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**UAMS Infectious Disease Researchers
Awarded \$5.7 Million COBRE Grant Extension**

LITTLE ROCK — The National Institute of General Medical Sciences within the National Institutes of Health awarded an additional \$5.7 million, five-year grant to fund the third and final phase of a University of Arkansas for Medical Sciences program that supports infectious disease research.

This final phase of the Centers for Biomedical Research Excellence (COBRE) grant is for the 11th through 15th years of the program, which since 2012 has now received more than \$26 million in federal funding.

“The goal of the COBRE grants is to establish a center of research excellence around a specific scientific theme that will ultimately become self-sustaining, and in our case this theme is broadly focused on the growing problem of infectious disease,” said Mark Smeltzer, Ph.D., a professor in the Department of Microbiology and Immunology and the Department of Orthopaedic Surgery in the UAMS College of Medicine.

In 2012, UAMS was awarded more than \$10 million for the first phase of the program, which allowed Smeltzer and Richard Morrison, Ph.D., to establish the UAMS Center for Microbial Pathogenesis and Host Inflammatory Responses to focus on diverse microbial pathogens — bacteria, viruses and parasites — and the impact of the host response that these pathogens elicit in humans.

“The goal is to understand the pathogen and the host response to a point that allows us to manipulate the interaction between the two in favor of the host and the desired therapeutic outcome,” said Smeltzer, director of the center.

Working with Morrison, who at the time was chair of the Department of Microbiology and Immunology and served as co-director of Phase I, this “allowed us to start recruiting outstanding young investigators we wouldn’t have been able to recruit otherwise,” said Smeltzer. “It was their success in developing their own independent research programs that allowed us to build our center and obtain an additional \$11 million in 2017 to fund Phase II, and it was our continued success in Phase II that allowed us to obtain this additional funding for Phase III.”

Smeltzer said that “to date, we have recruited 10 new investigators to UAMS and Arkansas, and one of the things I’m proudest of is that all of these investigators are still here,” which Smeltzer noted is “particularly important to me personally both as a long time faculty member at UAMS and a native Arkansan.”

The final-stage funding “is a huge accomplishment that continues to enhance the Department of Microbiology and Immunology and the campus through infectious disease and host response research,” said Daniel E. Voth, Ph.D., professor and chair of the department.

To date, seven center researchers recruited during Phase I and II, when funds were earmarked for junior researchers, have since obtained their own R01 grants. R01 grants are the gold standard for independent scientists and the oldest grant mechanism used by the NIH.

“Everyone I have asked, and I have asked everyone, has said it was a primary reason they came to UAMS,” Smeltzer said of the COBRE grant.

“It certainly tipped the scales for me when I was considering job offers,” one of those researchers — Karl Boehme, Ph.D. — said in 2017.

Boehme is part of a large team of UAMS researchers who, over the last two years, conducted statewide antibody testing and other research to combat COVID-19. As Smeltzer pointed out, “this provides a direct illustration of the importance of the center not only in the context of the work done by its investigators but also with respect to the expertise of these investigators, the resources provided by the COBRE, and the ability to bring these elements together to respond to emerging health threats.”

Karen E. Beenken, Ph.D., Jon Blevins, Ph.D., and Jason Stumhofer, Ph.D., played a key role in the Phase III COBRE award as directors of its research cores. As Smeltzer noted, “these research cores provide a further indication of how the COBRE program has benefitted the overall research environment at UAMS and in the state of Arkansas.”

Smeltzer said the renewed COBRE funding allows UAMS researchers to increase their national and international visibility and reputation, “and lets us be a player in addressing what I see as the critical problem of infectious disease, which is not only a critical problem in itself but also has the potential to compromise every medical specialty including orthopaedic surgery.”

As director, Smeltzer’s laboratory isn’t eligible to receive research funding from the center. However, his laboratory recently received an additional \$2.3 million in R01 funding from the National Institute of Allergy and Infectious Diseases to continue his research on *Staphylococcus aureus* bone infection, which he began when he came to UAMS in 1993. By mid-2026 when the funding for this grant ends, his laboratory will have received more than 30 years of NIH funding.

“Infectious disease problems will continue to arise that we don’t even know about right now,” Smeltzer said, “which is why it’s important to have a Center of Biomedical Research Excellence for studying infectious disease.”

UAMS is the state's only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; a hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS' clinical enterprise. UAMS is the only adult Level 1 trauma center in the state. *U.S. News & World Report* recognized UAMS Medical Center as a Best Hospital for 2021-22; ranked its ear, nose and throat program among the top 50 nationwide for the third year; and named five areas as high performing — colon cancer surgery, diabetes, hip replacement, knee replacement and stroke. *Forbes* magazine ranked UAMS as seventh in the nation on its Best Employers for Diversity list. UAMS also ranked in the top 30% nationwide on *Forbes*' Best Employers for Women list and was the only Arkansas employer included. UAMS has 3,047 students, 873 medical residents and fellows, and six dental residents. It is the state's largest public employer with more than 10,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children's, the VA Medical Center and Baptist Health. Visit www.uams.edu or www.uamshealth.com. Find us on [Facebook](#), [Twitter](#), [YouTube](#) or [Instagram](#).

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