

# The University of Toledo-ProMedica Interprofessional Immersive Simulation Center

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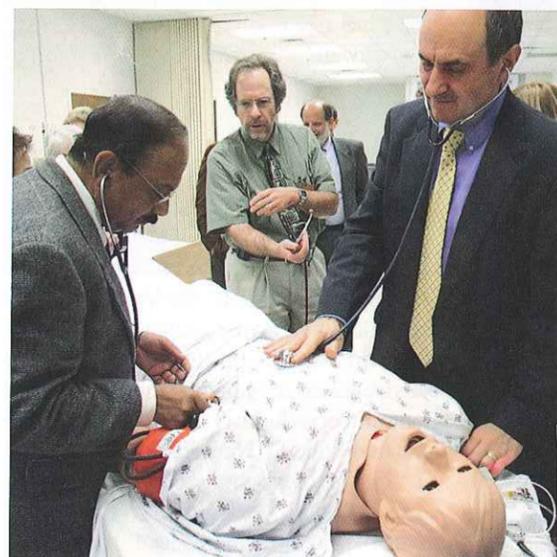
## A Unique Tri-Center Concept

Clinical simulation at The University of Toledo (UT) is undergoing rapid expansion. Through collaboration between the health care disciplines, an Interprofessional Immersive Simulation Center (IISC) has been developed on the UT Health Science Campus (HSC). Students, residents and practitioners from many disciplines can now safely practice a wide range of procedural skills – from taking out a gall bladder to cardiopulmonary resuscitation. Health care teams now practice in virtual hospital settings on life-like human patient simulators that blink, breathe, respond accurately to interventions, and can be programmed to mimic thousands of medical scenarios. The IISC also incorporates surgical skills, labs and virtual immersive reality technology that offers unprecedented opportunities for teaching, learning and research.

## A Collaborative Venture

In 2009, under the leadership of Dr. Jeffrey P. Gold, Chancellor & Executive VP - HSC and Dean, College of

ter was developed. The overarching goals were to support UT's mission to "improve the human condition" and create a "world-class" simulation center to support the develop-



Medicine & Life Sciences, and in collaboration with the HSC Deans, UT made the commitment to advance interprofessional education and expand clinical simulation capabilities. This included: recruiting experienced simulation leadership; reviewing the status of simulation; assessing space requirements; conducting an inventory of simulation models; and developing a strategic plan to meet the future training needs of healthcare professionals. A two-phase strategic plan for an Interprofessional Immersive Simulation Cen-

ment of a transformative model for health care education.

By March 2010, an interdisciplinary model for clinical simulation was quickly being realized with students engaging in health care team exercises. Expanded simulation space (12,000 GSF) was available in the Collier Building and an experienced simulation administrator and business manager was recruited, jointly funded by medicine and nursing. Hours of operation were expanded and an "Open Lab" was created to allow students from all disciplines to practice skills after hours. Faculty "champions" from medicine, nursing, physician assistant's program,

pharmacy and allied health stepped forward to develop simulation curricula. Tremendous interest and support for the IISC concept was emerging from the Colleges of Business & Innovation, Education and Engineering.

By October 2011 the renovation of Phase I space was completed, incorporating the three critical elements of a Tri-Center concept: a Virtual & Immersive Reality Center; an Advanced Simulation Center, and a Progressive Anatomy & Surgical Skills Center. This places UT among the first health science campuses to incorporate an I-Space™ – a four sided virtual immersive room, and two 3D CADWalls. These cutting edge technologies create unlimited 3-D images and immersive worlds that enable virtual experiences such as traveling through the heart of a human or experience being inside a human cell.

A robust business plan was created to support Phase II - a national and globally recognized Interprofessional Immersive Simulation Center. To address sustainability, the plan calls for academic and industry partnerships and invites philanthropic support. In October 2011, working with the UT's development arm (Innovation Enterprises), UT and ProMedica jointly signed a memorandum of understanding that committed to a 50/50 partnership in the IISC.

## The UT-ProMedica Interprofessional Immersive Simulation Center

Phase II of the IISC involves new construction (60,000 GSF) on the UT HSC, adjoining the Center for Creative Education (CCE). Consisting of three floors inter-connected physically, electronically and conceptually - a



Virtual & Immersive Reality Center, an Advanced Simulation Center, and a Progressive Anatomy & Surgical Skills Center, the building will also house an electronic infrastructure that supports competency outcomes assessment.

This "next generation" of the IISC is a transformational project positioning UT and ProMedica in a leadership role for the education of health professionals. Through a broad range of highly technical learning environments that simulate the real world of medical practice, the IISC is creating a new paradigm. The new model involves assessing educational and clinical outcomes and conducting research in improving human performance. The IISC will stimulate innovation in education, research, and entrepreneurship. With advanced immersive virtual environments, the new facility will offer opportunities to foster and develop creative partnerships with industry that result in new clinical technologies.

## An Evolving Academic Partnership

The successful and evolving academic, research and business partnership between UT and ProMedica will vastly enrich the mission of the IISC. Using cutting edge technology, both UT and ProMedica staff and clinicians will now be able to hone procedural and communication skills in low-risk environments.

In the next decade, due to changing societal needs, the use of clinical simulation for training health professionals will expand rapidly, resulting in improved outcomes, increased efficiencies and reductions in costs of health care. Learning procedures in simulated clinical settings is known to have a positive impact on the recruitment and retention of health care providers. Future and practicing health care professionals frequently express gratitude for a safe place in which to learn and refine their clinical skills.