



HFES

Systems That Work for **Humans**

2022

PROGRAM

HFES + INTERNATIONAL SYMPOSIUM

on Human Factors and
Ergonomics in Health Care

MARCH 20-23, 2022

Hilton New Orleans Riverside Hotel
New Orleans, LA

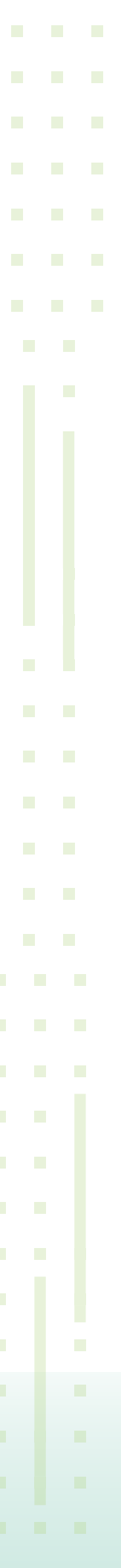


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HFES
Systems That Work for Humans

OCTOBER 10-14, 2022
ATLANTA, GEORGIA

HFES

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**INTERNATIONAL
ANNUAL MEETING**

33.7490° N, 84.3880° W

SCHEDULE-AT-A-GLANCE

SUNDAY, MARCH 20, 2022

7:00 AM - 6:30 PM
Registration Open
1st Flr. Reg. Counter

8:00 AM - 5:00 PM
**Full Day Workshop: Show Me, Don't Tell Me:
Methods of Contextual Inquiry**
Churchill A1

8:00 AM - 5:00 PM
**Full Day Workshop: User Interface
Requirements for Medical Devices**
Churchill B1

1:30 PM - 5:30 PM
**Half Day Workshop: Supporting Healthcare
Research and Medical Device Testing using
Wearable Eye Tracking Devices: A Hands-On
Training Workshop with Research Collective
and Tobii Pro**
Churchill A2

6:00 PM - 7:00 PM
Opening Reception
Grand Ballroom B
Opening Reception sponsored by Intuitive

MONDAY, MARCH 21, 2022

7:00 AM - 5:00 PM
Registration Open
1st Floor Reg. Counter
Keynote speaker sponsored by Intuitive

8:30 AM - 10:00 AM
Keynote Lecture
Grand Ballroom A-B

10:00 AM - 5:00 PM
Exhibits Open
Chemin Royale Foyer

10:00 AM - 6:00 PM
Career Fair
Prince of Wales
Career Fair sponsored by Intuitive

10:30 AM - 12:00 PM
Concurrent Track Sessions
Various Locations, Check Full Program for Details

12:00 PM - 1:30 PM
Lunch (provided)
Grand Ballroom B-C

1:30 PM - 3:00 PM
Concurrent Track Sessions
Various Locations, Check Full Program for Details

3:00 PM - 3:30 PM
Break
Chemin Royale Foyer

3:30 PM - 4:30 PM
Concurrent Track Sessions
Various Locations, Check Full Program for Details

4:30 PM - 6:00 PM
Poster Presentations/Reception
Grand Ballroom D

SCHEDULE-AT-A-GLANCE

TUESDAY, MARCH 22, 2022
7:30 AM - 5:00 PM Registration Open <i>1st Floor Reg. Counter</i>
8:00 AM - 5:00 PM Exhibits Open <i>Chemin Royale Foyer</i>
8:30 AM - 10:00 AM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
10:00 AM - 10:30 AM Break <i>Chemin Royale Foyer</i>
10:00 AM - 6:00 PM Career Fair <i>Prince of Wales</i> Career Fair sponsored by Intuitive
10:30 AM - 12:00 PM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
12:00 PM - 1:30 PM Break - Lunch on own
1:30 PM - 3:00 PM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
3:00 PM - 3:30 PM Break <i>Chemin Royale Foyer</i>
3:30 PM - 4:30 PM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
4:30 PM - 6:00 PM Poster Presentations/Reception <i>Grand Ballroom D</i>
8:00 PM Roots of Music Fundraiser at d.b.a. LIVE

WEDNESDAY, MARCH 23, 2022
8:00AM - 12:00PM Exhibits Open <i>Chemin Royale Foyer</i>
8:00AM - 12:00PM Registration Open <i>1st Floor Reg. Counter</i>
8:00 AM - 9:00 AM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
9:00 AM - 9:30 AM Break <i>Chemin Royale Foyer</i>
9:00 AM - 12:00 PM Career Fair <i>Prince of Wales</i> Career Fair sponsored by Intuitive
9:30 AM - 11:00 AM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
11:00 AM - 11:30 AM Break <i>Chemin Royale Foyer</i>
11:30 AM - 1:00 PM Concurrent Track Sessions <i>Various Locations, Check Full Program for Details</i>
1:00 PM Adjourn

PROGRAM CHAIRS

PROGRAM CHAIR

Joseph Keebler, Embry-Riddle Aeronautical University

CO-CHAIR

Anthony Andre, Interface Analysis Associates

DIGITAL HEALTH

Janey Barnes, User-View, Inc.

Korey Johnson, Bold Insight

EDUCATION AND SIMULATION

Tim Elgin, University of Iowa

Rosemarie Fernandez, University of Florida

HOSPITAL ENVIRONMENTS

Brittany L. Anderson-Montoya,
Atrium Health

Kylie Gomes, MedStar Health

MEDICAL AND DRUG DELIVERY DEVICES

Natalie Abts, Genentech

Shannon Hoste, Agilis Consulting

PATIENT SAFETY RESEARCH AND INITIATIVES

Enid Montague, DePaul University

Kate MacNamee, Ximedita



HUMAN FACTORS
and ERGONOMICS SOCIETY

Covers human factors, usability and ergonomics
(safety, health) issues in the healthcare domain

Topics include:

- Mobile Health (mHealth)
- Telehealth and Telemedicine
- Remote Patient Monitoring
- Clinical Decision Support
- Healthcare Workflows
- Healthcare Systems Design and Evaluation
- Healthcare Information Technology
- Usability and User Experience
- Resilience

Article types include:

- Case Studies
- Regulatory Strategy
- Best Practices and Methods
- Perspectives and White Papers
- Design Guidelines
- Emerging Technologies
- Interventions
- Calls for Action

NEW
Open Access
Journal

HUMAN FACTORS
IN HEALTHCARE

Editor-in-Chief: Applied
Anthony D. Andre

Editor-in-Chief: Research
Farzan Sasangohar

To find out more or submit your paper, go to elsevier.com/locate/HFH

GENERAL INFORMATION & RESOURCES

Meeting Facilities

All International Symposium on Human Factors and Ergonomics in Health Care activities will take place at the Hilton New Orleans Riverside Hotel unless otherwise noted in the program. A map of the meeting space can be found on page 10-11.

Registration Location and Hours

Registration is open during the following hours at the 1st Floor Registration Counter

Saturday, March 19: 3:00 pm – 6:00 pm

Sunday, March 20: 7:00 am – 6:30 pm

Monday, March 21: 7:00 am – 5:00 pm

Tuesday, March 22: 7:30 am – 5:00 pm

Wednesday, March 23: 8:00 am – 12:00 pm

On-Site Career Fair

The Career Fair will be located in the Prince of Wales room, located on the 2nd floor and is open during the following hours:

Sunday, March 21: 10:00 am – 6:00 pm

Monday, March 22: 10:00 am – 6:00 pm

Tuesday, March 23: 9:00 am – 12:00 pm

Employers who have a current job posting or that are registered to search resumes in the HFES Online Job Board may reserve an interview table at the Career Fair, pending availability. If you have not already reserved space, you may reserve an interview space at the HFES Information Desk. The scheduling of interviews is the sole responsibility of the employer.

HFES Members: You may post your resume in the Online Career Center free of charge. Visit hfes.org and click 'Career Center.'

Job seekers also may view videos and review papers on topics such as Creating Powerful Resumes, Writing a Successful Cover Letter, 10 Tips for Negotiating a Salary, and more at the online HFES Career Learning Center.

Career Fair sponsored by Intuitive

Internet Access

Complimentary WiFi is provided in the meeting space for HFES attendees. To connect to the internet, please select the following:

Network: Hilton Meetings

Access Code: HCS2022

Sponsored by Bold Insight

Audio/Visual Preview Room

The Audio/Visual Preview Room is located in the Chequers Room located on the X Floor, and has been reserved for presenters who wish to preview their materials. Computers will be available for A/V preview only during the following hours:

Monday, March 21: 8:00 am – 5:00 pm

Tuesday, March 22: 7:30 am – 5:00 pm

Wednesday, March 23: 7:30 am – 11:30 am

Gender Neutral Bathroom

There is a gender neutral restroom located on the 3rd floor of the Hilton New Orleans Riverside Hotel.

Mother's Nursing Room

Located on the 2nd floor in the Cambridge room.

Sunday, March 19: 8:00 am – 6:00 pm

Monday, March 20: 8:00 am – 6:00 pm

Tuesday, March 22: 8:00 am – 6:00 pm

Wednesday, March 23: 8:00 am – 12:00 pm

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DIGITAL HEALTH TRACK


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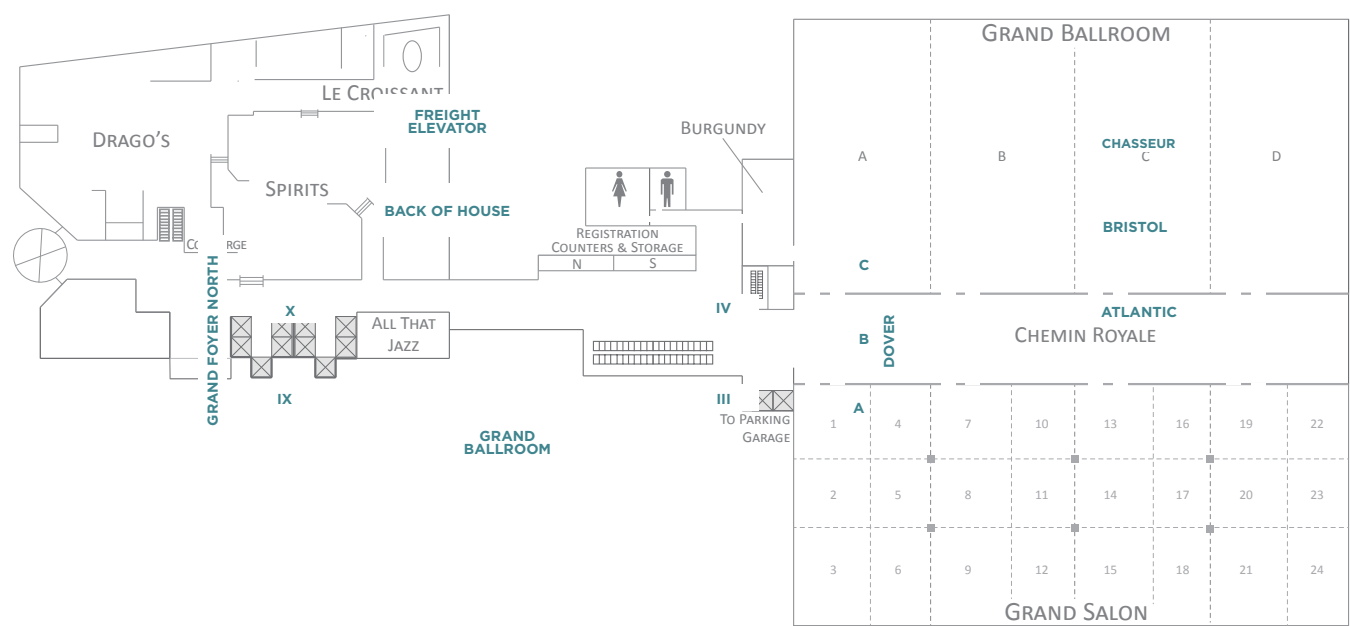


EXHIBITORS

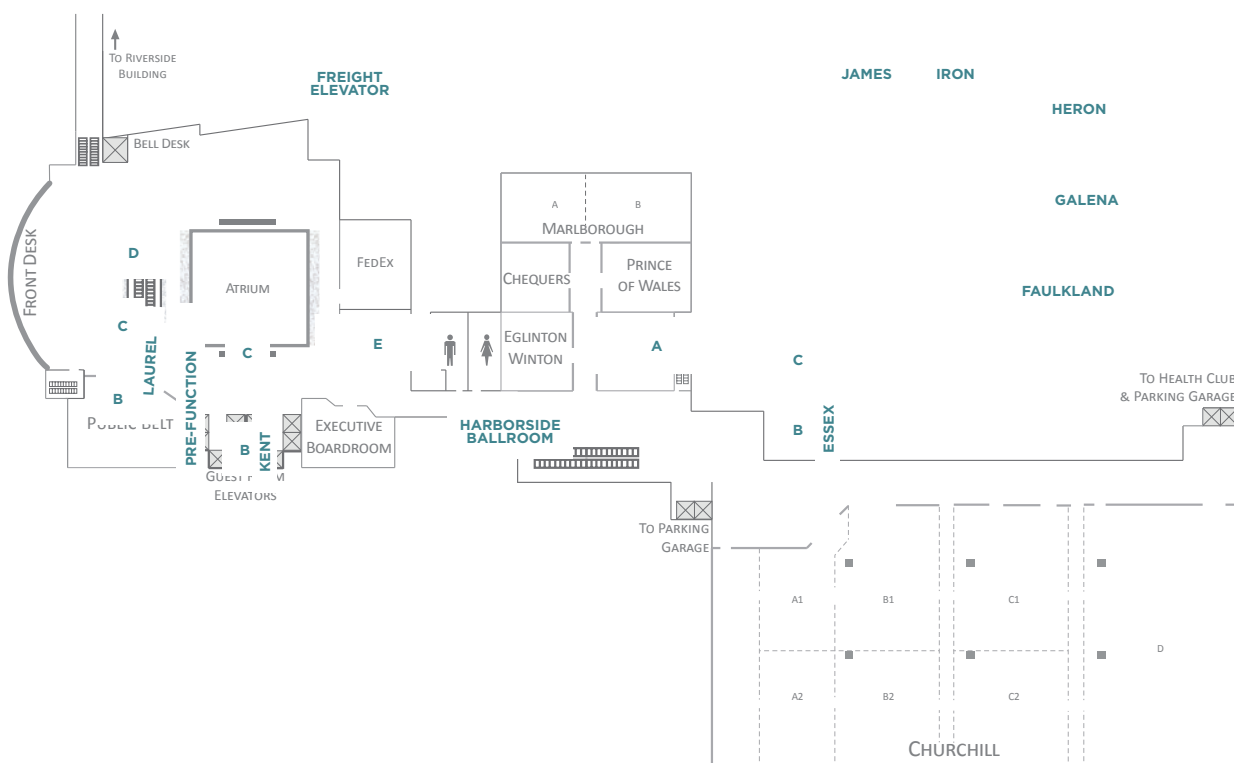


HOTEL FLOORPLAN

FIRST FLOOR



SECOND FLOOR



PROGRAM

WORKSHOPS

MARCH 20, 2022

TIME	SESSION DETAILS
8:00 AM – 5:00 PM	Show Me, Don't Tell Me: Methods of Contextual Inquiry Session Type: Workshop Room: Churchill A2 Presenters: Keith Karn, Human Factors in Context; Sean Hagen, BlackHagen Design
8:00 AM – 5:00 PM	User Interface Requirements for Medical Devices Session Type: Workshop Room: Churchill B1 Presenters: Michael Wiklund, Emergo by UL; Erin Davis, Emergo by UL
1:30 PM– 5:30 PM	Supporting Healthcare Research and Medical Device Testing Using Wearable Eye Tracking Devices: A Hands-on Training Workshop with Research Collective and Tobii Pro Session Type: Workshop Room: Churchill A2 Presenters: Joseph Pauszek, Research Collective; L. Bryant Foster, Research Collective; Wilkey Wong, Tobii Pro

PLENARY SESSION

MARCH 21, 2022

TIME	SESSION DETAILS
8:30 AM – 10:00 AM	The Long Walk: Bringing a Complex Medical Device to Market Matthew B. Weinger, MD, MS, Vanderbilt University Medical Center Room: Grand Ballroom A/B In this presentation, Dr. Weinger, a prominent physician and human factors engineer, will tell the quarter century long story of his efforts to create a commercial product that would improve the safety and usability of drug infusion therapy for acute care use. Based on his frustration with mid-1990's infusion pumps, Dr. Weinger and a colleague conceived of a better technology for medication administration in anesthesiology. The resulting saga spans three start-up companies, two FDA approved devices, a bankruptcy, and ultimately a viable commercial product. He will describe some of the key human factors decisions that were made along the way and the complex tradeoffs required during commercial development of a complex commercial medical product, particularly in a start-up company.

DIGITAL HEALTH *sponsored by Agilis***MARCH 21, 2022**

TIME	SESSION DETAILS
10:30 AM - 12:00 PM	Design and UX in Digital Health Session Type: Track Keynote Room: Grand Salon B Chairs: Janey Barnes, User-View, Inc; Korey Johnson, Bold Insight The Three Promises of Product Pioneers Paul Mullen, Graduate of GE Healthcare UX for Healthcare Analytics Using a Mental Model Kimberly Dunwoody, IBM
1:30 PM - 3:00 PM	Managing and Adapting through Change in Health Care Environments Session Type: Oral Presentations Room: Grand Salon B Chair: Ross Speir, Veterans Administration, VHA Human Factors Engineering Digital Health and Patient Safety - 3 Case Studies from an Embedded Human Factors Engineer Melinda Jamil, Advocate Aurora Health Proposing a Change Management Model for Artificial Intelligence Technology Implementation in the Operating Room Tianqi Smith, Mayo Clinic; Hamid Norasi, Mayo Clinic; Kelly Herbst, Mayo Clinic; M. Susan Hallbeck, Mayo Clinic; Sean Cleary, Mayo Clinic Adapting the Digital Clinical Workflow in COVID and Beyond: Real-World Case Studies Khan Siddiqui, Hyperfine; Jannis Brea, Tesseract Health
3:30 PM - 4:30 PM	2022 Student Design Competition Session Type: Competition Room: Grand Salon B Hosts: Sudeep Hegde, Clemson University; Kathryn Tippey, WillowTree Apps

MARCH 22, 2022

TIME	SESSION DETAILS
8:30 AM - 10:00 AM	Implementing New Tools in High Stakes Workflows Session Type: Oral Presentations Room: Grand Salon B Chair: Michelle Jahn Holbrook, Bold Insight System Resilience: A Framework and Tools for New Technology Integration Kelly Neville, The MITRE Corporation; Poornima Madhavan, MITRE; Bianica Pires, MITRE; Matthew Booth, The Ohio State University; Emily Barrett, MITRE; Heather Rosso, MITRE; Neil Dwivedi, MITRE; Kris Rosfjord, MITRE; Emily Patterson, The Ohio State University Communicating Level of Certainty Associated with Human Factors Findings and Recommendations in Healthcare Helen Fuller, Veterans Health Administration; Kathleen Adams, Veterans Health Administration

PROGRAM

MARCH 22, 2022

TIME	SESSION DETAILS
10:30 AM - 12:00 PM	HF/E in a Connected World Session Type: Oral Presentations Room: Grand Salon B Chair: Mike Kasamarian, HFCSI In the Face of New Challenges; Effective Human Factors Engineering for Software as Medical Device Products Trine Groenborg, Novo Nordisk A/S Accelerating the Continuous Improvement of Connected Medical Devices Using Product Analytics Randy Horton, Orthogonal; Bob Moll, Orthogonal Connected Medical Products Require Connected Medical Users: Finding the Gaps in User Group Technical Capabilities and Strategies to Test Them Lauren Jensen, PhD, Agilis Consulting Group; Blake Starnes, Agilis Consulting Group
1:30 PM - 3:00 PM	User-Centered Design and Software Interfaces Session Type: Oral Presentations Room: Grand Salon B Chair: Christopher W. Bonk, MedStar Health National Center for Human Factors in Healthcare Design of a Decision Support Based Mobile Application for Mental Health Crisis Amanda Johnson, Capstone Behavioral Healthcare; Ann Bisantz, University at Buffalo; Amy Reynolds, University at Buffalo; Scott Meier, University at Buffalo User-Centered Design Process Toward the Development of a Standards-Based Medication Recommender Bilikis Akindele, Optum; Dominic King, Optum; Janey Barnes, User-View, Inc Monitoring Health Information Technology Patient Safety Events from Patient Portal Use: Pre and Post COVID-19 Dean Karavite, Children's Hospital of Philadelphia
3:30 PM - 4:30 PM	Socio-Technical Factors for Telehealth Success Session Type: Oral Presentations Room: Grand Salon B Chair: Kaitlin Carter, Bold Insight Socio-Technical Factors for Telehealth Success Raj Ratwani, MedStar Health National Center for Human Factors in Healthcare; Jessica Howe, MedStar Health National Center for Human Factors in Healthcare

MARCH 23, 2022	
TIME	SESSION DETAILS
8:00 AM - 9:00 AM	The Time is Now for Healthcare and AI: Don't Leave It Up to the Programmers Session Type: Oral Presentations Room: Grand Salon B Chair: Janey Barnes, User-View, Inc The Time Is Now for Healthcare and AI: Don't Leave It Up to the Programmers Gavin Lew, Bold Insight, ReSight Global
9:30 AM - 11:00 AM	The Doctor Will See You Now: Care Without Boundaries Session Type: Oral Presentations Room: Grand Salon B Chair: Blake Lesselroth, OUHSC AW-Shift! Visualizing Pressure Distribution for Wheelchair Users and Their Clinicians Anywhere, Anytime Alexandra Soleil Bornstein, Minneapolis Veterans Affairs Health Care System; Tamara Vos-Draper, University of Minnesota, Minneapolis Veterans Affairs Health Care System Understanding Health Self-management Challenges and Needs for Older Adults with and without Mobility and Sensory Disabilities Qiong Nie, UIUC; Wendy Rogers, UIUC Tweeting About Telemedicine: Public Sentiment Towards Virtual Care Crystal M. Fausett, Embry-Riddle Aeronautical University; Sabina M. Patel, Embry-Riddle Aeronautical University; Joseph R. Keebler, Embry-Riddle Aeronautical University
11:30 AM - 1:00 PM	Human-Centered Digital Design Session Type: Oral Presentations Room: Grand Salon B Chair: Jessica Howe, MedStar Health National Center for Human Factors in Healthcare Application of Human-centered Design Approach to the Development of a Point-of-use (POU) System Interface. Elena Boselli, University of Illinois at Chicago; Abid Rehman, University of Illinois at Urbana-Champaign; Robert Strouse, independent consultant; Linda Forst, University of Illinois at Chicago; Ian Papautsky, University of Illinois at Chicago; Elizabeth Lerner Papautsky, University of Illinois at Chicago Design Considerations for Digital Telemetry Products Used by Patients with Complex Psychological User Needs Stephanie Wiltman, Bold Insight; Phobey Cass, Bold Insight Of the People: Creating Electronic Consult Design Guidelines Using Human-Centered Participatory Methods Blake Lesselroth, University of Oklahoma School of Community Medicine, Department of Medical Informatics; Ross Speir, Veterans Administration, VHA Human Factors Engineering; Tim Arnold, Veterans Administration, VHA Human Factors Engineering; Kathleen Adams, Veterans Administration, VHA Human Factors Engineering

PROGRAM

EDUCATION AND SIMULATION

MARCH 21, 2022

TIME	SESSION DETAILS
10:30 AM - 12:00 PM	Using a Hybrid Decision Making Model to Inform Qualitative Data Coding Session Type: Track Keynote Room: Grand Salon D Chair: TBA Using a Hybrid Decision Making Model to Inform Qualitative Data Coding Shilo Anders, Vanderbilt University Medical Center, Vanderbilt University; Carrie Reale, Vanderbilt University Medical Center; Megan Salwei, Vanderbilt University Medical Center; Jason Slagle, Vanderbilt University Medical Center; Laura Militello, Applied Decision Science; Christen Sushereba, Applied Decision Science; Matthew B. Weinger, CRISS/VUMC, Anesthesiology/VUMC
1:30 PM - 3:00 PM	Emergency Room Team Training Collaborative: Improving Closed Loop Communication Effectiveness Session Type: Discussion Panel Room: Grand Salon D Chair: TBA Panelists: Jennifer Yee, Ohio State University College of Medicine; Megan Gregory, Ohio State University College of Medicine; Paul Barach, Thomas Jefferson University, Wayne State University; Rami Rami Ahmed, Indiana University School of Medicine
3:30 PM - 4:30 PM	Data-Driven Improvements for Patient Outcomes Session Type: Oral Presentations Room: Grand Salon D Chair: TBA Can Behavioural Science Be the Key to Unlocking Patient Adherence? Evidence-led Development of Effective Medical Devices and Engaging Digital Health Solutions Andrea Pisa, Crux Product Design Ltd SEIPS 101 in Practice: Applying a New Model and Tools to Two Research Projects Dean Karavite, Children's Hospital of Philadelphia; Alex Fidel, Children's Hospital of Philadelphia; Irit Rasooly, Children's Hospital of Philadelphia; Naveen Muthu, Children's Hospital of Philadelphia

MARCH 22, 2022	
TIME	SESSION DETAILS
8:30 AM - 10:00 AM	Strengthening Teams Through Training Session Type: Oral Presentations Room: Grand Salon D Chair: TBA Team Coordination Dynamics Measurement in Enroute Care Training: Defining Requirements and Usability Study Jennifer Winner, 711 Human Performance Wing - US Air Force Research Laboratory; Jayde King, 711 Human Performance Wing - US Air Force Research Laboratory; Jamie Gorman, Georgia Institute of Technology; David Grimm, Georgia Institute of Technology Team Building in the Digital Age: Leveraging an Escape Room to Advance Healthcare Teams Kimberly N. Williams, Embry-Riddle Aeronautical University; Andrew C. Griggs, Embry-Riddle Aeronautical University; Elizabeth H. Lazzara, Embry-Riddle Aeronautical University Designing Simulation Curriculum to Evaluate Both Technical and Human Factors in Robotic Surgery Nicholas Laconi, University of Florida; Rosemarie Fernandez, University of Florida; Lindsey Goldstein, University of Florida; George Sarosi, University of Florida
10:30 AM - 12:00 PM	AR & VR for Training Session Type: Oral Presentations Room: Grand Salon D Chair: TBA Effects of Optical See-Through Head-Mounted Display Use on Situation Awareness and Perceived Workload during Simulated Laparoscopic Surgery Tasks Yaoyu Fu, University at Buffalo; Lora Cavuoto, University at Buffalo Framework for Optimal Placement of Haptic Devices in a Virtual Open Surgery Trainer to Achieve Maximum Workspace Fidelity Kangji Huang, UT Arlington; Ganesh Sankaranarayanan, UT Southwestern Medical Center; Suvranu De, Rensselaer Polytechnic Institute; Alan Bowling, UT Arlington
1:30 PM - 3:00 PM	Is Simulation an Option? Evaluating Simulation for Training Scenarios Session Type: Oral Presentations Room: Grand Salon D Chair: TBA Performance Based Evaluation of Cricothyroidotomy Simulators for Training James Bliss, Leidos, Inc.; Kent Etherton, Leidos, Inc.; Douglas Hodge, Boots Consulting, Inc.; Jennifer Winner, Air Force Research Laboratory A Low-Resource, Multilevel Framework for Virtual Training Evaluation Megan Gregory, The Ohio State University College of Medicine; Saurabh Rahurkar, The Ohio State University College of Medicine; Cynthia Shellhaas, The Ohio State University Wexner Medical Center; Jennifer Mitzman, The Ohio State University College of Medicine; Jay Read, The Ohio State University College of Medicine; Nicole McGarity, The Ohio State University College of Medicine; Allison Stevens, Ohio Department of Health; Becky Sanders, Indiana Rural Health Association, Upper Midwest Telehealth Resource Center; Sheryl Pfeil, The Ohio State University College of Medicine, The Ohio State University Wexner Medical Center

PROGRAM

MARCH 22, 2022

TIME

SESSION DETAILS

3:30 PM - 4:30 PM

Design and Deployment of a Safety Management System as a Means to Health System Clinical Integration

Session Type: Oral Presentations

Room: Grand Salon D

Chair: TBA

Design and Deployment of a Safety Management System as a Means to Health System Clinical Integration

Oren Guttman, MD, MBA, Jefferson Health; Josh Clark, MHA, RN, Jefferson Health; Jonathan Gleason, MD, Prisma Health

MARCH 23, 2022

TIME

SESSION DETAILS

8:00 AM - 9:00 AM

You're on Mute: Remote Training Methods

Session Type: Oral Presentations

Room: Grand Salon D

Chair: TBA

Remote Telemetry Monitoring Task: Obtaining Baseline Performance

Harsh Kamalesh Sanghavi, Carilion Clinic; Yuhao Peng, Carilion Clinic; Matthew Jesso, Carilion Clinic; Laurie Wolf, Carilion Clinic

Trauma-Informed Telemedicine: A Novel Simulation for Teaching Webside Manner

Blake Lesselroth, University of Oklahoma-Tulsa School of Community Medicine, Department of Medical Informatics; Liz Kollaja, OUHSC, Office of the Dean; Kristin Rodriguez, University of Oklahoma-Tulsa School of Community Medicine, OU Tulsa Simulation Center; Shannon Ijams, University of Oklahoma-Tulsa School of Community Medicine, Department of Family and Community Medicine; Helen Monkman, University of Victoria, British Columbia; School of Health Information Science; Frances Wen, University of Oklahoma-Tulsa School of Community Medicine, Department of Family and Community Medicine; Andrew Liew, University of Oklahoma-Tulsa School of Community Medicine, Department of Psychiatry; Juell Homco, University of Oklahoma-Tulsa School of Community Medicine, Department of Medical Informatics; Mary Gowin, University of Oklahoma Health Sciences Center, Department of Family Medicine; Ryan Palmer, Kennedy and Company, Inc.; Martina Jelley, University of Oklahoma Health Sciences Center, Department of Internal Medicine

Simulation Interview for Studying Anesthesiologist Decision Making

Laura Militello, Applied Decision Science; Shilo Anders, Center for Research and Innovation in Systems Safety, Department of Anesthesiology & Biomedical Informatics, Vanderbilt University Medical Center, Department of Computer Science, Vanderbilt University; Christen Sushereba, Applied Decision Science; Carrie Reale, Department of Anesthesiology, Biomedical Informatics, & CS; Jason Slagle, Vanderbilt University Medical Center, Department of Anesthesiology; Matthew B. Weinger, Center for Research and Innovation in Systems Safety, Department of Anesthesiology, Biomedical Informatics, & Medical Education, Vanderbilt University Medical Center

MARCH 23, 2022	
TIME	SESSION DETAILS
9:30 AM - 11:00 AM	Now That I Have Your Attention Session Type: Oral Presentations Room: Grand Salon D Chair: TBA Bye, Call Us If You Have A Problem: Why Patients Are Clinically Non-Adherent in Their Healthcare Journeys Jessica Willing-Pichs, Ximedica (Veranex); Celeste Greenbaum, Ximedica (Veranex) Nuisance Alarm Effects on Remote Telemetry Monitoring Task Performance: How Noisy Can It Be? Yuhao Peng, Carilion Clinic; Matthew Jesso, Carilion Clinic; Harsh Sanghavi, Carilion Clinic; Laurie Wolf, Carilion Clinic Human Factors in Training Researchers and Clinicians on Best Practices in Data Science Colleen Gaynor, Children's Hospital of Philadelphia; Colleen Gaynor, Children's Hospital of Philadelphia
11:30 AM - 1:00 PM	Documenting the Cognitive Demands, Skills, and Assessment Approaches for Endotracheal Intubation Across Medical Specialties Session Type: Oral Presentations Room: Grand Salon D Chair: TBA Documenting the Cognitive Demands, Skills, and Assessment Approaches for Endotracheal Intubation Across Medical Specialties Taylor Kunkes, University at Buffalo; Alyssa Dzik, University at Buffalo; Basiel Makled, U.S. Army Combat Capabilities Development Command - Soldier Center; Jack Norfleet, U.S. Army Combat Capabilities Development Command - Soldier Center; Steven Schwaartzberg, University at Buffalo; Lora Cavuoto, University at Buffalo

PROGRAM

HOSPITAL ENVIRONMENTS

MARCH 21, 2022

TIME	SESSION DETAILS
10:30 AM - 12:00 PM	“Have You Done Anything Useful Recently?” Frontline Human Factors in Theory and Practice Session Type: Track Keynote Room: Grand Salon C Chairs: Brittany Anderson-Montoya, Atrium Health; Kylie Gomes, MedStar Health Panelists: Ken Catchpole, Medical University of South Carolina
1:30 PM - 3:00 PM	Human Factors in Nursing and Future Directions Session Type: Oral Presentations Room: Grand Salon C Chair: Sadaf Kazi, MedStar Health National Center for Human Factors in Healthcare, Georgetown University School of Medicine Human Factors in Nursing and Future Directions Sadaf Kazi, MedStar Health National Center for Human Factors in Healthcare, Georgetown University School of Medicine; Linsey Steege, University of Wisconsin-Madison; Ella Franklin, MedStar Health National Center for Human Factors in Healthcare; Charlene Weir, University of Utah School of Medicine
3:30 PM - 4:30 PM	Design With the Outcome in Mind: Reducing Mistakes and Increasing Representation in Medicine Session Type: Oral Presentations Room: Grand Salon C Chair: Kylie Gomes, MedStar Health Adverse Events in Maternal Care - Investigating Racial/Ethnic Disparities at the System Level Myrte de Alfred, University of Toronto; Dulaney Wilson, Medical University of South Carolina A Human-Centered Space Design of Sterile Core within the L&D Operating Rooms Yushi Yang, Johns Hopkins Health System; Tanesha Stokes, Johns Hopkins Health System; Janis Meise, Johns Hopkins Health System; Susan Will, Johns Hopkins Health System Winning with Binning: Successfully Addressing Breastmilk Administration Errors in the NICU Sarah Fouquet, Children’s Mercy Hospital; University of Missouri, Kansas City; Andrew

MARCH 22, 2022	
TIME	SESSION DETAILS
8:30 AM - 10:00 AM	Close the Door and Don't Let Them in!! External Environment Factors in the SEIPS Framework and the Impact on Frontline Processes Session Type: Discussion Panel Room: Grand Salon C Chair: TBA Panelists: Y. Raymond Chan, Children's Mercy - Kansas City, University of Missouri - Kansas City; Brandan Kennedy, Children's Mercy - Kansas City, University of Missouri - Kansas City; James Won, Children's Hospital of Philadelphia; Laurie Wolf, Carilion Clinic; Brittany Anderson-Montoya, Atrium Health; Joy Rivera, Froedtert Hospital
10:30 AM - 12:00 PM	All the Signs Were There: Recognizing and Addressing Risks for Patients and Clinicians Session Type: Oral Presentations Room: Grand Salon C Chair: Brittany Anderson-Montoya, Atrium Health Do You Hear what I Hear? Alarm Fatigue and Patient Safety James Won, Children's Hospital of Philadelphia Burnout: Challenges, Interventions, and Empathy Sarah Fouquet, Children's Mercy Hospital Storytime from a Pediatric Hospital: Crib Rails, Surgical tables, and Neonatal Code Dosing Laura Barg-Walkow, Children's Hospital Colorado; Stacy Beavers, Children's Hospital Colorado; Michelle Fennell, Children's Hospital Colorado; Emma L. Ross, Children's Hospital Colorado Revisiting the Independent Double Check - A SEIPS Investigation Leah Konwinski, Spectrum Health
1:30 PM - 3:00 PM	In the Operating Room Session Type: Oral Presentations Room: Grand Salon C Chair: Sabina Patel, San Jose State University Reduction of Postural Risks in Surgeons by Using an Exoscope During the Deep Inferior Epigastric (DIEP) Flap Surgery Tianke Wang, Mayo Clinic; Hamid Norasi, Mayo Clinic; Susan Hallbeck, Mayo Clinic; Minh-Doan Nguyen, Mayo Clinic; Christin Harless, Mayo Clinic Medication Icon Labels Improve Discrimination and Safety in the Operating Room Connor Lusk, Medical University of South Carolina; Dave Neyens, Clemson University; Swati Goel, Clemson University; Nicolas Elrod, Medical University of South Carolina; Amanjot Paintlia, Medical University of South Carolina; Riley Graham, Medical University of South Carolina; Sahar Mihandoust, Clemson University; Anjali Joseph, Clemson University; Jake Abernathy, III, Johns Hopkins University School of Medicine; Ken Catchpole, Medical University of South Carolina Surgeon's Intraoperative Workload During Robotic Radical Prostatectomy: Multi-port Robot Versus Single-port Robot Hamid Norasi, Mayo Clinic; Katherine E. Law, Mayo Clinic; Emmanuel Tetteh, Mayo Clinic; Matthew Tollefson, Mayo Clinic; Susan Hallbeck, Mayo Clinic

PROGRAM

MARCH 22, 2022

TIME

SESSION DETAILS

3:30 PM - 4:30 PM

Hospital Environments Potpourri

Session Type: Oral Presentations

Room: Grand Salon C

Chair: Crystal Fausett, Embry-Riddle Aeronautical University

Reducing Surgeon's Trunk Discomfort in Vascular Surgery with Passive Exoskeletons: a Simulation Study

Emmanuel Tetteh, Mayo Clinic, Iowa State University; Susan Hallbeck, Mayo Clinic, Iowa State University; Gary Mirka, Iowa State University, Mayo Clinic

The Final Inch - What Pop-up COVID Testing Tells us about Community Engagement

Dante Della Vella, Ohio State University; Mike Rayo, Ohio State University

Characterizing and Contextualizing the Use of the Surgical Safety Checklist in General Surgery: A Multi-Method Study

Jeunice Vianca Evangelista, University of Toronto; Institute of Health Policy, Management and Evaluation; Cherryl Li, University of Toronto; Kimberley-Dale Rebecca Ng, North York General Hospital; Mark Fan, North York General Hospital; Patricia Trbovich, University of Toronto

MARCH 23, 2022

TIME

SESSION DETAILS

8:00 AM - 9:00 AM

Breaking Down Barriers: Removing Roadblocks to Better Patient Care

Session Type: Oral Presentations

Room: Grand Salon C

Chair: Myrteide Alfred, Medical University of South Carolina

From "Bench" to Bedside: Science-based Alarm Management with High IMPACTS

Michael Rayo, The Ohio State University

Understanding Facilitators and Barriers to Telehealth Referral to In-Person Care and Implications for Patient Safety

Kylie Gomes, MedStar Health National Center for Human Factors in Healthcare; Katharine Adams, MedStar Health National Center for Human Factors in Healthcare; Ethan Booker, MedStar Telehealth Innovation Center; Raj Ratwani, MedStar Health National Center for Human Factors in Healthcare

Patient IDs Please - The Case of Wristbands vs. ID Patches

Eryn Godwin, Children's Mercy Hospital; Sarah Fouquet, Children's Mercy Hospital; Kelly Grabendike, Children's Mercy Hospital; Jessica Olson, Children's Mercy Hospital; Erica Adams, Children's Mercy Hospital; Leah Hunt, Children's Mercy Hospital; Rhonda Hennigh-Smith, Children's Mercy Hospital

9:30 AM - 11:00 AM	Addressing Patient Safety Challenges in the Pandemic: Case Studies on Applying Human Factors Principles to Embed Patient Safety and Experience at the Clinical Front Line During a Pandemic Session Type: Discussion Panel Room: Grand Salon C Chair: TBA Panelists: Mark Chignell, University of Toronto; Lili Liu, University of Waterloo; Monika Kastner, North York General Hospital; Fahad Razak, St. Michael's Hospital, University of Toronto
11:30 AM - 1:00 PM	Hospital Operations: What Human Factors Practitioners Can Expect Working in Hospitals Session Type: Oral Presentations Room: Grand Salon C Chair: Kristen Webster, Cincinnati Children's Hospital Medical Center, Cincinnati, OH Hospital Operations: What Human Factors Practitioners Can Expect Working in Hospitals Kristen Webster, Cincinnati Children's Hospital Medical Center, Cincinnati, OH; Laura Barg-Walkow, Boston Children's Hospital; Sarah Fouquet, Children's Mercy Hospital
MEDICAL AND DRUG DELIVERY DEVICES <i>sponsored by Emergo</i>	
MARCH 21, 2022	
TIME	SESSION DETAILS
10:30 AM - 12:00 PM	Greater Than the Sum of its Parts: Human Factors as a Transdiscipline Session Type: Track Keynote Room: Grand Ballroom A Chair: Shannon Hoste, Agilis Consulting Group Greater Than the Sum of Its Parts: Human Factors as a Transdiscipline Russell Branaghan, Research Collective
1:30 PM - 3:00 PM	The Ivory Tower: Are Only Educated Scholars Being Prescribed Medication? Session Type: Oral Presentations Room: Grand Ballroom A Chair: Joe Cesa, Medtronic The Ivory Tower: Are Only Educated Scholars Being Prescribed Medication? Liz Mauer, Human Factors MD; Christina Mendat, Human Factors MD Gender Inclusivity in User Research Nadya Ganem, IBM, Tufts University; Beth Loring, Loring Human Factors, Inc. Well, It Depends: HF Consultants Discuss Embracing Multiple Human Factors Strategies to Get the Job Done Jessie Huisinga, Agilis Consulting Group; Elise Rukavina, Tensentric

PROGRAM

MARCH 21, 2022

TIME	SESSION DETAILS
3:30 PM - 4:30 PM	Human Factors Research and Regulatory Science Session Type: Discussion Panel Room: Grand Ballroom A Chair: Shannon Hoste, Agilis Consulting Group Panelists: Molly Story, Sanofi; Mary Beth Privitera, HS Design; Shannon Clark, User Wise

MARCH 22, 2022

TIME	SESSION DETAILS
8:30 AM - 10:00 AM	Making Your Task (Analysis) List Session Type: Oral Presentations Room: Grand Ballroom A Chair: Joshua Biro, Clemson University Don't Underestimate the Value of Task Analysis Laurie Reed, Loring Human Factors, Inc. Is Your Use Related Risk Analysis Half Empty or Half Full? MaryBeth Privitera, HS-design
10:30 AM - 12:00 PM	Did You Read the Instructions? Session Type: Oral Presentations Room: Grand Ballroom A Chair: Connor Lusk, Medical University of South Carolina Making Electronic Instructions For Use (eIFUs) Work: Knowing When and How to Apply Them Yvonne Limpens, Emergo by UL; Cory Costantino, Emergo by UL Instructions for Use Scorecard Korey Johnson, Bold Insight; Katie Pingrey, Bold Insight; James Kershner, Bold Insight The Do's and Don'ts of Designing Effective Instructions for Use for Lay Users Savannah Esteve, UserWise, Inc.; Shannon Clark, UserWise, Inc.; Denise Forkey, UserWise, Inc.

1:30 PM - 3:00 PM	Creating Safe and Effective Participant Experiences Session Type: Oral Presentations Room: Grand Ballroom A Chair: Sami Durrani, Eli Lilly and Company Conducting User Experience Interviews During a Clinical Trial Beth Loring, Loring Human Factors, Inc. Understanding How the Simulated Use Environment Could Trigger Traumatic Responses in Vulnerable Participant Populations: A Case Study Approach Tommaso Lombardi, Farm, a Flex Company; Laura Thomson, Farm, a Flex Company; Lisa Gunther-LaVergne, Farm, a Flex Company Considerations and Learnings for Orally Administered Products Indicated for Pediatrics and Adults Who Have Difficulty Swallowing Tiffany McIntire, F. Hoffmann-La Roche Ltd; Claire Roberts, Kinneir Dufort
3:30 PM - 4:30 PM	Hello from the Other Side: Cross-Industry Trends in FDA Feedback from HF Consultants Session Type: Discussion Panel Room: Grand Ballroom A Chair: Sara McNew, Design Science Panelists: Sara McNew, Design Science; Allison Stochlic, Emergo by UL; Anthony Andre, Interface Analysis Associates; Christina Mendat, Human Factors MD; Wayne Ho, Healthcare Human Factors, Toronto General Hospital
MARCH 23, 2022	
TIME	SESSION DETAILS
8:00 AM - 9:00 AM	Conducting Usability Tests with Participant Teams: Case Studies and Lessons Learned Session Type: Discussion Panel Room: Grand Ballroom A Chair: Allison Stochlic, Emergo by UL Panelists: Allison Stochlic, Emergo by UL; Sami Durrani, Eli Lilly and Company; Leah Swanson, Baxter Healthcare; Joe Cesa, Medtronic
9:30 AM - 11:00 AM	Improving Adherence and Acceptance Through Better Understanding Session Type: Oral Presentations Room: Grand Ballroom A Chair: Tiffany McIntire, Tiffany Kay McIntire Designing a Child-Friendly, Comic Book Style IFU to Improve Pediatric Engagement in Medication Administration Joy Borgardt, AbbVie; Trevor Johnson, IPSOS; Martin Venna, IPSOS; Mary Farrell, IPSOS; Chris Dodge, IPSOS; Mike Murphy, IPSOS Technology Acceptance Across Systems and Roles: A Survey of Anesthesia Providers Evaluating a Device Designed to Improve Syringe Organization During a Surgical Case Joshua Biro, Clemson University; Stephanie Munie, Medical University of South Carolina; Chen Chia Wang, Johns Hopkins University; Harrison Sims, Johns Hopkins University; Connor Lusk, Medical University of South Carolina; David Neyens, Clemson University; James H. Abernathy III, Johns Hopkins University; Ken R. Catchpole, Medical University of South Carolina Designing Usable Instructions for Use for Medical Devices Anders Orn, Research Collective; Emily Hildebrand, Research Collective

PROGRAM

PATIENT SAFETY AND RESEARCH INITIATIVES

MARCH 21, 2022

TIME	SESSION DETAILS
10:30 AM - 12:00 PM	The Case for a Patient-Centric Approach to Healthcare Session Type: Track Keynote Room: Grand Salon A Chair: TBA The Case for a Patient-Centric Approach to Healthcare Brenda Jones, The Joint Commission, BLJ Healthcare Consultant
1:30 PM - 3:00 PM	Bridging the Human-AI Gap Session Type: Oral Presentations Room: Grand Salon A Chair: TBA Over Triage: Injury Classification Mistake or Hindsight Bias? Richard Simonson, Embry-Riddle Aeronautical University; Joseph Keebler, Embry-Riddle Aeronautical University; Rosemarie Fernandez, University of Florida; Elizabeth Lazzara, Embry-Riddle Aeronautical University; Alex Chaparro, Embry-Riddle Aeronautical University Gaps Technology Can't Bridge - Why Technology by Itself Cannot Solve Medication Safety Challenges Yuval Bitan, Ben Gurion University of the Negev What Apes Can Teach Healthcare about Equity and AI Kate MacNamee, Butterfly Network
3:30 PM - 4:30 PM	Review of Automated Quality Assurance Safety Checklists in Radiation Oncology : A Human Factors Evaluation Study Session Type: Oral Presentations Room: Grand Salon A Chair: TBA Review of Automated Quality Assurance Safety Checklists in Radiation Oncology : A Human Factors Evaluation Study Karthik Adapa, University of North Carolina-Chapel Hill, UNC; Shiva Das, UNC; Fei Yu, UNC; Prithima Mosaly, Ben Allegretti Consulting Inc; Carlton Moore, UNC; Lukasz Mazur, UNC

MARCH 22, 2022	
TIME	SESSION DETAILS
8:30 AM - 10:00 AM	8:30 AM - 10:00 AM Communication Is Key: the Impact of Common Language and Communication on Patient Outcomes Session Type: Oral Presentations Room: Grand Salon A Chair: TBA Bridging Conversation Islands to Connect Healthcare: Introducing Unique Co-occurring Word Networks to Find Distinct Themes Tim Arnold, Veterans Health Administration Developing a Common Language for Common Goals: Strategies for Integrating User Experience and Human Factors Research Lauren Jensen, PhD, Agilis Consulting Group; Rachel Talbott, Agilis Consulting; Ben Purrenhage, Tekna From Reactive to Proactive Safety: Joint Activity Monitoring for Infection Prevention Dane Morey, The Ohio State University; Michael Rayo, The Ohio State University; Mengyun Li, The Ohio State University
10:30 AM - 12:00 PM	The Patient's Role in Care and Treatment Session Type: Oral Presentations Room: Grand Salon A Chair: TBA Assessing Patient Engagement: A Review and Synthesis of the Measurement Tools In Gyu Lee, Johns Hopkins University School of Medicine; Yea-Jen Hsu, Johns Hopkins Bloomberg School of Public Health; Samuel Kim, Johns Hopkins University School of Medicine; Amro Khasawneh, University of North Carolina Chapel Hill; Divya Manoharan, Johns Hopkins University School of Medicine; Traci Speed, Johns Hopkins University School of Medicine; Ronen Shechter, Johns Hopkins University School of Medicine; Jill Marsteller, Johns Hopkins Bloomberg School of Public Health; Eileen McDonald, Johns Hopkins Bloomberg School of Public Health, Center for Injury Research and Policy; Jamia Saunders, Johns Hopkins University School of Medicine; Marie Hanna, Johns Hopkins University School of Medicine; Anping Xie, Johns Hopkins University School of Medicine Patient Perceptions of Telehealth Early COVID to Now Wes Michael, Rare Patient Voice

PROGRAM

MARCH 22, 2022

TIME	SESSION DETAILS
1:30 PM - 3:00 PM	Patient Safety Potpourri Session Type: Oral Presentations Room: Grand Salon A Chair: TBA Using Journey Mapping to Visualize Patient Experiences for Quality Improvement Initiatives Kyle Maddox, Office of Health Informatics, Veterans Health Administration, Department of Veterans Affairs; Anthony Masalonis, Spectrum Software Technology, Inc., Subcontractor to Visionary Consulting Partners, LLC; Aneesa Motiwala, Spectrum Software Technology, Inc., Subcontractor to Visionary Consulting Partners, LLC; Kathleen Adams, Office of Health Informatics, Veterans Health Administration, Department of Veterans Affairs; Nakina Eugene, Visionary Consulting Partners, LLC; Office of Health Informatics, Veterans Health Administration, Department of Veterans Affairs; Ross Speir, Office of Health Informatics, Veterans Health Administration, Department of Veterans Affairs The Effects of Changeovers and Other Distractions During Post-Operative Counts in General Surgery Suzan Ayas, University of Toronto; Birsen Donmez, University of Toronto; Kate Kazlovich, University of Toronto; Selena Lombardi, University of Toronto; Ashna Jain, University of Toronto Team Adaptation in Primary Care: Examining the Impact of COVID-19 Ashley M. Hughes, University of Illinois at Chicago, Edward Hines JR VA Medical Center; Kelley Arredondo, Michael E. DeBakey VA Medical Center, Baylor College of Medicine; Trang Pham, University of Illinois at Chicago; Houston Lester, Baylor College of Medicine; Fred Oswald, Rice University; Richard SoRelle, Baylor College of Medicine; Sylvia Hysong, Center of Innovations in Quality, Effectiveness and Safety, Michael E. DeBakey VA Medical Center
3:30 PM - 4:30 PM	Pharmaceutical Safety for Geriatric Populations Session Type: Oral Presentations Room: Grand Salon A Chair: TBA Eye-tracking for Macroergonomics in the Wild: Exploring Its Use for Understanding Older Adults' Over-the-Counter Medication Selection Behavior in Community Pharmacies and Its Implications for Other Health Care Settings Jukrin Moon, University of Wisconsin-Madison, School of Pharmacy; Maria E. Bove, University of Wisconsin-Madison, School of Pharmacy; Ashley O. Morris, University of Wisconsin-Madison, School of Pharmacy; Aaron M. Gilson, University of Wisconsin-Madison, School of Pharmacy; Jamie A. Stone, University of Wisconsin-Madison, School of Pharmacy; Taylor L. Watterson, University of Wisconsin-Madison, School of Pharmacy; Michelle A. Chui, University of Wisconsin-Madison, School of Pharmacy Senior Section 2.0: Intersecting Implementation Science and Human Factors to Adapt Our Community Pharmacy Intervention to Improve Over-the-Counter Medication Safety Among Older Adults Ashley O. Morris, University of Wisconsin-Madison, University of Wisconsin-Madison, School of Pharmacy; Maria E. Bove, University of Wisconsin-Madison, School of Pharmacy; Jukrin Moon, University of Wisconsin-Madison, School of Pharmacy; Jamie A. Stone, University of Wisconsin-Madison, School of Pharmacy; Aaron M. Gilson, University of Wisconsin-Madison, School of Pharmacy; Taylor L. Watterson, University of Wisconsin-Madison, School of Pharmacy; Michelle A. Chui, University of Wisconsin-Madison, School of Pharmacy

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PROGRAM

MARCH 23, 2022

TIME

SESSION DETAILS

9:30 AM - 11:00 AM

Decision-Making in Pharmaceuticals

Session Type: Oral Presentations

Room: Grand Salon A

Chair: TBA

A Cognitive Task Analysis of Clinicians' Decision-Making for Drug-Drug Interactions in Clinical Practice

Alissa Russ-Jara, Department of Veterans Affairs, Purdue University; Karen Arthur, Richard L. Roudebush VA Medical Center; Nervana Elkhadr, nelkhadr@uwyo.edu, University of Wyoming; Julie DiIulio, Applied Decision Science; Laura Militello, Applied Decision Science; Amanda Ifeachor, Richard L. Roudebush VA Medical Center; Peter Glassman, VA Pharmacy Benefits Management Services; Alan Zillich, Department of Pharmacy Practice, College of Pharmacy, Purdue University; Michael Weiner, Center for Health Information and Communication, Health Services Research; Department of Veterans Affairs

Developing a Cognitive Process Model to Describe How Health Care Professionals Identify and Mitigate Adverse Drug Reactions

Khoa Nguyen, University of Florida; Laura Militello, Applied Decision Science; Amanda Ifeachor, Richard L. Roudebush VA Medical Center; Karen Arthur, Richard L. Roudebush VA Medical Center; Peter Glassman, Pharmacy Benefits Management Services, Department of Veterans Affairs; Alan Zillich, Department of Pharmacy Practice, College of Pharmacy, Purdue University; Michael Weiner, Center of Health Information and Communication, U.S. Department of Veterans Affairs, Veterans Health Administration; Alissa Russ-Jara, Department of Pharmacy Practice, College of Pharmacy, Purdue University

Understanding the Use of Pharmacological Knowledge Base Tool Use for Safe Medication Management

Shilo Anders, Vanderbilt University Medical Center, Vanderbilt University; Courtney Van Houten, IBM; Yasemin Akdas, Vanderbilt University Medical Center; Joyce Harris, Vanderbilt University Medical Center; Christopher Simpson, Vanderbilt University Medical Center; Karlis Draulis, IBM; Laurie Novak, Vanderbilt University Medical Center, Vanderbilt University

11:30 AM - 1:00 PM

Development and Validation of a Self-Report Scale to Measure COVID-19 Vaccine Hesitancy

Session Type: Oral Presentations

Room: Grand Salon A

Chair: TBA

Development and Validation of a Self-Report Scale to Measure COVID-19 Vaccine Hesitancy

Megan Gregory, The Ohio State University College of Medicine; Sarah MacEwan, The Ohio State University College of Medicine; Jonathan Powell, National Registry of Emergency Medical Technicians, The Ohio State University College of Public Health; Eben Kenah, The Ohio State University; Ashish Panchal, The Ohio State University, National Registry of Emergency Medical Technicians; Ann Scheck McAlearney, The Ohio State University College of Medicine

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MARCH 21, 2022

4:30 PM - 6:30 PM

GRAND BALLROOM D

DIGITAL HEALTH

1. **COVID-19 Effects on Work-from-Home Office Workers: Evaluation of Physical Activity from Objective and Subjective Metrics**
Alec Gonzales, Clemson University; Jia-Hua Lin, Department of Labor and Industries, SHARP; Jackie Cha, Clemson University
2. **Healthcare Portals: What Features Patients Really Want and Why**
Samantha Silver, Key Lime Interactive; Jose Rodriguez, Key Lime Interactive; Erryca Robicheaux, Key Lime Interactive
3. **Impact of Health Informatics on Patients' Perception of Health Care Services: Trends Over Time of Health Information Technology Use**
Safa ELKEFI, Stevens Institute of Technology; Onur Asan, Stevens Institute of Technology; Thy Do, The University of Western Australia
4. **Mobile Health App Privacy Policies: What Patients Want vs. Understand**
Vikram Siberry, Georgetown University School of Medicine; Deliya Wesley, Mathematica; Raj Ratwani, MedStar Health National Center for Human Factors in Healthcare
5. **Needs Assessment for a Mobile Health App for Tracking Cardiotoxicity Symptoms: A "Game-Changer"**
Abigail Berk, The Ohio State University College of Medicine; Wedien Cao, The Ohio State University College of Medicine; Lang Li, The Ohio State University College of Medicine; Daniel Addison, The Ohio State University College of Medicine, The Ohio State University James Cancer Center; Megan Gregory, The Ohio State University College of Medicine
6. **A Quantitative Study on Alert Fatigue in a Novel Experimental Design**
Julie Harrison, Georgia Institute of Technology; Zachary Tidler, Georgia Institute of Technology; Terri Dunbar, Georgia Institute of Technology; David Grimm, Georgia Institute of Technology; Shiwen Zhou, Georgia Institute of Technology; Stanley Joseph, Georgia Institute of Technology
7. **Role Network Analysis to Inform the Design of a Clinical Deterioration Response System for Cancer Patients**
Eve Vazquez, Vanderbilt University Medical Center, University of Central Florida; Shilo Anders, Vanderbilt University Medical Center; Carrie Reale, Vanderbilt University Medical Center; Laurie Lovett Novak, Vanderbilt University Medical Center; Joyce Harris, Vanderbilt University Medical Center; Jason Slagle, Vanderbilt University Medical Center; Dan France, Vanderbilt University Medical Center; Mathew Weinger, Vanderbilt University Medical Center; Megan Salwei, Vanderbilt University Medical Center
8. **The Usability of a Smartphone-Based Fall Risk Health Application for Adult Wheelchair Users**
Mikaela Frechette, University of Illinois at Urbana-Champaign, Siebel Center for Design; Jason Fanning, Wake Forest University; Katherine Hsieh, Wake Forest School of Medicine; Laura Rice, University of Illinois at Urbana-Champaign; Jacob Sosnoff, University of Kansas Medical Center
9. **Use of Technology for Health-Related Tasks Among Older Adults: A Trend Analysis of Pre-&-during COVID Era**
Avishek Choudhury, Stevens Institute of Technology; Onur Asan, Stevens Institute of Technology

EDUCATION AND SIMULATION

1. **Human Factors in Training Researchers and Clinicians on Best Practices in Data Science**
Colleen Gaynor, Children's Hospital of Philadelphia; Colleen Gaynor, Children's Hospital of Philadelphia
2. **Identifying Optimal Training Tasks and Scheduling Times to Improve Robotic-Assisted Surgery Training**
Alec Gonzales, Clemson University; Akshay Shah, Clemson University; Qi Luo, Clemson University; Jackie Cha, Clemson University
3. **Simulation for Effective Pediatric Assessment and Response in Trauma**
Karen Tew, University of Florida; Maritza Plaza-Verduin, University of Florida; Brenda Fahy, University of Florida; Mary Patterson, University of Florida; Rosemarie Fernandez, University of Florida

HOSPITAL ENVIRONMENTS

1. **A Human Factors Assessment of the Impact of Telehealth Implementation on Nurses During the COVID Pandemic**
Christopher W. Bonk, MedStar Health National Center for Human Factors in Healthcare; Christian Boxley, MedStar Health National Center for Human Factors in Healthcare; Kylie Gomes, MedStar Health National Center for Human Factors in Healthcare; Ram Dixit, MedStar Health National Center for Human Factors in Healthcare; Max Smith, MedStar Health Institute for Innovation, Georgetown University School of Medicine; David Brennan, MedStar Health Institute for Innovation; Julia McSorley, MedStar Health Institute for Innovation; Raj Ratwani, MedStar Health National Center for Human Factors in Healthcare, Georgetown University School of Medicine; Ethan Booker, MedStar Health Institute for Innovation; Sadaf Kazi, MedStar Health National Center for Human Factors in Healthcare, Georgetown University School of Medicine
2. **Predicting Total Joint Replacement's Length of Stay (LOS) For a Rural Perioperative Surgical Home**
Srinivasan Sridhar, Montana State University; Bernadette McCrory, Montana State University; Amy Mouat-Hunter, Bozeman Health Deaconess Hospital; Bradley Whitaker, Montana State University
3. **Understanding Work-Related Injury Risk Among Rural Rehabilitation Clinicians**
Jiahui Ma, Montana State University; Macy Fitzgerald, Montana State University; Sage Kittleman, Montana State University; Bernadette McCrory, Montana State University
4. **Virtual Family-Centered Rounds During the COVID-19 Pandemic - Technology Usability Analysis**
Maryam Attef, Carleton University; Catherine Dulude, Children's Hospital of Eastern Ontario (CHEO); Chantal Trudel, School of Industrial Design, Carleton University; Melanie Buba, Children's Hospital of Eastern Ontario (CHEO)

POSTER GALLERY

POSTER GALLERY

MARCH 21, 2022

4:30 PM - 6:30 PM

GRAND BALLROOM D

MEDICAL AND DRUG-DELIVERY DEVICES

- 1. Conducting and Reporting a Summative Validation on a Complex System, with Participant Teams, in Record Time....DURING A PANDEMIC**
Joe Cesa, Medtronic; Maureen Halligan, Cambridge Consultants; Adrienne Erdman, Cambridge Consultants
- 2. Development of a Second-Generation Self-Injection Syringe Testing System**
Scott Tew, University of Utah, Dept. of Mechanical Engineering; Kevin Cluff, BioWork Engineering, LLC; Frank Drews, University of Utah, Dept. of Psychology; Ed Halpern, AbbVie; Andrew Merryweather, University of Utah
- 3. "How was I supposed to know?" Designing Injection Device Instructions for Use for Injection-naïve**
Alexandra Benbadis, Sanofi; Jacqueline Edwards, Emergo by UL
- 4. Human Factors Analysis to Design the User Interface for Multi-Purpose Neonatal Incubator**
Hyeonkyeong Choi, Yonsei University; Wonseuk Jang, Yonsei University; Sangeun Park, Yonsei University
- 5. Instructions for Use Design: Understanding International Regulatory Guidance for Multi-country Product Launches**
Michelle Jahn Holbrook, Bold Insight; Katie Pingrey, Bold Insight
- 6. Opportunities for the Digitalization of Human Factors Engineering in Medical Product Development**
Michael Wiklund, Emergo by UL; Erin Davis, Emergo by UL
- 7. Process Improvement for Formative and Summative Testing in Medical Device Design**
Michael Fedele, Beckman Coulter
- 8. Providing Training that Approximates Reality: Considerations in Validation Study Design**
Emily Hildebrand, Research Collective; Nashahita Deboo, Genentech; Stephanie Smith, Genentech
- 9. Use-Related Risk Analysis of Complex Interconnected Medical Devices**
Denise Forkey, UserWise, Inc.; Shannon Clark, UserWise, Inc.
- 10. Will the Real Critical Tasks Please Stand Up: How to Define & Evaluate Critical Tasks for Agency Success**
Tara (Daugherty) Long, Kymanox; QuynhNhu Nguyen, Kymanox
- 11. Yes, And? Applying Improvisational Theater Techniques to Usability Study Moderation**
Matthew Marber, Essential Design; Ellie Rundell, Essential Design

PATIENT SAFETY RESOURCE AND INITIATIVES

- 1. Developing an Online Human Factors Methods Library Using GIT**
Dean Karavite, Children's Hospital of Philadelphia; Alex Fidel, Children's Hospital of Philadelphia; Muthu Naveen, Children's Hospital of Philadelphia
- 2. A Framework to Assess Resilience in Health Care Patient Prioritization**
Viviana Maura Dos Santos, Texas Tech University, Federal University of Rio de Janeiro; Paulo Victor Rodrigues De Carvalho, Instituto de Engenharia Nuclear (IEN); Catherine Burns, Center for Bioengineering and Biotechnology - University of Waterloo; Mario Cesar Rodriguez Vidal, Federal University of Rio de Janeiro; Changwon Son, Texas Tech University; Alessandro Jatob, Osvaldo Cruz Foundation
- 3. Role of Trust in AI Driven Healthcare Systems: Discussion from the Perspective of Patient Safety**
Mehmet Unver, University of Hertfordshire; Onur Asan, Stevens Institute of Technology

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MARCH 22, 2022

4:30 PM - 6:30 PM

GRAND BALLROOM C-D

DIGITAL HEALTH

- 1. Card-Sorting Tasks to Explore Clinicians' Strategies for Organizing and Reconciling Medications From Internal and External Sources**
 Himalaya Patel, United States Department of Veterans Affairs; April Savoy, Indiana University-Purdue University; Khoa A. Nguyen, University of Florida; Jason J. Saleem, University of Louisville; Steven L. Sanchez, U.S. Department of Veterans Affairs (VA); Eugene A. Adjei, U.S. Department of Veterans Affairs (VA); Morgan H. Traylor, U.S. Department of Veterans Affairs (VA); Richard L. Roudebush VA Medical Center; Laura G. Militello, Applied Decision Science, LLC; Julie DiIulio, Applied Decision Science, LLC; Michael Weiner, U.S. Department of Veterans Affairs (VA); Vincent S. Fan, VA Puget Sound Health Care System, University of Washington; Bryan S. Gibson, VA Health Services Research and Development; Amanda S. Mixon, VA Tennessee Valley Healthcare System; Alissa L. Russ-Jara, Purdue University
- 2. Considerations of Rapid Prototyping and Testing for Medical Device Design**
 Sangeun Park, Yonsei University; Wonseuk Jang, Yonsei University
- 3. Designing Decision Support Tools for Public Health Professionals**
 Holland Vasquez, University of Toronto; Birsan Donmez, University of Toronto; Emilie Pianarosa, University of Toronto; Renee Sirbu, University of Toronto; Lori Diemert, University of Toronto; Laura Rosella, University of Toronto
- 4. Evaluation of Mobile App for Breast Cancer Clinical Patient Navigators**
 Elizabeth Papautsky, University of Illinois at Chicago; Tan Lu, Avident Health LLC; Yilin Li, University of Illinois at Chicago; Patrick Farha, Avident Health LLC; Maen Farha, Avident Health LLC
- 5. Factors Influencing the Willingness to Download COVID-19 Contact Tracing Apps: The Moderating Effect of Persuasive Design and Smartphone Usage Experience**
 Kiemute Oyibo, University of Waterloo; Plinio Pelegrini Morita, University of Waterloo
- 6. Hypercoach: Correlating Hypertensive Patients' Beliefs with their Clinical Outcomes after using an mHealth app to Coach them on Improving their Self-management of Hypertension**
 Karim Zahed, Texas A&M University; Carl Markert, Texas A&M University; Farzan Sasangohar, Texas A&M University
- 7. Seeing the Bigger Picture: Mixed Methods Analysis of Ethnographic Observations Supplementing Event Reporting Dataset to Understand Barriers and Opportunities Within a Centralized Remote Telemetry Unit**
 Matthew Jesso, Carilion Clinic; Harsh Sanghavi, Carilion Clinic; Yuhao Peng, Carilion Clinic; Laurie Wolf, Carilion Clinic
- 8. User-Centered Interface Design for Neuroimaging Research and Training in a High-Performance Computing Environment**
 Sudeep Hegde, Clemson University; Karishma Patil, Clemson University; Abigail Rowell, Clemson University; Grigori Yourganov, Clemson University; John Absher, Prisma Health
- 9. Wearable Devices' Use in Geriatric Care Between Patient-centeredness and Psychology of Patients.**
 Safa El Kefi, Stevens Institute of Technology; Onur Asan, Stevens Institute of Technology

MARCH 22, 2022

4:30 PM - 6:30 PM

GRAND BALLROOM C-D

EDUCATION AND SIMULATION

- 1. Multi-sensor Model for Performance Decrements Prediction in High Cognitive Workload of Surgeons**
Jing Yang, Purdue University, Industrial Engineering; Denny Yu, Purdue University, Industrial Engineering
- 2. Relating Healthcare Workers Mental Models to the Transmission of Infectious Agents During Patient Care**
Sweta Parmar, Georgia Institute of Technology, Emory University; Joel Mumma, Emory University; Rebecca MacKay, Emory University; Rodrigo Garcia, Emory University; Brandon Berryhill, Emory University; Kylie Burke, Emory University; Anagha Nair, Emory University; Paige Gannon, Emory University

HOSPITAL ENVIRONMENTS

- 1. Communication Effectiveness in Healthcare Multiteam Systems**
Daniel Ingels, University of Texas MD Anderson Cancer Center, Rice University; Eduardo Salas, Rice University; Stephanie Zajac, University of Texas MD Anderson Cancer Center
- 2. COVID-19 Testing: Human Factors Behind the Scenes at the Lab**
Melinda Jamil, Advocate Aurora Health
- 3. COVID-19 Vaccination Clinic Success: An Interdisciplinary Application of Simulation and Modeling**
Tammy Toscos, Parkview Health; Victor Cornet, Parkview Health; Michelle Charles, Parkview Health; Erica Cumbee, Parkview Health; Charlotte Gabet, Parkview Health; Ethel Massing, Parkview Health; Scott Stienecker, Parkview Health
- 4. A Rural Community Hospital's Perioperative Surgical Home Model Compared to a Traditional Surgical System**
Srinivasan Sridhar, Montana State University; Bernadette McCrory, Montana State University; Amy Mouat-Hunter, Bozeman Health Deaconess Hospital; Nicole Carnegie, Montana State University

POSTER GALLERY

MARCH 22, 2022

4:30 PM - 6:30 PM

GRAND BALLROOM C-D

MEDICAL AND DRUG-DELIVERY DEVICES

- 1. Applying Human Factor Engineering Methods for Risk Analysis of the Breast Imaging Diagnostic System**
Jiyun Jeong, Yonsei University; Wonseuk Jang, Yonsei University; Sangeun Park, Yonsei University
- 2. Are “Naive” Participants as Naive as We Think? An Exploration of Negative Transfer in Experienced Versus Naive Users**
Laura Birmingham, Emergo by UL; Stephanie Larsen, Emergo by UL
- 3. Challenges of Simulated Use Testing for Surgical Devices**
Joseph Johnson, BlackHagen Design; Rich Newman, BlackHagen Design
- 4. Conducting HF Validation Testing of Combination Products: Unique Challenges and Special Considerations**
Andrea Dwyer, Emergo by UL
- 5. Diminishing Returns on Increasing Participant Sample Sizes**
Alida Pelli, Emergo by UL
- 6. Human Centered Design Approaches for the Design of Infant Thermoregulation Devices**
Karen Becker, GE Healthcare; Dowell Michelle, GE Healthcare; Lakshmi R, GE Healthcare
- 7. Human Factors Validation Using A Remote Human Factors Testing Approach**
Anil Kumar, San Jose State University; Kevin Cluff, Noble; Tim Mccleroy, Noble; Hali Osborne, San Jose State University; Shadeeda Shahin, San Jose State University
- 8. Learnings and Recommendations on the Role of Human Factors for on-market Products**
Rachel Poker, AstraZeneca
- 9. Simulating Emergency Medical Situations in Usability Testing**
Stephanie DeMarco Bartlett, Essential; Jonathan Avedikian, Essential
- 10. Vials - User Interfaces, User Interactions, and User Centered Design Work**
Thomas Stuedeli, F. Hoffmann-La Roche Ltd, Human Factors Engineering

MARCH 22, 2022

4:30 PM - 6:30 PM

GRAND BALLROOM C-D

PATIENT SAFETY RESEARCH AND INITIATIVES

1. **Analysis of Emergency Vehicle Traffic Interactions Captured through Naturalistic Driving Data: Implications for Emergency Medical Transportation**

Jacob Valente, Virginia Tech Transportation Institute, Virginia Polytechnic Institute and State University; Martha Gizaw, Virginia Tech Transportation Institute, Virginia Polytechnic Institute and State University; Kamil Kawka, Virginia Polytechnic Institute and State University; Miguel Perez, Virginia Tech Transportation Institute, Virginia Polytechnic Institute and State University

2. **Anti-Counterfeiting Warnings: Do They Influence Consumer Behavior and Perception of Overt Indicators?**

Elizabeth Sterling, University of South Dakota; Douglas Peterson, University of South Dakota

3. **Evolution of Compensatory Driving Behaviors Pre- and Post-Rotator Cuff Repair: Implications for Return-To-Driving Recommendations**

Mariette Metrey, Virginia Tech Transportation Institute, Virginia Tech-Wake Forest University School of Biomedical Engineering and Sciences; Ariel Badger, Virginia Tech Carilion School of Medicine; Linsen Samuel, Carilion Clinic Institute for Orthopaedics and Neurosciences; Allison Tegge, Virginia Tech Carilion School of Medicine; Miguel Perez, Virginia Tech Transportation Institute, Virginia Tech Department of Biomedical Engineering and Mechanics; John Tuttle, Carilion Clinic Institute for Orthopaedics and Neurosciences; Peter Apel, Carilion Clinic Institute for Orthopaedics and Neurosciences

4. **Unmet Employment Related Needs of Metastatic Breast Cancer Survivors: a Work System Analysis**

Megan Salwei, Vanderbilt University Medical Center; Amye Tevaarwerk, University of Wisconsin-Madison; Cibebe Carroll, University of Wisconsin-Madison; Mary Sesto, University of Wisconsin-Madison

POSTER GALLERY



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