Join the Society for Simulation in Healthcare (SSH).

SSH Offers:
- Networking with top healthcare simulation experts and leaders
- Resources to stay current with advances in simulation practice
- Opportunities to develop and promote standards of simulation-based practice, education, and research
- Connections with peers via active shared-interest groups
- Interprofessional collaboration in education, training, and research
- Opportunities to serve in leadership roles

Champion Healthcare Simulation
Join over 3,000 SSH members as the international voice advocating healthcare simulation in education, practice and research

Develop Collaborative Practice
Membership provides opportunities to share your ideas, best practices, and research findings with the simulation community

Stay Competitive
Have membership in a leading professional society recognized on your CV or resume

Membership Highlights:
- Live Learning Center access to exclusive, ACCME accredited, educational webinars
- Listserv to stimulate discussions, share ideas and information with other members
- Subscription to peer-reviewed Simulation in Healthcare
- Discounted registration for the International Meeting on Simulation in Healthcare (IMSH), the world’s largest healthcare simulation conference and exhibition
- Subscription to Simulation Spotlight, e-news on healthcare simulation
- Access to courses, webinars, a career center, professional certification, and accreditation of your sim program

SSH is the largest healthcare simulation society in the world.

Join SSH Today!
SIm Ops Attendees receive discounted SSH Registration for only $99
Visit www.ssih.org Use code SIMOPS99
Contact membership@ssih.org with any questions.

Annual Membership
Full Membership - $175
Student/Resident Membership - $80
Retired Membership - $80
Welcome to SSH Sim Ops
**Registration**
Friday, July 11  7:30 AM -  5:00 PM  
Saturday, July 12  7:30 AM - 12:00 PM

**Friday, July 11**

**Exhibitor Hours / Schedule**

<table>
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<tbody>
<tr>
<td>8:00 AM</td>
<td>9:00 AM Breakfast with Exhibitors Sponsored by Laerdal Medical</td>
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<tr>
<td>9:00 AM</td>
<td>9:45 AM Welcome to SSH Sim Ops Pittsburgh! Opening Keynote Address</td>
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<td>9:45 AM</td>
<td>10:00 AM Break</td>
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<td>10:00 AM</td>
<td>11:30 AM Critical Components of Team Success</td>
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<td>11:30 AM</td>
<td>12:30 PM Lunch &amp; Exhibition</td>
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<td>12:30 AM</td>
<td>4:00 PM Courses</td>
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<td>4:00 PM</td>
<td>5:30 PM Exhibition</td>
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<td>4:30 PM</td>
<td>5:30 PM Reception with Exhibitors</td>
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**Saturday, July 12**

**Schedule**

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<th>Time</th>
<th>Event</th>
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<tr>
<td>8:00 AM</td>
<td>9:00 AM Breakfast &amp; Tech Mods Showcase</td>
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<td>9:00 AM</td>
<td>10:00 AM Courses</td>
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<td>10:00 AM</td>
<td>10:15 AM Break</td>
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<td>10:15 AM</td>
<td>11:15 AM Courses</td>
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<td>11:30 AM</td>
<td>12:15 PM Sim Tech Challenge</td>
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<td>12:15 PM</td>
<td>12:30 PM Closing Keynote Presentation</td>
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**CONFERENCE ACCREDITATION STATEMENT**

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME). The Society for Simulation in Healthcare (SSH) is accredited by the ACCME to provide continuing education for physicians.

The Society for Simulation in Healthcare designates this educational activity for a maximum of 8.25 AMA PRA Category 1 Credits™. Each physician should claim credit commensurate with the extent of his/her participation in the activity.

SSH thanks The Peter M. Winter Institute for Simulation Education and Research (WISER) for generously hosting SSH Sim Ops Pittsburgh.
Welcome from the Planning Committee

We would like to personally welcome you to SSH Sim Ops Pittsburgh 2014. This is an exciting time for the Society for Simulation in Healthcare (SSH) as we continue to expand our programming to meet the educational demands of the rapidly expanding field of Simulation Operations Specialists. SSH is embracing a time of change. We are excited for what may lie ahead. The world of healthcare simulation is growing and changing. SSH is committed to meet that growth by bringing together inspired people. The world of simulation is an exciting area in which to study, work, and grow. We continue to connect inspired people in forums like this, to ensure SSH remains at the cutting edge.

We’d like to give you an idea of what you can expect over the next few days:

1. Exceptional technology classes for and by Simulation Operations Specialists
2. Tech Mod Showcase Entries of exciting breakthroughs in technology adaptation
3. Mobile Simulation - visit the vehicle showcase
4. Vendor showcase where you can explore new products
5. Vendor hosted education classes
6. Sim Tech Challenge - Register early for a chance to win
7. Mix, mingle, and connect throughout the next two days

We want to take a moment and thank SSH for the Certified Healthcare Simulation Operations Specialist (CHSOS) certification, the first ever certification program for the Simulation Operations Specialist.

SSH is transforming the way we operate to continuously improve our ability to deliver the most up to date technological and educational advancements available today. Our planning committee and partners have continued to meet the challenges of our field. We are all very proud of where we are today and excited about what lies ahead.

Before we close, we’d like to thank each of you for attending and sharing your expertise. You, as organization leaders, have the vision, knowledge, and experience to help us pave the way into the future. You are truly our greatest asset today and tomorrow, and we could not accomplish what we do without your support and leadership. Throughout this conference, we ask you to stay engaged, keep us proactive and help us shape the future for the Simulation Operations Specialist.

Our personal respect and thanks goes out to all of you.

S. Scott Atkinson, Planning Committee Co-chair
Jordan Halasz, Planning Committee Co-chair
SSH Sim Ops Pittsburgh 2014
Exhibitors

SSH thanks the SSH Sim Ops Pittsburg exhibitors. Their support allows us to provide the highest quality conference experience possible to attendees. Exhibitors highlighted with orange are members of the SSH Corporate Council.

Exhibition Hours
Friday, July 11
8:00 AM – 9:00AM Breakfast
11:30 AM – 12:30 PM
4:00 PM – 5:30 PM
4:30 PM – 5:30 PM Reception

Booth #1
Pocket Nurse
www.pocketnurse.com
610 Frankfort Road
Monaca, PA 15061

Booth #2
Lecat’s Ventriloscope
www.ventriloscope.com
164 West Avenue, #132
Tallmadge, OH 44278

Booth # 3
Education Management Solutions, Inc.
http://www.simulationiq.com
440 Creamery Way, Suite 100
Exton, PA 19341

Booth # 4
Gaumard Scientific
www.gaumard.com
14700 SW 136 Street
Miami, FL 33196

Booth # 5
Laerdal Medical - Sponsor
www.laerdal.com
167 Myers Corners Road
Wappingers Falls, NY 12590

For more than 50 years, healthcare providers and educators have trusted Laerdal to offer products, services and solutions that help improve patient outcomes and survivability. By supporting the advancement of resuscitation science, improving medical education and strengthening the chain of survival in communities worldwide, we help you save more lives.

Booth # 6
Simulab Corporation
www.simulab.com
1600 West Armory Way
Seattle, WA 98119
Exhibitors

Booth # 7
CAE Healthcare
www.caehealthcare.com
6300 Edgelake Drive
Sarasota, FL 34240

Booth # 8
Kb Port LLC
www.kbport.com
2853 Oxford Blvd., Suite 107
Allison Park, PA 15101

Booth #9
Mimic Technologies Inc.
www.mimicsimulation.com
811 First Ave., Suite 408
Seattle, WA 98104

Booth #10
OtoSim Inc.
www.otosim.com
101 College Street, Suite 402
Toronto, Ontario
MSG1L7

Booth #11
iSimulate
www.isimulate.com
Unit 17 Molonglo Mall
Fyshwick ACT
Australia

SSH thanks Laerdal Medical for continued support of healthcare simulation education and SSH Sim Ops Pittsburgh.

Laerdal’s sponsorship provided the Friday, July 11, breakfast for attendees.
Schedule
Friday, July 11

7:30 AM – 5:00 PM HGI
Registration

8:00 AM – 9:00 AM HGI
Breakfast with Exhibitors Sponsored by Laerdal Medical

9:00 AM - 9:10 AM Rm HGI
Welcome to SSH Sim Ops Pittsburgh!

9:00 AM - 9:45 AM Rm HGI
**Technical Connections: The Foundations of Simulation**
**Faculty:** Paul Phrampus, MD, SSH Past President
The significant increase in the adoption of Healthcare Simulation has given rise to many different types of simulation programs with many different missions. While programs may appear different, one of the common foundations that is universally critical is competent technical support. The technical support offered by operations specialists in simulation is complex in that it covers a wide variety of roles. This session will address several areas of competence that are crucial for workforce development associated with the technical support of simulation programs.

**Learning Objectives:**
1. List three areas of technical support that are important for any simulation program.
2. Define the importance of understanding medical terminology along with the technical terminology to increase the effectiveness of support provided to healthcare simulation programs.
3. Describe the potential role of the simulation technician in the scenario and/or course development process and how it relates to the overall effectiveness of simulation-based education programs.

9:45 AM – 10:00 AM Hilton Garden Inn
Break

10:00 AM - 11:30 AM Rm HGI
**Critical Components for Team Success**
**Faculty:** Randolph H. Steadman, MD, MS; Jamie Stiner
This workshop is designed to engage participants in activities and discussion to foster teamwork and improved communication. Emphasis will be on collaboration, task delegation, role assignment, mutual support and leadership. Tools will be introduced that will help participants incorporate these skills into their daily work.

**Learning Objectives:**
1. Review principles of teamwork and communication.
2. Apply teamwork principles in the context of routine tasks.
3. Identify teamwork principles that apply to participants’ work environment.

11:30 AM - 12:30 PM Rm HGI
**Sim Tech Magazine Meeting**

11:30 AM – 12:30 PM Hilton Garden Inn
**Lunch & Exhibition**

12:30 PM - 2:00 PM Rm MET 7
**AV Basics: What’s in a Cable?**
**Faculty:** Ray Booker, Jordan Halasz
This workshop will explore techniques for living in a wired world without being consumed or short circuited. Participants will compare different connection options as they design – and build – a low cost AV system to create a wired simulation lab on a budget. The participants will terminate different types of cable and build patch cables to take home. They will also learn a few “stupid cable tricks” to keep their cables under control.

**Learning Objectives:**
1. Design a wired simulation space.
2. Build and use various cables types and connectors.
3. Practice cable management tips.
Fake it for Real: Moulage Techniques & Applications

Faculty: Ron Ulrich, BA, EMT, John Perrone, BA, EMT

Healthcare simulation is an attempt to recreate realistic patient care encounters. In an attempt to recreate scenarios that help our learners "suspend disbelief" we are constantly challenged to make the simulators "more real." This course will discuss basic and unique techniques used for moulage (including silicone and commonly available supplies). The session will share the foundation of our magic in transforming our manikins into patients. This workshop is similar to “Innovative Fidelity” featured at IMSH 2013.

Learning Objectives:
1. Transform the use of common healthcare and household supplies into tools that can be used to transition their simulators into patients.
2. Discuss moulage techniques available to increase the realism of simulators.
3. Implement techniques demonstrated to generate their own moulage during the workshop.

Lights, Sirens & Action: Mobile EMS Education

Faculty: S. Scott Atkinson, BBA, CCEMT-P, Jon Zalewski

Mobile emergency medical training is an emerging educational modality in simulation. The mobile simulation ambulance at Summa Health System has been used since 2012. We will demonstrate how the unit was set up including real time suctioning, audio and visual equipment, outside control rooms & viewing booths, as well as simulation equipment that is mounted in the unit. We will also discuss the strategy used in the integration of training as it pertains to initial training and continuing education for EMS personal. Opportunities for individual discussions will be available on the methods used to obtain the ambulance through donation and grant opportunities in your locale.

Learning Objectives:
1. Demonstrate how to set up a mobile simulation ambulance.
2. Describe the strategy used in the integration of training as it pertains to initial training and continuing education for EMS personal.
3. List methods used to obtain an ambulance through local donation and grant opportunities.

Preventive Maintenance

Faculty: Hans Lamkin, Gail Johnson, MS, CCRN, CPHQ, CHSE

Equipment in simulation can stall out a course and halt learning. The good news is, most of this can be prevented with a little routine maintenance. This workshop will provide visuals, discussions and a hands-on opportunity to learn about common trouble areas, techniques to prevent break down and easy repairs.

Learning Objectives:
1. Recognize two common areas within manikins that lead to operational problems.
2. Describe the importance of a preventive maintenance schedule.
3. Identify which materials are appropriate for cleaning, repair, and moulage.

Scenario Design Made Easy

Faculty: Tom Dongilli, AT

Scenario design can be tricky and time consuming. Matching your scenarios to specific learning objectives is often overlooked. A simple scenario may touch many users (instructor, operations specialist, students, etc.) This workshop addresses these issues and supplies the participants with helpful hints, methods and tools to assist with the scenario design. Is scenario design perceived as "Too Complicated" for your center? This interactive workshop is designed to address the most prominent issues with scenario design, simplify the process and leave you with tools to ease the burden of design.

Learning Objectives:
1. Identify key elements of a scenario.
2. Identify various roles of personnel that may interact with a scenario and how to design to address their needs.
3. List three supporting documents that should be included in every scenario.
12:30 PM - 2:00 PM Rm Classroom B
**Standardized Forms - A Technician’s Best Practice**

*Faculty:* Tiffany Holmes, DC

Forms at the doctor’s office, the online shopping website, time off requests. Have you considered using standardized forms for your simulation operations? The participants in this session will be shown how one simulation center developed forms to become more organized and efficient. Examples will be provided including lab supply information forms, supply lists, interview forms, and utilization tracking forms.

**Learning Objectives:**
1. Analyze the need for standardized forms in the simulation center.
2. Discuss the development process for creating forms.
3. Demonstrate how standardized forms can increase efficiency and organization.

2:00 PM - 2:30 PM
**Break**

2:30 PM - 4:00 PM Rm MET 1, 2, 3 & 4
**Bleeding to Blacklights**

*Faculty:* S. Scott Atkinson, BBA, CCEMT-P

This workshop is an immersive session which allows audience participation in four individual breakout stations to modify your full-body simulator that include: vomiting blood/bile, seizures, suctioning bloody sputum/blood, chemical exposure, and waterproofing clothes to protect your simulator. Learners will be given detailed instructions on how to perform these modifications.

**Learning Objectives:**
1. List components necessary to create modifications to simulators such as seizures, vomiting blood, suctioning bloody sputum, waterproof clothing, and blacklight detection.
2. Demonstrate utilization and implementation of these innovative modifications to your full-body simulator.
3. Apply selected modifications to enhance the suspension of disbelief for learners in current programs.

2:30 PM - 4:00 PM Rm MET 10
**Crafty & Creative Techniques on a Budget**

*Faculty:* Clint LeClair, MD

Finding new and innovative ways to simulate procedures and clinical situations sometimes requires looking to unconventional sources, such as everyday objects, due to the expensive nature of simulation materials and supplies. This workshop will demonstrate examples of low-fidelity simulation using everyday craft objects. Learners will create synthetic skin, adipose tissue, blood vessels, striated muscle, and uterine tissue. All will be used to then create a real, simulated scenario.

**Learning Objectives:**
1. Describe a variety of options for creating low-fidelity sim with everyday crafts.
2. List two concrete ideas for creating low-fidelity sim.
3. Develop a plan for an initial project to incorporate crafts into a simulation.

2:30 PM - 4:00 PM Rm Library
**Creating a Simulated Pharmacy**

*Faculty:* Jamie Stiner

This workshop discusses problems with the current utilization of pharmaceuticals in simulation and addresses them via development of simulated drugs. Emphasis will be added on proper planning, organization, and cooperation with facilitators to ensure utilization of this new tool. Workshop attendees will be able to create their own vials with supplied tools and can discuss ideas for use at their home institution.

**Learning Objectives:**
1. Create a needs assessment to tailor simulated pharmaceutical production to your needs.
2. Demonstrate how to produce vials for use as simulated drugs with hands-on instruction.
3. Discuss ways to implement a self-sufficient pharmacy in the simulation center.
Schedule

2:30 PM - 4:00 PM Rm MET 11
**Educational Videos for Under a Grand!**
**Faculty:** Paul Phrampus, MD
If a picture is worth 1000 words, than the average short video clip is worth a million bucks! The video age is upon us. Low-cost, high-quality videos that can effectively enhance learning in the healthcare environment is easily attainable in this day and age. This session will explore commonly available, low-cost equipment to facilitate high-quality educational healthcare videos. There will also be special emphasis on techniques to ensure a polished finish to productions.

**Learning Objectives:**
1. Compare and contrast several low-cost hardware options for creating educational videos.
2. Compare and contrast several low-cost software options for creating educational videos.
3. Describe how to optimize conditions for creating high-quality educational videos on a restrictive budget.

2:30 PM - 4:00 PM Rm Classroom A-B
**Improve Ops With Your Own Technology**
**Faculty:** Fritz Sticht, BS
As the complexity of immersive simulations and size of centers increases, it is paramount that the simulation technician become ultra-efficient. This presentation will demonstrate how to use existing resources and free applications to improve efficiency in all aspects of technical operations. It will feature techniques that can be incorporated into day-to-day facility management.

**Learning Objectives:**
1. Apply remote desktop management to save time, energy and money.
2. Describe existing network infrastructure to create free, easy-to-use systems.
3. Identify free software applications for tracking equipment, supplies, repairs, and maintenance agreements.

2:30 PM - 4:00 PM Rm MPL
**Manikin Maintenance 101**
**Faculty:** Hans Lamkin, Gail Johnson, MS, CCRN, CPHQ, CHSE
Simulation centers can be negatively impacted when manikins do not operate optimally. We need to be able to perform more of our own repairs, especially with manufactures’ having limited phone support availability. This increasingly greater need to become more independent in maintaining manikin operation requires us to be comfortable with removing and replacing both internal and external parts. This course addresses maintenance and repairs for Gaumard and Laerdal manikins through a hands-on experience.

**Learning Objectives:**
1. Demonstrate three repairs and replacement of parts for Laerdal and Gaumard manikins.
2. Discuss the functionality of individual manikin components.
3. Describe how to inspect the manikin to make sure it works as intended.

4:00 PM – 5:30 PM Hilton Garden Inn
**Exhibition**

4:30 PM – 5:30 PM Hilton Garden Inn
**Reception with Exhibitors**
Saturday, July 12
7:30 AM – 12:00 PM Hilton Garden Inn

Registration
8:00 AM – 9:00 AM Hilton Garden Inn
Breakfast
9:00 AM - 10:00 AM Rm Classroom A

3D Printing: Bespoke Simulation - 3D Print Your Patient So You Get it Right the First Living Time!
Faculty: Clint LeClair, MD
This course will demonstrate how revolutionary 3D printing can be for a budget conscious institution. We will discuss one-off model development using radiologic films of patients for complex, high-risk procedures and the often repeated, low-fidelity model replication (skin, trachea holders, etc.) Finally, we will explore necessary hardware and software for setting up a printer in your institution with a focus on open-source, self constructed printers. Functioning printers will be available for hands-on learning.
Learning Objectives:
1. Identify what materials and models can and cannot be printed.
2. Compare prep time vs manual construction of similar models and other variables affecting a cost-benefit analysis.
3. Identify the skillset constraints of developing models using 3D printers and modeling software (via X-ray films, CT, and MRI data).

9:00 AM - 10:00 AM Rm Classroom B
Are You Ready to Get Certified?
Faculty: Andrew Spain, MA, NCEE, EMT-P
This session will look at the role of certification in healthcare simulation. It will cover what is available to you, how the certifications were developed, what certification means to you, and even will help you decide which one is best. Bring your questions and get ready to become certified!
Learning Objectives:
1. Describe the role of certification in healthcare simulation.
2. Summarize how the certifications were developed and meet industry standards.
3. Discuss where certification will fit in your professional development.

9:00 AM - 10:00 AM Rm MPL
AV Solutions on a Budget
Faculty: Brian Florek, BS, EMT-P
The capabilities, reliability and usability of simulation lab audiovisual systems can impact the success of operations and enhance revenue opportunities. Proper implementation of technology and processing can yield an audiovisual system that meets education and research needs and can also provide for the complex or custom requirements of paying customers. This interactive workshop will help administrators and technology specialists define their audiovisual needs and plan for new build-outs, or overhaul existing systems.
Learning Objectives:
1. Discuss specific features of AV systems that may be relevant for teaching, simulation research activity and assessment of learners, as well as for human factors research and medical device testing.
2. Develop a basic signal flow diagram and perform a needs assessment for a simulation center audiovisual system based on knowledge of current technologies and capabilities.
3. Contrast the use of pre-engineered capture systems versus designing and building a customized audiovisual solution.

9:00 AM - 10:00 AM Rm Library
Everything You Need to Know to Run an In Situ Simulation
Faculty: Tom Dongilli, AT
Running an in situ simulation can be a logistics nightmare if you have not prepared properly. Communicating with the local site, selecting a location, programming scenarios, and testing and transporting equipment all need to occur. This session will explore all facets of an in situ simulation and
what you need to be prepared for.

**Learning Objectives:**
1. Identify three logistical issues that can occur when conducting an in situ simulation.
2. Identify three resolutions to these logistical issues.
3. List the proper steps for conducting an in situ simulation.

9:00 AM - 10:00 AM Rm Debriefing Rm 1

**From Problem to Product: What I Learned About IP and Patents**

**Faculty:** Paul LeCat, MD, FACP, FAAP

Learn about real world intellectual property issues from a simulation inventor. We all experience problems and frustrations in our daily work. Why not turn these problems into solutions for yourself and others? An overview of the process from problem to product will be presented including IP rights, patents, and other points of interest. Put your inventive thoughts to good use!

**Learning Objectives:**
1. List basic intellectual property issues and laws.
2. Take an idea through the process necessary to market it.
3. Describe IP rights, patents, and other points of interest.

9:00 AM - 10:00 AM Rm MET 10

**Going Hollywood with Moulage: Part 1**

**Faculty:** Jimmy Rowland, BS

As the professional role of the Simulation Operations Specialist continues to evolve, the need for developing expertise in specific areas, such as moulage, has also increased. What better direction to turn for guidance than the motion picture or theatrical special effects community. This presentation/discussion will address many of the materials, tools, techniques and other resources available through Hollywood special effects suppliers and schools, such as the Stan Winston School of Character arts.

**Learning Objectives:**
1. Describe skills required to create Hollywood-level medical special effects.
2. Develop a list of resources available for acquiring tools, materials and skills for creating realistic wounds and medical conditions.
3. Discuss ways to apply the techniques demonstrated in this presentation.

9:00 AM - 10:00 AM Rm MET 11

**Preventive Maintenance - Advanced**

**Faculty:** Adam Dodson, NRP, NCED, CCEMT-P

For the advanced simulation operations specialist, this course will cover how to implement an equipment maintenance program that is progressive and effective. The retrieval and management of data from simulation equipment and its use in fiscal and operational planning will be discussed. Finally, an overview of the tools available for tracking a maintenance program will be shared.

**Learning Objectives:**
1. Outline the implementation of a progressive equipment maintenance program.
2. Demonstrate how to compile data from equipment and use for fiscal decision-making.
3. Discuss a variety of tools to assist with tracking preventive maintenance, implementing replacement plans and advanced data collection.

9:00 AM - 10:00 AM Rm Classroom B

**Technology Workshop – CAE Healthcare**

This session will be a fast paced intense “walk” thru of the audiovisual center management software, LearningSpace. The session will provide a basic orientation to the software for the basic user for a smooth debriefing and center management experience.

**Learning Objectives:**
1. Understand the Basic Dashboard overview and record and annotate quickly in recording view.
2. Upload data from sources.
3. Review recordings and debrief; manage recordings

9:00 AM - 10:00 AM Rm Classroom A

**Technology Workshop – Laerdal Medical**

Product performance directly impacts simulation goals and objectives. To ensure your equipment works in the best possible way, this beginner to intermediate course is designed to cover general care and
maintenance of the Laerdal SimMan 3G patient simulator.

**Learning Objectives:**
1. Learn proper cleaning and parts replacement
2. Learn to update software.
3. Learn general trouble shooting.

9:00 AM - 10:00 AM Rm Classroom D

**Technology Workshop - Gaumard**

10:15 AM - 11:15 AM

**Break**

10:15 AM - 11:15 AM Rm Classroom B

**Are You Ready to Get Certified?**

**Faculty:** Andrew Spain, MA, NCEE, EMT-P
This session will look at the role of certification in healthcare simulation. This will cover what is available to you, how the certifications were developed, what certification means to you, and even will help you decide which one is best. Bring your questions and get ready to become certified!

**Learning Objectives:**
1. Describe the role of certification in healthcare simulation.
2. Summarize how the certifications were developed and meet industry standards.
3. Discuss where certification will fit in your professional development.

10:15 AM - 11:15 AM Rm MPL

**AV Solutions on a Budget (2nd Offering)**

**Faculty:** Brian Florek, BS, EMT-P
The capabilities, reliability, and usability of simulation lab audiovisual systems can impact the success of operations and enhance revenue opportunities. Proper implementation of technology and processing can yield an audiovisual system that meets education and research needs and can also provide for the complex or custom requirements of paying customers. This interactive workshop will help administrators and technology specialists define their audiovisual needs and plan for new build-outs, or overhaul existing systems.

**Learning Objectives:**
1. Discuss specific features of AV systems that may be relevant for teaching, simulation research activity and assessment of learners, as well as for human factors research and medical device testing.
2. Develop a basic signal flow diagram and perform a needs assessment for a simulation center audiovisual system based on knowledge of current technologies and capabilities.
3. Contrast the use of pre-engineered capture systems versus designing and building a customized audiovisual solution.

10:15 AM - 11:15 AM Rm MET 11

**Breaking the Physiology and Terminology Code for Simulation Technologists**

**Faculty:** Mariano Loo, Jennifer Manos, RN, MSN, Ilya Shekhter, MBA
Faculty will review the human physiologies that are relevant to medical simulation operations. In particular, the physiological cause and effect that is critically important to base knowledge, from the simulation technologist point of view carrying out a simulation case scenario to better navigate its natural progression. Through various educational methods, we will interactively explore the key areas of this subject with the goal of improving our understanding of human physiology, with a specific focus on simulation case management. Non-clinical and clinical simulationists are welcome.

**Learning Objectives:**
1. Synthesize cause and effect physiological relationships when managing a simulation case
2. Identify the need for continued practice and education in simulation and human physiology to better understand simulation case progression.
3. Create flowcharts and algorithms to more efficiently manage physiological changes during simulation case progression through interactive response system.
10:15 AM - 11:15 AM Rm MET 10
**Going Hollywood with Moulage - Part 2**
**Faculty:** Jimmy Rowland, BS
Part 2 of this course. As the professional role of the Simulation Operations Specialist continues to evolve, the need for developing expertise in specific areas, such as moulage, has also increased. What better direction to turn for guidance than the motion picture or theatrical special effects community. This presentation/discussion will address many of the materials, tools, techniques and other resources available through Hollywood special effects suppliers and schools, such as the Stan Winston School of Character arts.

**Learning Objectives:**
1. Describe skills required to create Hollywood-level medical special effects.
2. Develop a list of resources available for acquiring tools, materials and skills for creating realistic wounds and medical conditions.
3. Discuss ways to apply the techniques demonstrated in this presentation.

10:15 AM - 11:15 AM Rm Library
**In Situ Mastery**
**Faculty:** Adam Dodson, NRP, NCEE, CCEMT-P
This valuable course will incorporate handouts and team-building projects on mastering in situ. Topics such as building an in situ program, needs assessment, and basic fundamentals will be discussed, as well as shared personal experiences locally and internationally. Learn how to evolve a program from basic to advanced.

**Learning Objectives:**
1. Develop a basic/advanced needs assessment.
2. Describe the many benefits of in situ education (research, education, systems integration, etc.)
3. List advantages and disadvantages.

10:15 AM - 11:15 AM Rm Classroom A
**Integration of Management Principles into Technical Operations**
**Faculty:** Kevin Miracle, MBA, EMT-P
Resource allocation, room availability, equipment and supply inventory control, research, accreditation, certification... How do these various concepts and processes impact the technical operations of the simulation center? We’ve all heard the words, but what do they mean? This presentation is designed to offer an understanding of the challenges that the simulation center administrative team must consider when managing the day to day operations of the simulation center.

**Learning Objectives:**
1. List three challenges impacting the day to day operations of a Simulation Center.
2. Identify strategies for managing course/class requests to use the Simulation Center.
3. Recall techniques to improve resource allocation and utilization.

10:15 AM - 11:15 AM Rm Debriefing Rm 1
**Mobile Simulation: Taking Your Show on the Road**
**Faculty:** Gail Johnson, MS, CCRN, CPHQ, CHSE
Providing simulation outside of a simulation center benefits participants, organizations, and simulation programs, but there are challenges and complexities that must be considered. This session will provide tips and lessons learned since implementing a mobile program seven years ago. Topics include prep work (plan/pack/transport) and managing operational/technical/logistical issues in order to implement effective simulations in any environment including patient care areas, aircraft hangers and conference centers without a specialty bus or trailer.

**Learning Objectives:**
1. Identify three benefits to mobile simulation.
2. Discuss challenges associated with implementing mobile simulation.
3. Develop solutions to mitigate/overcome challenges.

10:15 AM - 11:15 AM Rm MET 7
**Preventive Maintenance Checks and Services**
**Faculty:** Daniel Smith, BS
This course will help participants appreciate the role preventive maintenance plays in simulation
operations. Presenters will discuss a systematic approach to creating a Preventive Maintenance Checks and Services (PMCS) program focused on simulation maintenance tailored to the needs of a specific organization.

**Learning Objectives:**
1. Define Preventive Maintenance Checks and Services (PMCS) as it relates to standard simulation equipment and/or the overall simulation center operating environment.
2. Describe the importance of properly maintaining simulation equipment within a simulation center operating environment.
3. Implement a formal PMCS system specific to the needs of a simulation center.

**10:15 AM - 11:15 AM Rm Classroom B**
**Technology Workshop – CAE Healthcare**
This session will be a fast-paced intense “walk” thru of CAE Healthcare’s patient simulator software, Muse. The session will orient the user with basic education in operating the software for a smooth scenario operation experience.

**Learning Objectives:**
1. Navigate SCE library, run pre-configured Simulated Clinical Experience (SCE), navigate through the scenario and transitions.
2. Apply conditions, medications and interventions to alter physiology, apply overrides to “lock” physiology.
3. Use parameter controls for features, resetting the session.

**10:15 AM - 11:15 AM Rm Classroom A**
**Technology Workshop – Laerdal Medical**
Product performance directly impacts simulation goals and objectives. To ensure your equipment works in the best possible way, this beginner to intermediate course is designed to cover general care and maintenance of the Laerdal SimMan 3G patient simulator.

**Learning Objectives:**
1. Learn proper cleaning and parts replacement
2. Learn to update software.
3. Learn general trouble shooting.

**10:15 AM - 11:15 AM Rm Classroom C**
**Technology Workshop – Lecat’s Ventrilocoscope**
High quality SOUNDS in the right places are generally a missing element in many simulations. We often think of Manikins, but we really miss them when we use SPs. Join us for a brief course to learn how to put ANY sound, ANYwhere, on a live patient or manikin. Other physical exam findings and other aspects of using SPs will be discussed.

**Learning Objectives:**
1. List advantages of “hybrid” simulation and methods to incorporate realistic auscultatory findings onto SPs and manikins.
2. Put any sound, any where on a live patient or manikin.
3. Describe Ventrilocoscope operation

**10:15 AM - 11:15 AM Rm Classroom D**
**Technology Workshop – Laerdal Medical**

11:30 AM -12:15 PM
**Break**

11:30 AM -12:15 PM Hilton Garden Inn
**Sim Tech Challenge**
Compete with your colleagues in the Sim Tech Challenge, utilizing the Sim tools and equipment you use everyday to run scenarios and solve problems in your simulation center.

12:15 PM -12:30 PM Hilton Garden Inn
**CLOSING KEYNOTE: Professional Advancement in Simulation Operations**
S. Scott Atkinson, BBA, CCEMT-P, Planning Committee Co-chair

12:30 PM **Adjourn**
Tech Mod Showcase

Make sure to visit the Tech Mod Showcase, Saturday, 8:00 AM – 9:00 AM in The Hilton Garden Inn. These submissions were peer-reviewed and selected specifically for their relevance to technical and operations specialists. Ask questions, take notes – this Showcase is designed to provide problem-solving solutions and creative ideas you can implement in your Sim Center.

Entry #1 - Airway Fire Modification
Kevin Miracle, MBA, EMT-P MBA
This modification was done to create smoke coming out of the mouth of a simulator for use during OR Fire/Airway Fire scenarios. At the request of an anesthesiologist, this team performed a modification to SimMan to allow smoke to come directly from the simulator mouth for use during an Airway Fire scenario. Further modifications allowed for smoke to come out of the bed as well to simulate an OR fire. The modification was done through the splicing of anesthesia circuit tubing into the simulator esophagus in order to create a connection to the smoke machine. One-way valves were incorporated to allow the simulator to be ventilated by bag valve mask (BVM) and still have chest rise with ventilation. A “Y” connector was used to allow a second tube to be run along/under the mattress, opening at the side of the bed. This allowed smoke to be discharged from the side of the bed, simulating the bed catching fire as well.

Project Objectives:
1. To modify the SimMan simulator to allow for smoke to come out of the mouth of the simulator during an Airway Fire scenario, while maintaining chest rise with BVM ventilation.
2. To further the modification, allowing for smoke to come from the bed surface and mouth at the same time, and then be limited to the bed alone as the scenario progressed.

Entry #2 - Mobile Simulation/AV Cart
Jim Christman, MCSE, MCSA, MCP, CCNA
Modify an existing mobile simulation cart to use Laerdal’s AVS system to record scenarios and Laerdal’s debrief viewer to play back debriefings. The system would need to be simple enough for a single person to transport, setup, run, and tear down.

Project Objectives:
1. The cart was modified to utilize Laerdal software to run, record, and playback scenarios in order to create a more familiar environment for an operator to run the equipment.
2. The cart needed to be simple enough for a single, non-expert operator to transport, setup, run, and tear down.

Entry #3 - SimMan-tha; Modifying SimMan to Simulate a Cesarian Birth
Joyce LaDonne O’Connell
Utilizing low cost materials to create an adjunct for simulating a cesarean section on SimMan or other mannequins not designed for cesarean section.

Project Objectives:
1. To offer a low cost reusable alternative to simulation labs that do not have a maternity mannequin.
2. To allow procedures such as cutting, suturing, delivering infant, cutting cord, and stopping maternal bleed in an OB scenario.

Entry #4 - Automatic Power On/Off of SimMan 3G Based on Course Schedule
Christopher Madison
This modification was created to allow a SimMan 3G’s power status to be monitored and controlled wirelessly from a remote PC. Custom software running on the PC was used to automatically power the manikin on before scheduled courses and off at the end of the day. The system also informs operators of status changes and allows for manual control, including forced reboots. This project is one of several aimed at automating center operations, with the ultimate goal being to completely automate all scheduling, setup tasks and pre-sim checks to make sure that rooms are always running at maximum potential. This has the potential to significantly reduce the amount of time staff spends completing repetitive and relatively trivial tasks.

Project Objectives:
1. Decrease scenario setup time and complexity by allowing a SimMan 3G to be remotely turned on and...
off automatically based on the course schedule.
2. Prevent manikins from being accidentally left on overnight, affecting their performance the following day and overall longevity.

**Entry #5 - Creating a Simulated Pharmacy**
*Cory Soto*
This entry was designed to address problems with the current utilization of pharmaceuticals and create solutions through the development of simulated drugs. Emphasis will be added on proper planning, organization and cooperation with facilitators to ensure utilization of this new tool. Workshop attendees will be able to create their own vials with supplied tools and can discuss their ideas for their use at the end of the seminar.

**Project Objectives:**
1. Tailor the pharmaceutical production to needs of the simulation center.
2. Produce vials for use as simulated drugs.

**Entry #6 - Creation of High Fidelity Surgical Models or Surgical Simulation on a Budget**
*Cheryl Robin Podgornik, RN, BSN, CNOR*
Key Operational Challenges: Providing workable high fidelity surgical models, task trainers and simulators for use in training orthopedic medical residents, registered nurses, surgical technologists and physician assistants. Background: Our simulation center is based within our surgical department. Our personnel were tasked with creating realistic surgical models at very low or no additional cost.

**Project Objectives:**
1. Providing high fidelity limb, pelvic, spine, skull models, trainers and surgical table alternatives for use by our professional surgical staff.
2. Providing all models as noted in objective #1 at very low, or no cost.

**Entry #7 - Think Outside the Box: Clinical Skills on the Move**
*Sunnmeng Chen*
This particular showcase entry was designed to combine the B-Line Medical ® UltraPortable, Apple ® iPad and VMware ® Horizon View for iOS to create a mobile teaching environment. Using a portable environment for recording and evaluating a spectrum of health professional students can provide a much broader scope for the teaching experience.

**Project Objectives:**
1. Increase the mobility and portability of a training center with the mobile recording units.
2. Accommodate the growing health professional student population with limited training space.

**Entry #8 - Building a Pneumothorax Simulator**
*Robert Bertollo, MICP, LRCP, MBA; James Gurriel, MICP*
During recent Advanced Trauma Life Support (ATLS), Pre-Hospital Trauma Life Support (PHTLS), Advanced Cardiac Life Support (ACLS), and in-hospital ventilator care courses; the need for increased understanding of pathophysiology of the respiratory system’s function, respiratory system function, and the development of pneumothorax. In response, this team developed a pneumothorax simulator.

**Project Objectives:**
1. Illustrate respiratory system anatomy and function.
2. Simulate development of pneumothorax.

**Entry #9 - Developing an Electronic Health Record for Simulation**
*Patricia Reuther, MS, RN, CHSE*
How we developed a cost effective electronic health record system using Google Docs (that includes patient charts, medication administration, and assessment charting) to elevate our learner’s experiences in simulation.

**Project Objectives:**
1. Update our system of charting for simulations to comply with mandatory electronic charting rules without increasing student and/or institutional cost.
2. Increase student exposure to and practice with electronic charting and medication administration.
Faculty

SSH prides itself on carefully selecting faculty to provide premier educational conferences for healthcare simulationists. Visit [www.ssih.org](http://www.ssih.org) to view the full biographies of our faculty.

S. Scott Atkinson, BBA, CCEMT-P
Ray Booker
Adam Dodson, NRP, NCEE, CCEMT-P
Tom Dongilli, AT
Brian Florek
Jordan Halasz
Tiffany Holmes, DC
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Mariano Loo
Jennifer Manos, RN, MSN
Kevin Miracle, MBA, EMT-P
John Perrone, BA, EMT
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Jimmy Rowland, BS
Ilya Shekhter, MBA
Daniel Smith, BS
Andrew Spain, MA, NCEE, EMT-P
Fritz Sticht, BS
Randolph H. Steadman, MD, MS
Jamie Stiner
Ron Ulrich, BA, EMT
Jon Zalewski
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