Center for Drug Design
2025 Seminar Series

"A Soldier's Quest to Find and Counter the WHO Priority Disease Crimean Congo Hemorrhagic Fever"

Presented by: Scott Pegan, Ph.D., Professor and Associate Dean; School of Medicine
University of California Riverside

Wednesday, June 18, 2025 @ 10:30 AM

1-450 Moos Tower

Research synopsis:

Crimean-Congo hemorrhagic fever virus (CCHFV) is a ssRNA (-) nairovirus that produces fever, prostration, and severe hemorrhages in humans. Fatality rates typically associated with CCHFV can be up to 40%. CCHFV has rapidly spread across large sections of Europe, Asia, and Africa. Recently, CCHFV, through its tick reservoir, has illustrated its continued ability to spread into previously naive regions. For this, as well as its often-fatal nature, human-to-human transmission, the growing number of human nairoviruses, and lack of approved therapeutics for this viral class, CCHFV is classified as an NIH prototype virus. This has also placed it on the WHO blueprint for antiviral development. Dr. Pegan will guide the audience through a journey of developing, with his partners, a fast-acting vaccine and two monoclonal antibody countermeasure platforms to address the needs of the military and the public. He will also highlight efforts to develop biosurveillance tools to detect emergent nairoviruses and others early.

Scott Pegan, Ph.D.

Professor and Associate Dean
School of Medicine
University of California Riverside

Scott Pegan is a native of Livermore, California, Dr. Pegan joined UCR's School of Medicine as a Full Professor in 2021. He earned his Ph.D. and M.S. in Chemistry from the University of California in San Diego with a BS from University of California Santa Barbara. His current research focuses on vaccine and therapeutic development against emerging and persistent pathogens of concern to the U.S. military and global communities. He also works to develop therapeutics for nerve and pesticide agent poisoning. He has published over 65 peer-reviewed articles and holds over seven U.S. and international patented discoveries. He also contributes to the infectious disease community as an Associate Editor of American Chemical Society's Infectious Disease Journal.

A decorated U.S. Army Operation Iraqi Freedom combat veteran, Dr. Pegan previously served as a Science and Technology Officer for several Future Command Research Institutes. He is currently serving as a Lieutenant Colonel and Instructor at the United States Military Academy located at West Point, NY to foster greater research capacity while imbuing the next generation of military officers with research opportunities and enhanced paths to medical education. Beyond these activities, Dr. Pegan has partnered with several other industry and federal agencies on research for therapeutic discoveries. When not in the role of military officer and researcher, he is an Associate Dean of Pre-Clerkship education at UCR's School of Medicine supporting the school's training of the next generation of physicians for the Inland Empire, California, and beyond.