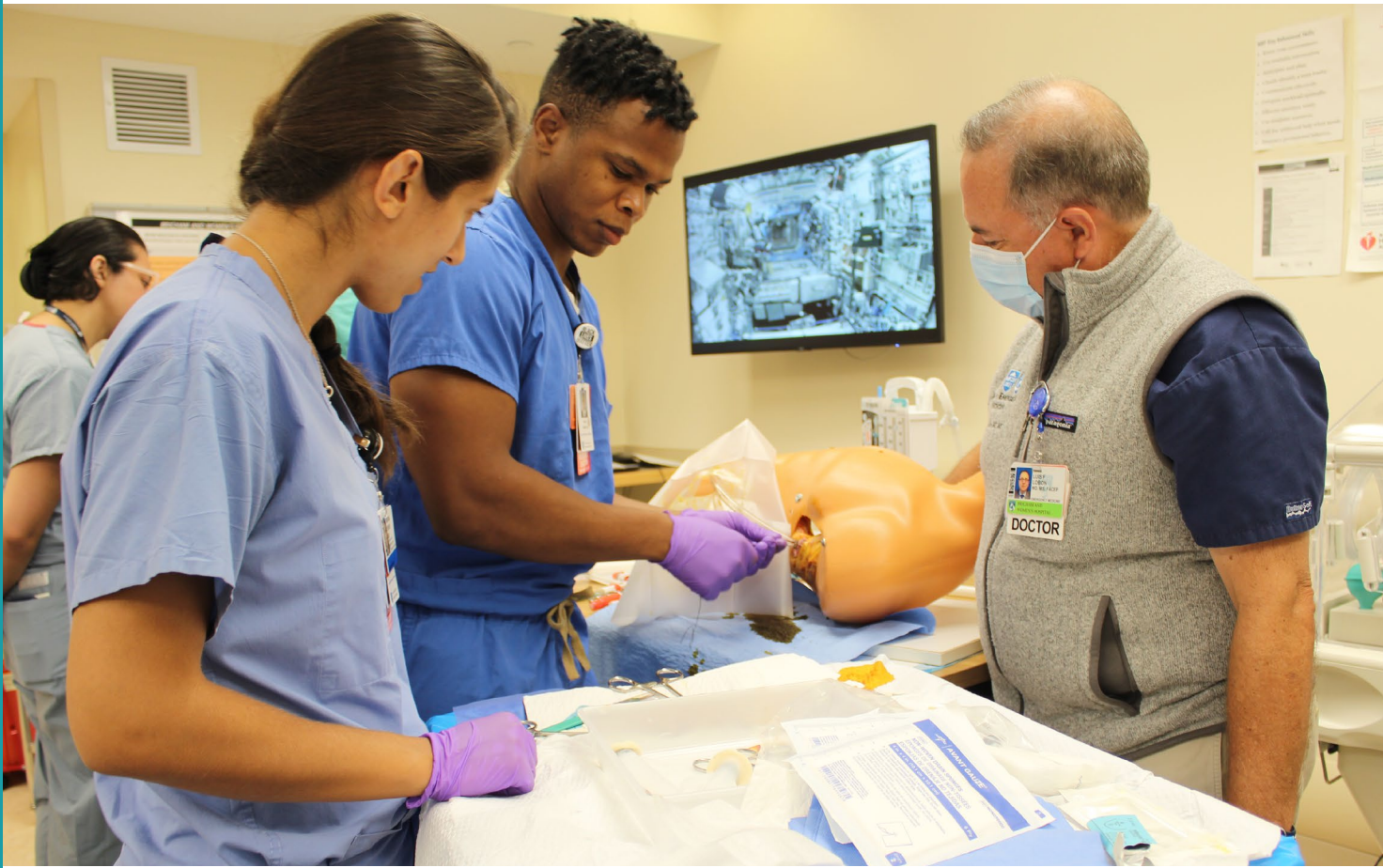


Neil and Elise Wallace

# STRATUS Center for Medical Simulation



# 2021 Annual Report



# STRATUS

Simulation, Training, Research And Technology Utilization System

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# Mission

The Neil and Elise Wallace STRATUS Center for Medical Simulation, affiliated with Harvard Medical School, is committed to advancing health professional education, patient safety, and healthcare outcomes through the development and application of innovative curricula, educational methodologies, quality improvement, and multidisciplinary research, supported by a world-class operational infrastructure.

# Vision

The STRATUS center aims to be a world leader in transforming patient safety and care through innovative simulation education, research, assessment, and quality improvement.

# Message from Medical Director



**Andrew Eyre,  
MD, MS-HPED**

STRATUS Medical Director

With the COVID-19 pandemic entering a new phase, the work of STRATUS has never been more important. Many healthcare providers and students are looking for safe and effective ways to make up for clinical experiences and educational opportunities that were lost during the peaks of COVID. Simultaneously, educational technology has continued to evolve and the way that students want to learn has changed dramatically in recent years. As a result, STRATUS stands ready to serve the educational needs of our users, the hospital, and the broader community.

The last year has seen much change at STRATUS. As a frequent user of STRATUS during my emergency medicine training and as a proud product of the STRATUS Medical Simulation Fellowship, I am honored and incredibly humbled to assume the role of Medical Director. We updated our physical spaces and technology and we are currently planning significant simulation equipment upgrades in 2022.

With a refreshed sense of the future, STRATUS remains committed to our core values and we have continued to build our reputation outside of BWH as a world-class simulation center and leader in the field. Our education and operations teams are dedicated and transformative as they support faculty in designing and executing courses, attracting new user groups, and increasing our utilization of in-situ simulation. The Human Factors and Cognitive Engineering Lab has continued its incredible track record of obtaining research funding, publishing widely, and innovating within the fields of medical education, psychology, and simulation.

Though 2021 saw many challenges, STRATUS has emerged stronger, better, and more dedicated than ever before. On behalf of our extraordinary team, and with my deepest thanks to Dr. Pozner, I look forward to strengthening our culture of quality, innovation, and collaboration. I invite you to read about our updates, achievements, and exciting plans for the future.

# Leadership Team



The Leadership Team was created in 2021 to serve as the guiding force for all that STRATUS does.

Each member of the Team brings an expertise to the group which allows all to learn and understand the multi-faceted nature of running a simlatoon center. Regular communications and shared decision-making have increased our efficiency and quality through improvements to workflow, reviewing and standardizing written procedures, and making improvements to infrastructure.

**Andrew Eyre**  
MD, MS-HPED

Medical Director

**Judy Phalen**  
MPH

Administrative Director

**Roger Dias**  
MD, MBA, PhD

Director of Research & Innovation

**Valerie Dobiesz**  
MD, MPH

Director of Internal Programs

**Persephone Giannarikas**  
CHSOS

Operations Manager

**Deborah Navedo**  
PhD, CPNP, FNAP, CHSE

Director of Education

**Maggie Ryan**  
RN, MS, CHSE

Assistant Director of Education

## Team Structure



Administration & Operations



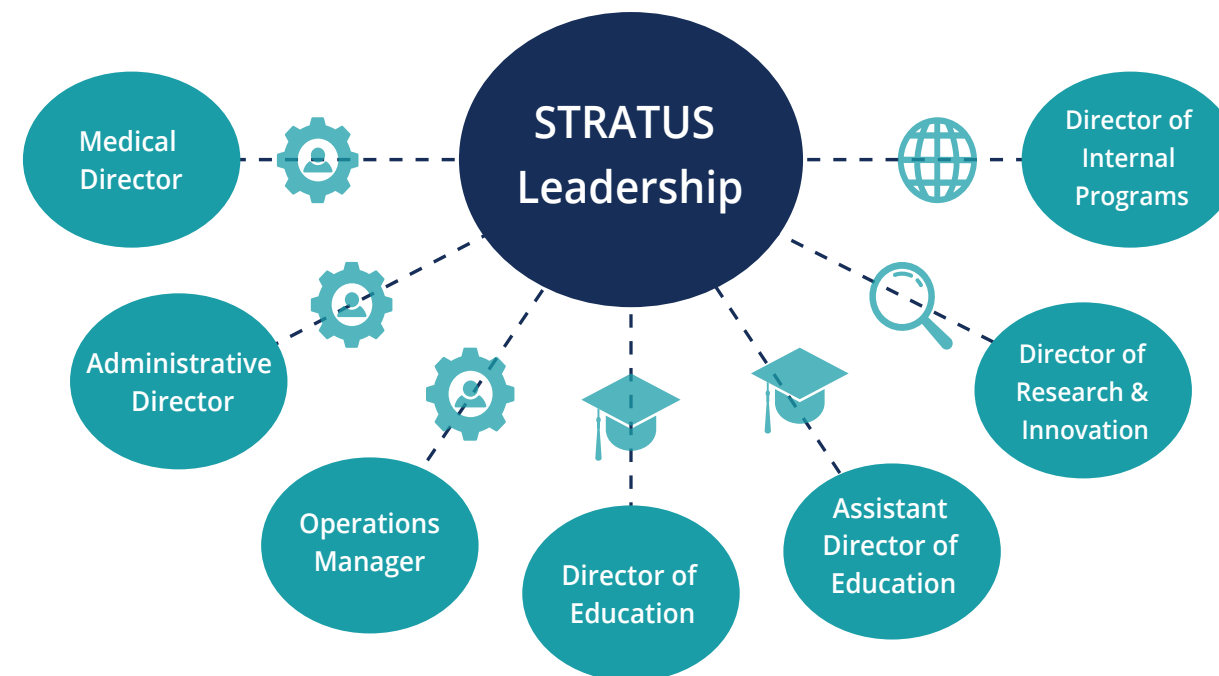
Education



Research



Internal Programs



“

The STRATUS Center’s strength lives within our extraordinary team of dedicated staff who work professionally and collaboratively to serve our constituents with excellence.

**Judy Phalen**  
Administrative Director

# Administration & Operations

The Operations Teams is the backbone of the STRATUS Center, providing technical support and setup which make our courses come to life, while the Administrative Team works to ensure that necessary systemic structures are in place to support all that STRATUS does.

Three new leaders assumed the helm of the Administration and Operations teams in 2021:

- **Dr. Andrew J. Eyre, MD, MS-HPED** was appointed Medical Director.
- **Judy Phalen, MPH** was hired as the first ever Administrative Director.
- **Persephone Giannarikas, CHSOS** was promoted to Operations Manager and was credentialed as a Certified Healthcare Simulation Operations Specialist by the Society for Simulation in Healthcare (SSH).



**Andrew Eyre, MD, MS-HPED**  
Medical Director



**Judy Phalen, MPH**  
Administrative Director



**Persy Giannarikas, CHSOS**  
Operations Manager



## Accreditation

STRATUS was reaccredited by the American College of Surgeons (ACS) and the Society for Simulation in Healthcare (SSH) for our Core work, as well as Research, Systems Integration and Teaching/Education. This was also the first time STRATUS received Fellowship accreditation from SSH.



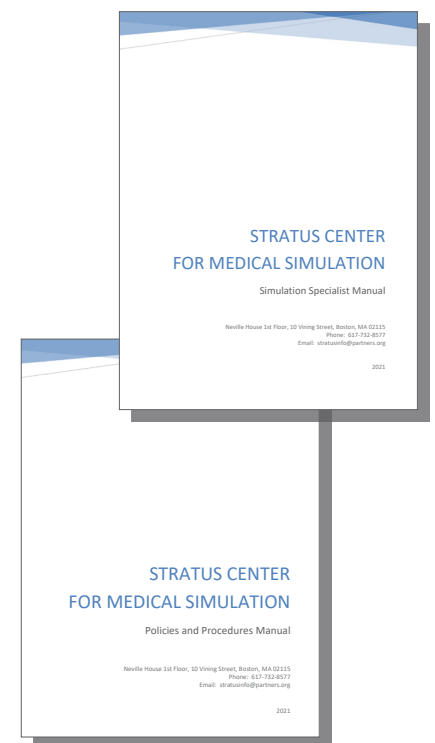
AMERICAN COLLEGE OF SURGEONS • DIVISION OF EDUCATION®  
**ACCREDITED EDUCATION INSTITUTES**  
ENHANCING PATIENT SAFETY THROUGH SIMULATION



## Training and Operations

The Administration and Operations teams work to ensure standardization of all processes.

- Rewrote the Policies and Procedures Manual
- Restructured Simulation Specialist training and updated the Simulation Specialist Manual
- Revised all team job descriptions
- Submitted and received an Ethicon suture grant





International Scholars workspace

## Facilities

Improvements to facilities ensured all personnel could complete work comfortably and efficiently.

- Renovated/relocated the International Scholars' workspace and STRATUS conference room
- Installed teleconferencing equipment in the new conference room
- Expanded Wi-Fi capacity throughout the center



New conference room



“

The Operations Team strives to accommodate the specific needs of all our learners. We welcome all departments and hope to achieve a realistic approach to reflect the environment in the hospital.

**Persy Giannarikas**  
Operations Manager

# Education

The Education team guides education-related activities by facilitating instructor orientation, staff training, curriculum development, the Learning Management System infrastructure update, and quality improvement support.

While 2020 was marked with an unprecedented opportunity to pause and re-envision our structure and processes, 2021 gave us the chance to restart simulation-based learning at STRATUS with an updated educational infrastructure.

The Education team continues to promote educational effectiveness and efficiencies through thoughtful monitoring of feedback and educational outcomes related metrics.

## Professional Development

Dr. Deborah Navedo, Director of Education, and Maggie Ryan, Assistant Director of Education, were recognized for their expertise in simulation-based learning by becoming Certified Healthcare Simulation Educators (CHSE) from the SSH.



**Deborah Navedo,  
PhD, CPNP, FNAP,  
CHSE**

Director of Education



**Maggie Ryan,  
MSN, RN, CHSE**

Assistant Director of  
Education



**Mary Anne Kenyon,  
DNP, MPH, MS, RN,  
ONC**

Director of Nursing



## Instructor Orientation

- The Course Director's Guide was developed and launched to assist with orienting course directors and instructors to STRATUS workflow and resources.
- The increased use of the STRATUS Intake Form allowed for us to better manage and track all scheduling requests and curriculum development needs.
- The Interprofessional Team Training (ITT) Course Facilitator Guide was created.

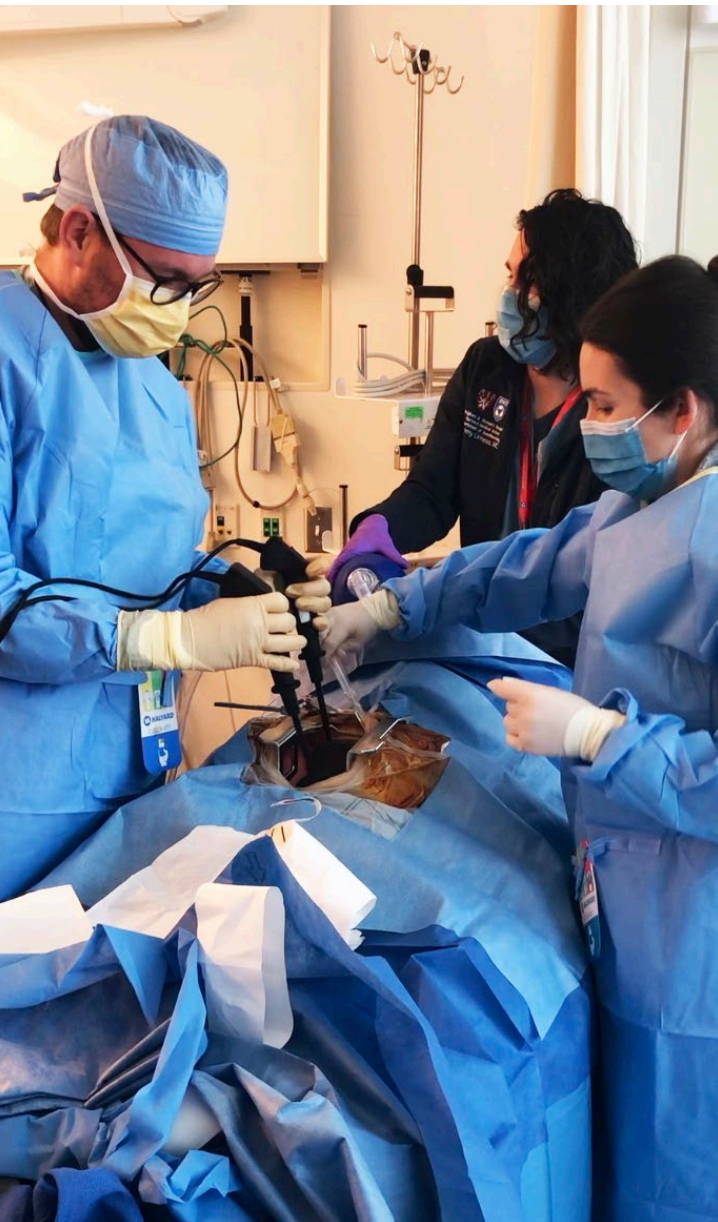
## Learning Management System

Moodle, a Learning Management System, was customized and tested as the educational infrastructure. Phase I of the implementation, which focused on course design and learner check-in for sessions, was prepared for a 2022 launch.

## Curriculum Development

Through the sharing of the Course Director's Guide, we were able to reduce the number of course curricula that were being developed right before a course was offered. The new steady four-week window allowed the Operations team to better prepare for each session, creating a stronger educational experience.

### Highlights:



Expansion of in situ programs.

Creation of Simulation for the Hospital Medicine PA Fellowship.

Expansion of Nurse Residency Programs in STRATUS to meet the needs of increased nursing cohort sizes.

Partnership with the Nurse Residency Program to conduct code simulation scenarios.

Implementation of the Emergency Medicine interdisciplinary trauma and bias informed de-escalation training sessions.

## Our Courses

156

Different Courses

40

New Courses

1,090

Sessions

### Disciplines

Learners and instructors came to STRATUS from a wide range of disciplines inside and outside of BWH.



Anesthesia



Dermatology



Emergency Medicine



Medicine



Neurology



Newborn Medicine



Nursing



OB-GYN



Orthopaedic Surgery



Psychiatry



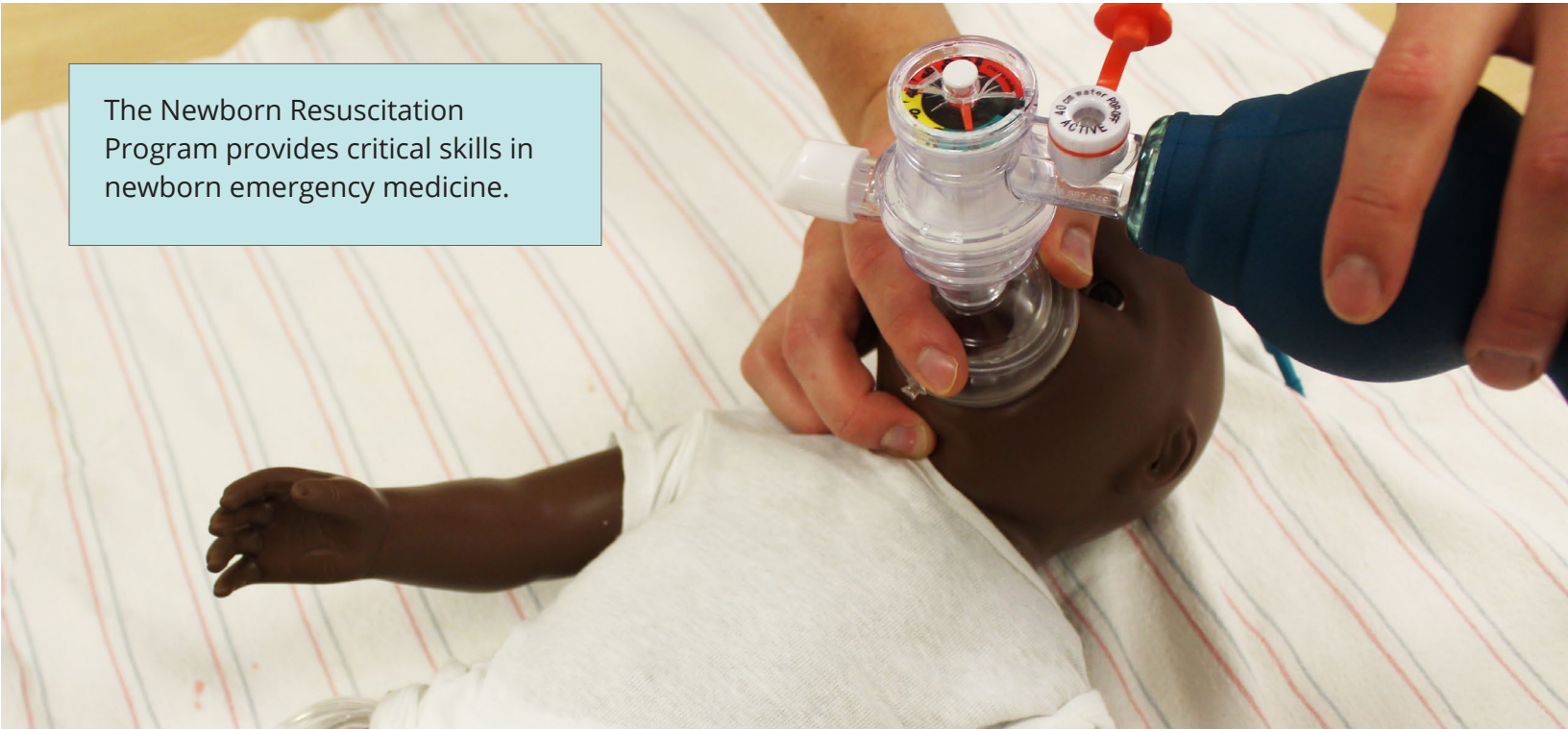
Radiology



Surgery



The Newborn Resuscitation Program provides critical skills in newborn emergency medicine.



## Highlight: Newborn Emergency In Situ Programs

STRATUS dramatically increased the amount and frequency of hospital in situ programs due to high demand, with the challenges brought about by the pandemic requiring us to bring educational programs to participants.

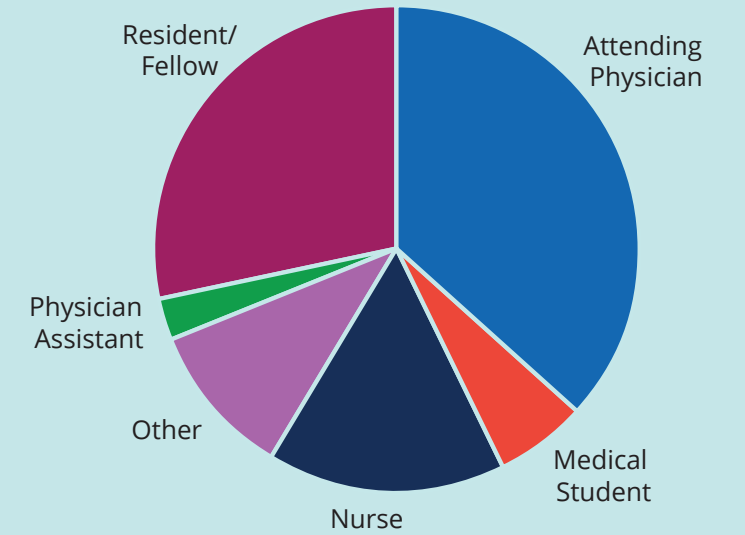
New in situ programs included the Newborn Emergency Programs in the newborn nurseries on post-partum floors. Additionally, in response to the Joint Commission mandates for reducing maternal mortality, interdisciplinary Post-Partum Hemorrhage and Eclampsia courses focusing on post-partum hemorrhage and hypertension in pregnancy were implemented on labor and delivery and post-partum floors. To address opportunities for systems improvement presented at the Critical Case Review conferences, several other in situ simulation scenarios were developed as well.

# Our Learners

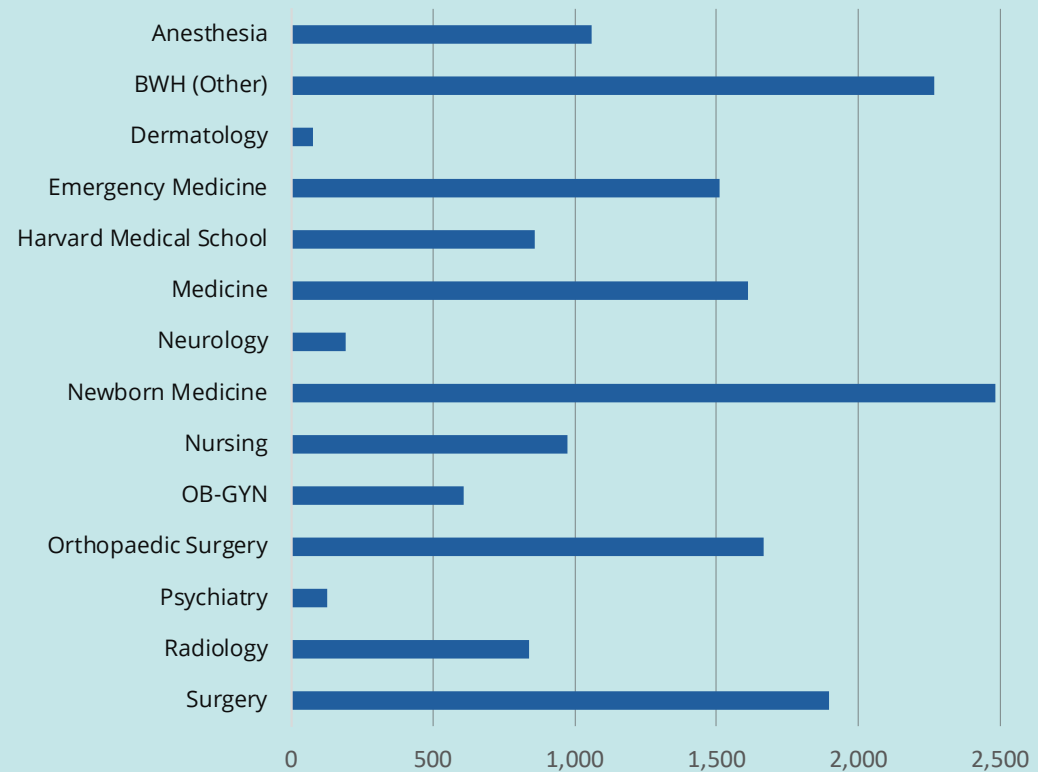
2,144  
Unique Learners

17,146  
Learner Hours

## Learner Positions



## Learner Hours by Discipline





## Highlight: Expansion of Nursing Education

The BWH Department of Nursing Nora McDonough Nurse Residency Program is a year-long program led by Director Mary Anne Kenyon focusing on leadership, patient outcomes, and professional roles.

This program has partnered with STRATUS to conduct code simulation scenarios to enhance training in code documentation, interprofessional team dynamics, code carts, and ZOLL defibrillators, among other courses. STRATUS learning also provided an opportunity for staff to participate in the NRP in situ simulation experiences and tracheostomy emergencies.

# Our Instructors

177

Unique Instructors

11

Assistant Directors



We strive to closely collaborate with instructors throughout the course development process to transform an idea or educational need into a well-designed, effective simulation educational experience.

**Maggie Ryan**

*Assistant Director of Education*

## 2021 Simulation Educators of the Year

Nominated by STRATUS learners for excellence in simulation education.

*Faculty Educator of the Year*



**Matt DiFrancesco, MD**

Hospitalist, BWH  
Instructor in Medicine,  
Harvard Medical School

*Resident/Fellow Educators of the Year*



**Nicole Duggan, MD**

Resident Physician in  
Emergency Medicine



**Abram Feldman, MD**

Chief Resident in  
Anesthesiology

## Instructor Training Seminars

Virtual seminar series were offered free of cost twice to an international audience in support of pandemic relief. Topics included:



- Clinicians as Learners
- Curriculum Design
- Assessment Basics
- Skills Training
- Debriefing

## Hospital Mock Code Program

Dr. Valerie Dobiesz led the hospital wide mock code program as a component of our STRATUS systems integration with hospital quality and safety leadership. The mock code director led a task force of 16 key hospital wide stakeholders from the Emergency Response Committee (ERC), which updated the mock code tracking metrics that are reported monthly to the ERC.

## Interprofessional Team Training (ITT)

The STRATUS ITT course is based on principles of Crisis Resource Management to assist medical teams in managing low frequency, high acuity events. The course allows interdisciplinary healthcare providers to practice skills in a psychologically safe environment including leadership, communication, use of cognitive aids, and early call for assistance.

“

At STRATUS, we are dedicated to continuous improvement with a clear focus on the ultimate goal: quality patient care.

**Dr. Deborah Navedo**  
*Director of Education*



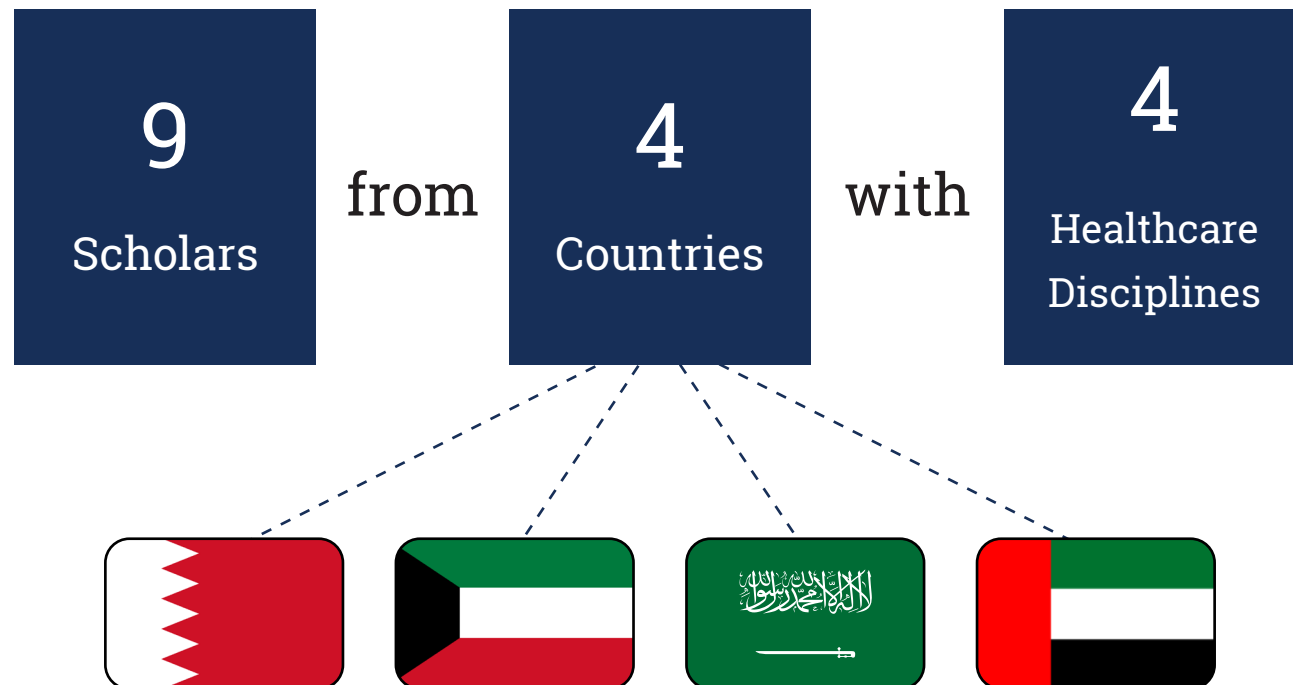
# International Program in Clinical Simulation



**Valerie Dobiesz, MD, MPH**  
Director of Internal Programs

The International Program in Clinical Simulation is a comprehensive one-year program that introduces international scholars to multiple facets of clinical simulation.

Despite an ongoing COVID-19 pandemic, we were able to fully reintegrate into STRATUS for on-site training. We had a total of nine scholars over the calendar year - the most STRATUS has ever had.



# Meet the Scholars

## 2021 Graduates



**Maryam Al Nuaimi, MD, ABEM**

**Position:** Emergency Medicine Physician

**Country:** UAE

**Capstone Project:**

Standardizing EM providers approach to patient via simulation-based bootcamp

*Dr. Al Nuaimi went on to become a medical doctor at Mass General Hospital.*



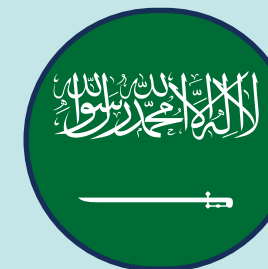
**Ruqya Alzaabi, MD, ABEM**

**Position:** Emergency Medicine Physician

**Country:** UAE

**Capstone Project:**

Implementation of resident as teacher (RaT) curriculum as part of emergency medicine residency programs in the UAE



**Asma Arabi, RN, MMed**

**Position:** Nurse

**Country:** Saudi Arabia

**Capstone Project:**

Debriefing among novice, competent, and senior debriefers in healthcare simulation

*Ms. Arabi was the first nurse in our international program.*



**Munaa Dashti, MD, KBEM**

**Position:** Emergency Medicine Physician

**Country:** Kuwait

**Capstone Project:**

Fundamental ultrasound-guided procedures for emergency medicine board residents: A simulation-based course

*Dr. Dashti went on to participate in BWH's Emergency Ultrasound program in 2022.*

# Meet the Scholars

## New Scholars



**Abdullah Al-Taweel,**  
**MbChB, KBEM**

**Position:** Emergency  
Medicine Physician

**Country:** Kuwait



**Abdulaziz Alburaidi,**  
**MB MCH BAO**

**Position:** Emergency  
Medicine Physician

**Country:** Kuwait



**Abdulla Aljar,**  
**MB MCH BAO**

**Position:** Emergency  
Medicine/Military Physician

**Country:** Bahrain



**Iman Alhmoudi,**  
**MBBS**

**Position:** Pediatrician

**Country:** UAE



**Sara Khonji,**  
**MD**

**Position:** General Practitioner

**Country:** Bahrain



## What did the scholars learn?

The International Scholars Program aims to prepare clinicians to lead and improve their local healthcare systems using simulation. The scholars participated in modules covering critical components of simulation and education.



**Curriculum Development  
& Educational Theory**



**Quality  
Improvement**



**Research Methodology**



**Center Operations**



**Business &  
Administration**



**Assessment &  
Evaluation**

# Research

The Human Factors and Cognitive Engineering Lab uses cutting-edge technologies to understand and improve clinicians' performance with the ultimate goal of enhancing patient safety and improving clinical outcomes.

Led by Dr. Roger Dias, the Lab has continued their track record of achievements with multiple grants, presentations, and peer-reviewed publications. The Lab's innovative research has been shared around the world with conference talks spanning over 5 continents in 2021.



**Conference talks around the world** - Conference talks were given in 7 different countries in 2021



**Roger Dias, MD, MBA, PHD**  
Director of Research and Innovation



**Mahdi Ebnali, PhD**  
Post-Doc Research Fellow



**Christian Miccile, MSc**  
Research Assistant



**Sandra Park, MD**  
Medical Simulation Fellow

# Achievements

19

Peer-Reviewed Articles

4

Poster Presentations

11

Conference Talks

3

New Grants

“

Clinical simulation is a core methodology part of virtually all research conducted in our Lab. Even in clinical studies, we leverage simulation to prototype, test usability, and gather initial validity evidence to enhance the design process and improve the adoption of new technologies into healthcare.

**Dr. Roger Dias**  
Director of Research and Innovation

## Projects

### Novel Assessments of Technical and Non-Technical Cardiac Surgery Quality

NIH/NHLBI (R01) | 2019-2024

This project is a collaboration between BWH, Harvard Medical School, and the University of Michigan. The project aims to use machine learning to develop automated and objective metrics of technical and non-technical skills in cardiac surgery.

### A Novel Cognition-based Guidance System to Improve Surgical Safety

NIH/NHLBI (R01) | 2020-2024

The objective of this study is to design, implement and evaluate a cognition-based guidance system during complex, team-based cardiac surgery, using clinical simulation.



Volumetric video capture is used for the DoD CORE-Military project.

### A Robotic-Assisted Perfusion system to Improve Patient Safety in the Cardiac Operating Room *New in 2021*

NIH/NHLBI (R56) | 2021-2022

The goal of this project is to develop validity evidence of a proof-of-concept for a Robot-Assisted Perfusion System that can be integrated into the cardiac surgery workflow as a non-human teammate.

### CORE-Military: A Virtual Reality Platform for Emergency Care Training and Assessment in Austere Environments *New in 2021*

DoD/DHA (STTR) | 2021-2021

The long-term goal of this project is to develop and validate a high-fidelity mobile-based VR platform for frontline service members in austere environments, enabling emergency care training and personalized assessment through AI-enabled learning analytics.



Figure 1

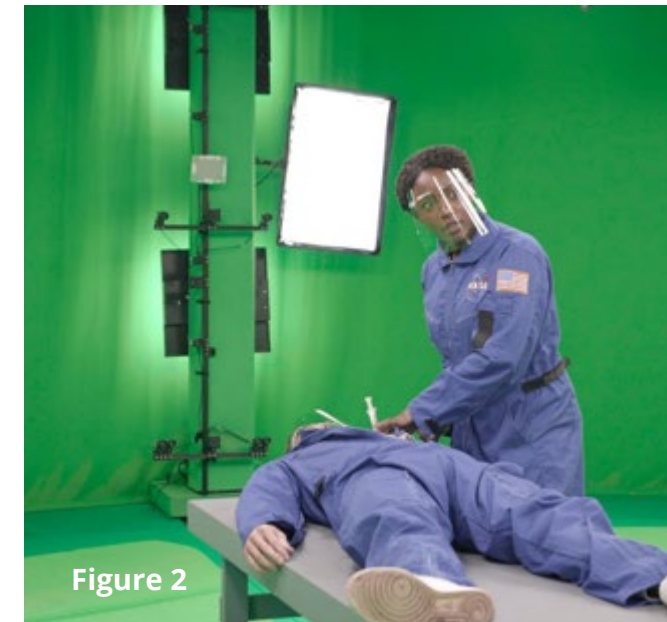


Figure 2

### Mixed Reality (MR) Care-Delivery Guidance System to Support Medical Event Management on Long Duration Exploration Missions

NASA/TRISH | 2020-2022

The purpose of this study is to develop a Mixed Reality Training Platform for training astronauts on the key clinical skills necessary for autonomous medical event management on Long Duration Exploration Missions such as Mars.

This project integrates medical simulation, instructional design, and professional movie production with advanced photogrammetry and video volumetric techniques to create a highly realistic and immersive virtual environment for emergency care training during space missions.

### Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) *New in 2021*

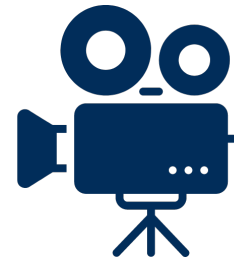
Agency for Healthcare Research and Quality (AHRQ) | 2021-2022

The goal of this project is to update the Team STEPPS curriculum. The STRATUS team is helping with simulation-based education materials.

(Figure 1) The STRATUS physical spacecraft simulator is captured in 3D to generate a virtual spacecraft.

(Figure 2) Professional actors perform a medical scenario for volumetric video capture.

# External Services



Although the primary mission of STRATUS is to serve as an educational resource for the faculty, staff and students throughout the Mass General Brigham (MGB) system, our reputation as a world-class simulation center has allowed us to successfully build a robust portfolio of external programs.

Due to system-wide COVID-19 restrictions, we were limited in the amount of non-MGB users we could have onsite in 2021. We look forward to hosting more courses, conferences and outside groups for educational experiences. Similarly, we will be working to increase our external programs with device companies, pharmaceutical vendors, advertising agencies, and media outlets.

## Services at STRATUS

- Community Education
- Simulation Consulting
- Marketing
- Product Testing
- Equipment Rentals
- Tours and Experiences

“

As we look forward to the year ahead, we are excited to build new relationships, partnerships, and collaborations while continuing to serve our existing users and customers.

*Dr. Andrew Eyre*  
Medical Director



## External Education

### Summer Springboard

STRATUS continues to give back to the local community and youth education with the Summer Springboard program. This program provides hands-on, experiential learning for high school students interested in medicine.

**(Figure)** STRATUS International Scholar Dr. Sara Khonji teaches high school students at the Summer Springboard program.

### International CME/CNE Annual Training Program

At the 2021 program, STRATUS Education Director Dr. Deborah Navedo ran the needs assessment analysis for full CME/CNE programs and supported the curriculum development for over 30 CNE faculty from BWH and beyond. Dr. Navedo also designed and compiled the faculty feedback survey data for quality assurance.



## Simulation Consulting

### Chengdu First People's Hospital

As part of a 5-year consulting agreement, STRATUS continues to guide and support the Chengdu First People's Hospital in Chengdu, China as they build a new simulation center that they hope to be the best in the region.



Highlights from 2021:

- STRATUS delivered consulting services as the hospital applied for accreditation by the SSH.
- STRATUS hosted a series of content meetings about simulation modalities and simulation center operations.
- STRATUS provided regular leadership guidance and support.

## Support for Product Development

Simulation offers an invaluable opportunity to observe product prototypes being used by clinicians in simulated clinical situations prior to use on actual patients.

### FARM Design Study

STRATUS provided space and support for feasibility and usability testing of a new gastrointestinal endoscopy device. Gastroenterologists and nurses worked together to deploy the device and provide feedback.



## Media & Filming

### Match Health Academy

STRATUS provided a realistic setting for a photoshoot for a company that was marketing and developing materials for a new dialysis machine. STRATUS staged various locations including an outpatient dialysis unit, intensive care unit, and inpatient dialysis unit.

### NBC News

STRATUS provided the setting for an NBC interview with Dr. Sunil Kapur, an electrophysiologist who discussed syncope and novel interventions.

# Achievements



## Publications

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Dias R, Riley W, Shann K, Likosky D, Fitzgerald D, Yule S. [A tool to assess nontechnical skills of perfusionists in the cardiac operating room](#). J Thorac Cardiovasc Surg. 2021. doi:10.1016/j.jtcvs.2021.06.052

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Kennedy-Metz L, Dias R, Srey R et al. [Analysis of Dynamic Changes in Cognitive Workload During Cardiac](#)



Image from "A Low-Cost Facial and Dental Nerve Regional Anesthesia Task Trainer"



[Surgery Perfusionists' Interactions With the Cardiopulmonary Bypass Pump](#). Human Factors: The Journal of the Human Factors and Ergonomics Society. 2020;63(5):757-771. doi:10.1177/0018720820976297

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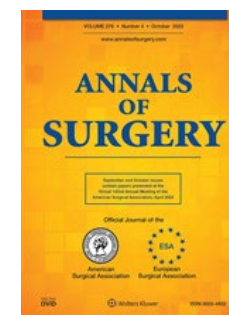
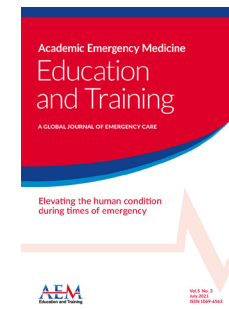
Mathis M, Yule S, Wu X, Dias R, et al. [The impact of team familiarity on intra and postoperative cardiac surgical outcomes](#). Surgery. 2021;170(4):1031-1038. doi:10.1016/j.surg.2021.05.020

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[care unit admission decisions: a vignette-based randomized trial \(V-TRIAGE\)](#). Rev Bras Ter Intensiva. 2021;33(2). doi:10.5935/0103-507x.20210029

Seo S, Kennedy-Metz L, Zenati M, Shah J, Dias R, Unhelkar V. [Towards an AI Coach to Infer Team Mental Model Alignment in Healthcare](#). 2021 IEEE Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA). 2021. doi:10.1109/cogsima51574.2021.9475925

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Zenati M, Dias R, Kennedy-Metz L. [Commentary: Nontechnical skills redux](#). J Thorac Cardiovasc Surg. 2022;163(6):2164-2165. doi:10.1016/j.jtcvs.2021.02.072

## Poster Presentations

Dias RD, Eyre A, Miccile C, Pozner C. Professional Fulfillment and Well-Being Among Emergency Department Providers During the COVID-19 Pandemic. Society of Academic Emergency Medicine (SAEM) 2021, Online.

Dias RD, Eyre A, Miccile C, Toutin-Dias G, Pozner C. Digital Biomarkers of ED Clinician's Professional Fulfillment, Burnout, Sleep Quality, Moral Injury and PTSD during the COVID-19 Pandemic. CLINICCAI - Clinical Translation of Medical Image Computing and Computer Assisted Interventions. 2021, Online.

Dias RD, Robertson J, Miccile C, et al. Extended Reality (XR) for Emergency Care Training and Real-Time Clinical Guidance During Long Duration Space Missions. Society of Academic Emergency Medicine (SAEM) 2021, Online.

Park S, Al-Ballaa A, Goldberg S, Baraa T, Basurrah M, Abahuje E, Pozner C, Yule S, Dias RD.

Objective measurement of clinicians' cognitive load during high fidelity trauma simulations. Academic Surgical Congress (ACS). 2021, Online.

## Conference Talks, Lectures & Workshops

Dias R. Cognitive Engineering to Improve Patient Safety and Outcomes in Cardiothoracic Surgery. Keynote speaker at the: 2021, 17th International Symposium on Perfusion - BelSECT, Brussels, Belgium.

Dias R. Digital Biomarkers of ED Clinician's Professional Fulfillment, Burnout, Sleep Quality, Moral Injury and PTSD during the COVID-19 Pandemic, CLINICCAI Day. Oral session presented at the: 2021, Clinical Translation of Medical Image Computing and Computer Assisted Interventions, Strasbourg, France.

Dias R. How Medical Simulation can Boosts High-Quality Hospital Development. Keynote speaker at the: 2021, Medical Simulation Seminars, Northern Jiangsu People's Hospital, China.

Dias R. Human Factors in Dental Education: Why, When and How? Panel presenter presented at the: 2021, International Association for Dental Research, Boston, MA.

Dias R. Innovations in Medical Simulation. Keynote speaker at the: 2021, Healthcare Simulation Week - King Abdulaziz University, Jeddah, Saudi Arabia.

Dias R. Investigating Crews' Behavioral and Technical Performance During Simulated In-Flight Medical Event Management: Randomized Controlled Trial. Oral presentation presented at the: 2021, NASA Human Research IWS Program (Virtual).

Dias R. Learning through Experience: The Role of Debriefing in Simulation. Presentation presented at the: 2021, Connected Learning Summit, Boston, MA.

Dias R. The Experience of the Human Factors & Cognitive Engineering Lab at Brigham and Women's Hospital/Harvard Medical School. Keynote speaker at the: 2021, I International Symposium in Human Factors, Usability and Simulation in Healthcare, Uberlandia, Brazil.

Dias R. Using Extended Reality for In-flight Medical Training During Deep Space. Keynote speaker at the: 2021, 3rd Australian Space Biology x Health Summit, Sydney, Australia.

Dias R. Using Machine Learning to Predict Perfusionists' Critical Decision-Making during Cardiac Surgery. Workshop presented at the: 2021, Medical Imaging and Augmented Reality, Augmented

Environments for Computer Assisted Interventions (AE-CAI), Computer Assisted and Robotic Endoscopy (CARE) and Context-Aware Operating Theaters (OR 2.0), Strasbourg, France.

Dias R. Validation of the Perfusionist' Intraoperative Non-Technical Skills (PINTS) Tool. Panel presentation presented at the: 2021, 42nd Annual Seminar of the American Academy of Cardiovascular Perfusion (Virtual).

Eyre A. Feedback. Lecture presented at the: 2021, Tsinghua Faculty Development Program, Tsinghua University.

Eyre A. Professionalism in Medical Education. Group leader at the: 2021, Tsinghua Faculty Development Program, Tsinghua University.

Eyre A. Simulation and Assessment. Lecture presented at the: 2021, Tsinghua Faculty Development Program, Tsinghua University.

Eyre A. Simulation Based Medical Assessment. Lecture presented at the: 2021, Chengdu Simulation Collaboration, Chengdu First People's Hospital.

Eyre A. Simulation Based Medical Education and Assessment. Lecture at the: 2021, Medical Education Elective, Harvard Medical School, Boston, MA.

Eyre A. Simulation Successes and Pitfalls: Creating objective-base sessions using the backward design model. Didactic lecture presented at the: 2021, Council of Residency Directors Annual Meeting.

Eyre A. Simulation. Group leader at the: 2021, Tsinghua Faculty Development Program, Tsinghua University.

Eyre A. Virtual Experiences for Visiting Students: Educational Opportunity or Residency Recruitment Tool. Didactic lecture presented at the: 2021, Council of Residency Directors Annual Meeting.

Gantwerker E & Navedo D. Aligning Technology with Educational Objectives for Health Professions Education. Seminars presented at the: 2021, Brigham Education Institute, Virtual.

Navedo D & Ryan M. What Do I do next? Planning Your Center's Growth into Telesimulation. Workshop at the: 2021, Building a Sustainable Future – 2nd International Telesimulation in Healthcare Conference, Weill Cornell Medicine New York Presbyterian Simulation Center, Virtual.

Navedo D. Where Do We Grow from Here? A Developmental Model for SP Programs and Simulation Centers. Oral presentation presented at the: 2021; Association of Standardized Patient Educators Annual Conference, Virtual.

Ryan M. Panelist at the: 2021, Brigham and Women's Hospital Nursing Professional Development Panel.

# STRATUS Assistant Directors

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## Contact Us



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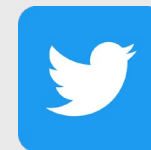


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