The WISER Mission:

- Create a safer environment for patients and improve healthcare efficiency by using simulation and other state-of-the-art educational technology in the training and assessment of healthcare system professionals

- Serve as a laboratory to research the use of simulation and other advanced instructional technology in healthcare education and to publish the results

- Create simulation-based education programs for primary education in various domains of the healthcare delivery system

- Develop and validate simulation-based technology as a competency assessment evaluation tool for healthcare professionals

- Contribute to the education and mentorship of future generations of healthcare system educators and education researchers interested in creating or evaluating simulation-based teaching methodologies
FROM THE DIRECTOR

The last year has been yet another exciting and productive year for WISER and for the simulation community as a whole. WISER continues to expand in the areas of program and physical plant as well as our activities contributing toward leadership of healthcare simulation in Pittsburgh, our university, health system, and throughout the world.

WISER had a significant increase in the number of courses and diversity of the programs that we offer. The number of students utilizing the institute for training, development, and research of educational activities continues to climb. We expanded our undergraduate classes in the schools of nursing and pharmacy.

In January of 2010, the International Meeting on Simulation Healthcare (IMSH) was held in Phoenix, Arizona. WISER presented more peer-reviewed research poster presentations than any other center! This is a testament to the hard work of the faculty, students, and the staff of WISER, as well as the recognition of the importance that healthcare simulation is playing in the care of patients.

Our commitment to patient safety throughout UPMC continues. This year WISER revised one of our most important patient safety efforts, the central line training program. We continue to prepare for critical incidents inside the hospital with our crisis team training program that is conducted regularly with nurses, physicians, and respiratory therapists.

Faculty at WISER have been recognized for their commitment to education, innovation, and teaching excellence. The number of faculty involved in the creation and teaching of courses at WISER continues to grow. We have established leaders in the major educational domains at WISER to mentor faculty members new to simulation. The results show exciting growth in a variety of programs.

This year, Dr. John O’Donnell, Associate Director of Nursing Programs at WISER, earned his doctoral degree in epidemiology. His dissertation work focused on his development of an evidence-based back injury prevention program using simulation methods. His dissertation “Development of an Optimal Patient Transfer Task Set and Simulation-Based Intervention to Reduce Musculoskeletal Injury in Healthcare Workers” was awarded the distinction of Dissertation of the Year by the Graduate School of Public Health at the University of Pittsburgh.

Furthering WISER’s mission to help foster the implementation and development of simulation programs, we have partnered with the Gordon Center for Research in Medical Education (GCRME) at the University of Miami to create an instructor development program called Improving Simulation Instructional Methods, better known as iSIM. This course has been held in various locations including Pittsburgh, Miami, South Korea, and Singapore and was extremely well received by an international audience.

WISER continues to support the combat medic training for the United States Army. Our project to assist with evaluation of combat medics and ideal methods continues at the Department of Combat Medical Training located at Fort Sam Houston in San Antonio, Texas. We are entering into the final phases of data collection and analysis and remain confident in our ability to assist in the training of our nation’s heroes.

We continue to thrive and carry on our mission of creating programs to make a safer environment for patients and further investigate the uses of simulation in healthcare education and assessment.

Sincerely,

Paul E. Phrampus, MD
Institute Director
What’s New at WISER

Over the past academic year, WISER introduced 24 new courses into its catalog. These courses ranged from Dental Office Management of Emergency Situations to Sexual Assault Examination. All courses created at WISER go through an extensive and proven creation process.

The WISER course catalog now offers a total of 140 courses. WISER has not only worked to expand its catalog of courses, it has expanded the size of its facility, adding another 4,000 square feet which serves as the administrative office area. The expansion enabled WISER to accommodate the increased demand for Advanced Cardiac Life Support (ACLS) and Basic Life Support (BLS) training for medical professionals in the area. WISER dedicated space, originally allocated for offices, to full-time ACLS and BLS training rooms. This move also allowed an improvement of workflow among its administrative and informational technology staff.

WISER welcomed two visiting fellows this past academic year, Dr. Hee Jeong Son and Dr. Young-Min Kim.

Dr. Hee Jeong Son is from Kangwon National University in Korea. She is an assistant professor in the Department of Anesthesiology since 2004 and Medical Education since 2006. Dr. Son was in charge of clinical skills education for two years and is now a member of the steering committee at the Clinical Performance Center in Kangwon National University School of Medicine.

Dr. Young-Min Kim is from the Catholic University of Korea located in Seoul, Korea. Dr. Kim is a part of the Department of Emergency Medicine at Kangnam St. Mary’s Hospital in Korea. During his time at the Catholic University, Dr. Kim was a founding member of the Medical Simulation Educator Meeting (MeSEM), founding member of the Korean Emergency Airway Management Society, founding member of the Korean Society for Simulation in Healthcare (KoSSH), and Director of the Emergency Medicine Residency Training Program at the Catholic University of Korea.

DID YOU KNOW?

WISER is one of only 20 simulation centers in the United States endorsed by the American Society for Anesthesiologists (ASA).
3RD ANNUAL NURSING SYMPOSIUM

The 3rd Annual WISER Symposium on Nursing Simulation took place on December 3-4, 2009. WISER welcomed an international audience and guest speakers from multiple disciplines to this two day event. The symposium opened with remarks from Dr. Paul Phrampus and co-chairs Dr. John O'Donnell and Michele Kuszajewski.

On day one, guest speakers presented on a wide range of topics including the impact of simulation on the front-line, patient safety culture, legal issues surrounding simulation education, best practices, and simulation from the leadership perspective. The keynote speaker for the day was Dr. Pam Jeffries of Johns Hopkins University School of Nursing. The afternoon featured small group, break-out sessions on faculty development, structured and supported debriefing, and creating leadership buy-in to simulation.

Day two sessions focused on a review of the top 10 simulation articles of 2009 by keynote speaker Dr. Jeffrey Groom of Florida International University, the use of educational technology in simulation, obtaining funding and support for simulation in the clinical setting, and publishing professional articles related to simulation. Also on day two, brief course snapshots provided participants with information on successfully implemented simulation trainings.

MEDTASS

WISER in conjunction with UPMC, the Mediterranean Institute for Transplantation and Advanced Specialized Therapies (ISMETT), and the Renato Fiandaca Simulation Center, held the 1st Mediterranean Transplantation Anesthesiology and Simulation Symposium (MedTASS) in Palermo, Italy. International experts presented up-to-date reviews of current standards of practice in the perioperative anesthetic and intensive care management of liver, heart, and lung transplantation as well as the use of simulation in healthcare. A special session on minimizing ischemic reperfusion injuries in organ donors was held. Attendees participated in interactive simulation sessions dealing with intraoperative decisions encountered in liver, heart, and lung transplantation. Specific sessions were also held to teach difficult airway management, fiberoptic intubation, and central line placement.

WISER faculty members included Dr. John Williams, Chairman of the Department of Anesthesiology, Dr. Paul Phrampus, director of WISER, and Drs. Andrew Murray, Joseph Quinlan, Raymond Planinsic, and Shushma Aggarwal. Drs. Planinsic and Phrampus as well as Dr. Antonio Arcadipane served as the planning committee and meeting co-chairmen. Overall, the MedTass conference was a great success bringing knowledge, skill, and simulation to the forefront of transplantation.
SAFAR Symposium Research Day

WISER trainees and staff participated in the Safar Symposium Multi-Department Trainees Research Day on June 1, 2010. WISER visiting fellow Dr. Young-Min Kim won the best simulation poster award for his poster “Simulation Experience and Practicing Emergency Physicians’ Perceptions to a Simulation-Based Difficult Airway Training Program.”

Research posters presented by WISER trainees and staff were as follows:

- **Joanie Campsie, SRNA, BSN** - “A Research and Publication Tool for Obstetric Simulation Educators: The Public EndNote Reference Project (PERP) at WISER”
- **Michele Kuszajewski, RN, MSN** - “Current Use of Debriefing Methods in Simulation Education at an Interdisciplinary Simulation Center”

8th Annual Safar Symposium

WISER hosted the afternoon simulation session of the 8th Annual Safar Symposium on June 2, 2010. The symposium celebrated the 50 year anniversary of cardiopulmonary resuscitation (CPR). WISER offered a live webcast of the symposium to the simulation community. The afternoon featured the following presentations:

- **Paul Phrampus, MD**, Director of WISER - “The History of Simulation in CPR Training”
- **John Vozenilek, MD**, Northwestern University - “An In Situ Simulation Program to Improve Neonatal Resuscitation and CPR”
- **James McGee, MD**, University of Pittsburgh - “The Virtual Patient as an Instrument of Simulation”
- **John M. O’Donnell, DrPH**, University of Pittsburgh - “Back Injury Prevention - An Evidence-based Approach to Simulation Implementation”
- **Connie Lopez, RNC**, Kaiser Permanente - “Shoulder Dystocia - An Evidence Based Deployment of Simulation for Patient Safety”
- **Michael Seropian, MD**, Oregon Health and Science University - “A Roadmap of Simulation Toward the Future”
Tom Dongilli, WISER Director of Operations and John O’Donnell DrPH, CRNA, and WISER Associate Director of Nursing, both authored chapters in “A Manual of Simulation in Healthcare.” The book received an award in the “Basis of Medicine” category from the British Medical Association in 2009. This book addresses some of the most prominent issues that surround simulation center infrastructure, operations, and curriculum. A version of this book has also been published in Korea.

Dr. John O’Donnell received the Dissertation of the Year Award from the Department of Epidemiology, University of Pittsburgh, Graduate School of Public Health.

The Graduate School of Public Health Annual Alumni Dinner was held on May 1, 2010 at the University Club with more than 200 alumni and students in attendance. Dr. John O’Donnell was honored with the “Best Dissertation of the Year in the Department of Epidemiology Award, 2009-2010.” O’Donnell defended his dissertation on September 14, 2009 and received his Doctorate of Public Health on December 19, 2009. His dissertation titled “Development of an Optimal Patient Transfer Task Set and Simulation-Based Intervention to Reduce Musculoskeletal Injury in Healthcare Workers” was funded by the Department of Defense. Selecting the multiple publication dissertation option, O’Donnell has published or is in the process of publishing four papers related to the project. Dr. O’Donnell was formally “hooded” at the Graduate School of Public Health Graduation Ceremony held at the Carnegie Museum in May 2010.
FEATURED COURSES AT WISER

Select WISER courses have been created and recently updated to focus on patient safety as well as advance simulation, which are major initiatives of WISER. Not only are these courses at WISER for UPMC staff, some are offered as continuing medical education (CME) credits and to other healthcare workers outside of the UPMC system. These courses include the Laerdal 100 Course, Anesthesia for Liver Transplantation, Dental Office Management of Emergency Situations, Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS), and Central Venous Cannulation Training.

LAERDAL 100 COURSE

Each month WISER offers the two day Laerdal 100 Course for participants from across the country. Participants learn to assemble and troubleshoot simulators and plan and program scenarios. In addition, the course also covers basic and advanced operation of the software interface. Upon completion of the course, participants return to their organization with the skills to operate their simulator both manually and through programmed scenarios. WISER instructors bring years of simulation experience to the Laerdal 100 Course, providing the participants with an ideal learning environment.

ANESTHESIA FOR LIVER TRANSPANTATION

The Anesthesia for Liver Transplantation (ALT) course provides hands-on experience in a simulation setting for delivering anesthesia for orthotopic liver transplantation. Participants include anesthesiologists, residents, certified registered nurse anesthetists (CRNAs), student registered nurse anesthetists (SRNAs), and fellow-visitors. This course emphasizes a multidisciplinary team approach that includes a pre-operative assessment, operating room setup, placement of central venous access and insertion of wide bore venous lines for infusion of large volume, invasive monitoring, management of massive blood transfusion, coagulopathy, and hemodynamic instability. Special emphasis is placed on issues with veno-venous bypass.

DENTAL OFFICE MANAGEMENT OF EMERGENCY SITUATIONS

The Dental Office Management of Emergency Situations (DOMES) course is designed to offer dental students and dental hygienists a set of core skills in identification, treatment, and evaluation of dental office emergencies. Specific skill attainment includes medication administration and management, airway management, intramuscular injection, use of an AED, appropriate use of CPR skills, and development of communication skills within an office-based setting.
WISER offers Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS) in an interactive, computer-based format. Both BLS and ACLS initial and renewal courses are available. This self-paced, self-directed learning also encourages hands-on practice to enhance skills. Utilizing the American Heart Association’s HeartCode system, participants can access the course educational component online (BLS) or from a CD (ACLS). The BLS didactic portion can be accessed at any time from any location where internet is available. The BLS course material can be completed in less than one hour, and the ACLS material can be completed in two to four hours.

After finishing the course educational component, participants can schedule an appointment to perform the skills assessment at WISER, which takes approximately one hour. WISER has three new training rooms devoted to BLS and ACLS skill stations, allowing for greater flexibility when participants schedule their skills assessment.

Course director Dr. Ryan Romeo updated the half day Central Venous Cannulation Training (CVCT) course to include new online material for participants and instructors. The participant content focuses on indications and contraindications of central venous cannulation (CVC), potential complications of CVC along with treatment and prevention, different sites for CVC including inherent risks, benefits, and anatomy, and safe device removal.

Participants rotate through five different skills stations, with each station emphasizing the use of protective barriers and proper sterile site preparation. Central line insertion is practiced at the internal jugular, subclavian, and femoral sites, with and without using ultrasound as an adjunct. Checklists and debriefing points are utilized to ensure standardization for the many participants that take this course.

Each course that is created at WISER follows a detailed development process. Here are a few of the steps that must be completed in order for a course to be developed at WISER:

- **MEET WITH COURSE DIRECTOR**
  The course director meets with course developers to discuss ideas for the course.

- **LOOK AT EXISTING COURSES**
  Various existing courses are used as examples so the course director can visualize the results.

- **CREATE TIMELINE**
  A timeline is created and follow-up meetings are scheduled to ensure the course is created within the desired time period.

- **DEVELOP MORE THAN SCENARIOS**
  A course consists of more than just simulation scenarios. Content for participants and instructors is developed as well.
Amy Seybert, PharmD, Associate Director of Pharmacy Programs at WISER, recently conducted a medication administration study in an adult coronary critical care unit (CCU) and a medical intensive care unit (MICU) at UPMC Presbyterian. The study compared medication administration error rates among nurses in an intensive care unit (ICU) before and after the nurses were educated using either simulation-based training methods or lecture.

A dozen nurses in each unit were observed administering and documenting patient medications. After the initial observation, the nurses were divided into simulation or lecture-based groups. Both sessions equally focused on the errors that were identified during the initial observation period.

The simulation session consisted of training with the simulator to correct errors and practice proper medication administration techniques. When administration mistakes were made, the simulator responded appropriately with negative physiological changes that gave the nurses a more real life patient experience. The lecture session reviewed medication administration techniques and reinforced what can happen during a typical administration error occurrence.

To assess retention of knowledge, both groups of participants were given multiple-choice quizzes along with a five question subjective evaluation, before and after the educational sessions. The nurses were also observed administering medication twice more: 1 to 4 weeks after the educational session and again 8 to 12 weeks after the session. After the sessions and first observation period, the study found that the medication administration error rate had significantly decreased to 4% for the CCU nurses who received simulation-based training. The error rate for nurses who received lecture style training increased to 22.7%. After the second and final post-education and observation period, the error rate for the nurses trained using simulation slightly increased to 6.2% while the rate for the nurses trained through lectures increased to 36.7%.
Collaborative Work

WisER is proud to have partnered with many distinguished colleagues this past year to promote simulation-based training and provide safer environments for patients world wide through our participation in a multitude of local, domestic, and international venues.

Local Partnerships

WisER participated in the First Annual Rural Telehealth and Advanced Technologies Conference held on the campus of St. Francis University in Loretto, Pennsylvania. This conference was hosted by the Center of Excellence for Remote and Medically Underserved Areas (CERMUSA). Dr. Paul Phrampus, Director of WisER, presented an overview on Combat Medic Research Project. In addition, the Medical Simulation at a Distance Project, which is a joint collaboration between CERMUSA and WisER utilizing each center’s expertise in remote education and healthcare simulation-based training, was featured during this conference.

The UPMC Mercy Hospital School of Nursing second year students completed the First 5 Minutes® course at WisER. This WisER course enhances critical thinking skills by preparing students to implement a plan when finding an unresponsive patient on the clinical unit, thus facilitating a better correlation of the didactic component to the clinical component. One student stated, “I feel more comfortable and confident about implementing what I learned.”

The Northwest Pennsylvania Practical Nursing Faculty Group held their annual Faculty Development Day at WisER. Over forty individuals attended the Perkins Faculty Workshop. The half day workshop consisted of individuals speaking on various topics in the nursing profession and simulation environment. WisER Associate Nursing Director, John O’Donnell, DrPH, MSN, CRNA and Tom Dongilli, WisER Director of Operations, lead the afternoon session that included information on simulation and conducted interactive sessions with the participants that focused on debriefing approaches and techniques.
In concert with the Gordon Center for Research in Medical Education (GCRME) at the University of Miami, WISER created Improving Simulation Instructional Methods (iSIM), an internationally renowned, three day training program designed as an introduction of the fundamentals for delivering simulation-based healthcare education through a variety of techniques and technologies. The program emphasizes hands-on activities and dynamic participation to maximize simulation-based instruction skill acquisition.

WISER opened its doors to host simulation education workshops for the annual spring meeting of the Society of Education in Anesthesia (SEA). The workshops focused on how to teach with human patient simulation, how to use the technology to introduce new equipment to learners, how patient simulation can foster safe intra-operative teamwork, and how to provide constructive debriefing after simulated experiences. Workshop facilitators came from several of the United State’s leading anesthesiology education programs, including the University of Pittsburgh, the University of California at San Francisco, Northwestern University, Vanderbilt University, the Medical College of Wisconsin, the Uniformed Services University of the Health Sciences, and the State University of New York at Stony Brook.

Tom Dongilli, Director of Operations at WISER, presented at the Association of American Medical College’s (AAMC) annual meeting for the Group on Business Affairs / Group on Information Resources / Group on Institutional Planning in Scottsdale, Arizona. Mr. Dongilli’s presentation focused on how WISER is positioned within the School of Medicine at the University of Pittsburgh, how WISER serves as a resource to both the university and a large health system like UPMC, and the strategies WISER uses to sustain its education effort.
Dr. Paul Phrampus, Director of WISER, presented the opening plenary session at the First Annual Meeting of the Korean Society for Simulation Healthcare held in Seoul, South Korea. The presentation was entitled “The Role of Simulation in Healthcare Education and Training.” The new Korean Society has well over 150 members dedicated to the multidisciplinary advancement and implementation of simulation to improve healthcare education and delivery to South Korea. Participants at this important inaugural meeting included representatives from nursing schools, medical schools, and practicing professional nurses, physicians and paramedics. This meeting set the stage for South Korea to further demonstrate its place in the world of simulation leaders.

WISER was proud to host a Healthcare Simulation Instructor Development Program for South Korean nurses. The three day program was designed as an introduction to fundamental skills and abilities for delivering simulation-based healthcare education through a variety of techniques and technologies. The program emphasized hands-on activities and active participation to maximize simulation-based instruction skill acquisition. This program was a joint venture between WISER and the Gordon Center for Research and Medical Education (GCRME) at the University of Miami.

DID YOU KNOW?

WISER had over 200 different instructors teach at the center last academic year.
Dr. Paul Phrampus participated in the *Asian Conference on Emergency Medicine* in Bussan, South Korea, which focused on Emergency Medicine in Asia. This scientific meeting is the largest of its kind and had an attendance of over 1100 emergency medicine delegates from 19 countries. There was a total of 270 scientific papers presented, 165 oral presentations, and 105 poster presentations in addition to 104 exhibitors from all over the world. Dr. Phrampus served as the chair for two oral presentation sessions and presented a keynote address on the “Future of Simulation in Emergency Medicine.” Dr. Phrampus also led a round table discussion with 20 leaders from various departments of emergency medicine throughout South Korea.

WISER teamed up with SimTiki at the University of Hawaii to conduct airway training and a simulation immersion experience at the *20th Annual Asia-Pacific Military Medicine Conference (APMMC)* held in Jakarta, Indonesia. Dr. Paul Phrampus, Director of WISER, delivered a lecture entitled “The Use of Algorithms in Emergency Airway Management” as well as participated in an airway device workshop. The team also put on an immersion experience in simulation entitled “Point-to-Point Care.” It included simulation scenarios emulating the battlefield, the battalion aid station, and finally definitive care, which would be a common pathway for wounded warriors to proceed through. The APMMC is attended by over 20 nations, largely of the Pacific Rim, and is dedicated to advancing the practice of military medicine and fostering collaborations between the United States and Pacific Rim countries.

**DID YOU KNOW?**

WISER has over 100 courses in its course catalog.
COMMUNITY OUTREACH

SHADOW EXPERIENCES

This year WISER hosted various shadow experiences for Pittsburgh youth. Shadowing gives students the opportunity to learn how simulation plays a vital role in education. Many of the students are interested in health related professions, and allowing them to interact with the simulators motivates their desire to pursue a medical career. Through this experience, they are able to witness how healthcare professionals interact with patients and other professionals.

OTHER COMMUNITY EVENTS AT WISER:

- YOUTH WORKS JOB SHADOW
- “THE FUTURE IS MINE” YOUTH EXPLORATION PROGRAM
- BOY SCOUTS OF AMERICA

DID YOU KNOW?

WISER began as a one room simulation center and is now over 16,000 sq feet in physical space and six satellite facilities.
WISER was honored to host Congressman Tim Murphy (R), representing the 18th District of Pennsylvania. Congressman Murphy came to WISER for a demonstration on how simulation is being used to help improve patient safety at hospitals in the area. Congressman Murphy toured with WISER Director Dr. Paul Phrampus and Director of Operations, Tom Dongilli.

The Congressman was able to see examples of WISER courses as well as discuss WISER’s role in the field of reducing medical errors and healthcare education. Shortly after his visit to WISER, Congressman Murphy cosponsored bill S.616, “Enhancing Safety in Medicine Utilizing Leading Advanced Simulation Technologies to Improve Outcomes Now Act of 2009.”

TOURS

- WISER staff conducted over 200 tours this past academic year.
- VIP Tours: Jewish Healthcare Foundation, Bethesda Naval Hospital, British National Health Services and Sanno Medical Center
- WISER also toured incoming medical students as well as local universities.
During the spring of 2010, space for simulation-based training was obtained in the Emergency Department of the new Children's Hospital of UPMC located in Lawrenceville, PA. With help from WISER staff, the simulation center became fully functional.

This newly acquired space gives instructors the capability to train Emergency Department (ED) residents at the moment of their choosing, rather than wait for a room to be available on the ED floor. This also eliminates the task of transporting equipment from the main simulation center, which is located on the second floor of the hospital.

During this past academic year, WISER received several new pieces of equipment to help with the operation of the center:

- GE DATEX OHMEDA AISYS ANESTHESIA MACHINE
- STORZ FIBEROPTIC EQUIPMENT
- LAERDAL SIMMAN 3G
- BIS MONITOR
- STORZ C MAC
- VERATHON GLIDESCOPE
- LUMBAR PUNCTURE TRAINER

**DID YOU KNOW?**

WISER held 1,366 classes in the last academic year.
The WISER development team completed a major upgrade to the Simulation Information Management System (SIMS) in use at WISER: the Course Authoring System. This new feature will allow course authors to add and update online course curriculum completely independent of WISER staff. Users will be able to upload files including images, PowerPoints, PDFs, and Excel spreadsheets, as well as multimedia data such as videos and narrated presentations. Authors will also have the ability to create and modify quizzes, surveys, and evaluations. This new functionality will allow WISER faculty to keep content updated with the current best practices and expertise, which will enable WISER to continually expand its curriculum offerings.

**DID YOU KNOW?**

14 other simulation centers use the WISER SIMS system.

**Technology**

**SimMan 3G**

WISER recently made the Laerdal SimMan 3G a standard part of its educational technology available at the center. Instructors in domains from undergraduate pharmacy to critical care medicine have incorporated this impressive manikin in their current curriculum. The 3G manikin is completely wireless, which enables transfers and complete mobility during the classes. It has automated drug detection and flow metering allowing sophisticated reactions to be pre-programmed so the instructor can concentrate on teaching rather than syringe identification and guessing at volumes of drug being pushed. Advanced features such as reactive pupils and the ability to sweat and bleed provide a new level of automated realism that was previously unattainable. WISER will continue to incorporate this state-of-the-art tool throughout the curriculum.
WISER and the Department of Combat Medic Training (DCMT) worked together to successfully launch a research project at Camp Bullis and Fort Sam Houston in San Antonio, TX. WISER and DCMT created a research study that assesses the current skill levels of combat medic trainees as well as veteran combat medics being deployed for duty. The study looks at the medical treatment skill level of the three most prominent injuries occurring in the battle theater today and evaluates training methods for future combat medic trainees and veterans. WISER identified two locations within these bases and created simulation-based education, training, and assessment sites at each. WISER also created curriculum used in the study to measure retention and reacquisition of skills using a number of teaching methods as well as preprogrammed scenarios to objectively assess critical skill mastery and completion. To date, approximately 400 combat medic trainees and over 200 veteran medics have been assessed. The data collected from this study will serve as the basis for future training programs and methods for combat medics and trainees. WISER is honored to work on such an important project with our military.

**Extracorporeal Membrane Oxygenation (ECMO)**

WISER worked on the ECMO project with the University of Hawaii SimTiki simulation center and UPMC. The focus of this project is to provide development training of the ECMO program at the Kapi‘Olani Medical center in Hawaii for emergency heart and lung bypass for infants and children.

**Condition T**

In collaboration with UPMC, the Center for Organ Recovery and Education (CORE), the Gift of Life of Michigan, and the University of Michigan, WISER helped to develop Condition T, a rapid response protocol that enables organ donation from patients who have designated themselves to be an organ donor and died in the emergency department after failing heroic resuscitative attempts. The Condition T protocol, along with program tools to facilitate education, technical skills, teamwork, process coordination, and policy guidance, can be used by other centers and result in more Condition T organ donations.
**International Meeting on Simulation in Healthcare**

WISER had a strong presence at the 10th Annual International Meeting on Simulation in Healthcare (IMSH). Dr. Paul Phrampus, Director of WISER, served as a pre-conference chair for the conference in addition to serving as a faculty member in the pre-conference course on “Leadership Skills for Simulation Centers.” Tom Dongilli, Director of Operations at WISER, participated in the Operations Track Advisory Panel and acted as a faculty member on the Operations Track Expert Panel titled “We’ve Just Built a Simulation Center - Now What?” WISER faculty and staff had an impressive display of research abstracts:

- **A Means to Improve Debriefing by Graphing Outcomes as a Function of Actions.** Steve Pham, William McIvor.
- **Assessing the Perception of Transferability of Simulation Based Learning into Clinical Practice.** Ruth Tarantine, Michael DeVita, John Lutz.
- **Multi-manikin Simulation to Assess Mass Casualty in Triage Skills in Military Healthcare Providers in Asia Pacific.** Dale Vincent, Benjamin Berg, Paul Phrampus.
- **Perception of Realism and Course Relevance Compared to Years of Experience in a Simulation Based Paramedic Airway Training Program.** Young-Min Kim, John Lutz, Paul Phrampus.
- **Perceptions of Relevance and Program Design for a Simulation-Based Paramedic Difficult Airway Program.** Paul Phrampus, Mark Pinchalk, Jessica Maritto, Ashley Schuring.
- **Perceptions of the Debriefing Experience by Paramedic Participants of a Difficult Airway Program.** Paul Phrampus, Mark Pinchalk, Jessica Maritto, Ashley Schuring.
- **Quantification of Information Technology System Support for an Academic Multidisciplinary Simulation Center.** John Lutz, Paul Phrampus.
- **Simulation Experience and Practicing Emergency Physicians’ Perceptions to a Simulation-Based Difficult Airway Training Program.** Young-Min Kim, Paul Phrampus.
- **Simulation Scenario and Environment Design: Perceptions of Realism and Value Reported by Practicing Paramedics.** Paul Phrampus, Mark Pinchalk, Jessica Maritto, Ashley Schuring.
- **Successful Implementation of an Automated Orientation Tool to a Simulation-Based Program.** Paul Phrampus, Ashley Schuring.
- **The First 5 Minutes®: Using “High Fidelity” Simulation to Train Medical-Surgical Nurses in Completion of Key Tasks Prior to Medical Emergency Team Arrival.** Tom Dongilli.
- **Visualizing Decision Making in Simulations: A Novel Tool for Objective Debriefing.** Steve Pham, William McIvor.
Interview with WISER Course Director
Dr. Ryan Romeo

• What is your current role at WISER?

I am a course director for the Central Venous Cannulation Training, Anesthesia Difficult Airway Management, and Fiberoptic Bronchoscopy Training courses. I am also an instructor for the Anesthesia Difficult Airway Management, Fiberoptic Bronchoscopy Training, Anesthesia Crisis Leadership Training, and Obstetric Anesthesia Elective courses.

• How long have you been involved in simulation at WISER?

I have been involved in simulation since 1999.

• What is your favorite part about teaching at WISER?

My favorite part about teaching at WISER is watching the thought process of the trainees. I enjoy helping the trainees think in real time about a clinical situation and then react to the simulation, not just talk about it.

• What benefit do you think the trainees get from simulation training?

I think the benefit that the trainees get from this type of training is being able to do something that they may read about in their textbooks, but not get to do in the OR during their residency.

“I hear and I forget. I see and I remember. I do and I understand.”
Confucius - Chinese philosopher & reformer
(551 BC - 479 BC)
Interview with WISER Visiting Fellow
Dr. Young-Min Kim

• What made you decide to come to WISER for your fellowship?

I decided to visit WISER after looking at the enormous performance and research activities presented at IMSH meetings.

• What were your expectations for your time here?

Most of all I wanted to learn how to operate and manage a well-functioned simulation center. Apart from that I also wanted to see how WISER develops curriculum and foster instructors for the simulation. To participate in research projects was one of my goals.

• What did you learn while you were here?

As I expected at the beginning I could learn most about center operation, curriculum development, and faculty development.

• What did you think of your time here?

Time at WISER was one of the most helpful and valuable times in my career.

• How will you apply what you learned at WISER back at your simulation center?

What I plan now is to rebuild the infrastructure of our simulation center as it could function in a more efficient way. I also want to create a faculty development program in order to foster skillful instructors and facilitators.

• What did you most enjoy about your work and studies at WISER?

I enjoyed meeting the best experts in the field.

DID YOU KNOW?

WISER originated in the Department of Anesthesiology at the University of Pittsburgh in 1984.
WISER STAFF

**Executive Leadership**

**Paul Phrampus, MD**  
Director

**Thomas Dongilli**  
Director of Operations

**John Lutz**  
Director of Information Technology

**Daniel Battista, MBA**  
Director of Administration

**John O’Donnell, DrPh, CRNA, MSN**  
Associate Director, Nursing Programs

**William McIvor, MD**  
Associate Director, Medical Student Programs

**Melinda Fiedor Hamilton, MD, MSc**  
Associate Director, Pediatric Programs

**Amy Seybert, PharmD**  
Associate Director, Pharmacy Programs

**Joseph Quinlan, MD**  
Associate Director, Anesthesiology Programs

**Operations**

**Melissa Wanker**  
Simulation Coordinator

**Jon Mazur**  
Simulation Specialist

**Larry Kobulinsky**  
Simulation Specialist

**Nichole Erny**  
Simulation Specialist

**Curriculum Development**

**Aimee Smith**  
Production Manager, Curriculum Development

**Information Technology**

**Kimberly Mitchell**  
Application Coordinator/QA Lead

**Michael Smochek**  
Curriculum Application Developer

**Craig Deuink**  
Data Application Developer

**Max Leake**  
Web Developer/Multimedia Application Developer

**Jim Christman**  
PC Consultant

**Administration**

**Jennifer Sinclair**  
Course Scheduler

**Ashley Schuring**  
Sr. Administrative Assistant

**Kayla Stalma**  
Administrative Assistant
Course Directors

Course directors develop the curriculum for the course, sometimes with the help of other authors, and are administratively responsible for scheduling classes, granting participants course access, and reviewing assessment and simulation data.

Aggarwal, Shushma
Arnold, Erin
Arnold, Jennifer
Baird, Joanne
Barnato, Amber
Barnett, Todd
Beach, Michael
Blazeck, Alice
Borrero, Sonya
Borum, Bernard
Boucek, Charles
Braxter, Betty
Burkett, Marnie
Campbell, Patricia
Cavlovich, Doris
Chalifoux, Thomas
Chang, Jason
Clontz, Amy
Cole, John
Cuddy, Michael
Cullen, Mary
Dongilli, Thomas
Dorfsman, Michele
Dunmire, Susan
Emlet, Lillian
Erny, Nichole
Eswein, Jan
Fabbi, Carol ann
Fairbaugh, John
Falcone, John
Fioravanti, Marie
Fisher, MaryDee
Founds, Sandy
Fulmer, Valerie
Funk, Cynthia
Gelzinis, Theresa
George, Betsy
Giovannitti, Joseph
Goode, Joseph
Gosman, Gabriella
Grbach, Wendeline
Guyette, Francis
Hainly, Julia
Hamilton, Melinda
Happ, Mary Beth
Hasley, Peggy
Heinrichs, Edward
Helinski, Monica
Henker, Richard
Hernandez, Caridad
Heron, Michaele
Hills, Darlene
Hoffmann, Rose
Jasti, Harish
Krug, Nicole
Kuszajewski, Michele
Lamberty, Phillip
Lewis, Deborah
Lewis, Gwendolyn
Libman, Shelley
Lieberman, Rhett
Liebman, Thomas
Lowmaster, Becky
Lutz, John
Lyons, Timothy
Magdic, Kathy
Mamula, Sandra
McAninch, Brett
McGaffic, Marc
McIvor, William
Metro, David
Milakovic, Eileen
Miljus, Tracy
Miller, Shelley
Murray, Andrew
Murray, Holt
Neft, Michael
O’Donnell, John
O’Donnell, Lynn
Orebaugh, Steven
Pacella, Charissa
Phrampus, Erin
Phrampus, Paul
Planinsic, Raymond
Porta, Sharon
Presner, Ruth
Quinlan, Joseph
Randel, Gail
Rickens, Myron
Roach, Amy
Roach, Janey
Roberts, Laurel
Robertson, Bethany
Rogers, Paul
Romeo, Ryan
Rotolo, Karen
Saaraswat, Tanuj
Sabol, Paul
Sawicki, Jennifer
Seitz, Samuel
Seybert, Amy
Shane, Debra
Shatzer, Melanie
Sherer, Joanne
Siddall, Viva
Solvay, Debbie
Stoy, Walt
Suffoletto, Jo-Anne
Sullivan, Erin
Suyama, Joe
Ta, Philong
Talarico, Joseph
Tarantine, Ruth
Tasota, Frederick
Tedesco, Elizabeth
Tisherman, Samuel
Tuttle, Raymond
Vitale, Melissa
Waters, Jonathan
Wehner, Kimberly
Weimer, Jennifer
Westerbeck, Donna
White, Deborah
Yavorka jobe, Marian
Yopp, Carrie
Zewe, Gretchen
Ziccardi, Sarah
Zuckerbraun, Noel
Course Instructors

Course instructors facilitate or train during the simulation course. They also observe and document actions of the participants, and provide feedback during the debriefing session.

Abbitt, Michael
Abott, Cheryl
Abriola, Nikhil
Ackerman, Carol
Adams, Douglas
Adams, Ruth
Aggarwal, Shushma
Ahers, Adam
Alarcon, Louis
Alko, Deanna
Allias, Chuck
Almire, Rose
Amesur, Nikhil
Anis, Eric
Anton, Miriam
Annamo, Darla
Anthes, Ananth
Antonyraj, Kavitha
Artman, Chad
Atkinson, Suzanne
Atsina, Komil-Kofi
Auvil, Norman
Babak, Carleen
Baird, Stephanie
Baird, Joanne
Barber, Jan
Barnato, Amber
Barnes, Barbara
Barnett, Todd
Basu, Amit
Battista, Daniel
Baumann, Brooke
Bayir, Hulya
Beach, Michael
Beacom, Kimberly
Beaman, Shawn
Beckley, Linda
Beerman, Lee
Behr, Mary
Benedic, Neil
Bhayan, Neil
Bircher, Nicholas
Blazek, Alice
Booth, William
Borland, Lawrence
Borrell, Jessica
Borum, Bernard
Boucek, Charles
Boujoukos, Arthur
Braxter, Betty
Brooks, Kimberly
Brown, Aaron
Brown, Crystal
Bucher, Brian
Buchholz, Jeffrey
Buck, David
Bulova, Peter
Buraczewski, Michele
Burr, James
Busch, Ryan
Button, Sean
Byno, Ashley
Cackowski, Frank
Callaway, Rina
Campbell, Neal
Campbell, Patricia
Cartier, Theresa
Cavalo, Jaime
Cavlovich, Doris
Chang, Jason
Chen, Deborah
Chen, Min-Shue
Cillo, Erica
Cladis, Franklin
Clark, Robert
Clarke, Camille
Clute, Stephen
Cole, John
Concilus, Katherine
Connolly, June
Connors, Leslie
Cook, Edward
Cox, Roy
Cuddy, Michael
Cunningham, Sarah
Cupps, Nancy
Daday, Claire
Dafer, Linda
Dalby, Patricia
Dale, Cassandra
Damian, Daniela
Dargin, James
Dave, Bhumi
Davidovic, Lara
Davis, Brooke
Davis, Derek
De Angelo, Ronald
DeGeorge, Pamela
Dean, Jack
Dell, Christopher
Demchak, Alicia
Devido, Jessica
Dixon, Bettina
Donahoe, Michael
Doney, Luke
Dongilli, Thomas
Doolin, Sharon
Dorfsman, Michele
Doyle, Thomas
Dudek, Michele
Dunmire, Susan
Dunsworth, Brent
Durando, Bianca
Eck, Jeffrey
Ee, Pei-Lee
Eicher, James
Emlot, Lillian
Englert, Nadine
Erich, Darlene
Eny, Nichole
Erwin, Jan
Evans, Nora
Ezarui, Catalin
Fabiszewski, Lisa
Faet, Becky
Fairbaugh, John
Falcone, John
Farrell, Kate
Feld, Francis
Femmel, Kate
Ferguson, Erika
Ferguson, Laura
Fernayni, Khaled
Fick, Scott
Fink, Ericka
Finney, Kathryn
Fioravanti, Marie
Firestone, Blaney
Fisher, Beth
Fisher, MaryDee
Fleck, Dale
Fleck, Wayne
Fleegle-Vitsas, Jennifer
Forte, Patrick
Founds, Sandy
Fowler, Susan
Fran, Robert
Frazier, Edward
Frehione, Lot
Froelich, Christine
Fulmer, Valerie
Galbraith, Donna
Gannon, Michael
Gardner, Donna
Gelzma, Theresa
George, Betsy
Geraughty, James
Gesmond, Sharyn
Ghobrial, Ibrahim
Gierl, Brian
Gierl, Lisa
Gingo, Matthew
Giovannetti, Joseph
Girgis, Ragy
Gokhman, Roman
Gonzalez, Yakov
Gonzalez, Stephanie
Goode, Joseph
Gordon, Patricia
Gosman, Gabriella
Grbach, Wendeline
Green, Traci
Greenhill, Susan
Grob, Robert
Grooms, Rod
Guentner, Kathleen
Guerra IV, Dario
Guerra-Wallace, Melissa
Guszcynski, Christi
Guyette, Francis
Guzic, Brenda
Guzzo, Andrew
Hache, John
Hamad, Giuseppe
Hamilton, Donald
Hamilton, Melinda
Hannegan, Liz
Happ, Mary Beth
Harine, Lisa
Harris, David
Harrison, Anthony
Havilla, Pamela
Havilla, Pamela
Hebda, Toni
Heinrichs, Edward
Helinski, Monica
Heller, Reagan
Henderson, Kimberly
Henker, Richard
Herlich, Andrew
Hernon, Michelle
Hickey, Robert
Hill, Jared
Hills, Darlene
Ho, Kevin
Hodgdon, Alan
Hoffmann, Rose
Holt, Erik
Horton, Charles
Hrabar, Robert
Hsieh, Margaret
Huang, David
Hudson, Mark
Hughes, Amy
Hunter, Alison
Hunter, Antoine
Hurney, Timothy
Husar, James
Hwee, Trina
Ibinson, James
Ishizawar, David
Jasti, Harish
Jobe, Brian
Joshi, Anmar
Kalan, Amanda
Kane-Gill, Sandra
Karnik, Reena
Kastelic, Wendy
Kay, Sarah
Keith, Jonathan
Keller, Amy
Keller, Brian
Kelly, Susan
Kelly, Tom
Khandhar, Sameer
Kilgour, Justine
Kirsch, Kimberly
Kloes, Jennifer
Kobulinski, Lawrence
Kopczyk, Ted
Kozak, Kathleen
Kreit, John
Kretzmer, Patricia
Krohner, Robert
Krug, Nicole
Krug, James
Krupa, Kelly
Krupa, Kristin
Kumar, Rani
Kundick, Jennifer
Kuszajewski, Michele
Kwok, Garrick
Lamberty, Phillip
Lang, Nicholas
Lang, Yolanda
Lasch, Carol
Laughlin, Karen
Law, Joseph
Lawler, Evelyn
Lawler, Robert
Lebowitz, Jonathan
Lee Foon, Kathleen
Lever, Jonathan
Course Instructors (continued)
WISER mourned the loss of Al Augustine, an Associate Director of Respiratory Therapy Programs, this year. Al was a course author of several programs, instructor, mentor, and most of all a friend of the staff of WISER. Al passed away in July after a courageous battle with cancer at the age of 45. He was a pioneer in the world of respiratory simulation, bringing simulation to the forefront of the specialty. Al authored courses including Respiratory Therapy (RT) Clinical Internship, RT Emergency Airway Management, RT Immediate Life Support, RT Lung Recruitment, RT Mechanical Ventilation, Problem Solving and Trouble Shooting, and RT Mini Bronchoalveolar Lavage (BAL).

Al won multiple awards, created abstracts, and published papers for his work in simulation and respiratory care. He is most known for his work within UPMC for advancing the care and competence of respiratory therapists through the use of simulation. Al and his team of respiratory therapy faculty from WISER won the 2007 Allen DeVilbiss Best Paper Award for their paper “Utilizing Simulation Technology for Competency Skills Assessment and a Comparison of Traditional Methods of Training to Simulation-Based Training.” This literary and scientific award recognizes the “best paper” published in the science journal Respiratory Care.

Al’s most recent achievement was authoring a course for respiratory therapists and nurses entitled Fundamentals of Respiratory Therapy for Healthcare Professionals. The course will allow clinicians of all types to properly treat and care for patients with ventilation problems.

Al will be missed by the WISER team and many others in the simulation community.
The Peter M. Winter Institute for Simulation, Education, and Research

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