee CM, Riella LV, Weisbord SD, Zoccali C, Goldsmith D. Nomenclature in nephrology: preserving 'renal' and 'nephro' in the glossary of kidney health and disease. *J Nephrol*. 2021 Mar 13. doi: 10.1007/s40620-021-01011-3. Epub ahead of print. PMID: 33713333.
- M647) **McCullough PA**. Anemia of cardiorenal syndrome. *Kidney Int Suppl* (2011). 2021 Apr;11(1):35-45. doi: 10.1016/j.kisu.2020.12.001. Epub 2021 Mar 18. PMID: 33777494; PMCID: PMC7983020.
- M648) Lo KB, Toroghi HM, Salacup G, Jiang J, Bhargav R, Quintero E, Balestrini K, Shahzad A, Mathew RO, **McCullough PA**, Rangaswami J. Angiotensin converting enzyme inhibitors and angiotensin receptor blockers in acute heart failure: invasive hemodynamic parameters and clinical outcomes. *Rev Cardiovasc Med*. 2021 Mar 30;22(1):199-206. doi: 10.31083/j.rcm.2021.01.216. PMID: 33792263.
- M649) Kellum JA, Artigas A, Gunnerson KJ, Honore PM, Kampf JP, Kwan T, McPherson P, Nguyen HB, Rimmelé T, Shapiro NI, Shi J, Vincent JL, Chawla LS; Sapphire Investigators (**McCullough PA** Site Investigator). Use of Biomarkers to Identify Acute Kidney Injury to Help Detect Sepsis in Patients With Infection. *Crit Care Med*. 2021 Apr 1;49(4):e360-e368. doi: 10.1097/CCM.0000000000004845. PMID: 33566467; PMCID: PMC7963439.
- M650) Procter BC, Ross C, Pickard V, Smith E, Hanson C, **McCullough PA**. Early Ambulatory Multidrug Therapy Reduces Hospitalization and Death in High-Risk Patients with SARS-CoV-2 (COVID-19). *ijirms* [Internet]. 2021Mar.17 [cited 2021Apr.28];6(03):219 - 221. <https://www.ijirms.in/index.php/ijirms/article/view/1100>, <https://www.ijirms.in/index.php/ijirms/article/view/1100#downloadTab>
- M651) **McCullough PA**, Vijay K. SARS-CoV-2 infection and the COVID-19 pandemic: a call to action for therapy and interventions to resolve the crisis of hospitalization, death, and handle the aftermath. *Rev Cardiovasc Med*. 2021 Mar 30;22(1):9-10. doi: 10.31083/j.rcm.2021.01.301. PMID: 33792243.
- M652) Valdenor C, **McCullough PA**, Paculdo D, Acelajado MC, Dahlen JR, Noiri E, Sugaya T, Peabody J. Measuring the Variation in the Prevention and Treatment of CI-AKI Among Interventional Cardiologists. *Curr Probl Cardiol*. 2021 Apr 3:100851. doi: 10.1016/j.cpcardiol.2021.100851. Epub ahead of print. PMID: 33994040.
- M653) Ishida JH, Chauhan C, Gillespie B, Gruchalla K, **McCullough PA**, Quella S, Romero A, Rossignol P, Wheeler DC, Malley MA, West M, Herzog CA. Understanding and Overcoming the Challenges Related to Cardiovascular Trials Involving Patients with Kidney Disease. *Clin J Am Soc Nephrol*. 2021 Apr 23:CJN.17561120. doi: 10.2215/CJN.17561120. Epub ahead of print. PMID: 33893163.

Peter A. McCullough, M.D., M.P.H.

- M654) Chertow GM, Pergola PE, Farag YMK, Agarwal R, Arnold S, Bako G, Block GA, Burke S, Castillo FP, Jardine AG, Khawaja Z, Koury MJ, Lewis EF, Lin T, Luo W, Maroni BJ, Matsushita K, **McCullough PA**, Parfrey PS, Roy-Chaudhury P, Sarnak MJ, Sharma A, Spinowitz B, Tseng C, Tumlin J, Vargo DL, Walters KA, Winkelmayr WC, Wittes J, Eckardt KU; PROTECT Study Group. Vadadustat in Patients with Anemia and Non-Dialysis-Dependent CKD. *N Engl J Med*. 2021 Apr 29;384(17):1589-1600. doi: 10.1056/NEJMoa2035938. PMID: 33913637.
- M655) Eckardt KU, Agarwal R, Aswad A, Awad A, Block GA, Bacci MR, Farag YMK, Fishbane S, Hubert H, Jardine A, Khawaja Z, Koury MJ, Maroni BJ, Matsushita K, **McCullough PA**, Lewis EF, Luo W, Parfrey PS, Pergola P, Sarnak MJ, Spinowitz B, Tumlin J, Vargo DL, Walters KA, Winkelmayr WC, Wittes J, Zwiech R, Chertow GM. Safety and Efficacy of Vadadustat for Anemia in Patients Undergoing Dialysis. *N Engl J Med*. 2021 Apr 29;384(17):1601-1612. doi: 10.1056/NEJMoa2025956. PMID: 33913638.
- M656) Short SAP, Gupta S, Brenner SK, Hayek SS, Srivastava A, Shaefi S, Singh H, Wu B, Bagchi A, Al-Samkari H, Dy R, Wilkinson K, Zakai NA, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator). d-dimer and Death in Critically Ill Patients With Coronavirus Disease 2019. *Crit Care Med*. 2021 May 1;49(5):e500-e511. doi: 10.1097/CCM.0000000000004917. PMID: 33591017.
- M657) Swolinsky JS, Nerger NP, Leistner DM, Edelmann F, Knebel F, Tuvshinbat E, Lemke C, Roehle R, Haase M, Costanzo MR, Rauch G, Mitrovic V, Gasanin E, Meier D, **McCullough PA**, Eckardt KU, Molitoris BA, Schmidt-Ott KM. Serum creatinine and cystatin C-based estimates of glomerular filtration rate are misleading in acute heart failure. *ESC Heart Fail*. 2021 May 6. doi: 10.1002/ehf2.13404. Epub ahead of print. PMID: 33955699.
- M658) Palazzuoli A, Tecson KM, Ronco C, **McCullough PA**. Nomenclature for Kidney Function from KDIGO: Shortcomings of Terminology Oversimplification. *Cardiorenal Med*. 2021 Jun 4:1-4. doi: 10.1159/000516615. Epub ahead of print. PMID: 34091445.
- M659) Vasquez CR, Gupta S, Miano TA, Roche M, Hsu J, Yang W, Holena DN, Reilly JP, Schrauben SJ, Leaf DE, Shashaty MGS; STOP-COVID Investigators (**McCullough PA** Site Investigator). Identification of Distinct Clinical Subphenotypes in Critically Ill Patients With COVID-19. *Chest*. 2021 May 6:S0012-3692(21)00874-6. doi: 10.1016/j.chest.2021.04.062. Epub ahead of print. PMID: 33964301; PMCID: PMC8099539.
- M660) Alexander PE, Armstrong R, Fareed G, Lotus J, Oskoui R, Prodromos C, Risch HA, Tenenbaum HC, Wax CM, Dara P, **McCullough PA**, Gill KK. Early multidrug treatment of SARS-CoV-2 infection (COVID-19) and reduced mortality among nursing home (or outpatient/ambulatory) residents. *Med Hypotheses*. 2021 Jun 5;153:110622. doi: 10.1016/j.mehy.2021.110622. Epub ahead of print. PMID: 34130113; PMCID: PMC8178530.

Peter A. McCullough, M.D., M.P.H.

- M661) Mathews KS, Soh H, Shaefi S, Wang W, Bose S, Coca S, Gupta S, Hayek SS, Srivastava A, Brenner SK, Radbel J, Green A, Sutherland A, Leonberg-Yoo A, Shehata A, Schenck EJ, Short SAP, Hernán MA, Chan L, Leaf DE; STOP-COVID Investigators (**McCullough PA** Site Investigator) . Prone Positioning and Survival in Mechanically Ventilated Patients With Coronavirus Disease 2019-Related Respiratory Failure. *Crit Care Med*. 2021 Jul 1;49(7):1026-1037. doi: 10.1097/CCM.0000000000004938. PMID: 33595960; PMCID: PMC8277560.
- M662) **McCullough PA**, Mehta HS, Barker CM, Houten JV, Mollenkopf S, Gunnarsson C, Ryan M, Cork DP. Healthcare utilization and guideline-directed medical therapy in heart failure patients with reduced ejection fraction. *J Comp Eff Res*. 2021 Jul 6. doi: 10.2217/ce-2021-0118. Epub ahead of print. PMID: 34225473.
- M663) Palazzuoli A, Tecson KM, **McCullough PA**. Impact of renin-angiotensin-aldosterone system inhibitor continuation on outcomes for patients with severe coronavirus disease 2019 manifestations. *J Hypertens*. 2021 Aug 1;39(8):1725-1726. doi: 10.1097/HJH.0000000000002876. PMID: 34188007.
- M664) **McCullough PA**, Mehta HS, Barker CM, Van Houten J, Mollenkopf S, Gunnarsson C, Ryan M, Cork DP. Mortality and guideline-directed medical therapy in real-world heart failure patients with reduced ejection fraction. *Clin Cardiol*. 2021 Aug 3. doi: 10.1002/clc.23664. Epub ahead of print. PMID: 34342033.

Published Letters

- ltr1) **McCullough PA**, O'Neill WW. *Letter to the Editor: Regional Variation Across the United States in the Management of Acute Myocardial Infarction*. *New Engl J Med* 1996;334:194; discussion 194-5. PMID: 96127997
- ltr2) **McCullough PA**, O'Neill WW. *Letter to the Editor: Patient care after percutaneous coronary artery interventions*. *Ann Intern Med* 1998 Apr 1;128:598; discussion 599-600. PMID: 98175287
- ltr3) **McCullough PA**, Redle JD. *Letter to the Editor: Amiodarone Prophylaxis for Atrial Fibrillation after Bypass Surgery*. *New Engl J Med* 1998;338:1383; discussion 1384. PMID: 98223116
- ltr4) Sharma ND, **McCullough PA**. *Letter to the Editor: Predictability of left ventricular thrombus by mitral regurgitation*. *Am Heart J* 1999 Feb;137(2):373-5. PMID: 99156058
- ltr5) **McCullough PA**, Marks KR. *Letter to the Editor: Ticlopidine and TTP after Coronary Stenting*. *JAMA* 1999;282(18):1717-1718;discussion 1718-9. PMID: 10568636
- ltr6) **McCullough PA**, Sandberg KR, Thompson RJ. *Letter to the Editor: Predicting Outcomes after Cardiopulmonary Resuscitation*. *Arch Intern Med* 2001;161(4):615-616. PMID: 11252131

Peter A. McCullough, M.D., M.P.H.

- ltr7) **McCullough PA.** *Letter to the Editor: The Anti-inflammatory Effect of Statins.* N Engl J Med. 2001 Oct 18;345(16):1209; discussion 1210-1. PMID: 11642241
- ltr8) **McCullough PA,** Sandberg KR, Borzak S. *Letter to the Editor: Cardiovascular outcomes and renal disease.* Ann Intern Med. 2002 Apr 16;136(8):633-4; discussion 633-4. PMID: 11955038
- ltr9) **McCullough PA.** Reply to Manhapra A, Why is chronic kidney disease the "spoiler" for cardiovascular outcomes: an alternate take from a generalist. J Am Coll Cardiol. 2004 Mar 3;43(5):924; author reply 924-5. PMID: 15006584
- ltr10) Omland T, Knudsen CW, **McCullough PA,** Maisel AS. Response to LTE. #2005-624 - Schwam. Ann Emerg Med. 2006 Feb;47(2):214. PMID: 16431243
- ltr11) Barker D, Artis N, Tan LB, DeJong A, Franklin BA, **McCullough PA.** Correcting data for body size may confound results. Chest. 2006 Feb;129(2):493-4. PMID: 16478872
- ltr12) **McCullough PA.** Failure of beta-blockers in the reduction of perioperative events: Where did we go wrong? Response to the letter to the Editor by Souza et al. Am Heart J. 2007 Jun;153(6):e39. PMID: 17540183
- ltr13) **McCullough PA.** Multimodality prevention of contrast-induced acute kidney injury, In Reply. Am J Kidney Dis. 2008 Jun;51(6):1068-1069. PMID: 18501789
- ltr14) **McCullough PA,** Collins AJ, Vassalotti JA. Rapid Response: Optimal Definition of Chronic Kidney Disease as a Cardiovascular Risk State. Southern Medical Journal, Volume 101, 977 Number 10, October 2008
- ltr15) Neyou A, **McCullough PA.** Response to letter to the editor. Am J Emerg Med. 2010 Dec 1. [Epub ahead of print] No abstract available. PMID: 21129890
- ltr16) Palazzuoli A, Ronco C, **McCullough PA.** Letter by Palazzuoli et al regarding article, "is worsening renal function an ominous prognostic sign in patients with acute heart failure? The role of congestion and its interaction with renal function". Circ Heart Fail. 2012 Jul 1;5(4):e79. PubMed PMID: 22811554
- ltr17) O'Keefe JH, Patil HR, Magalski A, Lavie CJ, Vogel RA, **McCullough PA.** In reply. Mayo Clin Proc. 2012 Nov;87(11):1133-4. doi: 10.1016/j.mayocp.2012.08.010. PubMed PMID: 23127740
- ltr18) **McCullough PA.** Reply: Vitamin E May Protect Against Contrast-Induced Acute Kidney Injury. J Am Coll Cardiol. 2017 Apr 11;69(14):1878-1879. doi: 10.1016/j.jacc.2017.01.053. PubMed PMID: 28385321

Peter A. McCullough, M.D., M.P.H.

- ltr19) Rangaswami J, **McCullough PA**. Efficacy of Subcutaneous Versus Intravenous Administration of Furosemide in Patients With Worsening Heart Failure: The Devil Is in the Details. *JACC Heart Fail*. 2018 Mar;6(3):266-267. doi: 10.1016/j.jchf.2018.01.010. PubMed PMID: 29496028
- ltr20) Rangaswami J, **McCullough PA**. Clinical Context of Dyskalemias Across the Heart Failure Spectrum and Their Associated Adverse Outcomes. *JACC Heart Fail*. 2019 Jun;7(6):533. doi: 10.1016/j.jchf.2019.01.005. PubMed PMID: 31146878.
- ltr21) **McCullough PA**. The Reply. *Am J Med*. 2021 Mar;134(3):e222-e223. doi: 10.1016/j.amjmed.2020.10.036. PMID: 33637181; PMCID: PMC7901366.
- ltr22) **McCullough PA**. The Reply. *Am J Med*. 2021 Apr;134(4):e298. doi: 10.1016/j.amjmed.2020.11.028. PMID: 33888224; PMCID: PMC8054639.
- ltr23) **McCullough PA**. Regarding: "Hydroxychloroquine: a comprehensive review and its controversial role in coronavirus disease 2019". *Ann Med*. 2021 Dec;53(1):286. doi: 10.1080/07853890.2021.1872094. PMID: 33439042; PMCID: PMC7877973.
- ltr24) **McCullough PA**. The Reply. *Am J Med*. 2021 May;134(5):e343-e344. doi: 10.1016/j.amjmed.2021.01.011. PMID: 33962708; PMCID: PMC8095713.
- ltr25) **McCullough PA**. The Reply. *Am J Med*. 2021 May;134(5):e346-e347. doi: 10.1016/j.amjmed.2021.01.013. PMID: 33962710; PMCID: PMC8095728.
- ltr26) **McCullough PA**. The Reply. *Am J Med*. 2021 Jul;134(7):e440-e441. doi: 10.1016/j.amjmed.2021.02.024. PMID: 34183150; PMCID: PMC8229557.

Textbook Chapters

- T1) **McCullough PA**, Goldstein JG. *Chapter 5: Heart Pressures and Catheterization*. *Cardiac Catheterization: Concepts, Techniques, and Applications*. Uretsky BF, Editor, Blackwell Science, Inc., Boston, 1997. ISBN 9780865424067
- T2) **McCullough PA**. Section III, *Chapter 7: Epidemiology of Coronary Heart Disease*. *Interventional Cardiovascular Medicine: Principles and Practice, Second Edition*. Roubin GS, O'Neill WW, Stack RS, Editors, Churchill Livingstone Inc., Philadelphia and New York, 2002, III, 7, 138-159. ISBN 9780443079795
- T3) Franklin BA, **McCullough PA**, Timmis GC. *Chapter: Exercise*. *Randomized Trials in Cardiovascular Disease: a Companion Volume to Eugene Braunwald's "Heart Disease."* Hennekens CH, Buring JE, Ridker PM, Manson JE, Editors, W. B. Saunders Inc., New York, 1998.

Peter A. McCullough, M.D., M.P.H.

- T4) **McCullough PA.** Chapter 4. *General Examination and Examination Skills*, p 41-57 Clinical Exercise Physiology. Ehrman JK, Gordon PM, Visich PS, Keteyian SJ, Editors, Human Kinetics Publishers, Inc., 2003. ISBN 9780736002523
- T5) Malineni K, **McCullough PA.** Chapter: *Sudden Cardiac Death*, eMedicine.com, Textbook of Medicine, Obstetrics and Gynecology, Psychiatry, and Surgery, 2001.
- T6) **McCullough PA.** Chapter 21: *Outcome of Myocardial Infarction in Patients with Renal Failure*, Harrison's Advances in Cardiology, Eugene Braunwald, M.D., Editor, 2003. pp 123-128. McGraw-Hill, New York, NY. ISBN 9780071370882
- T7) **McCullough PA.** Chapter 26. *Renal Injury Following Contrast Agents*, Peripheral Vascular Disease: Basic Diagnosis and Therapeutic Approaches, Editor: George S. Abela, MD, 2003, pp 000-000. Lippincott Williams & Wilkins, Philadelphia, PA. ISBN 9780781743839
- T8) **McCullough PA.** The effect of renal disease on outcomes of vascular surgery. *Fast Facts in Vascular Surgery*, Health Press, Alun H. Davies, MA, DM, FRCS, Editor, 2003-2004;74-86. ISBN 9781903734513
- T9) **McCullough PA.** Interface between renal disease and cardiovascular illness. *Braunwald's Heart Disease*, 7th Edition, 2004, Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9780721604794
- T10) **McCullough PA.** Interface between renal disease and cardiovascular illness. *Braunwald's Heart Disease*, 8th Edition, 2006, Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9781416041030
- T11) **McCullough PA.** Chapter 23. *Renal Complications of Contrast Media: Contrast-Induced Nephropathy*, p 239-249. *Interventional Cardiology*, 1st Edition, 2007. King S, Yeung A, Editors. The McGraw-Hill Medical, New York. ISBN 9780071415279
- T12) **McCullough PA.** Chapter 14. *Natriuretic peptides in patients with renal failure*, p 170-180. *Markers in Cardiology: A Case Oriented Approach*, 2007. Adams JE, Jaffe AS, Apple F, Editors. Blackwell Futura, 2007. ISBN 9781405134187
- T13) Miller WM, **McCullough PA.** Chapter 21. *Obesity*, p209-218. *Pollock's Textbook of Cardiovascular Disease and Rehabilitation*. Durstine JL, Moore GE, LaMonte MJ, Franklin BA, Editors. Human Kinetics, 2008. ISBN 0000736059679
- T14) Franklin BA, Miller WM, **McCullough PA.** Chapter 11: *The Metabolic Syndrome*. *American Council on Exercise Advanced Health and Fitness Specialist Manual*. Edited by Bryant CX, Green DJ. San Diego, CA. American Council on Exercise; 2008:239-254. ISBN 9781890720278

Peter A. McCullough, M.D., M.P.H.

- T15) Marso SP, **McCullough PA**. Chapter 8: Patient-Specific Approaches and Considerations: Unique Subgroups—Diabetes, Renal Failure, Advanced Age. American College of Cardiology Cardiac Catheterization and Interventional Self-Assessment Program 3 (CathSAP-3), David J. Moliterno, Editor. ACC, 2008.
<http://www.cardiosource.com/GenSAPX/>
- T16) Franklin BA, Miller WM, Nori K, **McCullough PA**. Chapter 12: Guidelines for Exercise Testing in Diabetics Starting an Exercise Program. Contemporary Diabetes: Diabetes and Exercise. Edited by Regensteiner JC, Reusch JEB, Stewart K, Veves A. Totowa, NJ: Humana Press; 2009:263-277. ISBN 9781588299260
- T17) Nguyen, T, Yee T, Mai T, Phan T, **McCullough PA**. Chapter 6: Diet. Evidence Based Cardiology Practice: A 21st Century Approach. Edited by Hu D, Nguyen T, Kim MH, Kwan T, Grines CL, Saito S. Peoples Medical Publishing House—USA, Shelton, CT; 2010; 145-161. ISBN 9781607950950
- T18) Kodenchery M, Bhat S, El-Ghoroury M, Yamasaki H, **McCullough PA**. "Coronary Angiography Before and After Renal Transplantation" Coronary Angiography - The Need for Improvement in Medical and Interventional Therapy, edited by Branislav Baškot. InTech - Open Access Publisher, Rijeka, Croatia, Website: <http://www.intechweb.org/>, permanent web address: <http://www.intechopen.com/articles/show/title/coronary-angiography-before-and-after-renal-transplantation>. ISBN 9789533076416
- T19) Marinescu V, **McCullough PA**. Chapter 5d. Managing Comorbidities. Chronic Kidney Disease. Hypertension. Bakris G and Baliga RR Editors, Oxford American Cardiology Library, Oxford University Press, New York, NY 2012; 71-81. ISBN 9780199754908
- T20) **McCullough PA**. Chapter 43. Contrast-Induced Acute Kidney Injury. Specialty Board Review: Cardiology. Baliga RR Editor. The McGraw-Hill Companies, Inc., China, 2012; 467-473. ISBN 9780071614085
- T21) Zalesin KC, Franklin BA, Miller WM, Peterson ED, **McCullough PA**. Impact of obesity on cardiovascular disease. Medical Clinics of North America: Obesity. LeRoith D and Karnieli E, Editors. WB Saunders Company, New York, NY, 2011 95(5):919-937. ISBN 9781455723690
- T22) **McCullough PA**. Chapter: Interface between renal disease and cardiovascular illness. Braunwald's Heart Disease, 9th Edition, 2011. Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9781437727081
- T23) Hanson ID, **McCullough PA**. B-type natriuretic peptide: beyond diagnostic applications. The Kidney in Heart Failure. Bakris GL Editor. Springer, New York, NY, 2012;67-77. ISBN 9781461436935

Peter A. McCullough, M.D., M.P.H.

- T24) Brown JE, **McCullough PA**. Chapter 5: Contrast Nephropathy and Kidney Injury. Textbook of Cardiovascular Intervention, Thompson, CA (Editor), Springer, 2014 (5) 53-63. ISBN 9781447145288
- T25) Franklin BA, Miller WM, **McCullough PA**. Chapter 12, The Metabolic Syndrome, American Medical Council, Medical Exercise Specialist Manual, Skinner JS, Bryant CX, Merrill S, Green DJ. American Council on Exercise 2015, San Diego CA. ISBN 9781890720520
- T26) Stewart D, Shah G, Brown JR, **McCullough, PA**. Chapter 240 Contrast-induced acute kidney injury, Oxford Textbook of Clinical Nephrology, 4th Edition, Managing Editors Turner Goldsmith DJ, Winearls C, Lamierre N, Himmelfarb J, Remuzzi G, Editors, 2015, Oxford University Press, United Kingdom. ISBN 9780199592548
- T27) Goldsmith DJ, Kumar N, Henderson H, Cameron BD, **McCullough PA**. Chapter 106 Malnutrition, obesity, and undernutrition in chronic kidney disease, Oxford Textbook of Clinical Nephrology, 4th Edition, Managing Editors Turner Goldsmith DJ, Winearls C, Lamierre N, Himmelfarb J, Remuzzi G, Editors, 2015, Oxford University Press, United Kingdom. ISBN 9780199592548
- T28) **McCullough PA**. Chapter 18 Future Therapeutic Prospects for Treatment of Cardiorenal Syndromes, p 189-195, Cardiorenal Challenges. Goldsmith DA, Covic A, Spaak J. Editors, Springer International Publishing AG, Cham, 2015, Zug, Switzerland. ISBN 9783319091624
- T29) **McCullough PA**. Chapter 88: Interface between renal disease and cardiovascular illness. Braunwald's Heart Disease, 10th Edition, 2015, pp 1909-1930. Zipes DP, Libby P, Bonow RO, Braunwald E, Editors, WB Saunders, Inc. ISBN 9781455751334
- T30) **McCullough PA**. Chapter 24: Cardiovascular Disease in Chronic Kidney Disease. Essentials of Chronic Kidney Disease, 2015, pp 239-245. Fadem SZ, Editor, Nova Publishers, ISBN-13: 978-1634825429
- T31) Prasad A, **McCullough PA**. Chapter 19: Renal Complications of Contrast Media. Interventional Cardiology, 2nd Edition, 2018, pp 293-306. Samady H, Fearon WF, Yeung AC, King SB, Editors, McGraw-Hill, ISBN-13: 978-0071820363
- T32) Rangaswami J, Lerma EV, **McCullough PA**, Editors. Kidney Disease in the Cardiac Catheterization Laboratory, 1st Edition 2020, ISBN-13: 978-3030454135 ISBN-10: 3030454134, Springer Nature Switzerland AG. Chapter 27 Ronco C, Ronco F, **McCullough PA**. A Call to Action to Develop Integrated Curricula in Cardiorenal Medicine, pp 449-463.
- T33) **McCullough PA**, Ronco C. Textbook of Cardiorenal Medicine, 1st Edition 2021, ISBN-13: 978-3030574598 ISBN-10: 3030574598, Springer Nature Switzerland AG. Chapter 1 **McCullough PA**, Kluger AY. Implications of Chronic Kidney Disease on the Epidemiology of

Peter A. McCullough, M.D., M.P.H.

Cardiovascular Disease, pp 1-6. Chapter 8 Rocha N, **McCullough PA**. Type 2 Cardiorenal Syndrome, pp 75-94. Chapter 17 **McCullough PA** Novel Biomarkers of Chronic Cardiorenal Disease, pp 227-234.

Invited Non-Peer Reviewed Works

- 1) **McCullough PA**. *Acute Renal Failure after Coronary Intervention*. American College of Cardiology Educational Highlights, Fall 1997 Issue, C.R. Conti, Editor
- 2) **McCullough PA**, Thompson RJ, Tobin KJ, Kahn JK, Schwender F, O'Neill WW. *Outcome of Out-of-Hospital Cardiac Arrest Survivors*. *Cardiology Review*, 2000;17:15-19
- 3) Thompson RJ, **McCullough PA**, Kahn JK, O'Neill WW. *A Simple Scoring System to Predict Clinical Outcome after Resuscitation from Cardiac Arrest*. *The Journal of Critical Illness*, 1998;13:298-300
- 4) **McCullough PA**. *Clinical Evaluation. Part I. The Cardiopulmonary System*. *Clinical Exercise Physiology*, 1999;1:33-41
- 5) **McCullough PA**. *Clinical Evaluation. Part II. The Musculoskeletal and other Body Systems*. *Clinical Exercise Physiology*, 1999:1:92-99
- 6) **McCullough PA**. *Ridogrel: Literature Evaluation*. IDdb Reports, Current Drugs Ltd, February, 1999
- 7) **McCullough PA**. Debate Commentary: Complete Assessment of the Lipid Profile is Advised. *Medical Crossfire*, 1999;5:52
- 8) **McCullough PA**. Narrative Fields in Hospital Records. Invited comment on Loss of Narrative Data in New Zealand Health Statistics Public Hospital Injury Files, John Langley (Australasian Epidemiologist 1998:5.4). *The Australasian Epidemiologist*, 1999;6.1:17-18
- 9) **McCullough PA**. Previews in Cardiovascular Medicine: Prediction and Prevention of Contrast Nephropathy. *Rev Cardiovasc Med*. 2001;2(Suppl 1):S1-S3
- 10) Creager MA, Faxon DP, Fonarow GC, Gross SB, Hachamovitch R, Jacobs AK, Lepor NE, **McCullough PA**, Naqvi T, Nesto RW, Prystowsky EN, Shah PK, Vogel RA, Yeung AC. Meeting Reviews: Best of the AHA Scientific Sessions, 2001. *Rev Cardiovasc Med*. 2002;3(1):22-48
- 11) **McCullough PA**. Update from the International Society on Hypertension in Blacks. *Rev Cardiovasc Med*. 2002 Fall;3(4):192-95. PMID: 12650156

Peter A. McCullough, M.D., M.P.H.

- 12) Nguyen PN, Spertus JA, **McCullough PA**. Is there a Heart Failure Epidemic? *Cardiology Review* 2002;19(9):32-36
- 13) Lepor NE, Yeung AC, **McCullough PA**, Creager MA, Weber MA, Jacobs AK, Faxon DP, Vogel RA, Gersh BJ. Meeting Review: Best of the ACC Scientific Session 2002. *Rev Cardiovasc Med* 2002;3(2):85-104
- 14) Franklin BA, deJong A, **McCullough PA**. Interpreting Exercise Test-Fitness Data for Your Patients. *Am J Sports* 2003;5:12-17
- 15) **McCullough PA**. The interface between heart disease and renal dysfunction: from association to action. *ACC Current Journal Review* 2003;12(2):20-24
- 16) Fonarow GC, Prystowsky EN, **McCullough PA**, Lepor NE, Watson KE, Gersh BJ, Young JJ, Kereiakes D, Faxon DP, Weyman A, Jacobs AK, Yeung A, Holmes D, Berger P, Weber MA. Meeting Review: Best of the ACC Scientific Sessions 2003. *Rev Cardiovasc Med*. 2003;4(3):150-179
- 17) **McCullough PA**. Debate Commentary: Atrial Fibrillation: Preventing Thromboembolism and Ischemic Stroke. *Medical Crossfire* 2003, 4(10), 3-17
- 18) Creager M, Faxon DP, Gersh BJ, Jacobs AK, Lepor NE, **McCullough PA**, Naqvi T, Prystowsky EN, Shah PK, Watson KE, Weber MA, Wyman A. Meeting Review: Best of the AHA Scientific Sessions 2003. *Rev Cardiovasc Med* 2004;5(1)26-52
- 19) **McCullough PA**. The use of contrast media in peripheral, combined, and sequential procedures. *Applications in Imaging: Cardiac Interventions: Contrast Use in Renally Compromised Patients* 2003;Sept:47-51
- 20) **McCullough PA**. Chapter Four: Major Risk Factors for Chronic Kidney Disease. *Kidney Early Evaluation Program Annual Data Report*. *Am J Kid Dis* 2003;42(5):S34-S41
- 21) Fonarow GC, Prystowsky EN, Lepor NE, Weyman AE, Weber MA, Watson KE, Young JJ, Kereiakes DJ, **McCullough PA**, Gersh BJ. Best of the ACC Scientific Session 2004. *Rev Cardiovasc Med*. 2004;5(2)104-129
- 22) Franklin BA, de Jong A, Kahn JK, **McCullough PA**. Fitness and mortality in the primary and secondary prevention of coronary artery disease: Does the effort justify the outcome? *Am J Med Sports* 2004;6:23-27
- 23) **McCullough PA**, Franklin BA. Atherosclerosis: Conventional risk factors and cardiac events—debunking an old myth about prevalence. *Rev Cardiovasc Med*. 2004;5(3):185-186

Peter A. McCullough, M.D., M.P.H.

- 24) Dutcher JR, **McCullough PA**. Commentary: Glycoprotein IIb/IIIa Inhibitors in Acute Coronary Syndromes. *Evidenced Based Cardiovascular Medicine* 2004;8:362-363
- 25) **McCullough PA**, Faxon DP, Fonarow GC, Jacobs AK, Watson KE, Weyman AC. Meeting Review: Best of the AHA 2004. *Rev Cardiovasc Med*. 2005;6(1):33-46
- 26) Bashore TM, Faxon DP, Fonarow GC, Jacobs AK, Lepor NE, **McCullough PA**, Shah PK, Weber MA, Yeung AC. Best of the ACC Scientific Session 2005. *Rev Cardiovasc Med*. 2005 Spring;6(2):98-117
- 27) Fonarow GC, Lepor NE, **McCullough PA**, Jacobs AK, Bashore, TM, Faxon DP. Best of the AHA Scientific Session 2005. *Rev Cardiovasc Med*. 2006 Winter;7(1):23-36
- 28) **McCullough PA**. Clinical utility of blood natriuretic peptide levels. *Business Briefing: US Cardiology* 2006. Touch Briefings, Touch Cardiology. www.touchcardiology.com
- 29) **McCullough PA**, Wase A. Do implantable cardioverter-defibrillators improve survival in dialysis patients after cardiac arrest? *Nature Clinical Practice Nephrology* 2006; 2(2): 70-71
- 30) **McCullough PA**. Ranolazine: focusing on angina pectoris. *Drugs of Today* 2006, 42 (3):177-183
- 31) Singh PP, Nesto RW, Faxon DP, Lepor NE, Watson KE, Jacobs AK, **McCullough PA**. Best of the AHA Scientific Sessions 2006. *Rev Cardiovasc Med*. 2007 Winter;8(1):25-35. PMID: 17401300
- 32) **McCullough PA**. Safety Concerns Trump Public Health Benefit in the Eyes of the FDA Cardiorenal Panel. FDA Advisory Committee Did Not Recommend Approval Of Rimonabant (ZIMULTI(R)) For Use In Obese And Overweight Patients With Associated Risks Factors. www.medicalnewstoday.com GLG NewsWatch for 6/14/2007
- 33) Friedewald VE, Goldfarb S, Laskey WK, **McCullough PA**, Roberts WC. The Editor's Roundtable: Contrast-Induced Nephropathy. *Am J Cardiol*. 2007 Aug 1;100(3):544-51. Epub 2007 Jun 4. PMID: 17659944
- 34) **McCullough PA**, Lepor NE. Erratum - the rosiglitazone meta-analysis. *Rev Cardiovasc Med*. 2007 Summer;8(3):174. PMID: 17938618
- 35) **McCullough PA**, Chronic Kidney Disease as a Cardiovascular Risk State and Considerations for the Use of Statins. *The Fats of Life, Lipoproteins and Vascular Disease Division, American Association of Clinical Chemistry, Volume XXII, No 1, 9-16 Winter 2008*
- 36) Lepor NE, **McCullough PA**, Jacobs AK. Best of the AHA Scientific Sessions 2007. *Rev Cardiovasc Med*. 2008 Winter;9(1):62-9. PMID: 18418310

Peter A. McCullough, M.D., M.P.H.

- 37) Lepor NE, **McCullough PA**. Best of the ACC 2010 Scientific Session. Rev Cardiovasc Med. 2010 Summer;11(3):e153-63
- 38) Narala KR, LaLonde TA, Hassan S, **McCullough PA**. Management of Chronic Coronary Disease and Acute Coronary Syndromes in Patients with Chronic Kidney Disease. US Cardiology, 2011;8(2):123-31
- 39) Larsen T, Narala KR, **McCullough PA**. Type 4 Cardiorenal Syndrome: Myocardial Dysfunction, Fibrosis, and Heart Failure in Patients with Chronic Kidney Disease. J Clin Experiment Cardiol 2012, 3:4. <http://dx.doi.org/10.4172/2155-9880.1000186>

INVITED LECTURES: NATIONAL AND INTERNATIONAL FORUMS

- L1) "The Role of Triage Angiography in Acute Coronary Syndromes." Advances in Interventional Cardiology. WBH and the University of Maryland, Aruba, April, 1997.
- L2) "New Understandings of Anticoagulation During Unstable Angina." Co-Chair, American College of Cardiology 47th Annual Scientific Session, Atlanta, Georgia, March 30, 1998.
- L3) National Library of Medicine: The Emerging Health Information Infrastructure '99. "Electronic Outcomes", Washington, D.C., April 28, 1999.
- L4) Kansas City Southwest Clinical Society, 77th Annual Clinical Conference, Overland Park, Kansas: "Cardiac-Renal Risk: Incorporating Scientific Evidence into Your Practice," October 29, 1999.
- L5) The Health Forum, Best Practices, Chicago, Illinois. "Overview of Cardiovascular Health Fellowship," December 9, 1999.
- L6) AHA Scientific Conference on Existing Databases: Do They Hold Answers to Clinical Questions in Geriatric Cardiovascular Disease and Stroke? "Resource Utilization Among Congestive Heart Failure (R.E.A.C.H.) Database Overview," Washington, DC, January 27, 2000.
- L7) Health Forum Cardiovascular Health Fellowship Retreat: "Cardiovascular Risk and Health," Colorado Springs, CO, July 20, 2000.
- L8) Third Annual Center for Health Futures Advisory Board Meeting: "Congestive Heart Failure," La Jolla, CA, August 24, 2000.
- L9) Health Forum ACT Learning Collaborative Meeting: "Bridging Clinical, Community, and Population Health Strategies," St. Joseph, MO, September 20, 2000.

Peter A. McCullough, M.D., M.P.H.

- L10) “Renal Disease as an Independent Risk Factor for Cardiovascular Disease in Diabetes,” The Nexus of Cardiovascular and Renal Disease, Duke Clinical Research Institute, Tyson’s Corner, VA, November 4, 2000.
- L11) “Atherosclerosis and Heart Disease,” Winter Scientific Seminar, Missouri Society of the American College of Osteopathic Physicians, Kansas City, MO, January 27, 2001.
- L12) “Routine vs Selective Intervention in Acute Coronary Syndromes,” Tenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 14, 2001.
- L13) “Intervention in the Patient with Renal Insufficiency,” Tenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 16, 2001.
- L14) “The Epidemic of Cardiovascular Disease and Cardiorenal Risk,” The Nexus of Cardiovascular and Renal Disease, Duke Clinical Research Institute, Tyson’s Corner, VA, February 24, 2001.
- L15) “Cardiovascular Risk in Chronic Kidney Disease: Cardiorenal Risk,” Symposium on Cardio-renal Consequences of Angiotensin II, Insights from AII Blockade, NKF Spring Clinical Meeting, Orlando, FL, April 18, 2001.
- L16) Plenary Session: “Cardiac Emergencies and Cardiac Critical Care,” American College of Chest Physicians, CHEST 2001, Philadelphia, PA, November 5, 2001.
- L17) “Cardiorenal Risk,” The 33rd Annual ACC Cardiovascular Conference at Snowmass, Snowmass, Colorado, January 18, 2002.
- L18) “Epidemiology of Diabetes and Its Cardiovascular Risk” Eleventh Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 14, 2002.
- L19) “Late-Breaking Clinical Trials II: A Prospective, Blinded Trial of B-Type Natriuretic Peptide as a Diagnostic Test for the Emergency Diagnosis of Heart Failure: The Breathing Not Properly (BNP) Multinational Study,” March 19, 2002, 51st Annual Scientific Session of the American College of Cardiology, Atlanta, GA.
- L20) “Scope of Cardiovascular Complications in Patients with Kidney Disease.” Plenary Session III: Reversing Cardiovascular Complications in Patients with Kidney Disease. International Society on Hypertension in Blacks: 17th International Interdisciplinary Conference on Hypertension and Related Risk Factors in Ethnic Populations, Miami, FL, June 11, 2002.

Peter A. McCullough, M.D., M.P.H.

- L21) “Epidemiology: Renal—Chronic Kidney Disease.” Atherosclerotic Vascular Disease Conference, AHA, Boston, MA, July 8, 2002.
- L22) “B-type Natriuretic Peptide Should be a Part of the Diagnostic Evaluation of Heart Failure: Implications from the Breathing Not Properly (BNP) Multinational Study” International Academy of Cardiology 8th World Congress on Heart Failure—Mechanisms and Management, Washington, DC, July 15, 2002.
- L23) “Epidemiology and Physiology of Radiocontrast Nephropathy and its Impact on Outcomes” Prevent the Event Transcatheter Therapeutics 2002 Satellite Symposium, Washington, DC, September 26, 2002.
- L24) “Calcification or ‘Phosphication’—Controversies of Calcium Phosphate Deposition: Invited Lecture: Coronary Calcification: A Predictor of Future Events or a Marker of Plaque Stability?” American Society of Nephrology 2002 Annual Scientific Sessions Satellite Symposium, Philadelphia, PA, November 1, 2002.
- L25) “Renal Insufficiency and Clinical Outcome” Cardiovascular Seminar, AHA Scientific Sessions, Chicago, IL, November 18, 2002.
- L26) “Role of BNP in the Diagnosis of Heart Failure” ACC 34th Annual Cardiovascular Conference at Snowmass, CO, January 14, 2003.
- L27) “Managing the Patient with Combined Heart and Renal Failure—the Importance of Anemia” ACC 34th Annual Cardiovascular Conference at Snowmass, CO, January 14, 2003.
- L28) “The Emerging Healthcare Crisis of Obesity,” Twelfth Annual Cardiovascular Conference at Beaver Creek, CO, February 10, 2003.
- L29) “BNP in the Management of Heart Failure,” Twelfth Annual Cardiovascular Conference at Beaver Creek, CO, February 11, 2003.
- L30) “Contrast Nephropathy: Can it be Eliminated,” Twelfth Annual Cardiovascular Conference at Beaver Creek, CO, February 13, 2003.
- L31) “How Subtle Degrees of Renal Dysfunction Work as a Cardiac Risk Factor” First Cardiovascular Prevention Symposium: Updates and New Guidelines. AHA, Puerto Rico Chapter, San Juan, PR, March 22, 2003.
- L32) “What Is the Incremental Diagnostic Value of B-Type Natriuretic Peptide in Heart Failure?” Symposium. American College of Cardiology Scientific Sessions, 2003, Chicago, IL, April 1, 2003.

Peter A. McCullough, M.D., M.P.H.

- L33) “Heart Failure Insights From Ejection Fraction” Session Co-Chair. Oral Contributions. American College of Cardiology Scientific Sessions, 2003, Chicago, IL, April 1, 2003.
- L34) “Chronic Renal Insufficiency as a Vascular Risk Factor” 14th Annual Scientific Sessions of the Society for Vascular Biology and Medicine, Chicago, IL, June 7, 2003.
- L35) “Phosphate Control and Calcification from a Cardiologist’s Perspective” World Congress of Nephrology Satellite Symposium, Berlin, Germany, June 12, 2003.
- L36) “Renal Disease is a Risk Factor for Cardiovascular Disease” ACC 29th Annual Tutorials in the Tetons 2003: Update in Cardiovascular Disease, August 25-27. 2003.
- L37) “Diagnosis of Congestive Heart Failure: Is BNP Needed in Every Case?” ACC 29th Annual Tutorials in the Tetons 2003: Update in Cardiovascular Disease, August 25-27. 2003.
- L38) “How to Treat Combined Heart and Renal Failure with Hypertension” ACC 29th Annual Tutorials in the Tetons 2003: Update in Cardiovascular Disease, August 25-27. 2003.
- L39) “Which Agents Prevent Contrast-Induced Nephropathy?” European Society of Cardiology 2003 Symposium: Managing Patients at Risk for Contrast-Induced Nephropathy, Vienna, Austria, September 2, 2003.
- L40) “Epidemiology of Contrast Nephropathy” Symposium Chair for “A Contrast in Risk: Radiographic Imaging in the Renally Compromised Patient”, Satellite Symposium at the Transcatheter and Therapeutics Scientific Meeting, Washington, DC, September 17, 2003.
- L41) “Update on Cardiovascular Risk Reduction in Acute Coronary Syndrome Patients” 14th Annual Great Wall International Congress of Cardiology, Beijing, China, October 10-13, 2003.
- L42) “Renal Function and Dysfunction in Coronary Arteriography” 14th Annual Great Wall International Congress of Cardiology, Beijing, China, October 10-13, 2003.
- L43) “Interventional Cardiology 2003: Bench to Bedside and Beyond, Session III: Contrast Nephropathy: Separating the Hype from the Data. Antagonist: Contrast Nephropathy Can be Prevented.” AHA Scientific Sessions 2003, November 9, 2003, Orlando, FL.
- L44) “Reversing Diabetes and Its Consequences: Pipe Dream or Reality?” The 35th Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 12-16, 2004.
- L45) “Refining the Use of B-type Natriuretic Peptide as a Diagnostic Test in Clinical Practice” The 35th Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 12-16, 2004.

Peter A. McCullough, M.D., M.P.H.

- L46) “Practical Management of Obesity for the Cardiologist: The Future of Dietary Management and Bariatric Surgery” The 35th Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 12-16, 2004.
- L47) “Update from the Hypertension World: JNC 7—What’s New and How Will it Influence Practice?” Thirteenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 9-13, 2003
- L48) “The Lethal Couplet” Thirteenth Annual Cardiovascular Conference at Beaver Creek, Colorado, WBH and Duke University, February 9-13, 2003
- L49) “BNP to Differentiate Between Cardiac and Extracardiac Sources of Dyspnea” 33rd Critical Care Congress, Society of Critical Care Medicine, Orlando, Florida, February 23, 2004.
- L50) “BNP Testing: Is It Ready for In-Hospital Monitoring of Therapy?” Point-of-Care Symposium, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 8, 2004.
- L51) “Role of Brain Natriuretic Peptide Levels in Diagnosis” Natriuretic Peptides Symposium, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 8, 2004.
- L52) “Renal Insufficiency and the Heart” Symposium Co-Chair, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 9, 2004.
- L53) “Renal Insufficiency and Bypass Surgery” Renal Insufficiency and the Heart Symposium, American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 9, 2004.
- L54) “Causes and Consequences of Contrast-Induced Nephropathy and other Major Adverse Coronary Events” Contrast-Induced Nephropathy: Addressing the Needs of the High Risk Patient. A Satellite Symposium to the American College of Cardiology Scientific Sessions 2004, New Orleans, LA, March 9, 2004.
- L55) “Chronic Kidney Disease as a Cardiovascular Risk Factor” 2nd Annual Scientific Symposium, AHA of Puerto Rico, San Juan, PR, March 13, 2004
- L56) “Modern use of Angiotensin Receptor Blockade in Cardiovascular Disease” 2nd Annual Scientific Symposium, AHA of Puerto Rico, San Juan, PR, March 13, 2004

Peter A. McCullough, M.D., M.P.H.

- L57) “Chronic Kidney Disease and Cardiovascular Disease” Satellite Symposium: Impact of Anemia Correction in Cardiovascular Patients, American Society of Hypertension Annual Scientific Session, New York, NY, May 22, 2004.
- L58) “Contrast-Induced Nephropathy—Clinical Anomaly or Reality” Satellite Symposium: Selecting Contrast Media - Implications for Patient outcomes, EuroPCR 2004, Paris, France, May 26, 2004.
- L59) “Contrast Nephropathy” Intervention 2004. American College of Cardiology Nationwide Symposium, CNN Center, Atlanta, GA, June 2, 2004.
- L60) “Technical Issues in Selection of the BNP Assay” Satellite Symposium of the American Association of Clinical Chemistry, Los Angeles, CA, July 28, 2004.
- L61) “B-type Natriuretic Peptide in Clinical Practice” New Development in Cardiac Biomarkers for Detection and Management of Cardiovascular Diseases, EBAC Accredited Educational Programme, in conjunction with the European Society of Cardiology 2004 Annual Congress, Munich, Germany, August 30, 2004.
- L62) “Hot Topics: Renal Disease and Contrast Nephropathy—Implications for the PCI Patient” Session Moderator, Transcatheter Cardiovascular Therapeutics 2004, September 27, 2004.
- L63) “Definition and Pathophysiology of Contrast Nephropathy”, “Hot Topics: Renal Disease and Contrast Nephropathy—Implications for the PCI Patient” Transcatheter Cardiovascular Therapeutics 2004, September 27, 2004.
- L64) “Use of BNP in Clinical Practice” “Hot Topics: Clinical Utility of Biomarkers” Transcatheter Cardiovascular Therapeutics 2004, September 28, 2004.
- L65) “Contrast Media, Renal Insufficiency, and Radiocontrast Nephropathy” Introduction to Cardiac Catheterization and Indications for Percutaneous Interventions, 7th Annual Interventional Cardiology Self Assessment and Review Course, Transcatheter Cardiovascular Therapeutics 2004, September 29, 2004.
- L66) “Body Weight—Optimal Targets and How Good are We in Getting There” “Drug Combinations for Cardiovascular Disease” Duke Clinical Research Institute and U.S. Food and Drug Administration Think Tank, Washington, DC, October 8, 2004.
- L67) “Does Coronary Calcification Imply Plaque Instability?” Managing Cardiovascular and Calcium/Phosphorus Complications of CKD. Official Luncheon Symposium, Renal Week 2004, American Society of Nephrology, St. Louis, MO, October 20, 2004.

Peter A. McCullough, M.D., M.P.H.

- L68) "B-type Natriuretic Peptide in the Diagnosis of Acute Heart Failure," New Advances in the Diagnosis and Management of Acute Decompensated Heart Failure, Satellite Symposium to the AHA Scientific Sessions 2004, New Orleans, LA, November 8, 2004.
- L69) "Oportunidades para Aprimoramento no Tratamiento da Insuficiencia Cardiaca," 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portugese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L70) "Peptideo Natriuretico Intravenoso-Perspectivas para Emprego na IC Descompensada," 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portugese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L71) "Nesiritide (Peptideo Natriuretico Intravenoso) uma Nova Arma no Tratamento da IC Grave e Decompensada," 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portugese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L72) "Conferencia Magna (Keynote Address): The Cardiorenal Intersection: Crossroads to the Future," 3rd Congresso Brasileiro de Insuficiencia Cardiaca, II Simposio Luso-Brasileiro de Insuficiencia Cardiaca, I Encontro Multiprofissional em Insuficiencia Cardiaca, II Simposio Latinoamericano de Insuficiencia Cardiaca, (Portugese) Salvador, Bahia, Brasil, November 25-27, 2004.
- L73) "Practical Use of BNP in the Diagnosis and Management of Heart Failure" Medical Grand Rounds, Olathe Regional Medical Center, Olathe, KS, December 3, 2004.
- L74) "Management of Heart and Renal Failure" The 36th Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 18, 2005.
- L75) "Contrast-Induced Nephropathy" The 36th Annual Cardiovascular Conference at Snowmass, ACC, Snowmass, CO, January 18, 2005.
- L76) "Combined Heart and Kidney Failure" Cardiovascular Conference at Snowmass, Aspen, CO, January 18, 2005.
- L77) "Practice Strategies and Protocols to Reduce Renal Complications" PCI: Understanding and Managing In-Hospital Cardiac and Renal Complications, 3rd European Summit, Chantilly, France, February 11, 2005.

Peter A. McCullough, M.D., M.P.H.

- L78) "HDL Cholesterol: A Powerful New Therapeutic Target" 14th (Conference Chair) Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 14, 2005.
- L79) "BNP-ology, is the Enthusiasm Warranted?" (Conference Chair) 14th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 15, 2005.
- L80) "Anticoagulation for Atrial Fibrillation: Can Warfarin be Replaced?" (Conference Chair) 14th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 18, 2005.
- L81) "New Multimarker Strategies in the Diagnosis of Acute Coronary Syndromes" Satellite Symposium to the 54th Annual American College of Cardiology Scientific Sessions 2005, Orlando, FL, March 7, 2005.
- L82) "Effect of Lowering LDL Level on Progression of Vascular Calcification" Reducing the Burden of Cardiovascular Calcification in Chronic Kidney Disease, Satellite Symposium to the Renal Physicians Association Annual Meeting, Washington, DC, March 20, 2005.
- L83) "Why Chronic Kidney disease is a CVD risk factor: Practical Implications in the Care of Cardiovascular Patients" Cardiology Grand Rounds, Clinical Science Institute, Galway, Ireland, UK, May 5, 2005.
- L84) "Clinical Application of B-type Natriuretic Peptide Levels in the Care of Cardiovascular Patients" EuroLab 2005, Glasgow, Scotland, UK, May 9, 2005.
- L85) "Anemia Is a Cardiovascular Risk Factor in Patients With Diabetic Nephropathy" The Kidney is a Key Link between Diabetes and Cardiovascular Disease: Managing Risk; Satellite Symposia to the Annual Scientific Sessions of the American Association of Clinical Endocrinology, Washington, DC, May 18, 2005.
- L86) "CIN: Emerging Trends in Identifying and Managing the At-risk Patient" Cardiovascular and Interventional Radiology Society of Europe (CIRSE) 2005, Nice, France, September 13, 2005.
- L87) "Recent Advances in Cardiac Markers and their Clinical Role in Cardiovascular Disease: Update of the BNP Consensus Panel Statements and Cost Effectiveness of BNP Testing" Turning Science into Caring Programme, Abbott European Laboratory Symposium, Wiesbaden-Delkenheim, Germany, October 14, 2005.
- L88) "Epidemiology and Prevention of Contrast Nephropathy" Transcatheter Therapeutics Annual Scientific Sessions, Washington, DC, October 19, 2005.

Peter A. McCullough, M.D., M.P.H.

- L89) “BNP—What Does it All Mean?” Heart Failure 2005: What to Do for the Failing Left Ventricle” AHA Symposium in Conjunction with the 2005 Scientific Sessions, Dallas, TX, November 11, 2005.
- L90) “How to Use Cardiac Biomarkers in Heart Failure” 2005 Annual Scientific Sessions of the AHA, Dallas, TX, November 14, 2005, broadcasted nationally as “Best of Sessions 2005 on Wednesday, November 30 from 1:00-2:30PM EST”
- L91) “Chronic Kidney Disease as a Cardiovascular Risk State: Practical Management for the Cardiologist” St. Vincent’s Hospital, University of British Columbia, Distinguished Speakers in Cardiovascular Medicine, 2005-2006, Vancouver, BC, Canada, December, 1, 2005.
- L92) “Anemia, Chronic Kidney Disease, and Cardiovascular Disease: Diagnosis, Prognosis, and Treatment. Nephrology Grand Rounds, University of British Columbia, St. Vincent’s Hospital, Vancouver, BC, Canada, December 2, 2005.
- L93) “The Deadly Triangle of Anemia, Kidney and Heart Disease: Implications for Treatment and Management” 37th Annual Cardiovascular Conference at Snowmass, January 20, 2006, Snowmass, CO.
- L94) “Anemia in Cardiovascular Patients: Diagnosis, Prognosis, and Therapy.” AHA, Prevention VIII Conference: Kidney Disease, Hypertension, and Cardiovascular Disease, January 27, 2006, Orlando, FL.
- L95) “Update on Bariatric Surgery” (Conference Chair) 15th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 17, 2006.
- L96) “Multimarker Approach to Chest Pain.” Satellite Symposium to the Annual Scientific Sessions of the American College of Cardiology, March 11, 2006, Atlanta, GA.
- L97) “ Preventing Contrast Nephropathy: What Works?” American College of Cardiology Annual Scientific Sessions (ACC.06 and the i2 Summit 2006), March 14, 2006, Atlanta, GA.
- L98) “Consensus statements on strategies to reduce the risk of CIN.” Satellite Symposium Society for Cardiac Angiography and Intervention 29th Annual Scientific Sessions (Symposium Chair): Consensus Statements on Contrast-Induced Nephropathy (CIN): Report of an International, Multidisciplinary Panel, Chicago, IL, May 11, 2006.
- L99) “Contrast-induced nephropathy: identifying and managing the patient at risk.” Euro PCR 2006 Satellite Symposium: The Underestimated Impact of Contrast Media on Patient Outcomes in PCI (Symposium Chair), Paris, France, May 27, 2006.

Peter A. McCullough, M.D., M.P.H.

- L100) “Debate: Acute Decompensated Heart Failure--Biomarker will suffice” 17th Annual Scientific Sessions of the American Society of Echocardiography, Baltimore, MD, June 6, 2006.
- L101) “Heart and Kidney: Clinical Impact of Contrast Media” Update on Cardiovascular Disease 2006, Casa Di Cura Montevergine, Napoli Castel Dell’Ovo, Naples, Italy, June 19, 2006.
- L102) “Cardiovascular Disease in CKD: Where Does Calcium Fit In?” Satellite Symposia: Current Strategies for the Management of Hyperphosphatemia in End-Stage Renal Disease. European Renal Association/European Dialysis and Transplantation Association Annual Scientific Meeting, Glasgow, Scotland, July 17, 2006.
- L103) “Applications of BNP in Cardiovascular Disease” Satellite Symposia: New and Evolving Markers for Cardiovascular Disease: Myeloperoxidase (MPO) and BNP. American Association of Clinical Chemistry Annual Meeting, Chicago, IL, July 26, 2006.
- L104) “Clinical Applications of B-type Natriuretic Peptide Testing” Clinical Biochemistry Satellite Symposium: The Role of Biochemical Markers in Clinical Cardiology, Sponsored by the Australasian Association of Clinical Biochemists at the 54th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Canberra, Australia, August 4, 2006.
- L105) “Update on BNP in the Management of Heart Failure” 54th Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand, Canberra, Australia, August 6, 2006.
- L106) “Update on BNP in the Management of Heart Failure” Cardiology Grand Rounds, Royal North Shore Hospital, Sydney, Australia, August 7, 2006.
- L107) “Contrast-Induced Nephropathy: Identifying and Managing the Patient at Risk” Advances in Contrast-Enhanced Imaging: Improving Outcomes and Reducing Risks of Iodinated Contrast (Chairman), a CME Satellite Symposium at the Transcatheter Therapeutics 2006 Conference, Washington, DC, October 24, 2006.
- L108) “Cardiorenal Syndrome: Etiology, Therapy, and Prognosis” Unresolved Issues in Heart Failure, Cardiovascular Seminars, 2006 Annual Scientific Sessions of the AHA, Chicago, IL, November 14, 2006
- L109) “Prevention and Management of CAD in CKD” Coronary Artery Disease in CKD: Updating the Pathophysiology and Management. Official Symposium of the American Society of Nephrology, Sand Diego, CA, November 16, 2006.
- L110) “Pharmacologic Prevention of Sudden Death in Dialysis Patients” Sudden Death in Hemodialysis Patients: Towards Prevention. American Society of Nephrology Renal Week 2007, San Diego, CA, November 17, 2006.

Peter A. McCullough, M.D., M.P.H.

- L111) “Contrast Nephropathy: Finding Consensus on a Rational Approach” Radiology Grand Rounds, Hôpital Notre-Dame, University of Montreal, Canada, November 23, 2006.
- L112) “Contrast Nephropathy: Finding Consensus on a Rational Approach” Radiology Grand Rounds, Hôpital St-Luc, University of Montreal, Canada, November 23, 2006.
- L113) “Cardiorenal Syndrome and Anemia” 3rd Annual Heart Failure University (HFU) Cardiovascular Fellows Program, Los Angeles, CA, December 2, 2006.
- L114) “Implications of Age-Related Decline in Renal Function” 16th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 12, 2007.
- L115) “Using BNP in Your Practice: Pearls and Pitfalls” 16th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 15, 2007.
- L116) “Consensus Panel Findings on Contrast Nephropathy” 16th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 16, 2007.
- L117) “Measuring BNP in ACS,” American College of Cardiology Scientific Sessions Satellite Symposium, “ACS & Biomarkers: From Molecules to Patient Management”, New Orleans, LA, March 24, 2007.
- L118) “Anemia Correction and CVD Trials” “Ask the Experts” clinicaltrialresults.org, American College of Cardiology Scientific Sessions, New Orleans, LA, March 26, 2007.
- L119) “CKD and CVD: Interaction and Risk Factors”, Kidney Disease: The Unrecognized Silent Killer, NKF 2007 Scientific Meetings, Orlando, FL, April 11, 2007.
- L120) “Contrast-Induced Nephropathy: A Meta-Analyses of the Renal Safety of Iodixanol” Special Lecture for the Radiological Society of the Republic of China, National Yang-Ming University, School of Medicine, Taipei, Taiwan, May 4, 2007.
- L121) “Contrast-Induced Nephropathy: A Meta-Analyses of the Renal Safety of Iodixanol” Annual Meeting of Kaohsiung Society of Radiology, Chang Gung Memorial Hospital, Kaohsiung Hsien, Taiwan, May 5, 2007.
- L122) “Meta-Analyses of the Renal Safety of Iodixanol”, Plenary Session, 15th Annual Scientific Congress of the Hong Kong College of Cardiology, Hong Kong, SAR, May 6, 2007.
- L123) “Contrast-Induced Nephropathy: A Meta-Analyses of the Renal Safety of Iodixanol” Cardiology Special Lecture, 12th Department of Cardiology, Beijing AnZhen Hospital, Beijing, Peoples Republic of China, May 7, 2007.

Peter A. McCullough, M.D., M.P.H.

- L124) "Prevention of CIN during PCI in Diabetic Patients: Proposal of a Guideline" (Prevencion del Fracaso Renal Inducido por Contraste en Pacientes Diabeticos Sometidos a Intervencionismo Coronario: Propestuesta de un Protocolo Actuacion), Optimizacion del Tratamiento de Revascularizacion Percutanea en Pacientes Diabeticos, TEAM (Terapia Endovascular & Miocardica), Hospital del Mar, Barcelona, Spain, May 11, 2007.
- L125) "Acute Kidney Injury from Iodinated Contrast: Findings from an International Panel," Hungarian Society of Cardiology Annual Scientific Meeting (Magyar Kardiologusok Tarsasaga Tudomanyos Kongresszusa) Balatonfured, Hungary, May 12, 2007.
- L126) "Which Types and Which Amount of Physical Activities to Achieve and Maintain a Healthy Body Weight?" 4th Metabolic Syndrome, Type II Diabetes, and Atherosclerosis Congress (MSDA), 2007, Lisbon, Portugal, May 19, 2007.
- L127) "The Role of BNP in Patients with Shortness of Breath," Laboratory Diagnostic Technologies for Patients with Shortness of Breath, Satellite Symposium to the American Association of Clinical Chemistry Annual Scientific Meeting, San Diego, CA, July 18, 2007.
- L128) "Acute Kidney Injury after Contrast: A Serious Problem by Any Name", Hemodynamics, Electrolytes, Acute Kidney Injury: Novel Considerations in Contrast Selection, Transcatheter Cardiovascular Therapeutics 2007 Annual Meeting Satellite Symposium, Washington, DC, October 23, 2007.
- L129) "Vascular Calcification: Myth versus Realty: A Cardiologist's Perspective," Changing Paradigms: Evolving Bone and Mineral Metabolism Treatment in CKD, An American Society of Nephrology 2007 Official Symposia, San Francisco, CA, November 3, 2007.
- L130) "Contrast-Induced Nephropathy" Cardiology Grand Rounds, Auckland City Hospital, Auckland, New Zealand, November 22, 2007.
- L131) "Practical Use of Natriuretic Peptides in Cardiovascular Disease" North Shore Hospital- Waitemata Health, Takapuna, Auckland, New Zealand, November 22, 2007.
- L132) "Practical Use of Natriuretic Peptides in Cardiovascular Disease" Waikato Hospital, Hamilton, New Zealand, November 23, 2007.
- L133) "Practical Use of Natriuretic Peptides in Cardiovascular Disease" Wakefield Hospital, Adelaide, Australia, November 23, 2007.
- L134) "Clinical Utilization of Cardiac Troponin and Natriuretic Peptides in ACS and CHF" Satellite Symposium to Australasian Emergency Meeting (ACEM), Gold Coast, Brisbane, Australia, November 27, 2007.

Peter A. McCullough, M.D., M.P.H.

- L135) “Clinical Utilisation of Cardiac Troponin and Natriuretic Peptides in ACS and CHF: Part 1: Congestive Heart Failure, Part 2: Acute Coronary Syndrome, Part 3: Cardio-Renal Syndrome, Kuala Lumpur, Malaysia, November 29, 2007.
- L136) “Multimarker Strategies in the Management of Cardiovascular Emergencies,” YMCA for Dr. H.F.Ho, Queen Elizabeth Hospital, Hong Kong, SAR, November 30, 2007.
- L137) “Practical Management of Cardiovascular Disease in Patients with Kidney Disease” Williamsburg, Virginia for the 34th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 3, 2007.
- L138) “New Cardiovascular Drugs” 17th Annual Cardiovascular Conference at Beaver Creek” Avon, CO, February 12, 2008.
- L139) “New Insights into Atherosclerosis and Global CVD Risk,” 17th Annual Cardiovascular Conference at Beaver Creek” Avon, CO, February 12, 2008.
- L140) “Plenary 2 : Mini-Symposia: Acute Kidney Injury (AKI): Pathophysiology: Contrast Nephropathy: Epidemiology and Prognosis” 13th Annual International Conference on Continuous Renal Replacement Therapies, San Diego, CA, February 28, 2008.
- L141) “Heart Failure and Cardio-Renal Syndrome 1: Pathophysiology” 13th Annual International Conference on Continuous Renal Replacement Therapies, San Diego, CA, February 29, 2008.
- L142) “Hemodynamic Monitoring: Principles and Practice” 13th Annual International Conference on Continuous Renal Replacement Therapies, San Diego, CA, February 29, 2008.
- L143) “Cardiovascular Calcification, Potential Strategies in Minimizing Cardiovascular Disease in CKD”, Satellite Symposia at the 57th ACC Annual Scientific Sessions, Chicago, IL, March 30, 2008.
- L144) “Emergency Evaluation of Chest Pain: Building a Better Mousetrap” Olathe Medical Center Annual Heartbeat Symposium, Olathe, KS, April 4, 2007.
- L145) “Interventions and CVD Interactions in Diabetics with Proteinuria” Satellite Symposia (Chairman) Chronic Kidney Disease Interventions: Improving CKD and CVD Outcomes” NKF Clinical Meeting 2008, Dallas, TX, April 5, 2008.
- L146) “Shifting Paradigms in PCI: Controversial Issues in High-Risk Patients” International Symposium (Chairman), Barcelona, Spain, April 10, 2008.

Peter A. McCullough, M.D., M.P.H.

- L147) “Success in Identifying Heart Failure” Satellite Symposia “Managing CVD: What Every Internist Needs to Know” Annual Scientific Sessions of the American College of Physicians, Washington, DC, May 14, 2008.
- L148) “Cardiovascular Calcification in Patients with Chronic Kidney Disease” Satellite Symposia “Cardiovascular Disease in CKD: Strategies for Minimizing Mortality” Annual Scientific Sessions of the American College of Physicians, Washington, DC, May 15, 2008.
- L149) “Clinical Trial Designs in Contrast Induced Acute Kidney Injury,” Third Annual AKIN Conference on Research Initiatives in AKI, Bethesda, MD, June 10-12, 2008.
- L150) “Neutrophil Gelatinase Associated Lipocalin (NGAL)” on Behalf of Inverness Medical, Third Annual AKIN Conference on Research Initiatives in AKI, Bethesda, MD, June 10-12, 2008.
- L151) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Radiological Society of Taiwan, Taipei, Taiwan, July 17, 2008.
- L152) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Radiological Society of Taiwan, Kaushiung, Taiwan, July 18, 2008.
- L153) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Contrast-Induced Nephropathy Symposium, Professor Yalin Han, MD, Chairwoman of Military Cardiology Society of China, Shenyang, China, July 20, 2008.
- L154) Cardiology Teaching Rounds, with Professor Runlin Gao, Beijing Fuwai Hospital, Beijing, China, July 21, 2008.
- L155) Cardiology Teaching Rounds, with Professor Yujie Zhou, Beijing Anzhen Hospital, Beijing, China, July 21, 2008.
- L156) Cardiology Teaching Rounds with Professor Yundai Chen, General Hospital of Military, Peoples Liberation Army, Beijing, China, July 21, 2008.
- L157) “Practical Strategies to Manage Contrast-induced Acute Kidney Injury (CI-AKI): The Evidence and the Controversy” Contrast-Induced Nephropathy Symposium, Contrast-Induced Nephropathy Symposium, Professor Runlin Gao, Chairman of Chinese Cardiology Society, Beijing, China, July 22, 2008.K
- L158) “New Insights on Accelerated Vascular Calcification in Patients with Kidney Disease” Plenary Session: Ischemic Heart Disease/Risk Assessment/New Treatment Strategies”

Peter A. McCullough, M.D., M.P.H.

International Academy of Cardiology 14th World Congress on Heart Disease, Annual Scientific Sessions, Toronto, Ontario, Canada, July 29, 2008.

- L159) “Cardiorenal Syndrome: the Diagnostic Value of Brain Natriuretic Peptide and Neutrophil Gelatinase Associated-Lipocalin in Interventional Cardiology,” Cardiovascular Biomarkers which Enhance Clinical Practice in Emergency Medicine and Cardiology: the State of the Art for Markers of Necrosis, Hemodynamic Stress and Cardiorenal Syndrome, Satellite Symposium to the European Society of Cardiology Annual Scientific Sessions, Munich, Germany, September 2, 2008.
- L160) “Diagnosis and Management of Diabetes, Hypertension, and Acute Dyspnea,” 2008 CVD and CKD Intersection Consensus Conference, Chicago, IL, September 26, 2008.
- L161) “Chronic Kidney Disease and Contrast Nephropathy (Contrast-Induced Acute Kidney Injury [CI-AKI]): From Prognostic Scores to the Latest Preventive Strategies” Complex Patients, Complex Lesions, 20th Annual Transcatheter Therapeutics Conference, Washington, DC, October 14, 2008.
- L162) “Chronic Kidney Disease: a CHD Risk Equivalent” 2008 Cardiometabolic Health Congress, Harvard Medical School, Boston, MA, October 19, 2008.
- L163) “Hyperphosphatemia as a Cardiovascular Risk Factor” Nephrology Conference, The Ottawa Hospital, Ottawa, Ontario, Canada, October 28, 2008.
- L164) “Cardiovascular Calcification in Patients with Chronic Kidney Disease” Nephrology Division-Wide Conference, The Ottawa Hospital, Ottawa, Ontario, Canada, October 28, 2008.
- L165) “Hyperphosphatemia and CVD Risk,” Management of Hyperphosphatemia Across the Continuum of CKD, American Society of Nephrology Satellite Symposium, Philadelphia, PA, November 8, 2008.
- L166) “Cardiovascular Calcification” Nephrology Grand Rounds, Humber River Regional Hospital, Toronto, Ontario, Canada, December 9, 2009.
- L167) “Cardiovascular Calcification” Nephrology Grand Rounds, St. Joseph’s Hospital, Toronto, Ontario, Canada, December 9, 2009.
- L168) “Critical Concepts in the Progression of Atherosclerosis” 18th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 9, 2009.
- L169) “New Molecular Targets in the Treatment of Atherosclerosis” 18th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 9, 2009.

Peter A. McCullough, M.D., M.P.H.

- L170) "Sudden Cardiac Death in Patients with Renal Disease" 18th Annual Cardiovascular Conference at Beaver Creek, Beaver Creek, CO, February 12, 2009.
- L171) "Cardiovascular and Renal Implications of Contrast Media" Radiology Grand Rounds, The Kingston Hospital, Queens University School of Medicine, Kingston, Ontario, Canada, March 3, 2009.
- L172) "Recent Evidence into the Pathophysiology of Cardiovascular Calcification in Chronic Kidney Disease," NKF Symposium 2009 Spring Clinical Meetings, "Exploring Recent Evidence Related to Cardiovascular Calcification and Chronic Kidney Disease", Nashville, TN, March 27, 2009.
- L173) "Chronic Kidney Disease: Implications For Patients With CAD" Managing the High Risk Coronary Patient, I2 Summit, American College of Cardiology Annual Scientific Sessions, Orlando, FL, March 30, 2009.
- L174) "BNP and Cardiovascular Disease" Cardiology Grand Rounds, Hospital PróCardíaco, Rio de Janeiro, Brasil, April 14, 2009.
- L175) "Acute Cardiac Effects of Marathon Running" Special Guest Lecture, CLINIMEX - Clínica de Medicina do Exercício, Rio de Janeiro, Brasil, April 14, 2009.
- L176) "Interface entre doença renal e cardiovascular: o rim mata o coração ou o coração mata o rim? Da para evitar esse extermínio?" Terapeutica Cardiovascular International, Hospital Espanhol, Salvador, Brasil, April 17, 2009.
- L177) "A angiotomografia coronária deve ser empregada em todo paciente com do torácica de risco baixo-moderado?" Terapeutica Cardiovascular International, Hospital Espanhol, Salvador, Brasil, April 17, 2009.
- L178) "Conferencia Internacional: Oportunidades para aperfeiçoar o tratamento da insuficiência cardíaca avançada/descompensada" Terapeutica Cardiovascular International, Hospital Espanhol, Salvador, Brasil, April 17, 2009.
- L179) "Invasive Versus Non-invasive Coronary Angiography: Guidelines for Achieving Optimal Outcomes" Annual Scientific Sessions of the Society for Cardiac Angiography and Intervention, Las Vegas, NV, May 7, 2009.
- L180) "Cardiorenal Syndrome" Moderator, American Society of Nephrology Annual Scientific Sessions, Renal Week 2009, San Diego, CA, October 29, 2009.
- L181) "The Creatinine Changes: Now What?" Cardiorenal Syndromes, Annual Scientific Sessions, AHA, Orlando, FL, November 16, 2009.

Peter A. McCullough, M.D., M.P.H.

- L182) “Cardiorenal Syndromes: Strategies for Success” 19th Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 6-11, 2010.
- L183) “Cardiomyopathy of Obesity” 19th Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 6-11, 2010.
- L184) “Why Does Atherosclerosis Calcify: Clinical Implications” 19th Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 6-11, 2010.
- L185) “Prevention Trials in AKI” 15th International Conference on Continuous Renal Replacement Therapies (CRRT: 2010) Scientific Meeting, Del Coronado, CA, February 24, 2010.
- L186) “Cardiology Trials” 15th International Conference on Continuous Renal Replacement Therapies (CRRT: 2010) Scientific Meeting, Del Coronado, CA, February 24, 2010.
- L187) “Contrast Nephropathy: Prevention and Management” 15th International Conference on Continuous Renal Replacement Therapies (CRRT: 2010) Scientific Meeting, Del Coronado, CA, February 26, 2010.
- L188) “Lipoprotein-Associated Phospholipase A2 (Control#: 4599)” Symposium: Do New Markers & Genomics Enhance Risk Prediction? Annual Scientific Sessions of the ACC, Atlanta, GA, March 15, 2010.
- L189) “New Insights Into the Role of Heart-Kidney Interactions in the Cardiorenal Syndrome” (Control#: 16660) Symposium: Recognition and Management of the Cardiorenal Syndrome in Advanced Heart Failure, Annual Scientific Sessions of the American College of Cardiology, Atlanta, GA, March 15, 2010.
- L190) “B-Type Natriuretic Peptides in Cardiorenal Syndromes” 5th Annual Turning Science into Caring Symposium, Wiesbaden, Germany, March 25, 2010.
- L191) “CKD and CVD Interaction in KEEP” KEEP Update: the Common Soil of CKD and CVD, NKF Spring Clinical Meetings, Orlando, FL, April 16, 2010.
- L192) “Cardio Renal Intersection, Crossroads to the Future - Novel Coronary Risk Factors” NKF Spring Clinical Meetings, Orlando, FL, April 16, 2010.
- L193) “Diagnostic Workup of suspected heart disease in CKD” NKF Spring Clinical Meetings, Orlando, FL, April 17, 2010.
- L194) “BNP: Beyond Heart Failure (BNP más allá de la insuficiencia cardiaca)”, XIX Chile 2010 Congreso Latinoamericano de Bioquímica Clínica, XVI Congreso Chileno de Química

Peter A. McCullough, M.D., M.P.H.

Clinica, Biomarcadores en Enfermedades Cardio-Renales COLABIOCLI 2010, Santiago del Chile, April 21, 2010.

- L195) "Prevention of Cardiorenal Syndromes", 19th International Vicenza Course on Critical Care Nephrology, Vicenza, Italy, June 10, 2010.
- L196) "La Pandemia de la Obesidad: Que podemos hacer aquí y ahora" "Importancia de la Evaluación previa y el monitoreo cardiaco en rehabilitación cardiaca" "Ergoespirometria: Diagnostico e implicaciones terapéuticas," Sociedad Colombiana de Cardiologica y Ciruga Cardiovascular Fundacion Colombiana del Corazon Comite de Prevencion y Reabilitacion Cardiovascular Dia Mundial del Corazon, Santa Marta, Columbia, September 25, 2010.
- L197) "CKD: A CHD Equivalent" 2010 Cardiometabolic Health Congress (CMHC), Boston MA, October 22, 2010.
- L198) "Treatment Disparities in Patients with Acute Coronary Syndromes and Kidney Disease" AHA Scientific Sessions 2010, Chicago, IL, November 13, 2010.
- L199) "Integration of Advanced Information Technology into Nephrology Practice" Moderator, at the American Society of Nephrology, Denver, CO, November 21, 2010.
- L200) "Cardiorenal Syndromes" Special Lecture, Mansoura Nephrology and Urology Center, Mansoura, Egypt, November 29, 2010.
- L201) "Neutrophil Gelatinase Associated Lipocalin." Al Mokhtabar Laboratories, Cairo, Egypt, December 1, 2010.
- L202) "Cardiorenal Syndromes" ACC Williamsburg Conference, Williamsburg, VA, December 5, 2010.
- L203) "Micronutrients and Cardiorenal Disease: Insights into Novel Assessments and Treatment" 13th International Conference on Dialysis, Advances in CKD 2011, Miami, FL, January 26, 2011.
- L204) "Managing High Risk Patients in a i2 Spotlight entitled Cardiac Care Team Spotlight: Approaches for CAD Management" American College of Cardiology 60th Annual Scientific Session and i2 Summit 2011, April 2, 2011, in New Orleans, LA.
- L205) "Lipid Management in Patients with Renal Insufficiency in a ACC Symposium entitled Lipid Management in Special Populations" American College of Cardiology 60th Annual Scientific Session and i2 Summit 2011, April 2, 2011, in New Orleans, LA.
- L206) "KEEP Symposium 2011: KEEP A New Longitudinal Dimension for a New Decade" NKF Spring Clinical Meetings, April 29, 2011, Las Vegas, NV.

Peter A. McCullough, M.D., M.P.H.

- L207) “Disparities of Treatment for ACS and Heart Failure in CKD Patients” 20th International Vicenza Course on Hemodialysis and CKD, June 8, 2011, Vicenza, Italy.
- L208) “AKI: Can We Prevent It?” 20th International Vicenza Course on Hemodialysis and CKD, June 9, 2011, Vicenza, Italy.
- L209) “Measuring Natriuretic Peptides in Acute Coronary Syndromes” American Association of Clinical Chemistry Annual Meeting, Atlanta, GA, July 26, 2011.
- L210) “Biomarkers in Stable Angina and Microvascular Dysfunction”, Emerging Role of Biomarkers in Cardiorenal Syndrome and Acute Coronary Syndrome: Diagnosis Stratification and Management, Siena Italy, September 2, 2011.
- L211) “Cardiorenal Syndrome Definition and Scope: Cardiac Perspective” 28th National Congress of Nephrology, Hypertension, Dialysis, and Transplantation, Antalya, Turkey, October 20, 2011.
- L212) “Targeted Hypertension Management for Optimal Cardiorenal Outcomes” 28th National Congress of Nephrology, Hypertension, Dialysis, and Transplantation, Antalya, Turkey, October 22, 2011.
- L213) “The KEEP Experience” 3rd International Symposium on Albuminuria – The Prognostic Role of Albuminuria: Impact on Kidney and Cardiovascular Outcomes, Groningen, Netherlands, December 1, 2011.
- L214) “Cardiorenal Syndromes” Cardiology Guest Lecture, University of Chicago, Pritzker School of Medicine, Chicago, IL, January 18, 2012.
- L215) “Diagnosis of Cardiovascular Disease in CKD” 14th international conference on dialysis, advances in CKD 2012, Palm, Harbor, FL, January 26, 2012
- L216) “Acute Kidney Injury Guidelines” KDIGO Clinical Practice Conference: KDIGO Guidelines on Acute Kidney Injury, Glomerulonephritis, and Anemia, Shanghai, China, February 5, 2012
- L217) “Galectin-3: A Novel Blood Test for the Evaluation and Management of Heart Failure” Cardiology Grand Rounds, University of Arkansas for Medical Sciences, Little Rock, Arkansas, February 8, 2012
- L218) “Contrast-Induced Acute Kidney Injury” 17th Annual CRRT 2012, Acute Kidney Injury Controversies, Challenges, and Solutions, San Diego, CA February 15, 2012

Peter A. McCullough, M.D., M.P.H.

- L219) “Recent Trials in the Prevention of Contrast-Induced AKI: Importance of Emerging Biomarkers” 17th Annual CRRT 2012, Acute Kidney Injury Controversies, Challenges, and Solutions, San Diego, CA February 17, 2012
- L220) “Role of Galectin-3 in Heart Failure” Joint American Association of Cardiologists of Indian Origin and ACC Dinner Symposium, American College of Cardiology Scientific Sessions 2012, Chicago, IL, March 25, 2012
- L221) “Bariatric Surgery: A Cure for Obesity?” American College of Cardiology Scientific Sessions 2012, Joint Symposium of the American Association of Clinical Endocrinologists and the ACC: Cardiologists as Endocrinologists – Emerging Management of the Diabetic Patient, Chicago, IL, March 26, 2012
- L222) “Practical Management of Obesity for the Cardiologist” 48th Annual Robert M. Jeresaty Cardiovascular Symposium, Hartford, CT, May 3, 2012
- L223) “Prevention of Cardiovascular Events: Beyond Statins” 48th Annual Robert M. Jeresaty Cardiovascular Symposium, Hartford, CT, May 3, 2012
- L224) “Contrast Media and Patient Safety: The Clinical Impact” Swiss Congress of Radiology, Zurich, Switzerland, May 31, 2012
- L225) “Importance of Methodological Rigor in CI-AKI Meta-Analyses” 48th Congresso Nazionale Italian Society of Radiology (SIRM), Torino, Italy, June 2, 2012
- L226) “Chronic Kidney Disease and Heart Failure” 2012 Cardiometabolic Health Congress (CMHC) Boston, MA, October 12, 2012
- L227) “Chronic Kidney Disease and Acute Myocardial Infarction” CKD a Recipe for CVD Disaster, Kidney Week, American Society of Nephrology, San Diego, CA, October 30, 2012
- L228) “Epidemiology and Pathophysiology of Coronary Artery Disease in Chronic Kidney Disease” Scientific Sessions 2012, AHA, Los Angeles, CA, November 5, 2012
- L229) “The Cardiorenal Syndrome” Acute Dialysis Quality Initiative 11: Cardiorenal Syndromes, Venice, Italy, November 30, 2012
- L230) “Cardiorenal Syndromes” Cardiology Grand Rounds, University of Missouri School of Medicine, Columbia, MO, December 20, 2012
- L231) “Diagnosis and Management of Coronary Disease in Patients with Kidney Disease” Internal Medicine Grand Rounds, University of Missouri School of Medicine, Columbia, MO, December 20, 2012

Peter A. McCullough, M.D., M.P.H.

- L232) "The Hypertension Epidemic: Are We Any Further Ahead?" 22nd Annual Cardiovascular Conference at Beaver Creek, Avon, CO, February 9-16, 2013
- L233) "Cardiorenal Syndromes: The Cardiac Perspective" Inaugural Cardio Renal Society of America (CRSA), 14th Annual Southwest Nephrology Conference (SWNC), Chandler, AZ, March 2, 2013
- L234) "Managing Hyponatremia in Cardiorenal Syndromes" Satellite Symposia to the NKF Spring Clinical Meetings, Orlando, FL, April 3, 2013
- L235) "Session Title: Debate: To Screen or Not to Screen for CKD--PRO? NKF Spring Clinical Meetings, Orlando, FL, April 5, 2013
- L236) "Galectin-3: A Novel Biomarker for the Assessment and Management of Heart Failure" Heart Failure Conference, University of Pittsburgh Medical Center, Pittsburgh, PA, May 28, 2013
- L237) "The Kidney in Heart Failure" 31st International Vicenza Course on Critical Care Nephrology, June 11-14, 2013, Vicenza, Italy
- L238) "Contrast-Induced Acute Kidney Injury" 31st International Vicenza Course on Critical Care Nephrology, June 11-14, 2013, Vicenza, Italy
- L239) "Novel Biomarkers in the Prognosis and Management of Heart Failure" BUMC Medicine Grand Rounds, August 20, 2013, Dallas, TX
- L240) "Cardiorenal Syndromes: New Insights into Combined Heart and Kidney Failure" Cardiology Grand Rounds, University of Virginia Medical Center, August 26, 2013, Charlottesville, VA
- L241) "Major Advances in the Treatment of Atherosclerosis: New Options for Patients with Familial Hypercholesterolemia and Those Intolerant to Conventional Lipid Lowering Therapy" Cardiology Update, University of Missouri School of Medicine, September 14, Columbia, MO
- L242) "Keynote Address: Recent Advances in the Assessment of Acute Kidney Injury with Neutrophil Gelatinase Associated Lipocalin" 47th Brazilian Congress of Clinical Pathology and Laboratory Medicine, September 23, 2013, Sao Paulo, Brazil.
- L243) "Advancements in Cardiometabolic Risk Assessment: Expert Analysis of Recent Evidence and Outcomes" 2013 Cardiometabolic Health Congress, October 2, 2013, Boston, MA.

Peter A. McCullough, M.D., M.P.H.

- L244) “Keynote Address: Cardiorenal Syndromes: New Insights to Patients with Combined Heart and Kidney Failure” Fourth Italian Great Network Congress, Focus on Innovation and Translational Research in Emergency Medicine, Sapienza Universita di Roma, October 14-18, 2013, Rome, Italy.
- L245) “Practical Experience with Galectin-3” Fourth Italian Great Network Congress, Focus on Innovation and Translational Research in Emergency Medicine, Sapienza Universita di Roma, October 14-18, 2013, Rome, Italy.
- L246) “Using Novel Biomarkers in the Assessment and Management of Heart Failure” Bon Secours Cardiovascular Conference, October 25, 2013, Williamsburg, VA
- L247) “Detection and Consequences of Iron Deficiency Anemia in CKD Patients” Session Title: The Role of Iron in the Optimization of Anemia Management in CKD, American Society of Nephrology, Kidney Week, November 9, 2013, Atlanta, GA
- L248) “Bench to Bedside: What Happens to the Physiologic Systems After an Acute Bout of High Intensity/Volume Exercise?” Session Title: Cardiovascular Seminar entitled Potential Cardiotoxicity of Extreme Endurance Exercise, Annual Scientific Sessions of the AHA, November, 20, 2013, Dallas, TX.
- L249) “Atrasentan for the treatment of diabetic nephropathy: how to control the risk of heart failure?” Session Title: “Lessons Learned from First Post FDA Guidance Case Studies of Diabetes CV Outcomes Trials, 10th Global CardioVascular Clinical Trialists (CVCT) Forum, December 7, 2013, Paris, France.
- L250) “Reflection: Biomarker-based modeling tools: safer drugs and faster development?” A workshop initiated by the TI-Pharma Escher project for academia, industry, and the European Medicines Agency, January 24, 2014, Amsterdam, the Netherlands.
- L251) “Focus on lipids: HDL and Its Associated Lipoproteins in Cardiac and Renal Disease” Changing Paradigms in Acute Kidney Injury: From Mechanisms to Management Sponsored by UAB/UCSD O’Brien Center for AKI Research, 19th International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
- L252) “Cardiac and Renal Fibrosis in Chronic Cardiorenal Syndromes” Targeting Recovery from Acute Kidney Injury:, 19th International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
- L253) “Statins for AKI: Friend or Foe” Controversies in Critical Care Nephrology:, 19th International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.

Peter A. McCullough, M.D., M.P.H.

- L254) “Managing Heart Failure and Cardiorenal Syndrome” Workshop, 19th International Conference on Advances in Critical Care, CRRT 2014, International Society of Nephrology, Acute Kidney Injury Network, March 4-7, 2014, San Diego, CA.
- L255) “ST2: A Novel Biomarker in the Assessment and Management of Heart Failure” 2nd Annual Cardio Renal Society of America (CRSA), 15th Annual Southwest Nephrology Conference (SWNC), Ft. McDowell, AZ, March 8, 2014.
- L256) “Cardiac and Renal Fibrosis in Chronic Cardiorenal Syndromes” 2nd Annual Cardio Renal Society of America (CRSA), 15th Annual Southwest Nephrology Conference (SWNC), Ft. McDowell, AZ, March 8, 2014.
- L257) “New Approaches to the Management of Cardiorenal Syndromes” 2nd Annual Cardio Renal Society of America (CRSA), 15th Annual Southwest Nephrology Conference (SWNC), Ft. McDowell, AZ, March 8, 2014.
- L258) “My New Favorite Biomarker: Galectin-3” 2014 UCSD Biomarkers in Clinical Practice Symposium, La Jolla, CA, April 5, 2014.
- L259) “Changing Profile of Chronic Hyperkalemia” NKF Spring Clinical Meetings, Las Vegas, NV, April 24, 2014.
- L260) “The Next Generation of Screening for Kidney Disease” NKF Spring Clinical Meetings, Las Vegas, NV, April 25, 2014.
- L261) “Cardiorenal Syndromes” Cardiology, Diabetes & Nephrology at the Limits, Royal College of Physicians, London, UK, April 26, 2014.
- L262) “Acute Cardiorenal Syndromes: New Insights into Combined Heart and Kidney Failure” Actual Problems of Extracorporeal Blood Purification in Intensive Care, Russian Scientific Society of Specialists in Extracorporeal Blood Purification, Bakoulev Scientific Center for Cardiovascular Surgery of the Russian Academy of Medical Sciences, Moscow, Russia, May 22, 2014.
- L263) "Fibrosis in the Heart and Kidneys in the Pathogenesis of Chronic Cardiorenal Syndromes" Actual Problems of Extracorporeal Blood Purification in Intensive Care, Russian Scientific Society of Specialists in Extracorporeal Blood Purification, Bakoulev Scientific Center for Cardiovascular Surgery of the Russian Academy of Medical Sciences, Moscow, Russia, May 23, 2014.
- L264) “Hyperkalemia: Old Foe with New Faces” 51st European Renal Association – European Dialysis and Transplantation Association Congress, Amsterdam, the Netherlands, June 2, 2014.

Peter A. McCullough, M.D., M.P.H.

- L265) “Contrast Induced Complications in the Cath Lab” Transcatheter Cardiovascular Therapeutics (TCT) Russia, Moscow, Russia, June 16, 2014.
- L266) “The RAASi Debate: Should RAAS Continue with a Declining GFR?: Will the Path be Clearer” Co-Chair, European Society of Cardiology, Barcelona, Spain, August 31, 2014.
- L267) “Novel Markers of Acute and Chronic Kidney Injury,” Where Inflammation Meets Lipids: Broad Based Strategies for Risk Reduction, Cleveland Heart Labs, Cleveland, OH, September 12, 2014.
- L268) “Advances in the Understanding of Acute and Chronic Cardiorenal Syndromes: Pathophysiological Crosstalk of Multiple Metabolic and Neurohormonal Systems” 41st Williamsburg Cardiovascular Conference, Williamsburg, VA, December 7, 2014.
- L269) “CHADS, CHADS-VASc, HAS-BLED, What Does it Mean and How Do We Use It? Atrial Fibrillation Session, Dallas-Leipzig Valve 2104, Dallas, TX, December 11, 2014.
- L270) “Soup-to-Nuts Renal Failure: Caring for the Patient with Kidney Injury” Society of Critical Care Medicine, Phoenix, AZ, January 19, 2015.
- L271) “RAASi Optimization in Heart Failure” 2nd Annual Cardiorenal Society of America Meeting, Phoenix, AS, February 28, 2015.
- L272) “Cardiac Surgery Associated Acute Kidney Injury” Association of Physician Assistants in Cardiac Surgery, Las Vegas, NV, March 3, 2015.
- L273) “The Potassium Challenge in CKD: Managing Acute and Chronic Hyperkalemia: Novel Polymer-Based Potassium Binders: Clinical Evidence” NKF Spring Clinical Meetings, March 27, 2015.
- L274) “KEEP Healthy: Insights into CKD Care” NKF Spring Clinical Meetings, March 28, 2015.
- L275) “The Heart of the Matter” NKF Spring Clinical Meetings, March 28, 2015.
- L276) “Literature Review: CVD” NKF Spring Clinical Meetings, March 28, 2015.
- L277) “Biomarkers of Kidney and Heart Injury in Cardiorenal Syndrome” Cardioneurology 2015, Rome, Italy, April 16, 2015.
- L278) “AKI after Acute Myocardial Infarction: Contrast, Organ Crosstalk and Complications” 33rd Vicenza Course on Critical Care Nephrology in Vicenza, Italy, June 9-12, 2015.

Peter A. McCullough, M.D., M.P.H.

- L279) “A New Mechanism of Action for Addressing Hyperkalemia: New Data on Non-Polymer Hyperkalemia Therapies” 33rd Vicenza Course on Critical Care Nephrology in Vicenza, Italy, June 9-12, 2015.
- L280) “Lp-PLA2 as a marker of Vascular Inflammation and CHD Risk Assessment” Symposium: Advances in Laboratory Testing for Coronary Heart Disease; The New PLAC Test for Lp-PLA2 Activity, American Association of Clinical Chemistry Annual Meeting, Atlanta, GA, June 29, 2015.
- L281) “Galectin-3 in the Prognosis and Management of Heart Failure” American Association of Clinical Chemistry Annual Meeting, Atlanta, GA, June 29, 2015.
- L282) “Cardio-Renal Syndrome and Clinical Implications” AKI from Pathophysiology to Clinical Implications, Global Research on Acute Conditions Team (GREAT) Annual Meeting, Rome, Italy, September 5, 2015.
- L283) “Lp-PLA2 and Testing for Primary Prevention Risk Assessment” 2015 Cardiometabolic Health Congress, Harvard Medical School, Boston, MA, October 22, 2015.
- L284) “Heart and Kidney: a Dangerous Liaison” Comorbidities in Heart Failure: From Guidelines to Clinical Practice, 775 Anniversary University of Sienna, Sienna, Italy, October 29, 2015.
- L285) “Role of BNP, Pro-BNP, and Elevated Left Ventricular Mass in Cardiorenal Syndrome” American Society of Nephrology Kidney Week, San Diego, CA, November 6, 2015.
- L286) “How to Use Urine Thromboxane B2 to Select and Monitor Aspirin Therapy” Moderator, Scientific Sessions 2015, AHA, Orlando, FL, November 10, 2015.
- L287) “Putting it All Together: How to Use Urine 11-Dehydrothromboxane B2 In Clinical Practice” Scientific Sessions 2015, AHA, Orlando, FL, November 10, 2015.
- L288) “Neurogenic Orthostatic Hypotension” Moderator, Scientific Sessions 2015, AHA, Orlando, FL, November 10, 2015.
- L289) “Cardiac Cachexia” Managing Disease Related Lean Body Mass Loss Through Clinical and Nutritional Interventions, The Sackler Institute for Nutrition Science The New York Academy of Sciences, New York, NY, December 4, 2015.
- L290) “The Devastating Consequences of Systemic Hypertension and What To Do About It?” 42st Williamsburg Cardiovascular Conference, Williamsburg, VA, December 6-8, 2015.
- L291) “The Impact and Management of Malnutrition in Patients with Heart Failure” Heart Failure University 2015, Conference Co-Chair, Los Angeles, CA, December 11-13, 2015.

Peter A. McCullough, M.D., M.P.H.

- L292) “Acute and Chronic Cardiovascular Effects of Hyperkalemia: New Insights Into Prevention and Clinical Management” Heart Failure University 2015, Conference Co-Chair, Los Angeles, CA, December 11-13, 2015.
- L293) “Lipoic Acid in the Prevention of Acute Kidney Injury” 21st International Conference on Continuous Renal Replacement Therapies CRRT 2016, San Diego, CA, February 16-18, 2016.
- L294) “Novel Approaches for Recognition and Management of Life Threatening Complications of AKI and CKD” 21st International Conference on Continuous Renal Replacement Therapies CRRT 2016, San Diego, CA, February 16-18, 2016.
- L295) “Making Iodinated Contrast Less Nephrotoxic with Cyclodextrin” 21st International Conference on Continuous Renal Replacement Therapies CRRT 2016, San Diego, CA, February 16-18, 2016.
- L296) “Cardiorenal Syndrome” 4th Annual Cardio-Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ, March 13, 2016.
- L297) “Cardiorenal Syndromes Identification: Prevention and Management of CI-AKI” China Interventional Therapeutics (CIT), Beijing, Shanghai Zhong Shan Hospital, Shanghai, The 2nd Affiliated Hospital of Zhejiang University, Hangzhou, Xi Jing Hospital, Xi’an, Nanjing 1st Hospital, Nanjing, Peoples Republic of China, March 14-21, 2016.
- L298) “Cardiorenal Syndromes” Keynote Address, Inaugural Cardio-Renal Connections Meeting, San Antonio, TX , April 16, 2016.
- L299) “Galectin-3 in the Prognosis and Management of Heart Failure” American Association of Clinical Chemistry Annual Scientific Meeting, Philadelphia, PA, August 1, 2016.
- L300) Hemodialysis University, “Is It Heart Failure or Fluid Overload?”, Chicago, IL, September 10, 2016.
- L301) “Novel Agents for the Treatment of Hyperkalemia” Heart Failure Society of America Annual Scientific Meeting, Orlando, FL, September 18, 2016.
- L302) Symposium “Hyperkalemia in the Emergency Department: Updates on the Current Management of a Complex Condition.” “Novel Agents for the Prevention and Treatment of Hyperkalemia” American College of Emergency Physicians Scientific Assembly, Las Vegas, NV, October 14, 2016

Peter A. McCullough, M.D., M.P.H.

- L303) Moderator “CVD in Patients with CKD: Update from the CRIC Study” Annual Scientific Sessions of the AHA, New Orleans, LA, November 13, 2016
- L304) Program Chairman “A Night at the Museum: Inaugural Symposium of the Cardiorenal Society of America Transcending the Dinosaurs: Guiding AKI Prevention using next-gen biomarkers: Real World Experiences from modern practices” satellite Symposium at American Society of Nephrology Kidney Week, Field Museum, Chicago, IL, November 18, 2016
- L305) “Pathobiologic Systems Involved in Cardiorenal Disease” 43rd Williamsburg Cardiovascular Conference, Williamsburg, VA, December 3-5, 2016
- L306) “Cardiac Cachexia” Heart Failure University, MedReviews LLC, Los Angeles, CA, December 10, 2016
- L307) “Is There a Role for Bariatric Surgery in Heart Failure Patients with Obesity?” Scientific Sessions 2017, American College of Cardiology, Washington, DC, March 18, 2017
- L308) “Vascular and Cardiac Hypertrophy in Fabry Disease” 5th Annual Fabry Nephropathy Update, Mexico City, Mexico, April 26, 2017
- L309) “Introduction to Cardiorenal Medicine” Cardiorenal University, Anaheim, CA, May 18, 2017
- L310) “Sudden Death in End-Stage Renal Disease” Cardiorenal University, Anaheim, CA, May 18, 2017
- L311) “Cardiorenal Syndromes and Heart Failure” Conference Chair, Disease Global Outcomes (KDIGO) Controversies Conference on Heart Failure in Chronic Kidney Disease, Athens, Greece, May 25-28, 2017
- L312) “Vadadustat Does Not Prolong Corrected QT Interval In A Thorough QTC Study In Healthy Subjects” 54th ERA-EDTA Congress, Madrid, Spain, June 3-6, 2017
- L313) “Cardiorenal Syndromes” 1st Annual Heart iN Diabetes: Where the Heart, Kidney, and Diabetes Meet in Clinical Practice, Philadelphia, PA, July 14-16, 2017
- L314) “Cardiovascular Disease in Patients with Chronic Kidney Disease: A Serious Link” TOP 2017--Target Organ Protection Conference, Bangalore, India, August 11, 2017
- L315) “Statin Therapy to Prevent Onset and Progression of Vascular Disease” TOP 2017--Target Organ Protection Conference, Bangalore, India, August 11, 2017

Peter A. McCullough, M.D., M.P.H.

- L316) “Keynote Address: Cardiorenal Society of America” 5th Annual Scientific Meeting of the Cardiorenal Society of America, Phoenix, AZ, October 6, 2017
- L317) “Cardiovascular Benefits of Home Hemodialysis” Addressing Unmet Needs in Dialysis: Cardiovascular Care and Volume Control Symposium, Kidney Week 2017 American Society of Nephrology, New Orleans, LA, November 4, 2017
- L318) “CIEDs in ESRD Patients: What Are the Long-Term Data?” Kidney Week 2017 American Society of Nephrology, New Orleans, LA, November 4, 2017
- L319) “Cardiovascular Seminar Cardiorenal Syndrome: Who hurts who?” AHA Scientific Sessions 2017, Anaheim, CA, November 14, 2017
- L320) “Cardiac and Renal Fibrosis in CRS” AHA Scientific Sessions 2017, Anaheim, CA, November 14, 2017
- L321) Chair, Inaugural Cardiometabolic University and Nutrition Academy “The Skinny on Weight Loss: Practical Considerations for the Cardiovascular Specialist” MedReviews, Westlake, TX, December 1-3, 2017
- L322) “Clinical Laboratory Advancements in Cardiometabolic Disease: Screening, Diagnosis, Prognosis, and Management” 44th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 4, 2017
- L323) “The Skinny on Weight Loss: Practical Approaches for the Cardiovascular Specialist” Cardiometabolic University 2017, Conference Chair, Dallas, TX, December 1-3, 2017
- L324) “Diagnosis, Evaluation, and Role of Biomarkers in Heart Failure” Heart Failure University 2017, Conference Co-Chair, Los Angeles, CA, December 10-12, 2017
- L325) “Biomarkers of Kidney Dysfunction and Cardiorenal Syndrome” University of California at San Diego 14th Annual Biomarkers in Heart Failure and Acute Coronary Syndromes: Diagnosis, Treatment and Devices, San Diego, CA, March 2, 2018
- L326) “What do I do to Prevent Contrast Induced Renal Injury” 23rd International Conference on Continuous Renal Replacement Therapies CRRT 2018, San Diego, CA, March 8, 2018
- L327) “AKI in the patient with Cancer” 23rd International Conference on Continuous Renal Replacement Therapies CRRT 2018, San Diego, CA, March 8, 2018.
- L328) “CKD-Related Anemia and Cardiac Complications” NKF Spring Clinical Meetings, Austin, TX April 14, 2018

Peter A. McCullough, M.D., M.P.H.

- L329) “Principles of Distributive Shock” Cardiorenal Society of America National Grand Rounds Series, Boston, MA, April 30, 2018

- L330) “Biomarkers with More Muscle: Moving Beyond Serum Creatinine to Define Cardiorenal Syndrome in HF” Heart Failure Society of American Annual Scientific Sessions, Nashville, TN, September 15, 2018

- L331) “Heart Failure in Cardiorenal Syndrome: Updates on Biomarkers” Cardiorenal Society of America Annual Scientific Meeting, Phoenix, AZ, October 6, 2018

- L332) “Novel Approaches in Lowering LDL-C” Cardiorenal Society of America Annual Scientific Meeting, Phoenix, AZ, October 6, 2018

- L333) “What Do We Know About Cardiorenal Physiology? An Overview” American Society of Nephrology Kidney Week, San Diego, CA, October 26, 2018

- L334) “Prevention of Heart Failure: The Next Frontier” Cardiometabolic Health Conference, Boston, MA, October 27, 2018

- L335) “AKI and Heart Failure: How to Manage Compared to the General Population” Cardiometabolic Health Conference, Boston, MA, October 27, 2018

- L336) “SGLT-2 Inhibitors and Cardio-renal Outcomes: Mechanistic Role and Rationale for Treatment of Heart Failure” American Heart Association Annual Scientific Sessions, Chicago, IL, November 10, 2018

- L337) “Obesity and Heart Disease” 44th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 4, 2018

- L338) “Current Concepts in Hypertension Management” University of Texas Health Science Center, Tyler, TX, January 15, 2019

- L339) “Managing the Heart Failure Patient with Worsening Renal Function (WRF)” 24th International Conference on Continuous Renal Replacement Therapies CRRT 2019, San Diego, CA, February 28, 2019

- L340) “Cardiorenal Syndrome: What Have We Learned?” 24th International Conference on Continuous Renal Replacement Therapies CRRT 2019, San Diego, CA, February 28, 2019

- L341) “ Debate: Biomarker Guided Heart Failure Therapy: Con: Neuropeptides; ST2” 15th Annual USCD Biomarkers in Heart Failure and Acute Coronary Syndromes, Diagnosis, Treatment & Devices, La Jolla, CA March 1, 2019

- L342) “Cardiorenal Syndromes” Cardioneurology Congress, Rome, March 12 to 14, 2019

Peter A. McCullough, M.D., M.P.H.

- L343) “Iron and Heart Failure” Cardiometabolic Health Congress West meeting in Phoenix, AZ on Saturday, May 4, 2019
- L344) “Up to Date Management of Arrhythmias in Dialysis Patients” National Kidney Foundation Spring Clinical Meetings, May 11, 2019
- L345) “Lipids in Chronic Kidney Disease” National Kidney Foundation Spring Clinical Meetings, May 11, 2019
- L346) “Cardiorenal Syndromes” Helen Dunham Cardio-Renal Lecture and Cardiovascular Grand Rounds, Brigham and Women’s Hospital, Boston, MA, May 23, 2019
- L347) “Chronic Kidney Disease as a Cardiovascular Risk State” Helen Dunham Cardio-Renal Lecture and Cardiovascular Grand Rounds, Brigham and Women’s Hospital, Boston, MA, May 23, 2019
- L348) “Biomarkers and Assessment of Cardiac Function In Fabry Cardiomyopathy” 6th Update on Fabry Disease: Biomarkers, Progression and Treatment Opportunities, Prague, Czech Republic, May 26-28, 2019
- L349) “Contrast-Induced Acute Kidney Injury” 37th Vicenza Course on AKI &CRRT, Vicenza, Italy, May, 28-30 2019
- L350) “Cardiac Biomarkers in AKI” 37th Vicenza Course on AKI &CRRT, Vicenza, Italy, May, 28-30 2019
- L351) “Risk Mitigation in the Cardiac Catheterization Laboratory” 37th Vicenza Course on AKI &CRRT, Vicenza, Italy, May, 28-30 2019
- L352) “Pathophysiology and Current Concepts in Classification” Clinical Practice Clinical Science Track: Treatment of Cardiorenal Syndrome, American Heart Association Hypertension Scientific Sessions, New Orleans, LA, Sept 8, 2019
- L353) “Cardiovascular Genetics” 44th Annual Williamsburg Conference on Heart Disease, Williamsburg, VA, December 9, 2019
- L354) “Cardiorenal Syndromes” 17th World Congress on Insulin Resistance, Diabetes & Cardiovascular Disease (WCIRDC), Los Angeles, CA, December 4-7, 2019
- L355) “Cardiorenal Syndromes” Internal Medicine Grand Rounds, Eastern Virginia College of Medicine, Norfolk, VA, February 19, 2020

Peter A. McCullough, M.D., M.P.H.

- L356) "Keynote Address: Prevention of Heart and Kidney Disease" Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 6, 2020
- L357) "Cardioprotective Effects of Antidiabetic Medications: Focus on Sodium-Glucose Transporter-2 Antagonists" Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 7, 2020
- L358) "Fabry Disease: A Unique Cardiorenal Model" Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 7, 2020
- L359) "Biomarkers in Heart and Kidney Disease: Practical Applications" Annual Cardio Renal Metabolic Conference, Cardiorenal Society of America, Phoenix, AZ March 7, 2020
- L360) "Expert Briefing from ADA 2020 Select Sessions: Update on Heart Failure for the Diabetologist & Cardiorenal–Metabolic Axis in Diabetes" American Diabetes Association, June 14, 2020
- L361) "CKD, CHD and Hyperkalaemia: Clinical Outcomes, Morbidity and Mortality" American College of Cardiology - American Society of Nephrology Masterclass September 11, 2020
- L362) "RAASi Enabling in Cardiology Practice - Traditional vs New Potassium Binders; Potassium Binders for Treatment of Hyperkalaemia in HF" American College of Cardiology - American Society of Nephrology Masterclass September 11, 2020
- L363) "Optimizing Transitions from Hospital to Home: Best Practices for Reducing Readmissions in Heart Failure" Hospital Management Summit, October 3, 2020.
- L364) "Assessment and Management of Hyperkalemia in the Hospital Setting: Optimizing Patient Outcomes" Hospital Management Summit, October 3, 2020.
- L365) "Navigating the Challenges of Cardio-Renal Syndrome" 7th Annual Kansas Cardiovascular Symposium, October 10, 2020
- L366) "Management Considerations for Heart Failure in CKD" American Society of Nephrology Kidney Week 2020, October 24, 2020
- L367) "Pathophysiologic Basis and Rationale for Early Ambulatory Treatment of SARS-CoV-2 (COVID-19), SciInov, November 2, 2020
- L368) "CV and Renal Benefits with new anti-diabetes medications: Potential Mechanisms" CReDO Conferences Middle East North Africa (MENA) 2020, November 6, 2020

Peter A. McCullough, M.D., M.P.H.

- L369) “Consequences of Withholding GDMT for Heart Failure in CKD: One Step Forward, Two Steps Back” AHA 2020 November 16, 2020
- L370) “Early Ambulatory Treatment for SARS-CoV-2 (COVID-19)” Early Outpatient Treatment: An Essential Part of a COVID-19 Solution. US. Senate Committee on Homeland Security and Governmental Affairs, Washington DC November 19, 2020
- L371) “Pathophysiological Basis & Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection” 18th Annual World Congress Insulin Resistance Diabetes & Cardiovascular Disease, December 3, 2020
- L372) “Early Ambulatory Therapy for COVID-19 and Update on Vaccine Safety” Heritage Foundation, Washington DC, June 23, 2021
- L373) “Pathophysiological Basis and Clinical Rationale for Early Ambulatory Treatment of COVID-19” Question Everything Conference Lockdowns – Is Now the Time for a Better Solution?, London, UK, July 17, 2021
- L374) “Pathophysiological Basis and Clinical Rationale for Early Ambulatory Treatment of COVID-19 and Update on Vaccine Safety” American Academy of Anti-Aging Medicine, Ann Arbor, MI, July 18, 2021
- L375) “Keynote: Winning the War Against Therapeutic Nihilism and the Rush to Replace Trusted Treatments with Untested Novel Therapies” Association of American Physicians and Surgeons, AAPS 78th Annual Meeting, Sept. 30 to Oct. 2, 2021 – Pittsburgh, PA, October 2, 2021

INTERNAL COMMITTEE POSITIONS

- 1) Member, Henry Ford Medical Group Hypertension Control Committee, 1998.
- 2) Ranking Member and Presenter, HFHS Institutional Review Board, 1998-2000.
- 3) Member, HFHS Teaching and Education Committee, Co-Chair of the Research Subcommittee, 1999-2000
- 4) Member, HFHS Graduate Medical Education Committee, 1999-2000.
- 5) Member, HFHS, Internal Medicine Residency Selection Committee, 1998-2000.
- 6) Chair, HFHS, Cardiovascular Diseases Fellowship Program Selection Committee, 1999-2000.

Peter A. McCullough, M.D., M.P.H.

- 7) Co-Chair, HFHS, Information Technology and Medical Records Committee, 1999-2000.
- 8) Member, HFHS Department of Internal Medicine, Research Committee, 1999-2000.
- 9) Member, UMKC Adult Health Sciences Institutional Review Board, 2001-2002
- 10) Member, UMKC, Cardiovascular Diseases Fellowship Program Selection Committee, 2000-2002
- 11) Member, Truman Medical Center (TMC) Information Technology Steering Committee, 2001-2002.
- 12) Member, WBH Diabetes Research Center Steering Committee, 2002-2003
- 13) Chairperson, WBH Staff Privileges Appeals Committee, March 31, 2004
- 14) Chairperson, WBH Search Committee for Medical Director of Transplantation Medicine, 2005-2006
- 15) WBH Research Institute Board of Governors, board member, 2007-2010
- 16) Oakland University William Beaumont School of Medicine, Medical Student Committee (founding) for development of Liaison Committee on Medical Education (LCME) application, 2007-2010
- 17) St. John Providence Health System Graduate Medical Education Steering Committee (Chair), 2010 to 2013
- 18) St. John Providence Health System Research Leaders Committee, Chair, 2010 to 2012; Co-Chair 2012 to 2013
- 19) Ascension Michigan Research Affinity Group, Chair, 2010 to 2012; Co-Chair 2012 to 2013
- 20) St. John Providence Health System Executive Committee, 2011 to 2013
- 21) St. John Providence Health System Guidelines Committee, 2012 to 2013
- 22) St. John Providence Health System Presidents Council, 2012 to 2013
- 23) St. John Providence Health System Electronic Medical Record Meaningful Use Steering Committee, 2013
- 24) BUMC Graduate Medical Education Committee, 2014 to present

Peter A. McCullough, M.D., M.P.H.

- 25) BUMC Internal Medicine Residency Program Clinical Competency Committee, 2014 to 2021
- 26) BUMC Clinical Cardiology Fellowship Program Clinical Competency Committee, 2014 to 2021
- 27) BUMC Founding Member, Department of Molecular Pathology and Medicine, 2016 to 2021
- 28) BUMC Precision Medicine Executive Committee, 2016 to 2021
- 29) BUMC COVID-19 Therapeutic Task Force 2020

EXTERNAL COMMITTEE POSITIONS

- 1) Member, AHA National Women's Heart Disease and Stroke Campaign, Healthcare Provider Sub-Group, Dallas, TX, 1998-1999
- 2) Member, AHA, Chronic Coronary Disease in the Elderly National Database Planning Committee, Dallas, TX, 1998-2000
- 3) Chair, Michigan Chapter of the American College of Cardiology, Annual Mini-Board Review, 1999-2000
- 4) Member, Michigan Chapter of the American College of Cardiology, Annual Meeting Planning Committee, 1999-2000
- 5) Member, National Kidney Disease Outcomes Quality Initiative (K/DOQI) Clinical Practice Guidelines Committee on Chronic Kidney Disease, Andrew S. Levey, MD, Chair, 2001-2002
- 6) Member, K/DOQI Learning System (KLS)TM Advisory Board, NKF, New York, NY, 2003 to 2010
- 7) Member, International EECF Patient Registry Working Group, 2003-2008.
- 8) Counselor at large, Michigan Chapter of the American College of Cardiology, 2004-2006
- 9) Member, Planning Committee, AHA, Prevention VIII Conference: Kidney Disease, Hypertension, and Cardiovascular Disease, January 26-28, 2006, Orlando, FL
- 10) Chair, Contrast-Induced Nephropathy (CIN) Working Group Consensus Panel, (international, multispecialty, consensus panel with published findings) 2004-2006. Published in *Am J Cardiol* 2006 Vol 98(6)

Peter A. McCullough, M.D., M.P.H.

- 11) Workgroup Member, Kidney Disease Improving Global Outcomes (KDIGO), United States Representative, Amsterdam, Netherlands, 2004, 2006
- 12) Member, Kidney Disease Improving Global Outcomes (KDIGO) Group for the development of Clinical Practice Guidelines for the Diagnosis, Evaluation, Prevention, and Treatment of Chronic Kidney Disease Related Mineral and Bone Disorders (CKD-MBD), Paris, France, 2007-2008
- 13) Board of Directors Member, Kidney Disease Improving Global Outcomes (KDIGO), United States Representative, Brussels, Belgium, 2007-2010
- 14) Workgroup Member, The Sixth International Acute Dialysis Quality Initiative (ADQI) Consensus Conference VI: Acute Kidney Injury in Cardiac Surgery, Vicenza, Italy May 27 – 28, 2007
- 15) Workgroup Leader, Prevention: The Seventh International Acute Dialysis Quality Initiative (ADQI) Consensus Conference VII: Cardiorenal Syndrome, Venice, Italy, September 4-5, 2008, with publication in *Nephrology, Dialysis, and Transplantation*, 2010.
- 16) Chairman, Natriuretic Peptide Testing in Acute Coronary Syndromes Consensus Panel, with published findings in *Reviews in Cardiovascular Medicine* 2010, Dallas, TX, March 2, 2010
- 17) Scientific Advisory Board, NKF, New York, NY, 2010 to present
- 18) Scientific Advisory Board, Cardiorenal Society of America, Phoenix, AZ, 2012 to present
- 19) Workgroup Member, “Cardiovascular Disease in CKD: What is it and what can we do about it?” Kidney Disease Improving Global Outcomes (KDIGO), October 29-31, 2010, London, England.
- 20) Chairman, “Cardio-Renal Syndromes II: from pathophysiology to therapy” Eleventh Consensus Conference Cardio-Renal Syndromes II November 30 – December 2, 2012, Venice, Italy.
- 21) Conference Co-Chair: “Kidney Disease Global Outcomes (KDIGO) Controversies Conference on Heart Failure in Chronic Kidney Disease”, Athens, Greece, May 25-28, 2017
- 22) Chairman, “Cardiometabolic University”, Dallas, TX, December 3-4, 2017
- 23) Chair, American Heart Association Council on the Kidney in Cardiovascular Disease and Council on Clinical Cardiology. *Cardiorenal Syndrome: Classification, Pathophysiology, Diagnosis, and Treatment Strategies: A Scientific Statement From the American Heart Association*, 2019

Peter A. McCullough, M.D., M.P.H.

- 24) Committee Member, American College of Cardiology, Navigating Treatment Decisions for Patients with ASCVD and Multiple Comorbidities Committee, 2019-2020
- 25) Chief Medical Advisor, Truth for Health Foundation, Tucson AZ, 2021 to present
- 26) Advisory Board Member, TrialSite News, 2021 to present
- 27) National and International Advisor/Reviewer/Presenter/Contributor for 4D Molecular Therapies, ABC News, Abbott Laboratories, AbbVie, Advanced Health Media, Aegerion, Affymax, Akcea, Akebia, Alere North America, AMAG, Amersham, Amgen, Amylin, AntiSeptiscope, Aralez, Ardian, Adelyx, Arra Hitech, Astellas, AstraZeneca, Astute Medical, Atherotech, Axio, BG Medicine, Avenue Therapeutics, Aventyn, Back Bay Lifescience Advisors, Bayer, Biocritique, Bioexpertise, Biomarin, Bionest Partners, Bioporto, Biosite, Biostar, BioZ, Boehringer Ingelheim, Braintree Laboratories, Broeker, Bristol Myer Squibb, Cardiokine, Cardiorientis, Chapman and Priest, Charles River Associates, Chelsea Therapeutics, Chiesi USA, ClearView Healthcare Partners, Clinipace, Complexa, Connected Research and Consulting, CorMedix, Cornerstone Therapeutics, Corvidia, Covance, Critical Diagnostics, Cromsource, Crossover Technologies, Chrysalis BioTherapeutics, Cytopheryx, Cytel, DaVita, Daws, DeMatteo Monness, Diadexus, Daiichi Sankyo, Decision Resources, ECG Healthcare, Edwards Life Sciences, Elsevier, Espirion, F. Hoffmann-La Roche Ltd, Fast Biomedical, Fish and Richardson, LLC, Fisher Scientific, FlowMedica Inc, Frictionless Digital, Fresenius Medical Care, General Electric, Genzyme, Gerson Lehrman, Gilead, GVI Clinical Development Solutions, Health Law Partners, Healthspan DX, HealthSTAR Communications, Hershey, Hikari, Hogan Lovells, Hudson Global, ICON, Huff, Powell, and Bailey, LLC, IMC Press, Imidex, Impact Education, Instrumentation Laboratories, Intercept Pharmaceuticals, Intrinsic Life Sciences, Ischemix Technologies, Janssen, Janssen, Johnson and Johnson, Jordan, KAI Research, Keryx, Ketchum, Inc, Knowledge Point 360, Kowa, Eli Lilly, LabCorp, Lewis Brisbois, Liberty Dialysis, Ligand, Lipocine, Litchfield Cavo, Luitpold Pharmaceuticals, Lundbeck, Maxaccess Managed Markets, MannKind, MEDACorp, MedEd Group, Medevera, Medical Exchange International, Medical Package, Medicines Company, Medicure Pharma, Inc., MedReviews, Medscape, Medtronic, Merck, Meridian 361 International Law Group, Meso Scale Diagnostics, Miller Tanner Associates, Mitsubishi, Nanomix, Nanosphere, Nabi Biopharmaceuticals, Navigant, NephroGenix, Neumedicines, Noorik GmbH, Norman, Hanson, and Detroy, LLC, Novartis, NovoNordisk, NxStage, Ortho Clinical Diagnostics, Osprey, Otsuka, Overcome, P-value Communications, Parexel, Pharmapprove, Pfizer, Phoenix Holdings, Physicians World, PLC Medical, Praetego, PriMed, Progenabiome, Quidel Corporation, Qualidigm, Quintiles, Reata, Reliant Pharmaceuticals, Renew Research, Relypsa, Repros Therapeutics, Roche Diagnostics, Rock Creek, Saferox, Saghmos Therapeutics, Salix, Sanfit, Sankyo, Sanofi, Sarepta Therapeutics, Scarritt Group, Sentinel Investment, Sloan Law Firm, Sphingotec, Spectracell, St. Jude Medical, Strataca Systems, Statprobe, Sunshine Heart, Synageva, Takeda, Tasly, TheHill, Thrasos, TrialSiteNews, Trinity, Triptych Health Partners, US Medical Management, Vasomedical, Verrow, Vindico, Visiting Physicians Association, Vitalmetrix, Vivus, Watermark, WebMD, ZS Pharma, Inc.

Peter A. McCullough, M.D., M.P.H.

778,683 Reports
Through October 01, 2021

EXHIBIT 2

16,310
DEATHS

75,605
HOSPITALIZATIONS

87,814
URGENT CARE

121,305
DOCTOR OFFICE VISITS

7,141
ANAPHYLAXIS

9,446
BELL'S PALSY

2,415
Miscarriages

7,868
Heart Attacks

6,812
Myocarditis/Pericarditis

20,789
Permanently Disabled

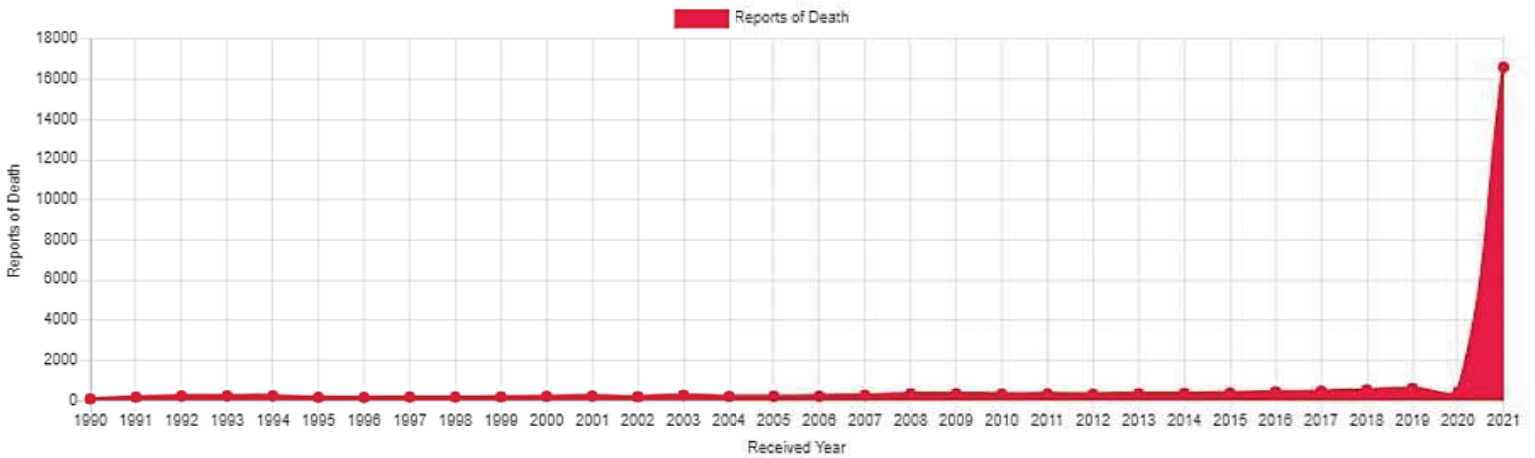
3,620
Thrombocytopenia/
Low Platelet

17,619
Life Threatening

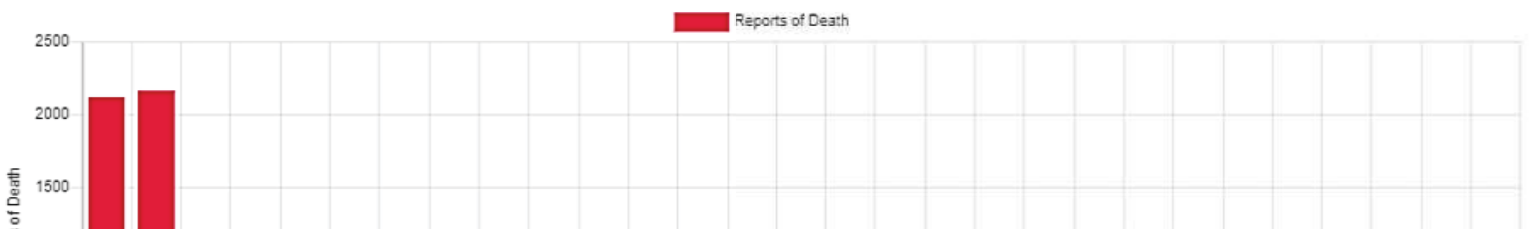
28,168
Severe Allergic
Reaction

8,153
Shingles

All Deaths Reported to VAERS by Year



VAERS COVID Vaccine Reports of Deaths by Days to Onset-All Ages



**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA**

NAVY SEAL 1, United States Navy, NAVY)
SEAL 2, United States Navy, EOD OFFICER,)
United States Navy, SENIOR CHIEF PETTY)
OFFICER, United States Navy, CHAPLAIN,)
United States Navy, LIEUTENANT COLONEL)
1, United States Marine Corps, LIEUTENANT)
COLONEL 2, United States Marine Corps,)
MAJOR, United States Marine Corps, SECOND)
LIEUTENANT, United States Marine Corps,)
CAPTAIN, United States Marine Corps, ARMY)
RANGER, United States Army, LANCE)
CORPORAL 1, United States Marine Corps,)
LANCE CORPORAL 2, United States Marine)
Corps, MAJOR, UNITED STATES AIR)
FORCE, NATIONAL GUARDSMAN, Virginia)
Army National Guard, COAST GUARD)
LIEUTENANT, United States Coast Guard,)
COLONEL, United States Army, TECHNICAL)
SERGEANT, United States Air Force, DEFENSE)
DEPARTMENT CONTRACTOR, United States)
Department of Defense, FEDERAL CIVILIAN)
ENGINEER CONTRACTOR, FEDERAL)
CIVILIAN CONTRACTOR EMPLOYER,)
FEDERAL NUCLEAR CONTRACTOR)
EMPLOYEE, DEPARTMENT OF ENERGY)
CIVILIAN NUCLEAR TECH, for themselves)
and all others similarly situated,)

Case No. _____

Plaintiffs,)

v.)

JOSEPH R. BIDEN, in his official capacity as)
President of the United States, LLOYD AUSTIN,)
in his official capacity as Secretary of the United)
States Department of Defense, and ALEJANDRO)
MAYORKAS, in his official capacity as Secretary)
of the Department of Homeland Security,)

Defendants.)



DECLARATION OF NAVY CHAPLAIN

I, Navy Chaplain, do hereby declare as follows:

1. I am over the age of 18 years, have personal knowledge of the matters set forth in this Declaration, and if called upon to testify to them, I would and could do so competently.

2. I am a Chaplain in the United States Navy.

3. I have served for over 18 years.

4. I am personally affected by the SECDEF's order for mandatory vaccinations.

5. I have recently returned from a extended deployment with a Navy Carrier Strike Group.

6. During this deployment, I have spoken with many Sailors who are anguished at the thought of a choice between the COVID shot, and their deeply-held, sincere religious beliefs that receiving the COVID shot would be a grave sin.

7. There have been many tears shed in my office by Sailors affected by the COVID shot mandates who have been in distress over their moral dilemma to follow orders or to follow their spiritual convictions and sincerely held religious beliefs.

8. I have spent well over 100 hours in counseling with these individuals over the course of 6 months talking through the issues individually and in groups.

Since 24 August 2021 it has been my primary counseling topic among all Sailors in my command.

9. I have observed that almost every Sailor who was faithful in attending chapel has also submitted religious accommodation requests regarding the COVID shot mandate, in order to maintain his or her sincere religious beliefs.

10. One Sailor in particular who ended up getting the shot wrestled day and night with the COVID shot order for two months, and was extremely conflicted between his other obligations, and his faith. He expressed that he was the sole breadwinner; has young children; desired to keep faith with the Navy and follow all lawful orders; and yet he felt that he was being unfaithful to God and coerced by the Navy. Ultimately, he felt he had to get the shot, notwithstanding his belief he was committing sin. He felt great fear of God's judgment for disobeying what he believed God wanted. He felt great fear for how his wife (who was adamantly opposed to him receiving the COVID shot) would react to the news, and the future of their marriage. He felt great shame for his weakness.

11. I personally observed and experienced tremendous amounts of coercion, bullying, censorship, and intimidation being brought forth by the command to bear against the personnel who expressed objections of any kind to the COVID shot mandates, including religious objections.

12. One coercion technique the Command used was telling the Sailors that if they got the COVID shot, they would be able to get liberty during deployment port visits.

13. However, when we arrived at each port, liberty was denied. The Sailors who had gotten the shots after this coercion felt resentful, angry, disillusioned, and distrustful of the command leadership. It was so bad that key words and phrases became so common that the Commanding Officer needed to specifically address the crew on two occasions in an effort to limit the use of the phrases.

14. Overall, Command Climate at our command has been very, very good in the past, but the “bait and switch” tactics throughout this ordeal has undermined trust in the Chain of Command.

15. As of September 24, 2021, it is reported that “52 troops have died from COVID-19 complications.” “Their deaths bring the military’s COVID-19 mortality rate to just over 0.00002, much lower than the roughly 2-percent rate nationwide,” *See Military Times*, “Military COVID-19 deaths double in two months” *available at* <https://www.militarytimes.com/news/pentagon-congress/2021/09/24/military-covid-19-deaths-double-in-two-months/> (last visited October 12, 2021).

16. DoD has expended vast resources on protecting the Force from the risks entailed by COVID-19, despite COVID’s 99.98% survival rate amongst members of the U.S. Military.

17. **In contrast to 52 deaths attributed to COVID-19, Force-wide, since the pandemic was declared in January 2020**, in CY 2020, there were 384 suicide deaths in the Active Component of the DoD; 197 suicide deaths in the Reserve Component; and 120 suicide deaths in the National Guard, for **a total of 701 suicide deaths in Calendar Year 2020**. See *Department of Defense (DoD) Quarterly Suicide Report (QSR), 2nd Quarter, CY 2021* by Karin A. Orvis, Ph.D., Director, Defense Suicide Prevention Office (DSPO), available at https://www.dspo.mil/Portals/113/Documents/TAB%20A_20210929_OFR_Rpt_Q2%20CY%202021%20QSR.pdf?ver=7vDYCTnjJlZPN_qKR5pU9Q%3d%3d

18. As set forth by the DoD QSR Report, Calendar Year 2020 showed the highest number of suicides in recent years. Active Duty is the most directly affected by the mandates and restrictions placed on us in an “effort to reduce the spread of COVID.” In 2020 the number of people committing suicide on Active Duty was 34 percent higher than in 2017, an increase of 97 personnel. This increase in suicide rate alone is nearly double the total COVID deaths.

19. In Quarter 1 of 2020, there were 90 suicide deaths in the Active Component of the DoD; 45 suicide deaths in the Reserve Component; and 25 suicide deaths in the National Guard, for a total of **160** suicide deaths in Q1 2020.

20. In Quarter 2 of 2021, there were 75 suicide deaths in the Active Component of the DoD; 43 suicide deaths in the Reserve Component; and 28 suicide deaths in the National Guard, for a total of **146** suicide deaths in Q1 2021.

21. **From January 2020, through June 30, 2021, there have been 1,012 suicide deaths DoD-wide.** In contrast, from January 2020, through September 2021, there had been **52 COVID-attributed military deaths DoD-wide.**

22. There have been countless COVID-19 memos, PowerPoints, briefings, meetings, and orders. Masking and social distancing has dehumanized our shipmates, cutting us off from camaraderie and the human connection necessary to life.

23. Clearly, the military has lost more lives to the increase in suicide from 2020-2021 (at least 1,012) than to all of COVID in 2 years (52), but suicide has not been a focus.

24. From 1 January to mid-October 2021 our command delivered approximately 20 minutes of “Suicide Prevention Training”, during September 2021, “Suicide Prevention Month.”

25. Prior to this training, since February 2020, the focus has been “Diversity, Equality, and Inclusion” (“DEI”), and “extremism” training.

26. The DEI training created a hostile environment on the ship and divided shipmates upon ideological and racial lines. The hostility was particularly focused

against white males. After the DEI training, every white male Sailor on our ship who was eligible for retirement submitted his retirement papers while females and other minorities eligible for retirement did not submit any requests for retirement.

27. The “extremism” training was also extremely divisive on the ship. It was entirely anti-Republican, anti-Conservative, anti-Christian, and anti-white male training. It created a hostile training environment and hostile work environment.

28. I do not recall the Commanding Officer speaking on suicide once during the deployment. He spoke approximately once per week on COVID. He spoke extensively about “Diversity, Equality and Inclusion” and “Extremism” and ensured he was present for every training session to emphasize how important the training was.

29. I have spoken with many Sailors who have expressed great stress and talked about the severe harm to their mental health, as a result of the SECDEF’s COVID vaccination orders. Most of these Sailors caved to the pressure, despite their convictions; but many have not, and are faced with the prospect of punitive action if their religious exemption requests are denied.

30. In addition to these Sailors, and myself, I am concerned that many of my Chaplain colleagues will be forced to choose between their faith in God, as informed by their conscience and theologies, and the military service, which they also love.

31. Those who lose as result of this unnecessary choice will be these Chaplains, and all of the Sailors, Soldiers, Airmen and Marines whom these Chaplains would have continued to faithfully serve.

32. Chaplain recruiting has failed to meet annual recruiting goals in recent years and consequently the Navy Chaplain Corps is undermanned. The loss of more Chaplains will be especially profound, for those service members (and their loved ones) who will be unable to find the help they needed in the Chaplain Corps, because so many of the faithful Chaplains were driven out. Driven to despair, without hope and the loving help offered by faithful and caring Chaplains, we can expect a continued death toll from suicide that far exceeds any personnel tragically lost to “COVID-19.”

I declare under penalty of perjury of the laws of the United States and the State of Florida that the foregoing statements are true and correct to the best of my knowledge.

Dated this 15th day of October, 2021

/s/ Navy Chaplain
NAVY CHAPLAIN

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA**

NAVY SEAL 1, United States Navy, NAVY)
SEAL 2, United States Navy, EOD OFFICER,)
United States Navy, SENIOR CHIEF PETTY)
OFFICER, United States Navy, CHAPLAIN,)
United States Navy, LIEUTENANT COLONEL)
1, United States Marine Corps, LIEUTENANT)
COLONEL 2, United States Marine Corps,)
MAJOR, United States Marine Corps, SECOND)
LIEUTENANT, United States Marine Corps,)
CAPTAIN, United States Marine Corps, ARMY)
RANGER, United States Army, LANCE)
CORPORAL 1, United States Marine Corps,)
LANCE CORPORAL 2, United States Marine)
Corps, MAJOR, UNITED STATES AIR)
FORCE, NATIONAL GUARDSMAN, Virginia)
Army National Guard, COAST GUARD)
LIEUTENANT, United States Coast Guard,)
COLONEL, United States Army, TECHNICAL)
SERGEANT, United States Air Force, DEFENSE)
DEPARTMENT CONTRACTOR, United States)
Department of Defense, FEDERAL CIVILIAN)
ENGINEER CONTRACTOR, FEDERAL)
CIVILIAN CONTRACTOR EMPLOYER,)
FEDERAL NUCLEAR CONTRACTOR)
EMPLOYEE, DEPARTMENT OF ENERGY)
CIVILIAN NUCLEAR TECH, for themselves)
and all others similarly situated,)

Case No. _____

Plaintiffs,)

v.)

JOSEPH R. BIDEN, in his official capacity as)
President of the United States, LLOYD AUSTIN,)
in his official capacity as Secretary of the United)
States Department of Defense, and ALEJANDRO)
MAYORKAS, in his official capacity as Secretary)
of the Department of Homeland Security,)

Defendants.)



DECLARATION OF COAST GUARD LIEUTENANT

I, Coast Guard Lieutenant, do hereby declare as follows:

1. I am over the age of 18 years, have personal knowledge of the matters set forth in this Declaration, and if called upon to testify to them, I would and could do so competently.

2. I am a Lieutenant in the United States Coast Guard and a Florida resident.

3. I have submitted a request for a religious accommodation from the COVID shot mandates, based on my sincerely-held Presbyterian Christian religious beliefs.

4. I have submitted a request for medical accommodation based upon my status as a nursing mother, and based upon a known medical contraindication to multiple other shots, which were documented in the form of medical waivers permitting my accession to the Coast Guard.

5. However, myself and other mothers like me have been told that breastfeeding alone is not valid grounds for a temporary waiver, even though the insert to the approved Comirnaty states that there is no data on the effects to breastfeeding or our children or on the transfer of the vaccine through breast milk

6. I was present for a discussion by Rear Admiral Joanna Nunan during one of her Fall 2021 visits to Gulf Coast Units regarding the COVID shot mandates. I left that meeting feeling unsettled due to the admiral's statements.

7. Admiral Nunan is the Deputy Commandant for Personnel Readiness, meaning she is over all training and human resources, including the offices screening medical and religious exemption requests. The United States Coast Guard Academy Superintendent reports to her, as does the Commander of Force Readiness Command, and the Assistant Commandant for Human Resources.

8. Based on Admiral Nunan's statements about that religious and medical accommodations process, I left the meeting feeling the Coast Guard has little interest in screening those requests in good faith.

9. In regard to religious waivers: Admiral Nunan stated that "none of the major religions" (however she is defining that) "have come out against the vaccines." She stated that "the Pope had endorsed them," implying she (and the Coast Guard) saw no legitimacy for religious waiver requests, even though the actual policy and instruction bases those requests on a sincerely-held moral belief, not the actions of the Pope.

10. One of the questions addressed by Admiral Nunan was whether the Coast Guard expects the percentage of those with exemptions to this vaccine to pan

out in relationship to exemptions to other vaccines. Admiral Nunan could not answer as she did not know how many are even exempt from the other vaccines.

11. Admiral Nunan informed us that DOD is at 9% and Coast Guard is currently at 11% unvaccinated, indicating the Coast Guard was working to get more people vaccinated.

12. Admiral Nunan informed us that she expects very few people to have waivers of any kind, and that the only medical waivers she foresees medically are specific allergies to the vaccine. This appears to me to be a change from other medical waivers from Coast Guard-required vaccines, which, in my experience have taken the “better safe than sorry” approach (i.e. “do no harm”), and were issued by one’s PCM, rather than Headquarters as they are being required now.

- a. Medical seems to now be requiring a specific diagnosis of reaction to one of the ingredients, even though some have never been utilized in vaccines before. So, even if one has requested testing in the past, it wasn’t something being screened for now.
- b. I have asked to be medically screened for allergies multiple times in the past, as I react to other items that contain some of these ingredients, only to be told that testing wasn’t necessary. Now that is backfiring, and even though they finally put in a request for me to get tested, I have been waiting over two months due to issues with issuing the referral.

13. Admiral Nunan spoke to the issue of our workforce, and how short staffed the Coast Guard was. Admiral Nunan brought up the example of being 500 non-rates short right now, with regard to just the most junior enlisted members. She then highlighted shortages in other fields, including inspections, cyber, aviation, and afloat. Immediately after this conversation, someone asked that given the shortages, if the Coast Guard could really afford to lose even 5% of the service over the vaccination issue, and incredibly, Admiral Nunan stated emphatically that we could.

14. Admiral Nunan informed us Coast Guard is working on what type of discharge members who decline the COVID vaccines will receive. She stated the Coast Guard was trying to find a way to strip those discharged over the vaccine of their benefits they earned under the 9-11 GI bill, as they are focusing on “incentives” to encourage people to get the shot rather than be discharged. Admiral Nunan stated that many more restrictive guidances for unvaccinated members would be forthcoming.

15. Another question presented to Admiral Nunan was if she had discussed how the Coast Guard was going to separate treatment (thinking specifically of those punitive actions such as negative Page 7’s, Restriction of Movement, Denial of Leave) of those who had pending or approved medical/religious waivers (distinguishing from those who were just disobeying orders). She didn’t have an answer.

16. Admiral Nunan further elaborated about those Page 7s and the potential for them to affect promotions and boards: those who had gotten the Counseling Form might not be allowed to take command positions in the future. She later emphasized that she wanted to push for more command positions to be available, and be a more important factor on promotion boards and selection panels.

17. While the military can be medically exclusive in its ascension within reason, to do this kind of thing to people already in the service and with valid requests would be a form of medical and religious discrimination.

18. On whether how vaccines were being treated at the accession sources (Boot Camp, OCS, and the Academy), Admiral Nunan informed the group that “my guidance will be 100% vaccinated. Period.”

19. Admiral Nunan said “there are enough people who want those spots that I would exclude any who were not vaccinated.” This was after she had just spoken about her primary focus being “diversity and inclusion.” My impression after that conversation was that “diversity and inclusion” applies only to skin color, not a diversity of thought or religion.

20. Coast Guard Vice Admiral Thomas has since issued guidance (ALCOAST 352-21) limiting unvaccinated members (regardless of waiver status) to within 50 miles of their assigned units, while placing no such distance restrictions upon vaccinated members (despite vaccinated members’ susceptibility to acquiring

and transmitting COVID). The guidance has also required cancellation of all training orders and ineligibility for training orders for any person not vaccinated, regardless of waiver status.

21. Thus, unvaccinated members are not permitted to go to training, harming their futures because they will be delinquent and deficient in their training, until they get vaccinated. I am aware of Petty Officers who lost their orders to A-School, because they were not vaccinated, despite their having submitted religious and/or medical exemption waiver requests.

22. In guidance ALCOAST 352-21, the Coast Guard further praised its readiness status, while stating the restrictions would remain in place until the “threat to mission readiness caused by COVID-19 was negligible.” COVID-19’s threat to mission readiness, with a survival rate of greater than 99.98% DoD-wide, is already “negligible.” The Coast Guard, across its Civilian, Reserve, and Active components comprises “41,700 active-duty military; 7,800 reserve military part-time employees; 8,300 civilian full-time employees;” (see <https://www.uscg.mil/seniorleadership/>, last visited October 14, 2021). The total Coast Guard force of 57,800 persons has experienced eight (8) COVID-related fatalities. See ALCOAST 352-21, bullet one.

23. Admiral Nunan’s statements, along with the above recent Coast Guard ALCOAST guidance lead me to conclude that my religious and medical exemption

requests are dead on arrival, absent court intervention, despite the COVID threat being “negligible.”

I declare under penalty of perjury of the laws of the United States and the State of Florida that the foregoing statements are true and correct to the best of my knowledge.

Dated this 15th day of October, 2021

/s/ COAST GUARD LIEUTENANT
COAST GUARD LIEUTENANT

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)

I. (a) PLAINTIFFS

NAVY SEAL 1, et al., for themselves and all others similarly situated

(b) County of Residence of First Listed Plaintiff Hillsborough (EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys (Firm Name, Address, and Telephone Number)

Roger K. Gannam, Liberty Counsel, PO Box 540774, Orlando FL 32854

DEFENDANTS

Jospeh R. Biden, in his official capacity as President of the United States, Lloyd Austin, in his official capacity as

County of Residence of First Listed Defendant (IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- 1 U.S. Government Plaintiff, 2 U.S. Government Defendant, 3 Federal Question (U.S. Government Not a Party), 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- Citizen of This State, Citizen of Another State, Citizen or Subject of a Foreign Country, PTF DEF, Incorporated or Principal Place of Business In This State, Incorporated and Principal Place of Business In Another State, Foreign Nation

IV. NATURE OF SUIT (Place an "X" in One Box Only)

Click here for: Nature of Suit Code Descriptions.

Table with columns: CONTRACT, REAL PROPERTY, CIVIL RIGHTS, TORTS, PRISONER PETITIONS, FORFEITURE/PENALTY, LABOR, IMMIGRATION, BANKRUPTCY, SOCIAL SECURITY, FEDERAL TAX SUITS, OTHER STATUTES. Includes various legal categories like Personal Injury, Contract, Labor, etc.

V. ORIGIN (Place an "X" in One Box Only)

- 1 Original Proceeding, 2 Removed from State Court, 3 Remanded from Appellate Court, 4 Reinstated or Reopened, 5 Transferred from Another District, 6 Multidistrict Litigation - Transfer, 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity): First Amendment to United States Constitution, 42 USC 2000bb, et seq., 21 USC 360bbb-3. Brief description of cause: Constitutional and statutory challenge to mandatory COVID-19 vaccine policy for military, federal employees, and federal contractors

VII. REQUESTED IN COMPLAINT:

CHECK IF THIS IS A CLASS ACTION UNDER RULE 23, F.R.Cv.P. DEMAND \$ CHECK YES only if demanded in complaint: JURY DEMAND: Yes No

VIII. RELATED CASE(S) IF ANY

(See instructions): JUDGE DOCKET NUMBER

DATE 10/15/2021 SIGNATURE OF ATTORNEY OF RECORD /s/ Roger K. Gannam

FOR OFFICE USE ONLY

RECEIPT # AMOUNT APPLYING IFP JUDGE MAG. JUDGE

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS 44

Authority For Civil Cover Sheet

The JS 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

- I.(a) Plaintiffs-Defendants.** Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.
- (b) County of Residence.** For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)
- (c) Attorneys.** Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".
- II. Jurisdiction.** The basis of jurisdiction is set forth under Rule 8(a), F.R.Cv.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.
 United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here. United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.
 Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.
 Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; **NOTE: federal question actions take precedence over diversity cases.**)
- III. Residence (citizenship) of Principal Parties.** This section of the JS 44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.
- IV. Nature of Suit.** Place an "X" in the appropriate box. If there are multiple nature of suit codes associated with the case, pick the nature of suit code that is most applicable. Click here for: [Nature of Suit Code Descriptions](#).
- V. Origin.** Place an "X" in one of the seven boxes.
 Original Proceedings. (1) Cases which originate in the United States district courts.
 Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441.
 Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.
 Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.
 Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.
 Multidistrict Litigation – Transfer. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407.
 Multidistrict Litigation – Direct File. (8) Check this box when a multidistrict case is filed in the same district as the Master MDL docket.
PLEASE NOTE THAT THERE IS NOT AN ORIGIN CODE 7. Origin Code 7 was used for historical records and is no longer relevant due to changes in statute.
- VI. Cause of Action.** Report the civil statute directly related to the cause of action and give a brief description of the cause. **Do not cite jurisdictional statutes unless diversity.** Example: U.S. Civil Statute: 47 USC 553 Brief Description: Unauthorized reception of cable service.
- VII. Requested in Complaint.** Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.
 Demand. In this space enter the actual dollar amount being demanded or indicate other demand, such as a preliminary injunction.
 Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.
- VIII. Related Cases.** This section of the JS 44 is used to reference related pending cases, if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

Middle District of Florida

NAVY SEAL 1, et al., for themselves and all others
similarly situated,

Plaintiff(s)

v.

JOSEPH R. BIDEN, in his official capacity as
President of the United States, et al.

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address) JOSEPH R. BIDEN
c/o Karin Hoppmann
Acting United States Attorney for Middle District of Florida
400 North Tampa Street
Suite 3200
Tampa, FL 33602

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you
are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ.
P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of
the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney,
whose name and address are: Roger K. Gannam
Liberty Counsel
PO Box 540774
Orlando, FL 32854

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint.
You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____ .

I personally served the summons on the individual at *(place)* _____
_____ on *(date)* _____ ; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
_____, a person of suitable age and discretion who resides there,
on *(date)* _____ , and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____ , who is
designated by law to accept service of process on behalf of *(name of organization)* _____
_____ on *(date)* _____ ; or

I returned the summons unexecuted because _____ ; or

Other *(specify)*:

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ _____ 0.00 .

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

Middle District of Florida

NAVY SEAL 1, et al., for themselves and all others
similarly situated,

Plaintiff(s)

v.

JOSEPH R. BIDEN, in his official capacity as
President of the United States, et al.

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address) LLOYD AUSTIN
c/o Karin Hoppmann
Acting United States Attorney for Middle District of Florida
400 North Tampa Street
Suite 3200
Tampa, FL 33602

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you
are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ.
P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of
the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney,
whose name and address are: Roger K. Gannam
Liberty Counsel
PO Box 540774
Orlando, FL 32854

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint.
You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____ .

I personally served the summons on the individual at *(place)* _____
_____ on *(date)* _____ ; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
_____, a person of suitable age and discretion who resides there,
on *(date)* _____ , and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____ , who is
designated by law to accept service of process on behalf of *(name of organization)* _____
_____ on *(date)* _____ ; or

I returned the summons unexecuted because _____ ; or

Other *(specify)*: _____

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ _____ 0.00 .

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc:

AO 440 (Rev. 06/12) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

Middle District of Florida

NAVY SEAL 1, et al., for themselves and all others
similarly situated,

Plaintiff(s)

v.

JOSEPH R. BIDEN, in his official capacity as
President of the United States, et al.

Defendant(s)

Civil Action No.

SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address) ALEJANDRO MAYORKAS
c/o Karin Hoppmann
Acting United States Attorney for Middle District of Florida
400 North Tampa Street
Suite 3200
Tampa, FL 33602

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you
are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ.
P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of
the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney,
whose name and address are: Roger K. Gannam
Liberty Counsel
PO Box 540774
Orlando, FL 32854

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint.
You also must file your answer or motion with the court.

CLERK OF COURT

Date: _____

Signature of Clerk or Deputy Clerk

Civil Action No. _____

PROOF OF SERVICE

(This section should not be filed with the court unless required by Fed. R. Civ. P. 4 (l))

This summons for *(name of individual and title, if any)* _____
was received by me on *(date)* _____ .

I personally served the summons on the individual at *(place)* _____
_____ on *(date)* _____ ; or

I left the summons at the individual's residence or usual place of abode with *(name)* _____
_____, a person of suitable age and discretion who resides there,
on *(date)* _____ , and mailed a copy to the individual's last known address; or

I served the summons on *(name of individual)* _____ , who is
designated by law to accept service of process on behalf of *(name of organization)* _____
_____ on *(date)* _____ ; or

I returned the summons unexecuted because _____ ; or

Other *(specify)*:

My fees are \$ _____ for travel and \$ _____ for services, for a total of \$ _____ 0.00 _____ .

I declare under penalty of perjury that this information is true.

Date: _____

Server's signature

Printed name and title

Server's address

Additional information regarding attempted service, etc: