



(L-R)  
**DAVID ALLAND, PHD,**  
**SALLY HODDER, MD,**  
**WILLIAM C. GAUSE, PHD,**  
**AND DAVID PERLIN, PHD**

## Institute Tackles Infection and Inflammation

**WHAT IF... a simple diagnostic test could rapidly detect the world's most deadly and contagious diseases?**

**What if...the body's own immunological defenses could be harnessed to combat disease-causing inflammation without compromising our resistance to disease?**

**What if...a group of world-class dedicated researchers were brought together under one roof and provided with the necessary resources to develop targeted new approaches to disease detection, treatment, prevention and healing?**

NJMS has a critical mass of expertise in the field of infection and inflammation. William C. Gause, PhD, senior associate dean of research; David Perlin, PhD, executive director of the Public Health Research Institute (PHRI); David Alland, PhD, director of The Center for Emerging Pathogens in the Division of Infectious Disease; and Sally Hodder, MD, vice-chair of research, Department of Medicine, believe that top researchers currently working at three centers of excellence at NJMS — The Center for Immunity and Inflammation, Center for Emerging Pathogens, and PHRI — are leaders in their fields, and publish in the highest impact journals. “These three centers have already recruited outstanding scientists by establishing a first-class infrastructure that promotes research

excellence,” Gause explains.

Now, the important step is to bring everyone together under one roof at a new Institute for Infectious and Inflammatory Diseases, to be known as I<sup>3</sup>D, which will catalyze discoveries at the intersection of inflammation and infectious disease, spur development of advanced diagnostics and generate new treatments to alleviate the suffering in poor communities everywhere. The impact on the City of Newark could be considerable because the new institute will draw even more top scientists and clinicians from throughout the country. “An important component will also be the research clinical center, which has already been funded in part by the National Institutes of Health. Patients will be able to enroll in clinical trials supported by NIH and the biotech/pharmaceutical industry,” explains Gause.

“At I<sup>3</sup>D,” he adds, “researchers will join forces to tackle the development of disease from new perspectives with rapid detection and inflammation control as principal focuses. Multidisciplinary teams will include experts in pathogenesis, diagnostics, host defense and inflammation, and researchers will work close to one another in labs and clinics.”

The plan is for clinical centers at the new institute to move new therapies and treatments from bench to bedside quicker,

help break the cycle of poverty and disease in impoverished communities locally and worldwide, offer continuing education to all health professionals as well as science writers and health educators, and share research and information with the public through publications, blogs, social media, and video.

“Today, we have an unprecedented opportunity to impact a wide range of diseases because dysfunction of the immune system has been implicated in AIDS, malaria, tuberculosis, influenza, cardiovascular disease, diabetes, asthma and obesity,” Gause says.

The NJMS team points out that population growth, pollution, national disasters, climate change, unhealthy lifestyles, and widening gaps in access to health care are all contributing to an explosive increase in the number of people afflicted by the devastating plagues of AIDS, malaria and tuberculosis. Diseases linked to inflammatory disorders including Crohn's disease, diabetes, and obesity may all be affected by exposure to infectious agents. The four NJMS leaders believe that now is the perfect time to form the Institute for Infectious and Inflammatory Diseases and that Newark is the ideal location.

— *Amazing Science News compiled by Doris Cortes-Delgado*