

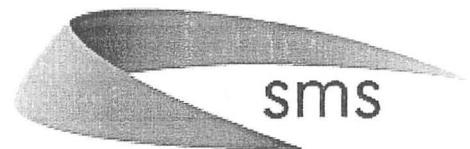


STA 2005

*Hot Tech in Anesthesia:
Making Capital Equipment Decisions*

5th Annual International Meeting on Medical Simulation:

Simulating Change Together



Society for Medical Simulation

Radisson Miami Florida
January 13-16, 2005

Sponsored by the Society for Technology in Anesthesia

www.AnesTech.org

Society for Technology in Anesthesia

The Society for Technology in Anesthesia (STA) is an international membership-based non-profit organization. Members are physicians, engineers, students and other non-physicians who represent the users, teachers and developers of anesthesia-related technologies, computing, and simulators. STA has two official Component Sections, a Section on Computing and a Section on Simulation each of which is responsible for a scientific meeting, plus several less formal Special Interest Groups.

The Society for Technology in Anesthesia (STA) is pleased to be a Component Society of the IARS and the sponsor of a new Section in *Anesthesia and Analgesia* on Technology, Computing and Simulation. *Anesthesia and Analgesia* is STA's Official Journal.

2004 STA Board of Directors

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STA @ ASA Activities

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Computers in Anesthesia XXV

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Newsletter

Jim Szocik *University of Michigan*

Research/Grant Awards

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Website

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2005 Annual Meeting

George Blike *Dartmouth*

STA Program Activities

Annual Scientific meeting (January)

STA @ ASA Events

ASA Breakfast Panel

STA Dinner and N. Ty Smith Lecture

Computers in Anesthesia Meeting (October)

Immediately following the ASA

Annual J.S. Gravenstein Technology Award

Interface: STA's electronic newsletter

STA Research Grants

Society for Technology in Anesthesia
PMB 300 223 N. Guadalupe
Santa Fe, NM 87501



www.AnesTech.org

Society for Technology in Anesthesia

STA 2005:

**Hot Tech in Anesthesia: Making Capital Equipment Decisions
&**

Society for Medical Simulation

**2005 International Meeting on Medical Simulation:
Simulating Change Together**

Radisson Miami, Florida

On behalf of the program committees and the Boards of Directors, welcome to this year's meetings. We would personally like to thank the outstanding faculty who have generously given their time to prepare and present their lectures, workshops and demonstrations.

Please make every opportunity to network with our exhibitors, faculty and members during the meeting. This type of learning is important and beneficial to everyone. STA is a unique organization whose members represent the practice of anesthesiology as well as industry involved in development and production of technologies used by anesthesiologists in education and medical care. Interaction between the members is a strength of STA. If you are interested in becoming more active in STA and its educational programs, please contact one of the Board members. We welcome participation and involvement at all levels.

Accreditation: This activity has been jointly planned and implemented in accordance with the Essentials and Standards of the Accreditation for Continuing Medical Education. The Society for Technology in Anesthesia is accredited by the ACCME and takes responsibility for the content, quality and scientific integrity of this CME activity. STA designates this activity for a maximum of 23 CME hours in Category 1 Credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Evaluation: It is extremely important that you complete the evaluation form so that we might improve our educational programs and provide you with education that meets your needs. We are especially interested in any conflict of interest you may perceive that has not been appropriately disclosed.

CME certificate: Your CME certificate is enclosed with your on-site registration packet. *Keep for your records.*

Meal functions and special events: Please be sure to wear your name tag and present a ticket for all conference functions. Lost tickets will not be replaced.

STA 2005

George Blike, Chair

Charlotte Bell, President-Elect

Kirk Shelley, Research Committee Chair

Int'l Meeting on Medical Simulation

William Dunn, Lisa Sinz, & Stefan Moenk

Co-Chairs

Michael DeVita, Research Chair

Richard Riley, Simulation Workshop Chair

2006 Dates

STA 06 – January 19-21, 2006 (Thurs-Sat)

Hilton Hotel, San Diego

IMMS – January 14-17, 2006 (Sat-Tues)

Sheraton, San Diego

STA 2005: *At a Glance*

Wednesday, January 12

10:00 – 3:00 STA Board of Directors meetings

Thursday, January 13

7:00am Continental Breakfast
8:00 Welcome and Introductions
8:15 **Keynote Address: The Promise of New Anesthesia Technologies...Techno-fantasy vs. Tangible Improvements**
9:00 **Hot Tech Topic #1: Portable Ultrasound**
12:00pm STA Business meeting and presentation of J.S. Gravenstein Award
5:00 **Research Session I: Oral Presentations**
5:30 **Research Session II: Professor Rounds Posterside**
5:30 **Plug & Play Work Group**

7:00 Welcome Reception for both STA & IMMS

Friday, January 14

7:00am Continental Breakfast with Exhibitors and Posters
8:00 **Joint Session: STA and IMMS**
Socio Technical Simulation & Care Process Transformation
9:30 Technology Showcase and poster viewing
10:30 **Hot Tech Topic #2: Non-OR Anesthesia Technologies (NORA)**
1:00pm **Art Deco Tour – Tickets required**
5:30 **Show and Share – Anesthesia Technology Applications for Handhelds, Laptops, Office or Home**

7:00 **Changes in Attitude – Changes in Latitude - Gathering**
7:30 **Doors to Margaritaville Open**

Saturday, January 15

7:00am Continental Breakfast with Exhibitors
8:00 **Hot Technology Review 2005**
9:15 Technology Showcase
11:00 **Keynote Address II: Genomics, a Critical Anesthesia Technology in the Future**
12:00 Adjourn meeting

STA Committee Meetings:

These are initial meetings of new committees. The Chair may select additional times to meet during the course of the STA meeting further the work of the committee. All interested STA members are invited to attend any and alland become involved.

Wireless Technology Thursday, January 13: 9:30 am
Technology Education Friday, January 14 9:30 am
On-Line Tech Review Friday, January 14 12 noon pm

2005 Int'l Simulation Meeting *At a Glance*

Thursday, January 13

7:00 pm Welcome Reception for both STA and IMMS

Friday, January 14

7:00 am Continental Breakfast with Exhibits and Poster viewing
8:00 **Joint Session: STA and IMMS**
Socio Technical Simulation & Care Process Transformation
9:30 Technology Showcase in Exhibit Area
10:00 **General Session I Keynote Education Address**
11:00 **General Session II: Bridge Between Education & Technology**
12:00pm IMMS Luncheon and SMS Annual Meeting
1:30 **Concurrent Sessions**
General Session III: Pediatrics, OB & NeoNatal
General Session IV: Evaluation & Assessment
3:00 Technology Showcase, Posters & Demonstrations
3:15 **Workshops:** Registrants will be able to rotate through their choice of four workshops.
3:15 **Roundtable: Education Research**
4:30 **Roundtable: Research Funding Opportunities**
7:00 **Changes in Attitude – Changes in Latitude - Gathering**
7:30 **Doors to Margaritaville Open**

Saturday, January 15

7:00am Continental Breakfast with Exhibitors and Poster Viewing
8:00 **Concurrent Sessions**
General Session V: Teamwork
General Session VI: Education
9:30 **Poster Presentations I** followed by at-poster viewing
9:30 **Technical Workshops**
11:00 **Poster Presentations II** followed by at-poster viewing
11:30 Box Lunch
11:30 **Roundtable: Building a Simulation Center: Lessons Learned**
1:00pm **Concurrent Sessions**
General Session VII: Building Bridges: Interdisciplinary Simulation
General Session VIII: Validation of Simulation
3:15 **Workshops:** Registrants will be able to rotate through their choice of workshops
3:45 **Roundtable: Soliciting National Support for Medical Simulation**
5:00 **Roundtable: Formation of a Simulation Journal**
5:30 **Roundtable: Sim Center Directors**

Sunday, January 16

07:00 Continental Breakfast
08:00 **Concurrent Sessions**
General Session IX: Performance Assessment
General Session X: Future Technology
11:00 **General Session XI: Simulation Drivers: Where are we Headed?**
12:00 Adjourn meeting

Wear your nametag!
Tickets are required for all
luncheons & banquet

Society for Technology in Anesthesia & Society for Medical Simulation
PMB 300 223 N. Guadalupe Santa Fe, NM 87501

We would like to recognize our corporate supporters for 2005. These companies have made our educational and research activities possible.

Platinum

G.E. Healthcare
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Clarus Medical
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Friends of STA

Aspen Medical Products
GASNet
Limbs and Things

Michigan Instruments
Philips Medical Systems
Simbionix
Sonosite

Simulation Centers

Center for Medical Simulation
Center for Simulation Technology & Academic Research

STA 2005 & International Meeting on Medical Simulation Exhibitor Information

Aspen

Aspen Medical Products is a leader in the development of innovative spinal immobilization products used for post-trauma stabilization, rehabilitation, pre-and post-surgical stabilization, and pain management. Aspen© Spinal Bracing Systems provide innovative patient care, unsurpassed motion restriction and superior comfort that encourage better patient compliance

Clarus Medical

Shikani Optical Stylet™(SOS) a new, reusable, portable, high-resolution fiberoptic endoscope for difficult intubations. Adult (Endotracheal tubes ≥5.5-mmID) and Pediatric (Endotracheal tube 2.5-5.0-mmID) sizes.

The Flexible Airway Scope Tool™ (FAST) is used for visual confirmation or checking patency of ET tube placement as small as 4.0-mm ID, used to view and ventilate while positioning a LMA fastach.

GE Healthcare

GE Healthcare provides transformational medical technologies that will shape a new age of patient care. GE Healthcare offers a broad range of services to improve productivity in healthcare and enable healthcare providers to better diagnose, treat and manage patients. For more information about GE Healthcare, visit www.gehealthcare.com.

DocuSys

DocuSys, providing comprehensive digitization of anesthetics, incorporates customizable decision support, professional fee capture, comorbid condition documentation and automatic documentation, tracking and billing of drugs to maximize quality and financial return. The system incorporates an intravenous drug monitor, DocuJect®, which utilizes bar-coding and digital imaging to digitize drug delivery data.

Draeger Medical

Draeger Medical, Inc. is a leader in design, engineering and manufacturing of Anesthesia Systems, Patient Monitors, Critical Care Systems as well as Information Management Systems. Draeger Medical has been a supporter of the Society for Technology in Anesthesia for many years and most recently participated in the ASA Breakfast panel presenting their newest technologies in a "Meet the Press" format.

Gaumard

Gaumard is a Miami FL company providing simulators for healthcare education worldwide. Our more than 200 proprietary products include the HAL mobile simulator for team training, the NOELLE for obstetric/neonatal training, the SOE for gynecological training and the CHOLE for nursing programs. Visit our exhibit booth and meet HAL and NOELLE plus some of newborn simulators that change color based upon the quality of resuscitation efforts.

Immersion Medical

Immersion Medical is the leader in developing, manufacturing, and marketing simulators that recreate realistic medical procedures. These simulators allow healthcare providers to practice procedures in an environment that poses no immediate risks to patients, where mistakes have no dire consequences, animal use is avoided, and performance standards for specific procedures are raised. Healthcare professionals can choose from a range of medical situations while experiencing real-life sight, sounds and touch sensations. Using advanced 3-D computer graphics, high-fidelity sound and state-of-the-art tactile feedback, these medical simulations reproduce the real experience.

IngMar Medical Ltd.

IngMar Medical was established in 1993 to meet a growing need for portable and more versatile lung simulation devices for use in respiratory care training as well as respiratory device development, research and evaluation. Increasing technological sophistication in mechanical ventilation requires more extensive training for respiratory care personnel. Addressing a need for portable, easy-to-use lung models, IngMar Medical developed its Neonatal and Adult/Pediatric Demonstration Lung Models. Schools of respiratory therapy, hospitals, ventilator manufacturers and distributors value these models' ability to provide a strong visual impression to enhance their demonstration and training.

Laerdal Medical Corporation

Dedicated to helping save lives, Laerdal provided products, services and system solutions for COR, BLS, and ACLS Training as well as a full line of Pre-Hospital products including Airway Management, Suction, Spinal Motion Restriction and Defibrillation. Laerdal is a major supporter of IMMS workshops providing equipment and services.

Limbs and Things

Limbs & Things supplies training and demonstration materials for healthcare professionals, incorporating synthetic soft tissue models, multimedia training systems and a design & build service. *Synthetic soft tissue models:*

Our models have been specifically designed for 'hands-on' structured and staged clinical, surgical and medical skills training. They offer variations in anatomy, and provide for increasing levels of technical and procedural difficulty, meeting the needs of educators and trainees. *Multimedia training system:* In conjunction with our sister company Medical Skills Ltd, Limbs & Things offers model training with multimedia. Our integrated multimedia system consists of Trainer Editions and Trainee Kits. The Trainer products are for use by the educator. The self-contained Trainee Kits are for pre and post course learning by trainees

Masimo Corporation

Masimo Corporation is the innovator and leader of motion and low perfusion tolerant pulse oximetry. Over 70 independent and objective studies have demonstrated the superior performance of Masimo Signal Extraction Technology® (Masimo SET™). Masimo licenses Masimo SET technology to over 35 patient monitoring companies representing 70% of the world's pulse oximetry shipments.

Medical Education Technologies Inc.

The METI Human Patient Simulator (HPS™) represents the latest in the state of the art simulation technology for training clinicians at all levels of medical education. Sophisticated mathematical models of human physiology and pharmacology determine automatically the patient's response to user actions and interventions. With dynamic coupling of the cardiovascular, pulmonary and pharmacological models along with the physical embodiment of the mannequin, the simulator allows for the complete characterization of the real patient. METI is a workshop supporter and provides generous support for the Gravenstein Technology Award and luncheon and the annual meeting banquet.

Michigan Instruments

Michigan Instruments is a quality driven organization rooted in a tradition of excellence, with a global emphasis on offering precision instrumentation for the respiratory care and emergency medicine markets. We are a flexible organization committed to employing our core competencies to meet the ever-increasing demands in the markets we serve, for a higher level of patient care and safety

Simbionix

Simbionix mission is to provide state of the art, computer-assisted medical simulation training systems, and set the standard for minimally invasive surgical training and performance. We especially aim at the new multidiscipline medical training centers, which utilize training laboratories. The Simbionix team, developed the company's first product, the GI Mentor™, a computer-based simulator for training endoscopic procedures skills. Other medical training simulators which provide medical experts with hands-on training in Minimally Invasive Surgery procedures; the URO Mentor™ - a simulator for endourology procedures, the PERC Mentor™ for percutaneous access procedures, the LAP Mentor™ - a multi disciplinary simulator for laparoscopic skills and surgery procedures, and the ANGIO Mentor™, a multidisciplinary simulator that provides hands-on practice in an extensive and complete simulated environment of interventional endovascular procedures.

Center for Medical Simulation

The Center for Medical Simulation is a not-for-profit corporation founded by the Anesthesia Departments of the Harvard Medical School affiliated hospitals: Beth Israel Deaconess Medical Center, Brigham and Women's Hospital, Children's Hospital, and Massachusetts General Hospital. CMS is dedicated to provide medical education using dynamic teaching tools. CMS has been operational since 1993 and has performed numerous training programs for over 1000 clinicians. Course topics have included Crisis Management, Performance Enhancement, and Teamwork. CMS offers educational programs for Anesthesiologists, Emergency Medicine Physicians, Intensivists, Internal Medicine Physicians, Radiologists, Surgeons, and others. Courses for Nurses, Paramedics, Respiratory Therapists, and other clinical personnel are also provided. CMS has special programs for Medical Device and Pharmaceutical Company personnel. All programs make extensive use of full-scale simulation systems, computer simulations, and part-task trainers. We invite you to participate in one of our unique courses. Continuing Medical Education credits are available through the Harvard Medical School Office of Continuing Education.

Center for Simulation Technology & Academic Research

Evanston Northwestern Healthcare's Center for Simulation Technology Academics and Research (CSTAR). CSTAR uses simulators which are particularly effective for developing skills in the rapid assessment and treatment of critical conditions, particularly those illnesses which are not seen every day in the ED, helping to reduce error and enhance the safety of our patients. Simulators are also effective for training police and paramedics in how to respond to potential bioterrorist attacks. The simulators have helped teach paramedics, police and firefighters how to respond safely prior to the arrival of a hazardous materials team.

Sonosite

SonoSite, Inc. is the worldwide market and technology leader in high performance, hand-carried ultrasound. Through its expertise in ASIC design, SonoSite is able to offer imaging performance typically found in ultrasound systems weighing more than 300 pounds in a system architecture that is approximately the size and weight of a laptop computer and provides a significant price to performance advantage compared to conventional systems. This breakthrough is transforming and expanding the worldwide diagnostic ultrasound market by serving existing clinical markets more efficiently and creating new point-of-care applications where ultrasound was either too cumbersome or too expensive to be used before. With over 15,000 systems sold since 1999, SonoSite products are known for exceptional performance, ease of use and durability.

SunMedical/WISER

The Peter M. Winter Institute for Simulation Education and Research (WISER), allied with the Safar Center for Resuscitation and Research at the University of Pittsburgh, is dedicated to medical education and educational research. The Institute features advanced instructional technology to develop innovative medical education programs that are ultimately targeted towards improving the public medical welfare and safety. Its educational research missions include the application of university standards of excellence and professionalism to study the efficacy of educational training programs and their impact on learning and on clinical care. The Institute employs and develops advanced instructional technology - including interactive human simulation, computer-based simulation technology, Internet, and video learning systems - to enhance medical education. As one of its fundamental goals, the Institute facilitates the development of academic educational researchers.

These companies support STA and have representatives attending but are not 2005 conference exhibitors.

Criticare Systems, Inc.

Criticare offers its POET IQ 8500 series anesthetic monitors that identify SEV, HAL, ENF, DES, ISO and include O₂, CO₂ and N₂O detection. Criticare offers a full compliment of multi-parameter patient monitors with configurable NIBP, IBP, SpO₂, CO₂, O₂, ECG and temperature. CSI monitors deliver powerful performance at affordable prices.

GASNet

GASNet provides high level resources for academic and clinically based health care providers, teachers and students, researchers and members of industry. To ensure accuracy and objectivity, the scholarly information contained on GASNet is created by invited experts, rigorously screened and edited. Responding to clinicians' demand for immediate access to clinical information in the workplace GASNet develops GASNet Guidebooks, electronic books full of hard to remember facts, lists and other data for use at Point of Care. GASNet Guidebooks are available on the Web and are downloadable to handheld devices.

Philips Medical

Philips offers a robust portfolio of medical systems. The goal of each product is clear, faster and more accurate diagnosis and treatment. Our product line includes best-in-class technologies in X-ray, ultrasound, magnetic resonance, computed tomography, nuclear medicine, PET, radiation oncology systems, patient monitoring, information management and resuscitation products. We also offer a wide range of services. Including but not limited to training and education, business consultancy, financial services and e-care business services.

This information was provided by the exhibitor or taken from their website and received by December 30, 2004.

2005 STA and IMMS Abstracts

by Presenting Author Name

IMMS	Aitchison Pamela Evanston Northwestern Med Center	<i>Physiologic Response to the Critically Ill Simulated Patient</i>
IMMS	Alinier Guillaume Univ of Hertfordshire	<i>A Touch of Added Realism: Preparation of Your Patient Simulator for CVP Monitoring</i>
IMMS	Alinier Guillaume Univ of Hertfordshire	<i>Development of an Organizational Model for Critical Care Interprofessional Simulation Training</i>
STA	Ansermino Mark BC Children's Hospital	<i>An Adaptive Change Point Detection Algorithm for Physiological Monitoring</i>
IMMS	Avery James Queens Medical Centre	<i>Acute Medicine Unit Senior Nurse Development Day: Combining dynamic advanced patient simulation scenarios and static clinical knowledge and skill-based exercises to meet training needs for senior staff</i>
IMMS	Baxendale Bryn Queens Medical Centre	<i>Evaluating the Use of Advanced Patient Simulation in Training for Final Year UK Medical Students in the Recognition of the Acutely Ill Patient, Immediate Management Strategies and Resuscitation Skills</i>
IMMS	Becker Les R. Pacfic Institute for Research & Evaluation	<i>Challenges to Fidelity in Prehospital Care Patient Safety Research & Training</i>
IMMS	Berkenstadt Haim Sheba Medical Center	<i>Feasibility of Sharing Simulation-Based Evaluation Scenarios in Anesthesiology</i>
IMMS	Blum Richard Children's Hospital/ Anesthesia	<i>Instructor Qualification Guidelines for Crisis Resource Management</i>
STA	Bowering John St. Paul's Hospital	<i>A Continuous Noninvasive Blood Pressure Monitoring Apparatus with Automatic Recalibration</i>
IMMS	Brown Darral Univ of Florida	<i>Use of a Simulation-Based Training Program at NF/SG VA Health System to Train Residents and Nurse Practitioners in Lower Gastrointestinal Tract Endoscopy</i>
IMMS	Brown Russell	<i>Simulation in the Education of Anesthesiologists in Canada</i>
STA	Chang Janelle Dartmouth College	<i>Investigating Respiratory Variation in the Plethysmograph to Identify Obstructive Sleep Apnea</i>
IMMS	Cimino Linda St. University of NY at Stony Brook	<i>Value of Medical Simulation for Residents with Tactual/Kinesthetic Learning Styles (and specialties?)</i>
IMMS	DeSousa Susan Sunnybrook & Womens	<i>Procedural Skills Development Using Simulated Models</i>
IMMS	Dongilli Thomas Wiser Institute	<i>Using Simulation Based Learning Systems to Train a Large Urban EMS Service in Difficult Airway Management</i>
IMMS	Dongilli Thomas Wiser Institute	<i>The BIG Shock - AED Trials for Non-Experienced Responders</i>
IMMS	Eppich Walter Yale University Hospital	<i>Integration of Human Patient Simulation into a Pediatric Advanced Life Support Course for Community Practitioners</i>
IMMS	Flin Rhona Univ of Aberdeen	<i>A Behavioural Marker System to Rate Surgeons' Non-technical Skills</i>

STA	Fuehrlein Brian University of Florida	<i>Pulse Oximetry Data Acquisition Viewer (PODAV) - New Plethysmograph Processing Software</i>
IMMS	Gelbvaks Sergio Berkley Training Ctr in Brazil	<i>Virtual Hospital & Simulators: A New Trend in Health Education in Brazil</i>
STA	Ghelber Oscar UT Health Science Center	<i>Use of Compuflow for the Identification of the Epidural Space - a Preliminary Study</i>
IMMS	Gillespie Sarah	<i>A Novel (?) Five Day Human Patient Simulation Curriculum for Anesthesiology Residents</i>
IMMS	Gillespie Sarah	<i>An Introduction to Clinical Medicine for Biomedical Engineering Students Through Simulation</i>
IMMS	Goodrow Mike University of Louisville	<i>Using Patient Simulators to Reinforce Emergency Response Training for Non-Clinical Personnel</i>
IMMS	Gordon James Massachusetts General Hospital	<i>The Institute for Medical Simulation: A New Resource for Medical Educators Worldwide</i>
IMMS	Gould Robert Northwestern University Med. School	<i>Simulating an Airway Firew with METI HPS-101 Mannequin</i>
IMMS	Grapengeter Martin	<i>Does Communication Training in Anesthesiology Improve Patient Safety?</i>
STA	Graybeal John Masimo	<i>Perfusion Index Reflects Physiologic Changes in Blood Flow Resulting from Cold Exposure</i>
STA	Greenberg Jason University of Chicago Hospitals	<i>Using the Computer to Order Laboratory Tests for a Research Protocol in the Preoperative Clinic</i>
IMMS	Harter Phillip Stanford University	<i>Comparison of Student Perceptions of Web-based Virtual Reality and HPS Simulation Training in Trauma Management</i>
IMMS	Heinrichs Wolfgang Simulation Center Mainz	<i>A Wireless Syringe Detection Device. More Fidelity and Realistic Drug Application in METI's Simulators</i>
STA	Hodgson David Kansas State Univ.	<i>Inhalation Anesthesia Induction in Caged, Wild Animals Using a Novel Anesthetic Delivery Device</i>
IMMS	Hunt Elizabeth Johns Hopkins	<i>Simulation of Pediatric Trauma Stabilization in NC Emergency Departments: Identification of Targets for Performance Improvement</i>
IMMS	Johnson Ken University of Utah	<i>Introduction to Part Task and Variable Priority Training in First Year Anesthesia Resident Education: A Combined Didactic and Simulation Based Approach to Improve Management of Adverse Respiratory Events</i>
IMMS	Johnson Ken University of Utah	<i>Exploration of Partial Task and Variable Priority Training for Anesthesia Residents to Improve Management of Adverse Respiratory Events: Preliminary Results</i>
STA	Jurman Ariel NYU Medical Center	<i>BIS Variability as a Measure of Depth of Analgesia</i>
IMMS	Kaminoh Yoshiroh Hyogo College of Medicine	<i>Experience with Anesthesia Case Management of Simulated Patients by HPS Promotes the Knowledge Acquisition about Anesthesia by Medical Students</i>
IMMS	Kozmenko Valeriy LSU Health Science	<i>Teaching Clinical Skills for Undergraduate Medical Students Through Inquiry with the Use of High Fidelity Human Patient Simulator</i>
IMMS	LeBlanc Vicki Univ of Toronto	<i>Comparison of Simulation-Based Written and Skills Examinations in Predicting Field Performance by Paramedics</i>

IMMS	Lighthall Geoffrey Stanford University	<i>The Use of Simulation to Train Medical Residents to be Code Team Leaders.</i>
IMMS	Lim Michael John Radcliffe Hospital	<i>Building your own Oxford Simulation Apparatus for Flexible Endoscopy (OxSAFE)</i>
IMMS	Lighthall Geoff Stanford	<i>Development of a Scoring System to Evaluate the Management of Septic Shock</i>
STA	Lim Michael John Radcliffe Hospital	<i>An XML-based Training Log (XTraLog): A Clinical Application of XML Technologies</i>
IMMS	Lim Michael John Radcliffe Hospital	<i>The Oxford Simulation Apparatus for Flexible Endoscopy (OxSAFE)</i>
STA	Lowe Andrew	<i>Arterial Pulse Wave Reflection Assessed Using Suprasystolic Brachial Artery Recordings</i>
IMMS	Lutz John Univ of Pittsburgh Wiser	<i>The Use of Simulation Information Management System (SIMS) for Data Mining of Simulation Sessions</i>
IMMS	Mahoney John University of Pittsburgh School of Medicine	<i>Integration of Human Patient Simulation into a Comprehensive Standardized Patient OSCE</i>
IMMS	Manser Tanja VA Palo Alto	<i>An Observation Method to Assess Coordination Processes in Anesthesia</i>
IMMS	Marks Roger Univ of Miami/Anesthesia	<i>Team Training for Medical Students - An Early Exposure to Crisis Resource Management</i>
STA	McNeer Richard University of Miami	<i>Encoding Urgency into Auditory Displays to Improve Patient Monitoring</i>
IMMS	Meurling Lisbet Karolinska University Hospital	<i>Leadership Behavior, but Not Attitude, Changes in Response to Short Term Team Training.</i>
IMMS	Meyer Elaine Children's Hospital & Harvard Medical School	<i>What Components of an End-of-Life Communication Simulation Program are Most Helpful to Trainees?</i>
IMMS	Meyer Elaine Children's Hospital & Harvard Medical School	<i>Lessons Learned from an End-of-Life Communication Simulation Model</i>
IMMS	Miyagawa Yasuko	<i>The Utilization of the Anesthesia Simulator Room at Hyogo College of Medicine after Three Years, from April 2001-March 2004.</i>
STA	Moitra Vivek University of Chicago Hospitals	<i>The Use of Real Time Automated Reminder System for Patient Recruitment in the Preoperative Clinic</i>
IMMS	Morgan Pamela Sunnybrook & Womens	<i>High Fidelity Simulation: Translating Theory into Practice in Undergraduate Medical Education</i>
STA	Murphy Robert Manukau Institute of Technology	<i>50ml Syringe Pumps - Are they Suitable for "High Risk" Infusions?</i>
STA	Murray Bosseau The Pennsylvania State University H 187	<i>Target Guided Infusion (TGI): Using Technology to Improve Understanding of Pharmacokinetic and Pharmacodynamic Principles</i>
STA	Murray Bosseau The Pennsylvania State University H 187	<i>Using Technology to Enhance the Safety of Technology: Another Look at GasMan</i>
IMMS	Musson Dave Univ of TX at Austin	<i>Personality and Attitudinal Influences on Team-Based Behavior in Medical Work Groups</i>
IMMS	Naik Viren	<i>Non-Technical Skills in Anesthesia Crisis Management with Repeated</i>

	St./ Michael's Hospital U of Toronto	<i>Exposure to Simulation Based Education</i>
IMMS	Nakagawa Masashi	<i>Difficult Airway Management (DAM) in Japan</i>
STA	Nevo Igal Center for Patient Safety UM	<i>Patient Safety Initiative - Information Technology Solutions to Improve Patient Safety in the State of Florida</i>
STA	Ng Jessie University of BC	<i>Evaluation of a Vibro-Tactile Display Prototype for Physiological Monitoring</i>
IMMS	Nomura Takeshi Shimane Univ School of Medicine	<i>Is ACLS Knowledge Valuable for Anaphylactic Shock Treatment? A simulation Study in Medical Students</i>
STA	Orr Joseph University of Utah	<i>Use of a Computer Model of Volatile Anesthetic to Estimate Emergence Time, With and Without CO2 Rebreathing</i>
STA	Orr Joseph University of Utah	<i>Evaluation of a Device to Speed Emergence from Volatile Anesthetic Using a Computer Model</i>
IMMS	Owen Harry Flinders University Medical Centre	<i>A Cricoid Pressure Trainer Designed to Improve Airway Management</i>
IMMS	Pardo Manuel UCSF	<i>Computerized Patient Simulation in the Preclinical Curriculum: Student Perceptions After Three Years</i>
STA	Patel Biraj NY University School of Medicine	<i>Ultrasound Guided Mid-Forearm Approach as a Rescue Technique for Failed Radial Artery Cannulation</i>
IMMS	Pawlowski John Beth Israel Deaconess	<i>Pilot Study: Evaluation of Whole-Body Simulation Used to Teach Cultural Competency to Medical Students</i>
IMMS	Pawlowski John Beth Israel Deaconess	<i>Pilot Study: Evaluation of Learning/teaching Effectiveness Using Multiple Exposures to Simulated Cardiovascular Clinical Scenarios</i>
IMMS	Philip James H. Brigham & Women's Hospital	<i>Gas Man Demonstrates Apnea Greatly Prolongs Time Available for Intubation During VIMA with Sevoflurane</i>
IMMS	Phrampus Paul Univ of Pittsburgh	<i>Death During Simulation Training: Feedback from Trainees</i>
IMMS	Pozner Charles Brigham & Women's Hospital	<i>Simulation as an Integral Component of an Emergency Medicine Residency at Harvard</i>
IMMS	Raemer Daniel Center for Medical Simulation	<i>Simulation-Based Crisis Training for Pain Management Specialists</i>
STA	Rafferty Terence Yale University	<i>Proposal for a Unique and Universally Applicable Wireless Interface System for Patient Monitoring During Transport</i>
STA	Ranganathan Pavithra NYU Medical Center	<i>Electrocardiogram is an Inaccurate Indicator of Cardiac Function</i>
STA	Redford Daniel University of Arizona	<i>Evaluation of the Tongue and Hard Palate as Alternative Sites for the Reflectance Pulse Oximetry Monitoring in Difficult to Monitor Surgical Patients</i>
STA	Rehman Mohamed St. Christ. Hospital for Children	<i>Wireless Local Area Network (WLAN) for Anesthesia Record Keeping. Can You Depend on Them for your Data?</i>
IMMS	Rockstraw Leland Drexell University CNHP	<i>The Psycho/Social Correlates of Using Simulated Clinical Practicum with Students Enrolled in a Baccalaureate Nursing Program</i>
IMMS	Saied Nahel	<i>Human Patient Simulation via Internet Based Video Teleconferencing</i>
IMMS	Savoldelli Georges Wilson Center for Research in Education	<i>Activities, Perceptions and Perceived Barriers Vary with the Level of Training</i>

IMMS	Savoldelli Georges Wilson Center for Research in Education	<i>The Evaluation of Patient Simulator Performance as an Adjunct to the Oral Examination for Senior Anesthesia Residents</i>
IMMS	Schaefer John Anes/Wiser Institute	<i>Functional Validity of Airway Techniques in Whole Task Human Simulation using Laerdal SimMan</i>
IMMS	Schumacher Lori Medical College of Georgia	<i>The Impact of Utilizing High-Fidelity Computer Simulation on Critical Thinking Abilities & Learning Outcomes in Undergraduate Nursing Students</i>
IMMS	Seropian Michael Oregon Health Sciences	<i>Statewide Simulation Deployment in Oregon - It can Be Done</i>
IMMS	Shapiro Marc Brown Medical School	<i>Simulation Training in Emergency Preparedness (STEP): A Statewide Weapons of Mass Destruction (WMF) Training for Hospital Personnel</i>
STA	Shelley Kirk Yale University	<i>Time Domain Analysis of the Photoelectric Plethysmographic Waveform</i>
IMMS	Siddall Viva Northwestern University	<i>A Prospective Randomized Control Trial Focused on Simulated ACLS Support Training for Internal Medicine Residents</i>
IMMS	Simon Robert Center for Medical Simulation	<i>Challenging Superiors in the Healthcare Environment: The Two-Challenge Rule</i>
IMMS	Singh Shashank Pen State Hershey	<i>Trauma and Awareness</i>
IMMS	Stanley Liana Children's Hospital Boston	<i>Using Simulation Technology to Produce an Educational Video: Excellence in End-of-Life Care in the Pediatric Intensive Care Unit.</i>
IMMS	Sudikoff Stephanie Brown School of Medicine	<i>High Fidelity Medical Simulation as an Assessment Tool for Pediatric Resident Airway Management Skills</i>
IMMS	Szarek John Ross University School of Medicine	<i>Problem-based Learning Using a Human Patient Simulator and its Relation to One Model of Physician Learning</i>
IMMS	Taekman Jeffrey Duke University Medical Center	<i>Management Interface 0 Simulation: A Web-Based Calendar and Resource Reporting System for Simulation Centers</i>
IMMS	Tarshis Jordan Sunnybrook & Womens College HSC	<i>Creation, Implementation and Evaluation of a Nationwide Simulator Based CME Program for Family Practice Anesthetists</i>
STA	Tejman-Yarben Shai Sovoka Medical Center	<i>The Acoustic Sensor for Monitoring Ventilation of Separate Lungs</i>
STA	Tewari Sanjay NYU Medical Center	<i>Use of PDAs in the Storage and Retrieval of Anesthesia Pre-Operative Assessments</i>
STA	Trager Guillaume Universite de Montreal	<i>Development of a New Neuromuscular Monitoring System Using Phonomyography</i>
STA	Trager Guillaume Universite de Montreal	<i>The Staircase Phenomenon Revisited: Influence of Muscle Site and Monitoring Method</i>
IMMS	Von Wyl Thomas University Hospital	<i>Team Performance and Interrater Reliability in Simulated Emergency Situations</i>
IMMS	Vozenilek John Evanston Northwestern Healthcare	<i>Inter-rater Reliability Using an Automated Response System for Scoring Simulation Sessions</i>
IMMS	Wade Lenny Northwestern University	<i>Simulating One-Lung Ventilation: Making a Double Lumen Tube Work with the METI HPS 010 Adult Mannequin</i>

IMMS	Wallin Carl-Johan Huddinge Univ. Hospital	<i>Assessment of Team Training Using Engagement Modes and Self Efficacy</i>
STA	Wallroth Carl Drager	<i>Evaluating the Performance of Closed Loop Controllers in Anesthesia</i>
IMMS	Walzer Toni Center for Med Simulation	<i>Human Patient Simulation of Normal & Abnormal Vaginal Birth Pilot Program for 3rd Year Harvard Medical Students</i>
IMMS	Wang Ernest Evanston Hospital	<i>Adressing the Systems-Based Practice Core Competency: A Simulation-Based Curriculum</i>
IMMS	Weinstock Peter Boston Childrens Hospital	<i>Integration of High-Fidelity Patient Simulation into Traditional Pediatric Critical Care Curriculum: Work in Progress</i>
STA	Wendelken Suzanne Dartmouth College	<i>Monitoring Respiration Rate in PACU Patients Using the Plethysmogram from a Pulse Oximeter</i>
IMMS	Yule Steven University of Aberdeen	<i>A Behavioural Marker System to Rate Surgeons' Non-technical Skills</i>
IMMS	Zonfrillo Mark Yale University	<i>Quantifying the Pediatric Simulation Literature: A Review of Outcomes-Bsed Research</i>

STA 2005:
Hot Tech for Anesthesia:
Making Capital Equipment Decisions
January 13-15, 2005
Radisson Resort, Miami FL

Wednesday, January 12, 2005

10:00 – 3:00 Meeting of the STA Board of Directors
2:00 – 4:00 Registration – continues daily 7 am – 4 pm

Location

Soprano
Overture Foyer

Thursday, January 13, 2005

7:00 – 8:00 Continental Breakfast
8:00 Welcome Remarks: Jeff Feldman, MD, President STA & George Blike, MD, Chair
8:15 – 9:30 Keynote Debate: The Promise of New Anesthesia Technologies...Techno-fantasy vs. Tangible Improvements
Richard I Cook, MD PhD, Cognitive Technologies Laboratory, University of Chicago
9:30 – 10:00 Break
Wireless Networking Committee: Mohamed Rehman, MD
10:00 – 12:00 Hot Tech Topic #1 – Portable Ultrasound Technologies
Panelists: Brian Sites, MD, Director of Regional Anesthesia, Dartmouth Medical Center,
Brian Spence, MD, Assistant Prof. Of Anesthesiology, Dartmouth Medical Center

- Technical aspects of portable ultrasound
- Best indications, applications...contraindications, pitfalls
- Lessons learned by users of portable ultrasound
- Hands-on use of technology at workstations

12:30 – 2:00 STA Annual Awards and Business Luncheon
Presentation of the J. S. Gravenstein Technology Award
2:00 – 5:00 Local activities
5:00 – 5:30 Research Session I – Oral Presentations
5:30 – 6:30 Research Session II – Professor Rounds Posterside
5:30 – 7:00 Plug and Play Work Group Session
7:00 Joint Meeting Welcome Reception in Technology Showcase area

Overture Foyer

Symphony II

Metronome
Symphony II

Symphony I

Symphony II
Concerto A-C
Market
Concerto A-C

Friday, January 14, 2005

7:00 – 8:00	Continental Breakfast in Technology Showcase Area	<i>Concerto A-C</i>
8:00 – 8:30	<u>Joint Session Opening: Past, Present and Future; the unique relationships between STA & IMMS</u> Jeff Feldman, MD, President STA Dan Raemer, PhD, President SMS	<i>Symphony II & III</i>
8:30 – 9:30	<u>Joint Session with International Meeting on Medical Simulation</u> • SocioTechnical Simulation and Care Process Transformation: <i>Paul Uhlig, MD, MPA, Massachusetts General Hospital, Boston, MA</i>	
9:30 – 10:00	Technology Showcase; Posters and Demonstrations Tech Education Committee: John Doyle, MD	<i>Concerto Market</i>
10:00 – 12:00	<u>Hot Tech Topic #2 – Non-OR Anesthesia (NORA) Technologies</u> Moderators:: Charlotte Bell, MD, Chief of Pediatric Anesthesiology NYU, NY; Patricia Sequeira, MD, NYU, NY Panelists Jay Iaconetti, MD, Director of NORA at Fairfax Hospital, VA, and James Koinsburg, MD, NORA at Fairfax Hospital, VA, and Beverly K. Philip, MD Director of NORA at Brigham Women's Hospital, MA • Context of care-the environment, hazards and unique challenges • Portability- monitors, drug delivery systems, transport equipment, drug security • Footprints - setting up NORA suites, information management, electronic records • Operations- scheduling, credentialing, billing, purchases both for safety and economics	<i>Symphony II</i>
12 noon	On-Line Tech Review Committee: Leslie Jameson, MD	<i>Market</i>
12:00 – 5:00 pm	Lunch on your own followed by local activities • Indicate (on your registration form) an interest in playing golf near-by • Check out the Art Deco world of Miami • And then there is always South Beach	
5:00 – 7:00	<u>Show and Share – Anesthesia technology applications for handhelds, laptops, office or home **</u> Session Chair: Peter Fine, MD, UMDNJ • Demonstrations of software applications • Sharing (using portable USB drives, CD's, Flash Memory, etc.) • Networking to problem solve	<i>Symphony II</i>
7:00 – 7:30	The Great Gathering	<i>Poolside</i>
7:30 – 11:00	Jimmy Buffett's Margaritaville Buffet and Great Social Gathering con't	<i>Symphony I & II</i>

Saturday, January 15, 2005

7:00 – 8:00

Continental Breakfast in Technology Showcase Area

7:30 – 8:00

STA Corporate Members' & Exhibitors' Presentations ***

8:15 – 9:15

Hot Technology Review 2005:

Speaker: George Blike, MD, Director of Dartmouth Medical Interface Lab., DHMC

- A comprehensive review of current and emerging technologies relevant to state-of-the-art anesthesia practice.
- Review will cover all aspects of peri-operative process from preop assessment to post-operative pain management.

9:15 – 9:30

Technology Showcase; Poster and Demonstrations

9:45 – 10:45

Hot IT Review 2005:

Speaker: Michael O'Reilly MD, University of Michigan

- A comprehensive review of current and emerging information technologies relevant to state-of-the-art anesthesia practice.
- Review will cover all aspects of peri-operative process from preop assessment to post-operative pain management.

10:45 – 11:00

Technology Showcase; Poster and Demonstrations

11:00 – 12:00

Genomics, a Critical Anesthesia Technology in the Future: *Brian Donahue, MD, Vanderbilt University, Nashville, TN*

*Concerto A-C
Symphony II
Symphony II*

*Concerto A-C
Symphony II*

*Concerto A-C
Symphony II*

Poster Timetable

Posters Put up

Wednesday, January 12

2:00 – 4:00 pm

or Thursday, January 13

before 7:00 am

Authors will be in attendance with their posters during the following times:

Thursday, January 13

9:30 – 10:00 am

5:30 – 6:30 pm

Friday, January 14

7:00 – 8:00 am

9:30 – 10:00 am

Posters Taken down

Friday, January 14

10:00 – 10:30 am

STA Faculty & Presentors

Charlotte Bell MD
New York University
New York, NY
bell@gasnet.org

Richard Cook MD
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Chicago IL
ri-cook@chicago.edu

Brian Donahue MD
Vanderbilt University
Nashville TN

Peter Fine MD
UMDNJ Med. School
Newark NJ
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Jay Iaconetti MD
Fairfax Hospital
Fairfax VA

Jim Koinsburg MD
Fairfax Hospital
Fairfax, VA

Michael O'Reilly MD, MS
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Beverly K. Philip MD
Birgham Women's Hospital
Boston MA

Daniel Raemer PhD
Center for Medical Simulation
Cambridge MA
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Pat Sequeria MD
New York University
New York, NY

Brian Sites MD
Dartmouth Medical Center
Hanover, NH

Brian Spence MD
Dartmouth Medical Center
Hanover, NH

All faculty have been requested to provide disclosure on any conflict of interest by indicating so at the beginning of their presentation. If you perceive any conflict of interest not properly disclosed, please make a comment on your evaluation form. Thank you.

Keynote Faculty

Richard Cook

Dr. Richard Cook is a physician, educator, and researcher at the University of Chicago . His current research interests include the study of human error, the role of technology in human expert performance, and patient safety. He worked in the computer industry in supercomputer system design and engineering applications. He received the MD degree from the University of Cincinnati in 1986. He was a researcher on expert human performance in Anesthesiology and Industrial and Systems Engineering at The Ohio State University. He is a faculty in the Department of Anesthesia and Intensive Care of the University of Chicago and Associate Director for the GAPS (Getting At Patient Safety) project sponsored by the Veterans Health Administration.

Dr. Cook has been involved with the National Patient Safety Foundation since its inception and sits on the Foundation's Board. He is internationally recognized as a leading expert on medical accidents, complex system failures, and human performance at the sharp end of these systems. He has investigated a variety of problems in such diverse areas as urban mass transportation, semiconductor manufacturing, and military software systems.

Dr. Cook's most often cited publications are "Gaps in the continuity of patient care and progress in patient safety", "Operating at the Sharp End: The complexity of human error", "Adapting to New Technology in the Operating Room", and the report "*A Tale of Two Stories: Contrasting Views of Patient Safety*"

Paul Uhlig

Dr. Uhlig is a Cardiothoracic Surgeon and Associate Professor of Surgery at Massachusetts General Hospital. His professional interest concerns the relationships and patterns of interaction that surround the care process, and how these can be optimized to improve patient care. Dr. Uhlig and other members of the cardiac surgery team at Concord Hospital, Concord, New Hampshire, received the John M. Eisenberg Patient Safety Award from JCAHO and the National Quality Forum for their work developing a collaborative care model that includes patients and families in all aspects of care and decision making. Dr. Uhlig and his colleagues have spoken extensively about patient safety and the Collaborative Care Model throughout the country.

Brian Donahue

Dr. Donahue is a Cardiac Anesthesiologist at Vanderbilt University and a Principle Investigator at one of only four "Functional Genomics" labs in the United States funded by the NIH. This Lab is focused on major scientific challenges facing anesthesiology which include identifying the means to prevent life-threatening and costly medical disabilities associated with the period surrounding surgery such as: stroke, heart attack, arrhythmia, chronic pain, and abnormal bleeding. Dr Donahue's functional genomics research translates the emerging discoveries in the human genome into solving the major healthcare problems that manifest in the perioperative period.

2005 STA Abstracts

Those marked "Demo" are located in the demonstration area of the poster room.

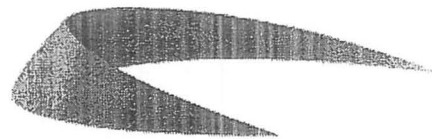
- 1 **Ansermino Mark**
BC Children's Hospital
anserminos@yahoo.ca
An Adaptive Change Point Detection Algorithm for Physiological Monitoring
- 2 **Bowering John**
St. Paul's Hospital
jukbow@shaw.ca
A Continuous Noninvasive Blood Pressure Monitoring Apparatus with Automatic Recalibration
- 3 **Chang Janelle**
Dartmouth College
janelle.chang@dartmouth.edu
Investigating Respiratory Variation in the Plethysmograph to Identify Obstructive Sleep Apnea
- 4 **Fuehrlein Brian**
University of Florida
brianf@ufl.edu
Pulse Oximetry Data Acquisition Viewer (PODAV) - New Plethysmograph Processing Software
- 5 **Graybeal John**
Masimo
jgraybea@masimo.com
Perfusion Index Reflects Physiologic Changes in Blood Flow Resulting from Cold Exposure
- 6 **Greenberg Jason**
University of Chicago Hospitals
jasong@uchicago.edu
Using the Computer to Order Laboratory Tests for a Research Protocol in the Preoperative Clinic
- 7 **Hodgson David**
Kansas State Univ.
hodgson@vet.k-state.edu
Inhalation Anesthesia Induction in Caged, Wild Animals Using a Novel Anesthetic Delivery Device
- 8 **Jurman Ariel**
NYU Medical Center
jurmaa01@med.nyu.edu
BIS Variability as a Measure of Depth of Analgesia
- 9 **Lim Michael**
John Radcliffe Hospital
michael.lim@nt1world.com
An XML-based Training Log (XTralog): A Clinical Application of XML Technologies
- 10 **Moitra Vivek**
University of Chicago Hospitals
vmoitra@dacc.uchicago.edu
The Use of Real Time Automated Reminder System for Patient Recruitment in the Preoperative Clinic
- 11 **Murphy Robert**
Manukau Institute of Technology
romurphy@manukau.ac.nz
50ml Syringe Pumps - Are they Suitable for "High Risk" Infusions?
- 12 **Murray W. Bosseau**
Penn State College of Medicine
wbmurray@psu.edu
Target Guided Infusion (TGI) Using Technology to Improve Understanding of Pharmacokinetic and Pharmacodynamic Principles
- 13 **Murray W. Bosseau**
Penn State College of Medicine
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Using Technology to Enhance the Safety of Technology: Another Look at GasMan

- 14** **Nevo Igal**
Center for Patient Safety UM
inevo@miami.med.edu
Patient Safety Initiative - Information Technology Solutions to Improve Patient Safety in the State of Florida
- 15** **Orr Joseph**
University of Utah
joe.orr@hsc.utah.edu
Use of a Computer Model of Volatile Anesthetic to Estimate Emergence Time, With and Without CO2 Rebreathing
- 16** **Orr Joseph**
University of Utah
joe.orr@hsc.utah.edu
Evaluation of a Device to Speed Emergence from Volatile Anesthetic Using a Computer Model
- 17** **Ranganathan Pavithra**
NYU Medical Center
rangap01@med.nyu.edu
Electrocardiogram is an Inaccurate Indicator of Cardiac Function
- 18** **Rehman Mohamed**
St. Christ. Hospital for Children
annette.silverman@tenethealth.org
Wireless Local Area Network (WLAN) for Anesthesia Record Keeping. Can You Depend on Them for your Data?
- 19** **Shelley Kirk**
Yale University
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Time Domain Analysis of the Photoelectric Plethysmograph Waveform
- 20** **Wallroth Carl**
Dräger
beate.moeller@draeger.com
Evaluating the Performance of Closed Loop Controllers in Anesthesia
- 21** **Ghelber Oscar**
UT Health Science Center
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Demo
Use of Compuflow for the Identification of the Epidural Space - a Preliminary Study
- 22** **Lowe Andrew**
andrew.lowe@pulsecor.com
Demo
Arterial Pulse Wave Reflection Assessed Using Suprasystolic Brachial Artery Recordings
- 23** **McNeer Richard**
University of Miami
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Demo
Encoding Urgency into Auditory Displays to Improve Patient Monitoring
- 24** **Ng Jessie**
University of BC
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Demo
Evaluation of a Vibro-Tactile Display Prototype for Physiological Monitoring
- 25** **Patel Biraj**
NY University School of Medicine
navparkashsandh@hotmail.com
Demo
Ultrasound Guided Mid-Forearm Approach as a Rescue Technique for Failed Radial Artery Cannulation
- 26** **Rafferty Terence**
Yale University
rafferty@aya.yale.edu
Demo
Proposal for a Unique and Universally Applicable Wireless Interface System for Patient Monitoring During Transport

27 Demo	Redford Daniel University of Arizona rdaniel29@msn.com	<i>Evaluation of the Tongue and Hard Palate as Alternative Sites for the Reflectance Pulse Oximetry Monitoring in Difficult to Monitor Surgical Patients</i>
28 Demo	Tejman-Yarben Shai Sovoka Medical Center tegmnya@inter.net.il	<i>The Acoustic Sensor for Monitoring Ventilation of Separate Lungs</i>
29 Demo	Tewari Sanjay NYU Medical Center jung.kim@med.nyu.edu	<i>Use of PDAs in the Storage and Retrieval of Anesthesia Pre-Operative Assessments</i>
30 Demo	Trager Guillaume Universite de Montreal gtrager@yahoo.com	<i>The Staircase Phenomenon Revisited: Influence of Muscle Site and Monitoring Method</i>
31 Demo	Trager Guillaume Universite de Montreal gtrager@yahoo.com	<i>Development of a New Neuromuscular Monitoring System Using Phonomyography</i>
32 Demo	Wendelken Suzanne Dartmouth College suzanne.wendelken@dartmouth.edu	<i>Monitoring Respiration Rate in PACU Patients Using the Plethysmogram from a Pulse Oximeter</i>

The abstract author(s) who have identified corporate/industry involvement regarding their research are listed below.

#	Company
2	VSM MedTech Ltd.
4	Beta Biomed Services Inc.
5	Masimo
9	British Journal of Anesthetics & Royal College of Anesthetics
15	Axon Medical
16	Axon Medical
20	Draeger Medical AG & G
21	Milestone Scientific
22	Pulsecor Ltd.
26	Cardiopulmonary Corporation
27	Masimo



5th Annual International Meeting on Medical Simulation

January 13-16 2005 Radisson Miami FL

Any changes in the schedule will be announced from the podium and posted on the bulletin board.

Thursday, January 13, 2005

4:00 – 6:00 pm Meeting of Society for Medical Simulation Elected Board of Overseers
7:00 pm Welcome Reception in Technology Showcase area

Location

Metronome
Concerto A-C

Friday, January 14, 2005

7:00 – 8:00 Continental Breakfast in Technology Showcase Area
8:00 – 8:15 Opening Remarks: Jeff Feldman, MD, President, Society for Technology in Anesthesia and
Daniel Raemer, PhD, President, Society for Medical Simulation
8:15 – 9:30 Joint Session with STA Annual Meeting
SocioTechnical Simulation & Care Process Transformation: Paul Uhlig, MD MPA
9:30 – 10:00 Technology Showcase: Posters and Demonstrations
10:00 – 10:50 General Session I: Keynote Education Address
Refocusing the Role of Simulation in Medical Education: Training Reflective Practitioners:
Lindsey Henson, MD, PhD
11:00 – 12:00 General Session II
Bridge between Education & Technology: Steve Dawson, MD
Simulation-Based Medical Education – Innovative Applications, Trends and Future
Challenges:: Amati Ziv, MD
12:00 – 1:30 SMS Annual Meeting and Luncheon

Concerto A-C
Symphony I & II

Concerto A-C
Symphony I

Symphony I

Symphony III

1:30 – 3:00

*Concurrent
sessions*

General Session III

Panel: Pediatrics, Neonatal, OB

Lou Halamek, MD, Roxanne
Gardner, MD, Elaine Meyer, PhD, Toni
Walzer, MD, Peter Weinstock, MD,
Mary Patterson, MD, Kay Daniels, MD,
Allison Murphy, MD, Kim Yeager, RN

General Session IV

Panel: Evaluation & Assessment

Practical Performance Assessment: David Murray
MD
Assessing Physician Competence: Jack Boulet,
PhD
Simulation at the Board Exam Level: Haim
Berkenstadt, MD

**Session III –
Symphony I**

**Session IV –
Symphony II**

3:00 – 3:15

Technology Showcase; Posters and Demonstrations

3:15 – 4:15

Workshop Series I - select one of four

3:15 – 4:15

Roundtable: Education Research *Jim Gordon, MD, MPA*

4:30 – 5:00

Technology Showcase; Posters and Demonstrations

4:30 – 5:30

Roundtable: Research Funding Opportunities:

5:00 – 6:15

Workshop Series II - select one of four

7:00 – 7:30

The Great Gathering

7:30 – 11:00

Changes in Attitude – Changes in Latitude – a Jimmy Buffett Evening

Tickets Required

Symphony II

Metronome

**Poolside
Symphony III-IV**

Saturday, January 15, 2005

7:00 – 8:00

Continental Breakfast in Technology Showcase Area

8:00 – 9:30

General Session V: Teamwork

General Session VI: Education

Concurrent sessions

Panel: Developing Teamwork and a Culture of Safety

Panel: Technology

**Session V –
Symphony I**

Coordination Processes in

Using Video Vignettes to Teach Communication Skills:

Anesthesia: Tanja Manser, PhD

David Losh, MD

**Session VI –
Tenor**

Creating an Institutional Culture of Safety through Simulation: Amitai Ziv, MD

Features & Uses of High-Fidelity Medical Simulations that Lead to Effective Learning: Barry Issenberg, MD

Medical Emergency Teams & Patient Safety: Michael DeVita, MD

Towards Patient-Specific Finite Element-Based Surgical Simulation: Research Issues Relating to Visual, Constructive & Clinical Realism: Michelle Audette, PhD

9:30-10:30

Research Session I: Oral Poster Presentations and Award Presentations

10:30 – 11:30

Research Session II: Discussion at poster-side

Symphony I

11:30 – 1:00

Box lunch

11:30 – 1:00

Roundtable: Building a Simulation Center: Lessons Learned: Maggie Saunders & David Gaba, MD

Degas

1:00 – 2:30

General Session VII

General Session VIII

Concurrent sessions

Panel: Building Bridges:

Panel: Validation of Simulation

**Session VII –
Symphony I**

Interdisciplinary Simulation:

Results & Validation of a Simulation-Based Airway Management Training Program: John Schaefer, MD

Michael Seropian, MD

GI Endoscopy Validation: Bob Sedlack, MD

**Session VIII-
Symphony II**

Joseph P. Miller, MD, LTC

Future Certification for Invasive Cardiology Study: David Williams, MD, ABIM

2:30 – 3:30

AIMS Working Group Meeting

Symphony II

2:30 – 6:30

Workshop Series III, IV, V: Select three (one per series)

3:45 – 4:45

Roundtable: Soliciting National Support for Medical Simulation: Steve Dawson, MD

Metronome

5:00 – 6:00

Roundtable: Formation of a Simulation Journal: Mike DeVita, MD

Metronome

7:00

Roundtable: Sim Center Directors: Yue-Ming Huang, MD

Symphony I

Sunday, January 16, 2005

7:00 – 8:00 Continental Breakfast

8:00 – 9:30 General Session IX

Concurrent
sessions

*Panel: Performance Assessment
Clinical Research Designs that produce
direct measures of clinical education
outcomes: Richard Kyle, MS
Measurement Issues of observed
behaviors: Rhona Flin, PhD
Tony Gallagher, PhD*

General Session X

*Panel: Future Technology Using Full Body
Simulation: What Educators and Evaluators
Want to Know: Robert Simon, Ed.D, CPE
Bosseau Murray, MD, Gerry Moses, PhD, Steve
Dawson, MD, and Richard Satava, MD*

Session IX –
Symphony I

Session X –
Tenor

9:30 – 10:00 Break

10:00 – 11:30 General Session XI Simulation Drivers: Where are we Headed?

*How the Nursing Shortage is Driving Simulation Training:
Laurie Schumaker, RN, PhD, CCRN
FDA Requirement that Simulation be used for Carotid Stent Device Training:
Christopher Cates, MD
Serving Our Customers: Who are They Anyway? Tony Stanson, MD*

Symphony I

11:30 – 12:00 Closing Remarks

12:00 Adjourn

Poster Timetable

Posters Put up Friday January 14 12:00 – 1:30 pm

Authors will be in attendance with their posters during the following times:

Friday January 14	3:00 – 3:15 pm	4:30 – 4:45 pm
Saturday, January 15	7:00 – 8:00 am	9:30 – 11:30 (poster-side discussions, oral presentations & awards)

Posters Taken down Saturday, January 15 12:30 – 3:00 pm

2005 International Meeting on Medical Simulation

Faculty, Roundtables, and Workshop Presentors

JoDee Anderson MD
UT Southwestern Med Center at
Dallas
Dallas TX

Swati Argarwal, MD
Stanford University
Palo Alto, CA

Michelle Audette PhD
AIST Tsukuba Japan
Tsukuba

Haim Berkenstadt MD
Sheba Medical Center
Ramat Gan ISRAEL

Richard Blum, MD
Center for Medical Simulation
Boston, MA

Kristine Boyle, NNP
Packard Children's Hospital
Palo Alto, CA

Jack Boulet PhD
ECFMG
Philadelphia PA

Christopher Cates MD
Emory University
Atlanta GA

Kay Daniels MD
Packard Children's Hospital
Palo Alto, CA

Steve Dawson MD
Massachusetts General Hospital
Cambridge MA

Steve Dawson MD
Center for Medical Simulation
Cambridge MA

Michael DeVita MD
University of Pittsburgh
Pittsburgh PA

Thomas Dongilli
Wiser Institute
Pittsburgh PA

William Dunn MD
Mayo Graduate School of Medicine
Rochester MN

Martin Eason MD JD
ETSU
Johnson City TN

Walter Eppich MD
Yale University Hospital
New Haven CT

David Feinstein MD
Beth Israel Deaconess Medical
Center
Boston, MA

Rhona Flin PhD
Univ of Aberdeen
Aberdeen UK

Frances Forrest MBBS, FRCA
Bristol Medical Simulation Centre
Bristol UK

David M. Gaba MD
VA Palo Alto Health Care System
Palo Alto CA

Tony Gallagher PhD
Emory University
Atlanta GA

Roxanne Gardner
Boston Children's Hospital
Boston MA

James Gordon MD, MPA
Massachusetts General Hospital
Boston MA

Lou Halamek MD
Stanford University
Palo Alto CA

Jordan Halasz
Center for Medical Simulation
Boston, MD

Yue-Ming Huang, MD
UCLA
Los Angeles, CA

Lindsey Henson MD, PhD
University of Rochester
Rochester NY

Marc Horowitz MD
University of NM
Albuquerque NM

Yue Ming Huang MHS
UCLA
Los Angeles CA

S. Barry Issenberg MD
U of Miami School of Medicine
Miami FL

Devin Johns BS MS
Gaumard Scientific Co.
Miami FL

Kevin King CCP(F)
Ontario Air Ambulance Program
Toronto ON CANADA

Valeriy Kozmenko MD
LSU Health Science
New Orleans LA

Richard Kyle MS
Uniformed Services University
Health Sciences
Bethesda MD

David Losh MD
University WA Family Medicine
Seattle WA

Tanja Manser PhD
VA Palo Alto
Palo Alto CA

William McIvor, MD
WISER Center
Pittsburgh, PA

Elaine Meyer, PhD
Boston Children's Hospital
Boston, MA

Joseph Miller MD LTC
Andersen Simulation Center
Olympia WA

2005 International Meeting on Medical Simulation

Faculty, Roundtables, and Workshop Presentors

Stefan Moenk MD
Uniklinik Mainz
Mainz Germany

Gerry Moses PhD
USArmy Medical Research &
Materiel Command
Ft. Detrick MD

Bosseau Murray MD
The Pennsylvania State University
Hershey PA

Allison Murphy, MD
Packard Children's Hospital
Palo Alto, CA

David Murray MD
Washington University
St. Louis MO

Beth Olejniczak, RN BSN
Valparaiso University College of
Nursing
Valparaiso IN

Mary Patterson MD
Cincinnati Children's Hospital
Cincinnati, OH

John Pawlowski MD, PhD
Beth Israel Deaconess
Boston MA

Jenny Rundolph, PhD
Center for Medical Simulation
Boston, MA

Richard Riley FANZCA
Royal Perth Hospital
Floreat WA AUSTRALIA

Kevin Russell MPS
Chelsea & Westminster Simulation
Center
London UK

Richard Satava MD
University of Washington
Seattle, WA

Maggie Saunders
Stanford University
Palo Alto CA

John Schaefer MD
Wiser Institute
Pittsburgh PA

Ross Scalese, MD
University of Miami
Miami, FL

Lori Schumacher RN PhD
CCRN
Medical College of Georgia
Augusta GA

Howard Schwid MD
University of Washington
Seattle WA

Robert Sedlack MD
Mayo Clinic
Rochester MN

Michael Seropian MD
Oregon Health Sciences
Lake Oswego OR

Robert Simon Ed.D, CPE
Center for Medical Simulation
Cambridge MA

Elizabeth Sinz MD
Penn State Milton Hershey Med.
Center
Hershey PA

Tony Stanson MD
Mayo Clinic Rochester
Rochester MN

Chuck Stanton
Quillen College of Medicine
Johnson City, TN

Paul Uhlig MD MPA
Massachusetts General Hospital
Boston MA

Suresh Venkatan MBBS
Harvard Medical School
Boston, MA

Tony Walzer MD
Boston Children's Hospital
Boston, MA

Matt Weinger, MD
VA Medical Center
San Diego, CA

Peter Weinstock
Boston Children's Hospital
Boston, MA

Amanda Wilford, RN
Bristol Simulation Center
Bristol UK

David Williams MD
University of Rhode Island Medical
School
Providence RI

Kim Yaeger, RN
Packard Children's Hospital
Palo Alto, CA

Steven Yule, MD
University of Aberdeen
Aberdeen, Scotland

Amitai Ziv MD
Israel Center for Medical
Simulation
Ramat Gan ISRAEL

We greatly appreciate the time and effort these faculty and presentors have made to insure a successful meeting.

All faculty are required to verbally disclose if they have or do not have any conflict of interest. If you perceive a conflict of interest that has not been so disclosed prior or during their presentation, please make not of it on your evaluation form or speak to someone at the registration desk. Thank you.

IMMS Workshop Descriptions

Friday 1/14

Session A 3:15 – 4:30 Session B 5:00 – 6:15

Fri. A <i>Symphony</i> Workshop A	Training & Credentialing of Simulator Instructors John Pawlowski, MD David Feinstein, MD, Robert Simon, MD, Richard Blum, MD <i>Center for Medical Simulation, Cambridge, MA</i>	As the number of whole-body simulators worldwide is growing exponentially, the need for trained instructors is also growing. This workshop will address some of the central objectives of instructor training as well as the essential traits of a proficient instructor. Using the expertise of the participants, small groups will design several educational templates to credential simulator instructors.
Fri. A <i>Degas</i> Workshop B	Fetal, Neonatal, Pediatric and Obstetric Simulation: How Do we Get There: Lou Halamek, MD, Roxanne Gardner, MD, Elaine Meyer, PhD, Toni Walzer, MD, Peter Weinstock, MD, Mary Patterson, MD, Kay Daniels, MD, Allison Murphy, MD, Kim Yeager, RN <i>Packard Children's Hospital at Stanford, Boston Children's and Cincinnati Children's</i>	This workshop is a group interactive session regarding technology and educational issues surrounding simulation in these important areas.
Fri. A <i>Soprano</i> Workshop C	Static & Active Scenarios – Maximizing Learning for Nurses and Jr. Doctors in the UK Frances Forrest, MD Amanda Wilford, RN <i>Bristol Simulation Center</i>	This dynamic interactive workshop will discuss and demonstrate teaching and facilitation by static and active simulation scenarios. This unique approach is based on two simulation courses "Care of the Critically Ill Patient using Simulation" or COCIP - a course that has been developed and taught to nursing staff in Bristol for the last 3 years and HELP. HELP is a one-day course with 50% of the participants nursing, 50% junior doctors and focuses on assessment, communication and teamwork and has been running for 2 years. Due to changes in the population of UK nursing, with nurses from overseas working in acute hospitals: reference will be made to the influence of culture and learning styles.
Fri. A <i>Tenor</i> Workshop D	Tailoring Learning Objectives for Adult Learners in Simulation of Pediatric Emergencies: One Size Does Not Fit All. Walter Eppich, PhD	This workshop will focus on educational strategies to improve the effectiveness of medical simulation training for the spectrum of pediatric care providers. One basic pediatric scenario will form the framework for our discussion. Through an interactive format we will adapt our scenario for the learning needs of professionals involved in continuing medical education. Over the course of the workshop, participants will become more versed in the instructional design process and develop skills they can transfer to their own educational activities. Participants will receive a syllabus that will offer suggested approaches to the same clinical scenario based on varied target audiences, equipping them with a set of defined simulated activities that can be readily implemented for training at their home institutions.

Fri. A Picasso Workshop E	GasMan – Basic & Advanced Use for Teachers Bosseau Murray, MD Len Pott, MBChB (program development) <i>Pennsylvania State University College of Medicine</i>	<p>This Workshop is for current and future Gas Man® users based on experience in using the program in small group settings. This workshop will describe features</p> <p>A. Often overlooked such as</p> <ol style="list-style-type: none"> 1) Simulate multiple simultaneous agents, 2) Display picture and graph simultaneously, 3) Copy and Paste into EXCEL, 4) Understand limitation of Copy and Paste into EXCEL, 4) Understandably display and compare short wake ups after long anesthetics, <p>B. Difficult concepts for residents to grasp</p> <ol style="list-style-type: none"> 5) Basic concepts: factors influencing uptake/elimination and a quantitative grasp thereof, 6) clinical implications: overpressure and its value, and "context sensitive half-lives" of volatile agents.
Fri. B Picasso Workshop F	Creating Effective Multiprofessional Simulational Scenarios Beth Olejniczak, RN <i>Valparaiso University School of Nursing, IN</i> Lindsey Henson, MD PhD <i>Cleveland Clinic Lerner College of Medicine, Cleveland, OH</i>	<p>During this interactive discussion, participants will identify specific aspects of simulation scenarios that will encourage multiprofessional interactions and will also identify higher order learning objectives that are best accomplished in a multiprofessional simulation scenario.</p>
Fri. B Symphony Workshop G	Simulation Program Deployment Michael Seropian, MD, <i>University of Oregon Health Sciences, Seattle, OR</i>	<p>In this session we will present a highly interactive discussion on the the variety of issues that must be considered when attempting to deploy a simulation education program. this program will be especially useful for thos looking to develop a program that is large in scope. Participants will be encouraged to share their experience, as obstacles are encountered solutions will be sought through a comprehensive approach</p>
Fri. B Degas Workshop H	Bedside Skills Training: Hands-on with “Harvey” the Cardiopulmonary patient simulator Barry Issenberg, MD Ross J. Scalese, M.D. <i>University of Miami, Miami, FL</i>	<p>At the end of this workshop, participants will be able to: (1) recognize essential cardiovascular and pulmonary bedside findings, and (2) implement evidence-based learning strategies that maximize the effect of simulation-based training. “Harvey” simulates 30 cardiac conditions and is the only proven self-learning system to master cardiac bedside skills that are transferable to live patients. This presentation will be carried out in an interactive, patient-centered format. Following a focused history, bedside findings will be shared through video projection and stethophones, including blood pressure, breathing, venous, arterial and precordial impulses and auscultation. The presentation will also incorporate evidence-based strategies that lead to most effective learning.</p>

**Fri.
B**

Soprano

Workshop I

The Trauma Disaster Kit (TDCK)

Mark Horowitz, MD
David Wilks, MD

*University of NM Health
Sciences*

The TDCK is not a commonly used feature of the HPS but is capable of increasing reality of simulations through the simulation of bleeding or secretions. The participant will be introduced to the equipment and use of this modality.

**Fri.
B
Tenor**

**Workshop
J**

Debriefing Scenarios that Provoke the "Two Challenge Rule"

Daniel Raemer, PhD
Robert Simon, Ph.D., Jenny
Rudolph, Ph.D., John
Pawlowski, MD, Richard Blum,
MD, and David Feinstein, MD

*Center for Medical Simulation,
Boston, MA*

Many simulation scenarios provoke a discussion of what to do when one disagrees with the actions of a colleague, peer, mentor, or teammember. This workshop will introduce some concepts that can be introduced into debriefings to help guide the discussion of this issue. Specific scenarios where "challenge" can be provoked will be described.

Saturday 1/15

Session A 2:30 – 3:45 Session B 4:00 – 5:15 Session C 5:30 – 6:45

Sat. A Symphony	Observing and Measuring Behavior – Where Angels Fear to Tread Rhona Flin, PhD, Matt Weinger, MD, David Gaba, MD, Robert Simon, EdD, Tanjer Masser, PhD, Jenny Rudolph, PhD, Steven Yule, MD	A dynamic discussion and interactive workshop regarding the issues of observing and measuring behavior during simulation educational and training programs. All your questions might not be answered, but you won't fear any longer to ask them.
Workshop K		
Sat. A Degas	Teaching Cultural Competency Through Simulation & Training.	Minority members are heartily encouraged to participate. After a review of the problem, participants will form small groups to construct unique scenarios that portray the various issues involved in cultural competency.
Workshop L	John Pawlowski, MD, PhD, Roxanne Gardner, MD Suresh Venkatan, MBBS <i>Gilbert Program in Medical Simulation, Harvard Medical School, Boston, MA</i>	
Sat. A Soprano	Construction & Use of a Cannulatable Arterial Simulator for the HPS in Anesthesia & Intensive Care Training	Currently anesthesia and intensive care simulation scenarios lack a functional arterial simulator that is integral to the training mannequins. The currently available simulators have pulses that cannot vary in intensity with the clinical situation nor can they be cannulated. Participants therefore do not have the ability to use the pulse as a clinical evaluation tool nor can they train to cannulate arteries within the context of a real time scenario. We have developed a device that when installed with the Human Patient Simulator (METI) can simulate a pulse that can vary in intensity and rate to correlate with the clinical situation. Additionally, this device can be cannulated with a commercially available arterial cannula with a resultant pulsatile "flash". This device therefore, can be used as a procedural trainer and a tool to teach inexperienced clinicians the importance of evaluating the pulse as a clinical sign. Moreover, because the intensity of the pulse can be varied by adjusting the output and resistance within the device, basic cardiovascular physiologic principles can also be taught.
Workshop M	Martin Eason, MD Chuck Stanton <i>Quillen College of Medicine, East Tennessee State University</i>	
Sat. A Tenor	Everything You Didn't Know the SimMan Can Do.	One of the major concerns with all simulator user are what to do with them and understanding all of their capabilities. One area that the simulation community lacks communication in, is understanding what others are doing with their simulators. From basic use of the manikins to advanced training. In this workshop we will explore and share the way WISER is using the Laerdal SimMan and also open the forum up to have others share their experiences.
Workshop N	Tom Dongilli, MD John Schaefer, MD <i>WISER Institute, Pittsburgh, PA</i>	

Sat. B Degas Workshop O	Write Your Own ACLS Scenarios Using a Case Authoring Program Howard Schwid, MD University of Washington & VA Puget Sound HCS	One of the biggest hurdles in medical simulation is the difficulty involved in scenario development. Attendees will learn how finite state machines can be used to develop simulation scenarios and provide intelligent help during the simulation and intelligent debriefing after the simulation. Attendees will then use a case authoring program to develop a scenario for ACLS.
SAT B Tenor Workshop P	Using the IngMar Medical ASL 5000 Simulator for Mechanical Ventilation Training William McIvor, MD WISER Center, University of Pittsburgh, PA	During this 90-minute workshop, participants will receive hands-on experience with IngMar Medical's Active Servo Lung (ASL) 5000 Breathing Simulator. We will discuss the most effective ways to use the ASL 5000 for respiratory care instruction and training.
Sat. B Symphony Workshop Q	Producing Anatomical Models and Visualizing the Results Michel Audette, PhD. <i>AIST, Tsukuba, Japan</i>	This workshops will introduct some of the freely available processing tools used to produce anatomical models and visual the results. It includes This would entail an introduction to the Montreal Neurological Institute's software, based on the MINC format for medical image volumes http://www.bic.mni.mcgill.ca/software/ , and an introduction to freely available visualization software , such as the Visualization Toolkit(VTK) http://public.kitware.com/VTK/ (with a reference to ITK http://www.itk.org/HTML/Documentation.htm), as well as some higher-level visualisation tools, such as Atamai http://www.atamai.com/ .
Sat. B Soprano Workshop R	The Decompensating Pediatric Patient...Scared Yet? Kevin King, MD <i>University of Texas Medical Branch at Galveston, TX</i>	This workshop will maximize familiarity with, and learn specific tips on dealing with the pediatric simulator (technical & physiological)
Sat. C Degas Workshop S	Using Mathematical Simulations to Understand Clinical Issues: Pharmacokinetics Howard Schwid, MD <i>University of Washington & VA Puget Sound HCS</i>	The three compartment PK model is commonly used to describe the concentrations of intravenous anesthetic agents. However, it is difficult to find consistent parameters for the drugs we use in everyday practice. Furthermore, the effects of cardiac output, obesity and duration of drug injection are not clear from this model. In this workshop the equations and constants used in the three compartment model are first clarified and the physiologic PK model is reveiwed. Then, experiments are performed with the physiologic PK model to show the effects of cardiac output, rate of drug injection and obesity on plasma drug concentration. Three compartment parameters are calculated for these simulations. Finally, the results of the simulated experiments are compared to actual clinical studies.

Sat. C	Strategies for Successful Debriefing	Experts have questioned the educational methodologies used in traditional medical instruction, noting a lack of attention paid to the needs of adult learners. For adult learners, the most significant learning experiences occur in the context of real life, for example, during immersion in authentic activity via hands on training. Simulation-based training allows educators in medicine to finally address the needs of the adult learner. This high-fidelity technology however, is only as good as the instructors who teach from it. Debriefing is the most critical component of the simulation exercise. workshop will begin with an introduction to debriefing and the critical elements effective debriefings must incorporate. We are planning to use video footage from our scenarios and debriefings to demonstrate effective debriefing styles. Our panel of experts have extensive history with the "good-cop, bad-cop" approach, and we are able to address all members of the training team from different areas of expertise.
Symphony	JoDee Anderson, MD Allison Murphy, MD Swati Argarwal, MD	
Workshop T	Kristine Boyle, NNP, Kim Yaeger, RN	
	<i>UT Southwestern Medical Center at Dallas Stanford University</i>	
Sat. C	Theory & Practice of Developing an Effective Human Patient Simulation Curriculum for Junior Medical School Students	During this workshop the participants will learn how to develop a highly interactive Human Patient Simulation curriculum. Material covers elements of cognitive psychology, methodological aspects of an effective simulation session and how to expand technical potential of Human Patient Simulator.
Soprano	Valeriy Kozmenko, MD <i>Louisiana State University Health Sciences Center</i>	
Workshop U		
Sat. C	Obstetrics Simulation: Shoulder Dystocia	We have developed a simple simulator for exercises involving vaginal births. We will demonstrate a team scenario involving shoulder dystocia and provide a debriefing model for conducting such exercises.
Tenor	Roxanne Gardener, MD	
Workshop V	Toni Walzer, MD Jordan Halasz, Dan Raemer, PhD <i>Center for Medical Simulation, Boston, MA</i>	

Local Simulation/Education Centers may be open for tours. Please check the bulletin board for times. Transportation to/from is "on your own" unless noted on the host institution's flier.

Information as of 1/6/05

2005 IMMS Abstracts

Abstracts were submitted in the following categories: Education, Patient Safety and Technology. Abstracts marked "Demo" are in the demonstration area.

Education Category

- | | | |
|----|--|---|
| 1 | Walzer Toni
Center for Med Simulation
<i>tbwalzer@massmed.org</i> | <i>Human Patient Simulation of Normal & Abnormal Vaginal Birth Pilot Program for 3rd Year Harvard Medical Students</i> |
| 2 | Schumacher Lori
Medical College of Georgia
<i>lschumacher@mcg.edu</i> | <i>The Impact of Utilizing High-Fidelity Computer Simulation on Critical Thinking Abilities & Learning Outcomes in Undergraduate Nursing Students</i> |
| 3 | Vozenilek John
Evanston Northwestern Healthcare
<i>vzonline@ameritech.net</i> | <i>Inter-rater Reliability Using an Automated Response System for Scoring Simulation Sessions</i> |
| 4 | Pawlowski John
Beth Israel Deaconess
<i>jpawlows@bidmc.harvard.edu</i> | <i>Pilot Study: Evaluation of Learning/teaching Effectiveness Using Multiple Exposures to Simulated Cardiovascular Clinical Scenarios</i> |
| 5 | Pawlowski John
Beth Israel Deaconess
<i>jpawlows@bidmc.harvard.edu</i> | <i>Pilot Study: Evaluation of Whole-Body Simulation Used to Teach Cultural Competency to Medical Students</i> |
| 6 | Seropian Michael
Oregon Health Sciences
<i>seropian@ohsu.edu</i> | <i>Statewide Simulation Deployment in Oregon - It can Be Done</i> |
| 7 | Savoldelli Georges
Wilson Center for Research in
<i>georges.savoldelli@utoronto.ca</i> | <i>The Evaluation of Patient Simulator Performance as an Adjunct to the Oral Examination for Senior Anesthesia Residents</i> |
| 8 | Szarek John
Ross University School of Medicine
<i>jszarek@rossmed.edu.dm</i> | <i>Problem-based Learning Using a Human Patient Simulator and its Relation to One Model of Physician Learning</i> |
| 9 | Lighthall, Goeff
Palo Alto VA Stanford
<i>kharrison@stanford.edu</i> | <i>The Use of Simulation to Train Medical Residents to be Code Team Leaders</i> |
| 10 | Meyer Elaine
Children's Hospital & Harvard Medical School
<i>elaine.meyer@tch.harvard.edu</i> | <i>Lessons Learned from an End-of-Life Communication Simulation Model</i> |
| 11 | Meyer Elaine
Children's Hospital & Harvard Medical School
<i>elaine.meyer@tch.harvard.edu</i> | <i>What Components of an End-of-Life Communication Simulation Program are Most Helpful to Trainees?</i> |
| 12 | Naik Viren
St./ Michael's Hospital U of Toronto
<i>naikv@smh.toronto.on.ca</i> | <i>Non-Technical Skills in Anesthesia Crisis Management with Repeated Exposure to Simulation Based</i> |

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|----|---|---|
| 13 | Brown Russell
<i>russelljbrown@shaw.ca</i> | <i>Simulation in the of Anesthesiologists in Canada</i> |
| 14 | Lighthall Geoff
<i>lighthall@stanford.edu</i> | <i>Development of a Scoring System to Evaluate the Management of Septic Shock</i> |
| 15 | Siddall Viva
Northwestern University
<i>v_siddall@northwestern.edu</i> | <i>A Prospective Randomized Control Trial Focused on Simulated ACLS Support Training for Internal Medicine Residents</i> |
| 16 | Phrampus Paul
Univ of Pittsburgh
<i>phrampuspe@upmc.edu</i> | <i>Death During Simulation Training: Feedback from Trainees</i> |
| 17 | Gelbvaks Sergio
Berkley Training Ctr in Brazil
<i>sgelbvaks@uol.com.br</i> | <i>Virtual Hospital & Simulators: A New Trend in Health in Brazil</i> |
| 18 | Cimino Linda
St. University of NY at Stony Brook
<i>linda@cimino.us</i> | <i>Value of Medical Simulation for Residents with Tactual/Kinesthetic Learning Styles (and specialties?)</i> |
| 19 | Zonfrillo Mark
Yale University
<i>mark.zonfrillo@yale.edu</i> | <i>Quantifying the Pediatric Simulation Literature: A Review of Outcomes-Bsed Research</i> |
| 20 | Marks Roger
Univ of Miami/Anesthesia
<i>marks@med.miami.edu</i> | <i>Team Training for Medical Students - An Early Exposure to Crisis Resource Management</i> |
| 21 | Sudikoff Stephanie
Brown School of Medicine
<i>ssudikoff@lifespan.org</i> | <i>High Fidelity Medical Simulation as an Assessment Tool for Pediatric Resident Airway Management Skills</i> |
| 22 | Mahoney John
Unifersity of Pittsburgh School of Medicine
<i>mahoney@medschool.pitt.edu</i> | <i>Integration of Human Patient Simulation into a Comprehensive Standardized Patient OSCE</i> |
| 23 | Schaefer John
University of Pittsburgh Medic
<i>quinlanjj@anes.upmc.edu</i> | <i>Functional Validity of Airway Techniques in Whole Task Human Simulation Using the Laerdal SimMan</i> |
| 24 | Weinstock Peter
Boston Childrens Hospital
<i>peter.weinstock@tch.harvard.edu</i> | <i>Integration of High-Fidelity Patient Simulation into Traditional Pediatric Critical Care Curriculum: Work in Progress</i> |
| 25 | Von Wyl Thomas
University Hospital
<i>tvonwyl@uhbs.ch</i> | <i>Team Performance and Interrater Reliability in Simulated Emergency Situations</i> |
| 26 | Morgan Pamela
Sunnybrook & Womens
<i>pam.morgan@utoronto.ca</i> | <i>High Fidelity Simulation: Translating Theory into Practice in Undergraduate Medical</i> |
| 27 | Kaminoh Yoshiroh
Hyogo College of Medicine
<i>ykaminoh@hyo-med.ac.jp</i> | <i>Experience with Anesthesia Case Management of Simulated Patient by HPS Promotes the Knowledge Acquisition about Anesthesia by Medical Students</i> |

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|----|---|---|
| 28 | Aitchison Pamela
Evanston Northwestern
Health Center
mkharasch@enh.org | <i>Physiologic Response to the Critically Ill Simulated Patient</i> |
| 29 | Gordon James
Massachusetts General
Hospital
jgordon3@partners.org | <i>The Institute for Medical Simulation: A New Resource for Medical Educators Worldwide</i> |
| 30 | Pardo Manuel
UCSF
mpardo@itsa.ucsf.edu | <i>Computerized Patient Simulation in the Preclinical Curriculum: Student Perceptions After Three Years</i> |
| 31 | Nakagawa Masashi
mmmata@jichi.ac.jp | <i>Difficult Airway Management (DAM) in Japan</i> |
| 32 | Eppich Walter
Yale University Hospital
walter.eppich@yale.edu | <i>Integration of Human Patient Simulation into a Pediatric Advanced Life Support Course for Community Practitioners</i> |
| 33 | Berkenstadt Haim
Sheba Medical Center
berken@netvision.net.il | <i>Feasibility of Sharing Simulation-Based Evaluation Scenarios in Anesthesiology</i> |
| 34 | Manser Tanja
VA Palo Alto
manser@stanford.edu | <i>An Observation Method to Assess Coordination Processes in Anesthesia</i> |
| 35 | Savoldelli Georges
Wilson Center for Research
georges.savoldelli@utoronto.ca | <i>Activities, Perceptions and Perceived Barriers Vary with the Level of Training</i> |
| 36 | Gillespie Sarah
sgillesp@wfubmc.edu | <i>An Introduction to Clinical Medicine for Biomedical Engineering Students Through Simulation</i> |
| 37 | Gillespie Sarah
sgillesp@wfubmc.edu | <i>A Novel (?) Five Day Human Patient Simulation Curriculum for Anesthesiology Residents</i> |
| 38 | Miyagawa Yasuko
jasuko38@umc.pref.osaka.jp | <i>The Utilization of the Anesthesia Simulator Room at Hyogo College of Medicine after Three Years, from April 2001-March 2004.</i> |
| 39 | Nomura Takeshi
Shimane Univ School of
Medicine
nomur@med.shimane-u.ac.jp | <i>Is ACLS Knowledge Valuable for Anaphylactic Shock Treatment? A simulation Study in Medical Students</i> |
| 40 | DeSousa Susan
Sunnybrook & Womens
susan.desousa@swchsc.on.ca | <i>Procedural Skills Development Using Simulated Models</i> |
| 41 | Goodrow Mike
University of Louisville
mike.goodrow@louisville.edu | <i>Using Patient Simulators to Reinforce Emergency Response Training for Non-Clinical Personnel</i> |
| 42 | Tarshis Jordan
Sunnybrook & Womens
College HSC
jordan.tarshis@sw.ca | <i>Creation, Implementation and Evaluation of a Nationwide Simulator Based CME Program for Family Practice Anesthetists</i> |

- 43** **Harter Phillip**
Stanford University
harter@stanford.edu
Comparison of Student Perceptions of Web-based Virtual Reality and HPS Simulation Training in Trauma Management
- 44** **Pozner Charles**
Brigham & Women's Hospital
cpozner@partners.org
Simulation as an Integral Component of an Emergency Medicine Residency at Harvard
- 45** **Johnson Ken**
University of Utah
kjohnson@remi.med.utah.edu
Exploration of Partial Task and Variable Priority Training for Anesthesia Residents to Improve Management of Adverse Respiratory Events: Preliminary Results
- 46** **Johnson Ken**
University of Utah
kjohnson@remi.med.utah.edu
Introduction to Part Task and Variable Priority Training in First Year Anesthesia Resident : A Combined Didactic and Simulation Based Approach to Improve Management of Adverse Respiratory Events
- 47** **Hunt Elizabeth**
Johns Hopkins
doctorbetsy@yahoo.com
Simulation of Pediatric Trauma Stabilization in NC Emergency Departments: Identification of Targets for Performance Improvement
- 48** **Brown Darral**
Univ of Florida
darralb@coe.ufl.edu
Use of a Simulation-Based Training Program at NF/SG VA Health System to Train Residents and Nurse Practitioners in Lower Gastrointestinal Tract Endoscopy
- 49** **LeBlanc Vicki**
Univ of Toronto
vicki.leblanc@utoronto.ca
Comparison of Simulation-Based Written and Skills Examinations in Predicting Field Performance by Paramedics
- 50** **Rockstraw Leland**
Drexel University CNHP
ljr28@drexel.edu
The Psycho/Social Correlates of Using Simulated Clinical Practicum with Students Enrolled in a Baccalaureate Nursing Program
- 51** **Raemer Daniel**
Center for Medical Simulation
draemer@partners.org
Simulation-based Crisis Training for Pain Management Specialists
- 52** **Baxendale Bryn**
Queens Medical Centre
bryn.baxendale@gmc.nhs.uk
Evaluating the Use of Advanced Patient Simulation in Training for Final Year UK Medical Students in the Recognition of the Acutely Ill Patient, Immediate Management Strategies and Resuscitation Skills
- 53** **Alinier Guillaume**
Univ of Hertfordshire
g.alinier@herts.ac.uk
Development of an Organizational Model for Critical Care Interprofessional Simulation Training
- 67** **Avery James**
Queens Medical Centre
James.avery@gmc.nhs.uk
Acute Medicine Unit Senior Nurse Development Day: Combining dynamic advanced patient simulation scenarios and static clinical knowledge and skill-based exercises to meet training needs for senior staff

68

Demo

Shapiro Marc
Brown Medical School
mshapiro@lifespan.org

Simulation Training in Emergency Preparedness (STEP): A Statewide Weapons of Mass Destruction (WMF) Training for Hospital Personnel

69

Demo

Wang Ernest
Evanston Hospital
ernestwangmd@yahoo.com

Addressing the Systems-Based Practice Core Competency: A Simulation-Based Curriculum

70

Demo

Stanley Liana
Children's Hospital Boston
liana.stanley@tech.harvard.edu

Using Simulation Technology to Produce an al Video: Excellence in End-of-Life Care in the Pediatric Intensive Care Unit.

71

Demo

Dongilli Thomas
Wiser Institute
dongta@upmc.edu

Using Simulation Based Learning Systems to Train a Large Urban EMS Service in Difficult Airway Management

72

Demo

Philip James H.
Brigham & Women's Hospital
jphilip@zeus.bwh.harvard.edu

Gas Man Demonstrates Apnea Greatly Prolongs Time Available for Intubation During VIMA with Sevoflurane

73

Demo

Singh Shashank
Pen State Hershey
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Trauma and Awareness

74

Demo

Kozmenko Valeriy
LSU Health Science
vkozme@lsuhsc.edu

Teaching Clinical Skills for Undergraduate Medical Students Through Inquiry with the Use of High Fidelity Human Patient Simulator

75

Demo

Meurling Lisbet
Karolinska University Hospital

Leadership Behavior, but Not Attitude, Changes in Response to Short Term Team Training.

76

Demo

Wallin Carl-Johan
Huddinge Univ. Hospital
carl-johan.wallin@karo.ki.se

Assessment of Team Training Using Engagement Modes and Self Efficacy

Technology Category

- | | | |
|------------|---|---|
| 55 | Lim Michael
John Radcliffe Hospital
<i>Michael.lim@ntlworld.com</i> | <i>The Oxford Simulation Apparatus for Flexible Endoscopy (OxSAFE)</i> |
| 56 | Lutz John
Univ of Pittsburgh Wiser
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<i>g.alinier@herts.ac.uk</i> | <i>A Touch of Added Realism: Preparation of Your Patient Simulator for CVP Monitoring</i> |
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