

PRIDE of PLACE

ENGAGING OMAHA UNO'S COMMUNITY ENGAGEMENT CENTER

UNIVERSITY of NEBRASKA FOUNDATION

NU helping combat weapons of mass destruction



Robert C. Hinson.

New, more effective vaccines for anthrax and ricin.

Improved information systems that would allow national leaders to make better and faster decisions during security crises or natural disasters.

Stronger assessment tools to allow for timely, thorough responses to outbreaks of foodborne illnesses.

New, innovative tools

that would allow decision-makers to better assess responses to the release of chemical, biological, radioactive, nuclear or explosive devices.

These are the goals of just a few of the projects undertaken since the establishment of the University of Nebraska's National Strategic Research Institute (NSRI) in the fall of 2012.

The institute, a collaboration between NU and the United States Strategic Command (USSTRATCOM), has highlighted numerous accomplishments in its first annual report, available now on the NSRI website.

Key among those: Faculty from across the university have attracted more than \$9 million in funding to pursue 22 projects related to the chief mission of the NSRI – to support research for combating weapons of mass destruction.

The National Strategic Research Institute is the newest of 13 University-Affiliated Research Centers (UARCs) across the United States. NSRI focuses on five core areas of expertise demonstrated by NU faculty: nuclear detection and forensics; detection of chemical and biological weapons; passive medical defense against weapons of mass destruction; consequence management; and space, cyber and telecommunications law.

"The establishment of the NSRI at the University of Nebraska has created a significant opportunity for university faculty and researchers to contribute directly to combating weapons of mass destruction research and technology requirements of our defense partners and other federal agencies," said Robert C. Hinson, a retired U.S. Air Force Lieutenant General and executive director of NSRI. "The established core competencies reflect a very real mission area concern of USSTRATCOM and other federal agencies with assigned roles and responsibilities for addressing significant national security requirements for combating weapons of mass destruction."

The 22 NSRI-affiliated projects, called "task orders," being performed at the University of Nebraska capitalize on the expertise of some of NU's most outstanding faculty. For example:

- Kenneth Bayles, Ph.D., professor of pathology and microbiology at UNMC, is conducting research in the area of a next-generation anthrax vaccine.
- James Talmadge, Ph.D., UNMC professor of pathology and microbiology, is working on strategies that can better protect soldiers from biological weapons.
- Don Umstadter, Ph.D., professor of physics and astronomy at UNL, is pioneering the science, technology and applications of extreme light with the high-powered Diocles laser – work that could allow for better detection of nuclear materials.
- Jeyamkondon Subbiah, Ph.D., Kenneth E. Morrison Distinguished Professor of Food Engineering and associate professor in the Department of Biological Systems Engineering at UNL, is conducting research that could lead to more thorough and rapid responses to foodborne outbreaks affecting Department of Defense or Department of State personnel in the United States or other countries.
- Douglas Derrick, Ph.D., assistant professor of information technology innovation at UNO, is working on a project that could enable more rapid understanding, risk assessment and decision-making for national leaders in the event of hostile enemy actions or man-made or natural disasters.

In addition, Gina Ligon, Ph.D., assistant professor of management at UNO, serves as the lead faculty member for a new, first-of-its-kind leadership program at UNO that directly supports the professional education and development of civilian leaders at USSTRATCOM.

The program focuses on leadership, critical decision-making, team-building, collaboration and project management, and interactions with state and federal political leaders. It will conclude with completion of an assigned research project report over a challenging 13-week curriculum.

MIT, Johns Hopkins University and Penn State – all national leaders in research and development expenditures financed by the Department of Defense – are among the 12 other universities hosting UARCs.