Chairman Massie, Ranking Member Correa, and distinguished members of the subcommittee, thank you for inviting me to testify at today's hearing. My name is Jordan Vaughn. I am an internist in private practice in Birmingham, Alabama. I am also the founder of the Foundation for Microvascular Research for spike protein and long covid an organization dedicated to researching the cause and exploring treatments for those suffering from vaccine injury and long covid.

As an outpatient clinician, 2020 presented a broad set of challenges. Specifically, as an employer of around 200 people whose organization was responsible for around approx. 150,000 patient visits per year, I was tasked with how to effectively and safely deliver care. Operating a multi-clinic independently owned organization charged with innovative healthcare delivery, it became necessary upon the onset of COVID to create effective ways to test and treat while keeping staff and patients with chronic conditions safe and healthy. Protocols were implemented such as drive up testing and telemedicine visits which maintained ease and efficiency of treatment with the emerging healthcare crisis the country was facing. Additionally, I implemented a test and instantly treat model for monoclonal antibodies ultimately giving the treatment to around 5,000 individuals on the same day of diagnosis.

This task required me to spend at minimum a few hours a day researching, studying and often implementing up to date information that emerged from PubMed in the NLM or in the preprint servers that almost updated in real time. Hungry to understand the disease better, I was able to see how others worldwide were utilizing diagnostics and the vast pharmacopeia available to clinicians. The information available to the average clinician was incredible, a spectacular achievement from the NIH and NLM. In addition to this, collaborating with physicians worldwide through email or twitter, afforded real time interaction with everyone from bench scientists to fellow clinicians alongside me in the trenches.

It was in this reading that an understanding of Sars-Cov2 and specifically the Spike Protein emerged. An understanding that seemed counter to the emerging solution from the experts in the federal agencies, pharmaceutical companies, and academic medicine. Based on my reading and clinical experience, what made COVID-19 especially unique and deadly was the Spike Protein. The Spike Protein and specifically the S1 Subunit of this Protein is a pathogen. It is immunotoxic, cytotoxic, coagulopathic, and amyloidogenic.[1-12]

The 'medical industrial complex' proposed solution was a novel mechanism of injecting LNP coated modified messenger RNA ((modified by incorporating N1-methylpseudouridine (m1Ψ)) that encoded for a stabilized form of the s1 subunit of the spike protein [13, 14] to be produced by the recipient's cells in an unknown amount for an unknown amount of time{Krauson, A. J., 2023; Boros, L. G., 2024}. Though touted as a technology that would allow one to compress the time frame of everything from trials to mass production, this over reliance and almost exuberance on a technology with many stated limitations[16] combined with the active production(versus passive interface) of a uniquely damaging pathogen like s1 subunit of the spike protein should have raised concern[17, 18]. Additionally, in July of 2021, a longitudinal study showed that the protein most important for durable and broad immunity was not the spike protein but instead the nucleoprotein, as it uniquely elicited CD8+ T cell responses [19].

My first clinical introduction to the adverse effects from the Pfizer Vaccine was winter 2021 and involved a 69-year-old male with no prior history of COVID-19 that presented with shortness of breath two days following his second dose of mRNA injection. He was in distress and just didn't feel right. Knowing this patient's medical history (as he was my regular patient for almost a decade), his symptoms combined with an elevated d-dimer and mildly increased BNP, I suspected a pulmonary embolism (blood clot) however, upon getting a CT Angio of the Chest and Lower Ext Doppler, none was found. Despite this and knowing 'my patient' combined with my knowledge of the unique coagulation and vascular pathology attributed to the S1 Subunit of the Spike Protein from Sars-CoV2, I empirically treated him with anticoagulants and antiplatelets given his clinical picture. This quickly resolved his symptoms but the search for what happened began in earnest.

This patient and additional others forced me to reach out to individuals learning about the unique coagulation properties associated with the spike protein. The spike protein and specifically the s1 subunit was able to induce fibrin that was resistant to fibrinolysis [20] and irreversible platelet activation [21]. This spike protein also damages the vasculature causing multi-organ endothelial injury.[22] Again, an interesting choice for industry and experts to use with a novel delivery mechanism. Currently, this knowledge has become the lens through which I am now seeing every disease process that presents in my office.

Though often called long covid, the devasting effects of the spike protein to multiple systems is changing the landscape of many medical disciplines[23-27]. In discussions with my colleagues from cardiology to neurology, the issues we are seeing in clinic and the ever-declining age of presentation since 2021 are alarming. The expected and predictable elderly patient with years of chronic illness has been quickly outnumbered by the now lifeless and debilitated young patient with no previous medical problems.

Since 2022, after my early encounter with the unique vascular and coagulation issues with the spike protein, I have seen over 2000 unique patients. All of them have sequala from a COVID-19 Injection, a SARS-CoV2 Infection, or, most often, both[28]. Especially in those with vaccine injury, their faith in medicine and public health is shattered. Many of those patients were hold outs from getting vaccinated because they either knew their own immune systems/sensitivities or already had a prior infection of COVID-19. However, it was under the August 2021 military service member, federal employee, and OSHA mandate these individuals faced a decision to either vaccinate against their conscience and common sense or lose a career and gainful employment. Disabled from the adverse effects of these mandated injections, the profession they once held dear is an afterthought to just hoping for a diagnosis and possible treatment.

Among the most egregious is our service members needlessly harmed through the mandate. Knowing the emerging data in the spring of 2021 around the hearts of young athletic individuals and myocarditis from the mod mRNA COVID-19 injections, the FDA and the Biden administration sought to speed up approval and mandate it to the military in the name of military preparedness. [29] Among the more than 30 service members my clinic has seen, a couple stories stick out and these are the ones just local to my hometown of Birmingham, Alabama.

A 22-year-old navy seal trainee who following the vaccine was unable to feel his legs and was hospitalized in Guam for what was diagnosed originally as rhabdomyolysis. Ultimately, he appeared, fragile and debilitated in my clinic in December 2021. Previously a high school athlete with hopes to be a part of the military's finest, presented to our clinic being pushed in a wheelchair by his parents, desperate for answers to what happened since vaccination to their previously healthy son.

A 42-year-old male Lieutenant Colonel with 19 years of military leadership training and a West Point graduate with only a past medical history of hypertension and burn pit exposure that presented with having increased shortness of breath. He was relucant but was required after recovering from COVID to get the COVID vaccine. CT done to rule out lung pathology revealed a 2.5cm mass found on the head of the pancreas requiring a whipple surgery to remove. He is now struggling to remain fit for duty.

32-year-old male staff sergeant with no medical history and 10 years of military service came to us with increasing shortness of breath and constant chest pain since his booster. He has ongoing and persistent exercise intolerance causing weight gain, HTN. This has unfortunately led to depression and suicidal ideations, and he is now being medically discharged since he cannot pass a physical training test.

A 38-year-old male with 16 years of military service serving as a staff sergeant in the Army Reserves immediately with debilitating body aches and flu-like symptoms after his second Pfizer injection. He also had immediate severe left arm pain and redness at the injection site. He came to us unable to walk from the parking lot without severe fatigue. His weekend warrior reservist military job has now cost him his full-time livelihood as he has now lost his civilian job. Additionally, he is unable to meet military demands and will be medically discharged.

A 47-year-old Colonial and West Point graduate that had just completed a brigade command received 2 Moderna vaccines. He reported that despite having just recovered from COVID in January 2021, 3 months later he was rushed to quickly fulfill the military requirements and therefore had a Moderna vaccine in March 2021 along with another in April 2021- a requirement that he knew seemed ridiculous and didn't seem "right". He was afraid that after over 25 years of service, refusing or questioning this requirement would not be a good example for his soldiers and as a distinguished military leader, he wanted to complete his service honorably and in good standing. After being fully vaccinated and with completed vaccine requirements, he got a mild COVID infection again. Tragically, just a few months later, he barely made it home from physical training one morning and had a sudden cardiac event resulting in his son's desperate and unsuccessful attempt to resuscitate him in his own bathroom floor. His

15-year-old son had just been taught CPR training in Boy Scouts. He leaves behind 1 teenage son, 2 teenage daughters, a beautiful wife along with many heartbroken friends and family.

Beyond the military is the effects to our citizenry, these patients present with a plethora of complicated issues but most notably is the effect that this spike protein has had on the vascular and coagulation system, the immune system in the form of autoimmune diseases, and the neurologic system.[30-33]

My main area of clinical expertise is around the effects on the vascular and coagulation systems. All systems in the body require blood and vessels and when these systems are compromised the effects can vary from acutely devastating to chronically debilitating. Many of the chronically debilitated suffer from a diverse array of symptoms but at its core most have brain fog (cognitive dysfunction), shortness of breath, and post exertional malaise (PEM). Lack of local oxygen to demanding tissues from sludging with amyloid fibrin aggregates and endothelial injury of the microvasculature is one of the theoretical culprits[30]. Under the teaching of expert scientists Resia Pretorius and Doug Kell, I incorporated immunofluorescent microscopy into my clinical practice and was uniquely able to evaluate and treat suffering patients. From the 15-year-old elite athlete that can no longer run much less stand to the previously healthy and extremely active 47yo mom that suffered multiple strokes without medical explanation, the possible pathology resulting from hypercoagulation and damage to the vascular system is diverse. In fact, last week, I was humbled to be sought out by an older cardiologist that could no longer stand without severe pain and weakness in their legs following their covid 19 vaccine.

As a clinician, I can only tell you about what I see in my clinic and how it impacts the daily lives and the physical and mental health of those once vibrant and healthy patients. What concerns me is those not able to be seen in the clinic or those that have been to multiple specialists and had absolutely nothing done to treat their worsening condition. I am unable to tell you about those that suffer deadly consequences never allowed to seek help [34]. Finally, I am unable to predict the future implications that infection induced or modified mRNA vaccine produced spike protein will have on our population [15, 18, 35]

It is the federal regulatory bodies including the FDA that are tasked by us the citizens to be forthright, unbiased, and responsive to the efficacy and evolving evidence of risk and consequences to the products they license. A watchdog and overseer of the pharmaceutical industry. Instead, the FDA's director of CBER (which is responsible for the safety, purity, potency, and effectiveness of vaccines) advertised and advocated on YouTube for a product they were tasked with regulating [36] Informed consent is the foundation of the patient-physician relationship and absent the information forthcoming that relationship is irreparably harmed, and the practice of medicine continues to suffer.

In closing, I often think back to something I read a few years ago about 'following science'. Over the past few years, we have heard media, public health officials, and politicians use the phrase 'follow the science.' The problem with 'following the science' is that science does not lead anywhere. Science is an observer, measurer, and descriptor - not a leader. Individuals lead. Pressing 'science' to lead is a way decision makers avoid accountability for choices they make on the public's behalf. The 'leader' is appealing to the 'authority of science' to decide a course of action to conveniently sidestep accountability in the event of failure. I implore my fellow physicians and scientists to not 'follow the science' but to LEAD humbly with science for the good of our patients.

Thank you and I look forward to your questions.

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