

Ohio EDG²E Medicine Center: A WIN/WIN Proposal

By Judi Engle

For years, concern has been voiced about the need for improved medical readiness for mass disasters and tomorrow's health care challenges, more rapid technology transfer between laboratory research and commercial products, and new job opportunities for Ohioans.

A group representing industry, educational institutions, and hospital systems, working collaboratively with the Dayton Development Coalition (DDC), has put together a proposal that addresses these issues for the Greater Dayton region and beyond. "The DDC brought an impressive list of collaborators to the table," says Howard Part, dean of the Boonshoft School of Medicine, who served on the coalition's task forces, "and the result is, I believe, a very competitive proposal."

One of eight Wright Mega-center of Innovation proposals submitted under the State's Third Frontier Initiative, the Ohio EDG²E Medicine Center proposal outlines five key platforms that integrate and build upon existing core strengths of its partners:

Education (EDG²E Education Delivery)

From the development of new distance learning techniques to 3D virtual training environments to remote patient monitoring, this platform holds great promise for physician training and improved patient care and will support a wide variety of educational programs.

Research Capability (EDG²E Lab Cluster)

The research capability and capital investments of university and government partners will be leveraged in this platform to enhance basic and applied research capacity. State-of-the-art laboratory facilities will be networked to form a collaborative cluster in a wide range of areas, including toxicology, clinical care, genomics, and human performance.

Training and Medical Readiness (EDG²E Test Bed Facility)

Envisioned as a state and national resource, the facility aims to standardize response to man-made and natural disasters. This platform comprises outdoor and indoor modeling, simulation training, and life-sized demonstration facilities for first responders, physicians, and other health care professionals.

Information Technology (EDG²E Information Facility)

This platform will centralize the IT needs of database management, program management, and networking as well as integrate sensor data derived from virtual simulations and training.

Technology Transfer (EDG²E Translation Center)

This area will facilitate the process of moving laboratory research and test bed results through concept development and into prototypes to speed up the commercialization process.

A central theme in the Ohio EDG²E proposal focuses on “how to deliver medical and health services in hostile or extreme environments . . . a challenge that stretches from the battlefield to the landscape of natural and man-made disasters.” The proposal addresses medical readiness for Ohio by providing surge capacity facilities for mass disaster situations, nationally certified first responder training, and new technologies for diagnostic and therapeutic sensory devices.

A basic premise of Ohio EDG²E is to actively support and leverage the changes outlined by the Base Realignment and Closure (BRAC) process. Beginning in late 2007, more than 1,000 scientists in the fields of human effectiveness and aerospace medicine are scheduled to move to Wright-Patterson AFB, which BRAC has named the military’s joint center of excellence for aerospace medicine. This one-time legislation presents an opportunity for the State of Ohio to become a hub of “internationally recognized, leading edge research and technology development.”

As a national aerospace medicine center, potential is enormous for new programs in the fields of aerospace, life sciences, biotech and commercialization, and aerospace medicine training. Wright State’s Boonshoft School of Medicine is home to the only civilian aerospace medicine program in the nation and works closely with Wright-Patterson in this program as well as numerous collaborative research programs.

If the Ohio EDG²E Medicine Center proposal is successful, the coalition will receive a \$60 million grant over a five-year period. “We have developed excellent working relationships throughout this grant development process,” says Dr. Part, “and as a result our community is better prepared to welcome additional base personnel and to form innovative and dynamic partnerships in the future. It’s a win/win for our region.”