

**Simulation-Based Quality Improvement and Research Forum**  
**May 15, 2019**  
**Part II-Concurrent Sessions**

**Faculty Development: Dr. Aditee Ambardekar and Dr. Jessica Hernandez**

Simulation-based education is a well-established methodology for adult, experiential learning. Curricula can be developed using a wide variety of high- and low-fidelity equipment, task-trainers, and even standardized patients. As with all educational initiatives, clear learning objectives and design is important. Added processes and considerations exist for simulation-based curricula that necessitate faculty development. This session will demonstrate one of the types of simulation-based curricula, debrief/reflective techniques that are central to adult learning, and provide a teaser for the faculty development course at the UTSW Simulation Center in this area.

**Innovation & Technology: Dr. Ann Marjewicz Fey**

Surgical simulation is an increasingly prevalent aspect of surgical training. Emerging technologies such as novel haptic devices, sensor systems, and interactive virtual environments could play a major role in driving the future of technology-mediated surgical training. In this 2-hour workshop, participants from clinical fields, as well as engineering and computer science will collaborate in small groups on brainstorming innovative uses or creation of technology within key topic areas. The groups will be responsible for developing a year-long collaborative research plan with the goal of leading to two scholarly outputs (e.g., clinical and engineering journal papers) and a potential grant application on the chosen topic. Example topic areas include: high fidelity haptics, improved needle-based simulations, technology for team dynamics and team training, interactive simulated patients, etc. To help facilitate the creation of new technology, engineering faculty from UT Dallas will present potential avenues either through the UTDesign program or individual research labs.

**Experiential Learning Workshop: Dr. Joshua Weis and Dr. Caroline Park**

This will be a one hour track is geared toward introducing participants who are interested in learning about the different types of simulation modalities offered in the UTSW Simulation Center. Participants will have the opportunity to interact with many different types of simulators including inanimate (box) trainers, virtual reality trainers, and high fidelity patient manikin. Discussions on assessment tools, deliberate practice vs unstructured practice, and team training are seamlessly woven into the experience. This is an interactive session. Active participation is not just encouraged, it is a required element needed for a successful session. Upon the completion of this session participants will take away the knowledge needed to describe the advantages and disadvantages of VR trainers, inanimate trainers, and high fidelity trainers. Participants will understand the relevant differences between unstructured and deliberate practice, as well as the key elements of proficiency based training.

**SWAT Track: Creating and Organizing Simulations: Dr. Larissa Velez**

This is a one hour track to help participants learn about the processes involved with creating, organizing, and scheduling simulation education activities in the UT Southwestern Simulation Center. Experts on the topic of Faculty Development, Curriculum Development and organizing simulation education will facilitate interactive discussions. In addition, participants will have the opportunity to gain insight from

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experts in the field of simulation. **Dr. Robert Rege**, Associate Dean of Undergraduate Medical Education and **Dr. Daniel Scott**, Simulation Center Director, are our panel participants. The panel is moderated by Dr. James Wagner, Associate Dean for LCM Accreditation and Educational Outcomes. They are here to answer any and all simulation education questions. Participants will gain invaluable insight into simulation education and how it benefits you and your learners. This session is created for people who are eager to incorporate simulation into their curriculum.