



Scientist Spotlight with David Franz

Q&A with prominent FAS-affiliated scientists and engineers

E-mail interview conducted by Allison Feldman, FAS

Dr. David R Franz served in the U.S. Army Medical Research and Materiel Command for 23 of 27 years on active duty and retired as Colonel. He served as Commander of the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) and as Deputy Commander of the Medical Research and Materiel Command. Prior to joining the Command, he served as Group Veterinarian for the 10th Special Forces Group (Airborne). Franz was the Chief Inspector on three United Nations Special Commission biological warfare inspection missions to Iraq and served as technical advisor on long-term monitoring. He also served as a member of the US-UK teams that visited Russia in support of the Trilateral Joint Statement on Biological Weapons and as a member of the Trilateral Experts' Committee for biological weapons negotiations. He was Technical Editor for the *Textbook of Military Medicine on Medical Aspects of Chemical and Biological Warfare* released in 1997. Current standing committee appointments include the National Academy of Sciences Committee on International Security and Arms Control where he chairs the 'biological panel', American Society for Microbiology Committee on Biodefense of the Public and Scientific Affairs Board, and the Senior Technical Advisory Committee of the National Biodefense Countermeasures Analysis Center (DHS). He serves as a Senior Mentor to the Program for Emerging Leaders at the National Defense University. He also serves on the Boards of the Elizabeth R. Griffin Research Foundation and Integrated Nano-Technologies, LLC. Franz holds an adjunct appointment as Professor for the Department of Diagnostic Medicine and Pathobiology at the College of Veterinary Medicine, Kansas State University. The current focus of his activities relates to the role of international engagement in public health and the life sciences as a component of global biosecurity policy. Domestically, he continues to encourage thoughtfulness when regulating research in the name of security, thereby minimizing negative impact on progress in the life sciences. Franz holds a D.V.M. from Kansas State University and a Ph.D. in Physiology from Baylor College of Medicine.

1. What made you want to become a scientist and what is your primary field of focus?

I was fortunate to have both a high school biology teacher and a college chemistry professor who really stimulated my early interest in science. My dad wanted me to join him in banking and real estate, but it took only one undergraduate accounting course to be convinced that it wasn't for me. Dad did demonstrate wisdom when I told him I wanted to be a veterinarian: "Fine, but I think you should get some experience in the field before you commit your life to it." I did, starting as a kennel boy in a small animal hospital, and never turned back.

2. Why did you get into this field of science? Was there a specific person or event that inspired you?

A wonderful and highly experienced clinician in veterinary college and a very tough but caring old-school British MD, PhD on my committee in graduate school both influenced me greatly. So, just another example

of how great teachers often lay the foundation for us. I loved clinical medicine and had initially planned to practice small animal medicine in Kansas for my entire career, but when some logistical doors closed there, I found an open one through a US Army recruiting poster in the post office of the little Kansas town in which I grew up: “Uncle Sam Wants You” along with his 800 number. I traveled to McConnell Air Force Base in Wichita, raised my right hand, and wore green for the next 27 years. My army career involved, successively, running a small animal clinic at Fort Hood, Texas; caring for the horses of a cavalry troop; volunteering; training for and serving as the 10th Special Forces Group (Airborne) veterinarian; working with pack animals; and training SF medics. Then the army funded my PhD at Baylor College of Medicine in Houston and I served the rest of my career in the Army’s Medical Research and Materiel Command.

3. What was your favorite position in the army?

Without a doubt, I recall my time serving at the US Army Medical Research Institute for Infectious Diseases (USAMRIID) at Ft Detrick as my favorite duty station. I started as a PI in a small office and lab, moved through the ranks, and eight years later became the commander. I loved the institute, the mission, the responsibility, and especially the people. I departed in the summer of 1998, after 11 years, with tears dripping from my chin. Those were lean times for military medical research, but we pulled together as a team, developed a healthy culture, and made enormous progress in basic and applied research toward medical countermeasures – particularly vaccines and diagnostics, but also education – for the force. I benefited enormously from on-the-job leadership training during those 11 years.

4. So, what are you doing now and how did you get there?

While I was Deputy Commander at USAMRIID, I volunteered to serve as part of a group of US and British government experts seeking to assure that the former Soviet Union’s biological warfare program was ‘demilitarized’ and its personnel redirected to other peaceful careers. I was sitting next to Ambassador Don Mahley, our ‘head of del’ for US-UK team, in the Russian Ministry of Foreign Affairs in 1994, when he turned to me and said, “Col Franz, you and Col Pickavich [a counterpart on the Russian side of the table] go in the other room and work though this piece of diplomatic text; it’s only science.” “It’s only science.” (!!!) We did, and in 20 minutes our text was finished and clean of brackets, which had marked points of disagreement. It worked because we had the same frame of reference and we spoke the same language: the language of science rather than politics. A huge ‘light bulb’ came on above my head that cold January day in Moscow and I’ve never forgotten the important lesson. Today, while I’m officially retired, I still do 6-8 international trips a year ‘making friends with science,’ many of them in support of a National Academy committee on which I serve.

5. The travel sounds like fun, Dr. Franz, but why do you think that kind of work is important?

The challenges related to naturally-occurring infections disease and the much less common (but potentially impactful) intentional ‘misuse of biology’ have changed a lot during my career. Let’s face it: we are living in a ‘global petri dish.’ There has been a revolution in biology in the last 30 years; a revolution in tools and knowledge that can be used for good...or that can be abused. The more that scientists and clinicians communicate with one another globally about these issues, the more likely we will prevent or respond effectively to surprises when they occur. My message has long been to listen more than we talk, to help in ways that make a positive and sustainable difference when we engage internationally, and, most importantly, to build global networks of lifetime friendships with other humans in the process. *Trusted* friendships are particularly valuable because we can discuss both good and bad news. You can see my succinct thoughts on

this topic in a policy memo I wrote for FAS several years ago:
https://fas.org/docs/2012_Policy_Memos.pdf. My approach is difficult to scale, but I'm convinced it's powerful.

6. You've been speaking more about 'leadership' recently. Why?

When I was given command of USAMRIID, the Commanding General of the US Army Medical Research and Material Command, General Russ Zajitchuk, put his arm around my shoulder and said, "Dave, you're the expert. Run the institute the way you think it should be run. Come to me if you need my help." That kind of leadership is much less common today, particularly in government. It had an amazing empowering and motivating impact on me and I know that the trust he placed in me ultimately made the whole organization more effective. As I've watched organizations over the years, I see fewer leaders who 1) hire the best people and *really* delegate responsibility and authority; 2) put the organization and its people before themselves; 3) communicate openly with their employees, make hard decisions and take necessary risks, and then; 4) give their employees credit for successes and take full responsibility for any failures in their organizations. I would like for the next generation to understand and utilize these proven and powerful leadership practices.

7. Do you have any advice, specifically for younger scientists or engineers today?

Find something you believe in and love to do and just work hard. Never stop learning; be a sponge. Take care of the people around you and share your knowledge openly and freely. Think 'one level up' in your organization; try to make your boss's job easier. Make work fun; a sense of humor is a powerful advantage. Volunteer and try to give more than you take. Don't work for money; it will come if you are making a positive difference. Finally, if genuine humility doesn't come naturally for you, find a really tough job or unfair boss and learn 'enforced humility.'

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