



## ALLIANCE OF INDEPENDENT ACADEMIC MEDICAL CENTERS

### *Innovation Information & Application Form*

Institution Name:	Riverside Methodist Hospital		
City, State:	Columbus, Ohio		
Web Site:	<a href="http://www.ohiohealth.com/homeriverside">http://www.ohiohealth.com/homeriverside</a>		
Institution Contact:	Bruce Hagen		
Title:	President, Riverside Methodist Hospital		
Phone:	614-566-3602	E-Mail:	boyersp@ohiohealth.com

1. Please describe how the nominee has developed and/or implemented *innovative medical education programs* for residents, physicians and other staff which have resulted in better patient outcomes: (OR answer question 2)

In order to create a new model for Medical Education at Riverside Hospital, key teaching physicians and the DIO collaborated to design, build and equip a unique simulation facility to teach, assess, and measure the ACGME and other clinical competencies.

A driving desire behind the creation of the new model was for medical education to contribute significant to patient safety and to clinical quality. There was also a desire to broaden the education of physicians to include nurses and other medical professionals by practicing care of the patient in health care teams. Special attention would be given to the hand over of care of the patient as they progress through the hospital.

The model was to address learners along the continuum of medical education from medical students to house officers and to the practicing physicians.

The resulting Center for Medical Education and Innovation is a 20,000 square foot state of the art training center that uses simulation to teach and evaluate a resident's level of competence in Patient Care, Medical Knowledge, Communication Skills, Professionalism, Systems Based Practice and Practice based learning. The Center incorporates multiple simulation models under one roof and with its virtual hospital creates an environment for health care team training. Early exercises in health care teams have involved residents and nurses and respiratory therapists working together.

In addition to developing the residency appropriate clinical exercises, the first year of operation focused upon staff and faculty development so that this innovative environment could be developed to its fullest extent. Of particular note has been the collaboration between the

residency program directors and the involvement of nurses and allied health professionals (systems-based practice) into the education of the house staff. Communication skills and professionalism have been incorporated routinely into the educational experiences.

The center is used throughout the academic year to routinely address competency development in Clinical Care skills, Trauma Skills, Surgical Skills and Interpersonal skills. Each program has developed a specialty specific skills curriculum.

Clinical Lab Skills OSCEs are given to all first year residents to assess their competency levels in laboratory testing. Any resident that fails receives remediation.

The FY O6 academic year culminated in Critical Care Skills Practicum for all the PGYI residents in order to assess their readiness to graduate to the second year of training. The Family Medicine, Internal Medicine, Transitional Year and General Surgery Programs were assessed upon the following procedures: Intubations, Bag mask ventilation, Oral ETT insertion, preparation, draping and maintaining a sterile field, CVC insertion, recognition of normal vs. abnormal waveforms, and abnormal cardiac rhythm.

The Ob/Gyn residents were assessed on different skill sets, such as: Post partum hemorrhage, post partum complications, repair of second degree episiotomy, basic suturing techniques, and airway management.

Communication skills were assessed for residents for all programs as they were demonstrating their procedural competence.

Computerized medical knowledge tests were incorporated into the skills exercises.

2. Please describe how the nominee has developed and/or applied *scientific discoveries* which have resulted in better patient outcomes: (OR you may leave blank if question 1 has been completed)

Several grants have been secured to support the development of educational outcomes. The ACGME competencies have been the major focus of this work as we lay down the parameters for educational outcome measurement. This endeavor is being accomplished through partnership with a software company so that pre and post assessment and faculty assessment are included routinely in every clinical simulation exercise.

Early results of the simulation exercises are revealing important findings that have a direct impact on patient outcomes for example. Relevant findings reveal individual and group deficiencies in medication management, communication with the patient and with other team members, body language, aseptic techniques and the management of technical equipment.

Through the routine evaluation and assessments of health care professionals in this virtual environment, deficits in knowledge, clinical procedures and communication are identified and remediated. There are some interesting and potentially important outcomes emerging from the early measurements.

Of significance, for example, is the fact that some assessments are revealing clinical situations where the trainee expresses more confidence in their abilities than is warranted by the faculty assessment. This phenomenon needs special attention because of the potential impact of an overconfident doctor or nurse on patient safety. Through such careful observation and more

objective documentation the faculty have felt more confident in identifying this trait and in giving feedback, including ongoing monitoring of the “over confident” health care provider.

The first clinical competency assessments were carried out in June 2006 to assess first year resident's readiness to progress into the PGYII Year. Six critical skills were assessed in the virtual environment. This exercise assessed competence levels and also identified residents for whom remediation is necessary. Of note, professionalism and communication skills and aseptic techniques were also assessed while the resident was carrying out a procedure.

The next steps in outcomes measurement will include following the trainee, to the clinical settings - such as the Operating Room and the Intensive Care Unit. The faculty is already providing positive qualitative feedback about the impact of the use of simulation on the proficiencies of the house staff, especially in the areas of critical care skill development and minimally invasive surgery. Research projects to substantiate this feedback are currently being implemented.

We believe that through the extensive use of simulation, physicians and medical professionals from Riverside and other OhioHealth hospitals will be assured of maintaining the highest levels of medical competency through ongoing training and professional development using the advanced technologies and medical innovations offered at CME+I™.

3. Has the nominee received national recognition for innovative medical education and/or research contributions?

Yes                       No

If yes, please describe:

- ❖ National Certifications (Stroke, Heart/Heart Surgery, Chest Pain, Cancer, Ortho and OB)
- ❖ 5<sup>th</sup> Annual US News & World Report (top 100 hospitals)
- ❖ Solucient Top 100 Hospitals
- ❖ 2006 Governor’s Award from Ohio Partnership for Excellence™
- ❖ JCAHO Disease-Specific Certification (Cancer, Stroke, CHF, Joint Replacement, Women’s Health)
- ❖ US News & World Report Top 50 (Cancer, Heart/Heart Surgery, ENT)
- ❖ ACGME “Courage to Lead” award received by Pamela J. Boyers, PhD, DIO, Executive Director/Chief Academic Officer Center for Medical Education and Innovation
- ❖ Dr. Wayne Poll, Director, Robotic Surgery and Innovation Consultant placed 3<sup>rd</sup> in the nation in Fortune’s Small Business Innovation Competition,

4. If chosen for this award, will the nominee be present to receive it at the AIAMC 2007 Annual Meeting, to be held March 29<sup>th</sup> thru 31<sup>st</sup> in Austin, TX? *(Please note the institution should ideally be represented by its CEO & CAO)*

Yes                       No                       Not Sure