PRELIMINARY PROGRAM AT A GLANCE:
2017 INTERNATIONAL SYMPOSIUM ON HUMAN FACTORS AND ERGONOMICS IN HEALTH CARE

Current as of January 12, 2017

Note: The program is subject to change. Bookmark the online program site for updates: http://submissions.mirasmart.com/hcs2017/Itinerary

Sunday, March 5, 9:00 a.m.-5:00 p.m.
Pre-Symposium Workshop
Validation of Combination Drug Products: An FDA Workshop
Location: Napoleon A
Irene Chan, PharmD, BCPS, Associate Director; and team members from the FDA Center for Drug Evaluation and Research’s Division of Medication Error Prevention and Analysis

Monday, March 6, 8:30-10:00 a.m.
Opening Plenary Session
All Tracks
Invited Address
Location: Grand Ballroom C
Keynote Speaker: Rafael Grossmann, MD

Monday, March 6, 10:30 a.m.-12:00 p.m.
CCIT1 - EHR Usability in Policy and Practice
Clinical and Consumer Health-Care IT Lecture
Location: Grand Chenier

Are Informed Policies in Place for Safe and Usable EHRs? A Comparison of Three High-Risk Industries

Physician Burnout: A System-Oriented Approach for Analysis, Improvement, and New Designs in the Next-Generation Information Communications Technology
Younghoon Kwon (U. of Virginia Health System), Yeilim Cho (U. of Virginia Health System), Inki Kim (U. of Virginia)

3 Methods That Will Improve Physicians’ Electronic Medical Records Experience
Richard Wang (athenahealth), Kendra Cunningham (athenahealth), Anna Karpasov (athenahealth), Felicity Saucier (athenahealth)
Monday, March 6, 10:30 a.m.-12:00 p.m.
HE1 - Understanding and Improving the Delivery of Robotic Surgery "in the Wild"
Hospital Environments
Panel
Location: Grand Couteau
Ken Catchpole (Medical U. of South Carolina), Ann Bizantz (U. at Buffalo, SUNY), M. Susan Hallbeck (Mayo Clinic), Rebecca Randell (U. of Leeds), Matthaius Weigl (Ludwig- Maximilians-U.), Merrick Kossack (UL-Wiklund)

Monday, March 6, 10:30 a.m.-12:00 p.m.
PSRI1 - Toward Proactive Safety Management: Adopting a Safety II Perspective Patient Safety Research and Initiatives
Panel
Location: Grand Ballroom B
Michael Rayo (Ohio State U.), Robert Wears (U. of Florida), Shawna Perry (U. of Florida), Terry Fairbanks (Medstar Health), Gerard Castro (The Joint Commission)

Monday, March 6, 1:30-3:00 p.m.
CCIT2 - mHealth and Patient Portal Lessons and Examples
Clinical and Consumer Health-Care IT
Lecture
Location: Grand Chenier

Objective Assessment of Patient Portal Requirements for a Large Hospital
Rachal Thomassie (Texas A&M U.), Mahnoosh Sadeghi (Texas A&M U.), Farzan Sasangohar (Texas A&M U.), Stephan Kotin (Houston Methodist)

Toward the Design of mHealth and eHealth Tools to Support Home Dialysis Patients – User Needs and User-Perceived Barriers
Plinio Morita (U. of Waterloo), Areeba Zakir (Healthcare Human Factors), Kathy Huynh (Healthcare Human Factors), Joseph Cafazzo (Healthcare Human Factors), MaryJo Raposo (University Health Network), Christopher Chan (University Health Network)

Usability Testing of PTSD Coach: A Mobile Health App for Post-Traumatic Stress Disorder
Carolina Rodriguez Paras (Texas A&M U.), Farzan Sasangohar (Texas A&M U.)

Monday, March 6, 1:30-3:00 p.m.
HE2 - How To: Methodologies of the Health-Care Environment Explored
Hospital Environments
Lecture
Location: Grand Couteau

Improving the Clinical Utility of Predictive Models in Obstetrics: An Innovative Application to Chorioamnionitis
Danielle Mosby (Christiana Care Health System), Muge Capan (Christiana Care Health System), Whitney York (Drexel U.), Kristen Miller (Christiana Care Health System), Linda Daniel (Christiana Care Health System), Elizabeth Zadzielski (Christiana Care Health System)
Local Term Extraction and Language Processing to Inform Design of Elements of the Environment of Care
Tim Arnold (VA NCPS), Helen Fuller (VA VERC)

A Novel Paradigm for Studying the Principles of Adherence Engineering Tessa Sommer (U. of Utah), Frank Drews (U. of Utah)

**Monday, March 6, 1:30-3:00 p.m.**
MDD2 - Design and Human Factors
Medical and Drug-Delivery Devices Lecture
Location: Grand Ballroom A

The DNA of Design Excellence
Bryce Rutter (Metaphase Design Group)

Amplify Your HFE/UE Outcomes – Insights for Igniting a User-Centered Culture
Chelsea Wanta (GE Healthcare), Linda Kohli (GE Healthcare)

Best Practices of Safety Information Presentation in IFUs
Eric Shaver (Human Factors MD)

**Monday, March 6, 1:30-3:00 p.m.**
PSR12 - Systems and Coordination
Patient Safety Research and Initiatives Lecture
Location: Grand Ballroom B

The (Art and) Science of Care Coordination: Where Have We Been, Where Are We Heading?
Sallie Weaver (National Cancer Inst.)

Optimizing Blood Administration Using a Systems Approach
Beatrice Podtschaske (Stanford Health Care), Mitesh Rao (Stanford Health Care), Noraliza Salazar (Stanford Health Care)

An Analysis of Data-Driven, Targeted Interventions Implemented in a Level II Trauma Center
Tracy Litzinger (Embry-Riddle Aeronautical U.), Jennifer Cabrera (Embry-Riddle Aeronautical U.), Tara Cohen (Embry-Riddle Aeronautical U.), Scott Shappell (Embry-Riddle Aeronautical U.), Steven Miles (Halifax Health), Michael Fabian (Halifax Health), Kevin Captain (Halifax Health), Albert Boquet (Embry-Riddle Aeronautical U.)

**Monday, March 6, 3:30-4:30 p.m.**
CCIT3 – “Mobile Health Applications for Consumers” Design Competition
Clinical and Consumer Health-Care IT Award
"Mobile Health Applications for Consumers" Design Competition
Location: Grand Chenier
Presenters to be announced. Following presentation of the finalists, the award will be presented to the top finalist.
Monday, March 6, 3:30-4:30 p.m.
HE3 - Asynchronous EMR eConsult
Hospital Environments
Panel
Location: Grand Couteau
Lawrence Dardick (U. of California, Los Angeles), Alan D. Wu (U. of California, Los Angeles), Samantha Cao (U. of California, Los Angeles)

Monday, March 6, 3:30-4:30 p.m.
MDD3 - Best Practices: Human Factors for Combination Products
Medical and Drug-Delivery Devices
Panel
Location: Grand Ballroom A
Sherri Biondi (Genentech), Molly Story (Sanofi), Valerie Fenster (Amgen, Inc.), Kevin Cluff (AbbVie, Inc.)

Monday, March 6, 3:30-4:30 p.m.
PSRI3 - Stress/Workload
Patient Safety Research and Initiatives
Lecture
Location: Grand Ballroom B
Differentiating Between Stress, Fatigue, and Workload for Intensive Care Unit Nursing
Kunal Khanade (Texas A&M U.), Farzan Sasangohar (Texas A&M U.)
Making MATB-II Medical: Pilot Testing Results to Determine a Novel Lab-Based, Stress-Inducing Task
Lauren Kennedy (Virginia Tech), Sarah Parker (Virginia Tech Carilion Research Inst.)

Monday, March 6, 4:30-6:00 p.m.
CCIT-POS1 - Clinical and Consumer Health-Care IT Track Posters Session 1
Clinical and Consumer Health-Care IT
Location: Grand Ballroom DE
Ambient Activity Technologies for Managing Responsive Behaviors in Dementia
Andrea Wilkinson (U. of Toronto), Marc Kanik (Keebee Care), Judy O'Neill (Grandview Lodge), Mark Chignell (U. of Toronto)
Applying Human Factors Engineering to Improve Usability and Workflow in Pathology Informatics
Austin Mount-Campbell (Ohio State U.), Dan Hosseinzadeh (Pathcore), Metin Gurcan (Ohio State U.), Emily Patterson (Ohio State U.)
Evaluation of Microcontroller Technology to Enable a Smart Connected Intensive Care Unit (ICU)
Patricio Rodriguez Paras (Texas A&M U.), Farzan Sasangohar (Texas A&M U.)
Exploring Interactions in the Home Environment: Personal Health Information Management Strategies of Patients With Chronic Illness

Grounded Theory, Health Behavior Model, and User Experience: A Qualitative Study of Medication Management and How We Can Learn From Public Health Models
Jessica White-Sustaita (Sentier Strategic Resources, LLC), Phaidra Harper (UT School of Public Health), Danielle Smith (Express Scripts Inc)

If (Integrating Data, Design, and Technology): Print (“Value Institute Design Lab”)
Kristen Miller (Christiana Care Health System), Stephen Hoover (Christiana Care Health System), Muge Capan (Christiana Care Health System), Rebecca Kowalski (Christiana Care Health System), Rachel Kraft (Christiana Care Health System), Yaman Noaiseh (Christiana Care Health System), Abhishek Surampudy (Christiana Care Health System), Elliot Ting (Value Inst. at Christiana Care Health System), Ryan Arnold (Value Inst. at Christiana Care Health System)

Investigating a Method to Identify Drivers Playing Virtual Reality Games
Kunal Khanade (Texas A&M U.), Farzan Sasangohar (Texas A&M U.)

Provider Perception of Patient-Initiated Communication for Nonessential Tasks
Anoosha Moturu (Rice U.), Stephan Kotin (Houston Methodist), Angela Avera (U. of Houston Clear Lake), Farzan Sasangohar (Texas A&M U.)
Monday, March 6

Pushing the Boundaries of User-Centered Design - A Real-Time Analytics Platform to Support Data-Driven Design
Plinio Morita (U. of Waterloo), Quynh Pham (Healthcare Human Factors), Joseph Cafazzo (Healthcare Human Factors)

Simulated Motivations: Understanding Influences on Medical Professionals Decision Making to Participate in Human Factors Research Studies

Toward a Framework for Data-Driven Design – Lessons Learned and the Future of mHealth Evaluations
Plinio Morita (U. of Waterloo), Joseph Cafazzo (University Health Network)

Understanding Cognitive Requirements for EHR Design for Primary Care Teams
Monday, March 6, 4:30-6:00 p.m.
HE-POS1 - Hospital Environments Track Posters Session 1
Hospital Environments
Location: Grand Ballroom DE

“Lost with Time”: Important Design Concepts Often Forgotten in the Design of a Memory Care Facility
Paul Barclay (U. of Central Florida), Caitlin Faerevaag (U. of Central Florida), Kylie Fernandez (U. of Central Florida), Christine Kreutzer (U. of Central Florida), Dawn Sarno (U. of Central Florida), William Volante (U. of Central Florida)

Criticisms of Current Methodology Used to Measure Hand Hygiene Adherence in Hospital Settings
Tessa Sommer (U. of Utah), Frank Drews (U. of Utah)

Strategies for Multiple Task Coordination in Emergency Departments
Laura Barg-Walkow (Georgia Tech), Wendy Rogers (U. of Illinois at Urbana-Champaign)

Studying Paramedics Working Environment in a Trauma Scene
Yuval Bitan (Ben-Gurion U. of the Negev), Eli Jaffè (Magen David Adom in Israel [National EMS])

Team Personas
Ryan Sohlden (Medtronic)

The Environmental Services Perspective on Hospital Room Design: A Mixed-Methods Approach
Emily Patterson (Ohio State U.), Elizabeth Sanders (Ohio State U.), Carolyn Sommerich (Ohio State U.), Kevin Evans (Ohio State U.), Steve Lavender (Ohio State U.), Jing Li (Ohio State U.)

Workload Measurement During Robotic Surgical Skills Tasks Using Wearable Sensors
Jackie Cha (Purdue U.), Denny Yu (Purdue U.)

Monday, March 6, 4:30-6:00 p.m.
MDD-POS1 - Hospital Environments Track Posters Session 1
Medical and Drug-Delivery Devices
Location: Grand Ballroom DE

Are Your User Needs Usable? Writing User Needs That Don't Leave Engineers Scratching Their Heads
Michael Lau (Insight Product Development)

Avoid Repeat Validation: Identifying and Preventing Common Mistakes When Conducting Human Factors for FDA Submission
Natalie Abts (National Center for Human Factors in Healthcare), Rebecca Butler (National Center for Human Factors in Healthcare)

Conducting Cross-Cultural Usability Research
Arathi Sethumadhavan (Core Human Factors Inc), Adam Shames (Core Human Factors Inc)
Designing a Device to Administer Multiparticulates to the Pediatric Population – What Do Children Think?
Claire Lewis (U. of Nottingham, UK), Alexandra Lang (U. of Nottingham, UK), Jonathan Burley (U. of Nottingham, UK), James McGovern (Pfizer), Joanna Simmons (Pfizer), Joel Segal (U. of Nottingham, UK)

Designing Diagnostic Medical Devices for Your Lab Tests
Ila Elson (Abbott Laboratories)

From Phases of Flight to Phases of Care: Translating User Research Into Tools for Design
Pamela Munro (Feiji Consulting)

How Useful Are Handheld ECG Monitors?
Brad Bonnette (ECRI Inst.), Jeremy Suggs (ECRI Inst.), Patrice Tremoulet (ECRI Inst.)

Manufacturers and Consultants - How to Work Better Together
Richard Newman (BlackHagen Design)

Novel Techniques for Understanding Connected Device Users in Their Native Environment
Sherri Biondi (Genentech), Erika Bajars (Matchstick)

The Clean and the Dirty of Redesigning Reprocessing Instructions for Use
Julia Choi (Intuitive Surgical), Stephanie Seraphina (Intuitive Surgical), Kate Knudsen (Intuitive Surgical)

The Missing Pathway for Human Factors Research
MaryBeth Privitera (HS design/U. of Cincinnati), Tor Alden (HS Design)

Understanding and Mitigating Use-Related Issues in Home Health-Care Devices
Limor Hochberg (UL-Wiklund), Stephanie Bassock (UL-Wiklund), Merrick Kossack (UL- Wiklund)

User Experience in Heart Lead Testing
Arathi Sethumadhavan (Core Human Factors Inc)

Using Data-Driven Research Techniques to Create Better Product Requirements
Peter Sneeringer (Design Science), Lindsay Carrabine (Design Science)

Monday, March 6, 4:30-6:00 p.m.
PSRI-POS1 - Patient Safety Research and Initiatives Track Posters Session 1
Patient Safety Research and Initiatives
Location: Grand Ballroom DE

A Human Factors Approach for Identifying Latent Failures in Health-Care Settings
Tara Cohen (Embry-Riddle Aeronautical U.), Scott Shappell (Embry-Riddle Aeronautical U.)

A Pilot Study of Precautions Regarding Macro Air Gaps While Wearing Hygiene Masks
Mika Morishima (Kanazawa U.), Tamaki Mitsuno (Shinshu U.)
End Users’ Preference of Terms and Symbols for Electrosurgical Unit Labels
Airan Li (VA Pittsburgh Healthcare System), Matthew Taylor (VA Pittsburgh Healthcare System), Jamie Estock (VA Pittsburgh Healthcare System)

Flow Disruptions to Anesthesia Teams in Teaching and Nonteaching Cardiovascular Operating Room Analyzed with RIPCHORD-TWA Major and Minor Categories
Fawaaz Diljohn (Embry-Riddle Aeronautical U.), Jennifer Cabera (Embry-Riddle Aeronautical U.), Tara Reeves MD (Medical U. of South Carolina), Jake Abernathy MD (Medical U. of South Carolina), Scott Schappell (Embry-Riddle Aeronautical U.), Albert Boquet (Embry-Riddle Aeronautical U.)

Handover Redesign as Opportunity for High-Reliability Team Training
Isaac Lynch (UT Southwestern Medical Center in Dallas), Joseph Keebler (Embry-Riddle Aeronautical U.), Oren Guttmann (UT Southwestern Medical Center in Dallas), Philip Greilich (UT Southwestern Medical Center in Dallas)

Health Systems Improvement Collaborative
Joshua Gray (U. of Southern California), Najm Meshkati (U. of Southern California), Greg Placencia (U. of Southern California), John Franklin (U. of Southern California), Yalda Khashe (U. of Southern California)

Identifying Communication and Coordination Failures in Trauma Care: Toward a New Model of Threat and Error Management
Jordan E. Hilgers (Embry-Riddle Aeronautical U.), Tracy L. Litzinger (Embry-Riddle Aeronautical U.), Jennifer S. Cabrera (Embry-Riddle Aeronautical U.), Mary O. Wilson (Embry-Riddle Aeronautical U.), Olivia M. Villamagna (Embry-Riddle Aeronautical U.), Fawaaz A. Diljohn (Embry-Riddle Aeronautical U.), John F. Herman (Embry-Riddle Aeronautical U.), Steven G. Miles (Halifax Hospital), Michael A. Fabian (Halifax Hospital), Kevin A. Captain (Halifax Hospital), Scott A. Shappell (Embry-Riddle Aeronautical U.), Albert J. Boquet (Embry-Riddle Aeronautical U.)

Identifying Neural and Speech Correlates of Uncertainty During Health-Care Simulation Training
Ronald Stevens (UCLA School of Medicine), Ann Willemsen-Dunlap (JUMP Simulation and Education Center), Trysha Galloway (The Learning Chameleon, Inc), Jamie Gorman (Georgia Tech U.), Donald Halpin (JUMP Simulation and Education Center)

Investigation of Unintended Consequences of EHR Systems: A Narrative Review
Stephanie Vanderhook (U. of Illinois), Joanna Abraham (U. of Illinois at Chicago)

Leading Process Change Within the Veterans Health Administration: A Medication Reconciliation Demonstration Project
Kathleen Adams (Portland VA Health Care System), Blake Lesselroth (Portland VA Health Care System), Victoria Church (Portland VA Health Care System)

Optimizing Athenahealth’s Streamlined EHR: Two Ways to Proactively Identify, Evaluate, and Minimize Potential Patient Safety Risks
Caroline Keogh (athenahealth), Richard Wang (athenahealth)
Patient Perceptions on the Use of an Autopiloted Emergency Medical Transport: An Affective Perspective
Scott Winter (Florida Inst. of Technology), Stephen Rice (Embry-Riddle Aeronautical U.), Joseph Keebler (Embry-Riddle Aeronautical U.), Rian Mehta (Florida Inst. of Technology)

Patient Safety and Quality Needs Family-Centered Care
Elizabeth Papautsky (U. of Illinois at Chicago)

Prevalence of Potentially Distracting, Noncare Activities and Their Effects on Vigilance, Workload, and Nonroutine Events During Anesthesia Care
Jason Slagle (Vanderbilt U.), Eric Porterfield (Vanderbilt U. Medical Center), Amanda Lorinc (Vanderbilt U. Medical Center), David Afshartous (Vanderbilt U. School of Medicine), Matt Shotwell (Vanderbilt U. School of Medicine), Matt Weinger (Vanderbilt U. Medical Center)

Process Variations in Older Adults’ Care Transitions From Emergency Department to Home: Process Breakdown Versus Process Resiliency
Amy Borkenhagen (U. of Wisconsin-Madison), Nicole Werner (U. of Wisconsin-Madison), Mary Finta (U. of Wisconsin-Madison), Joyce Duckles (U. of Rochester), Craig Sellers (U. of Rochester), Sandhya Seshadri (U. of Rochester), Denise Lampo (U. of Rochester), Manish Shah (U. of Wisconsin-Madison)

Right-Brain Solutions to Confusion Over Medical Drug Names
Husam Alsaadan (San Jose State U.)

Stanford Health Care - Center for Advancing Patient Safety: Redesigning Care Provision to Move Our Health System Into a Safer Future
Mitesh Rao (Stanford Health Care), Beatrice Podtschaske (Stanford Health Care), Noraliza Salazar (Stanford Health Care)

Understanding Hand Hygiene in Health-Care Environments - A Management Perspective
Jun Rong Jeffrey Neo (Cornell U.), Rana Sagha Zadeh (Cornell U.)

Understanding the Nature of Questions in Interunit Handoff Communication
Iqra Mushtaq (U. of Illinois at Chicago), Imade Ihianle (U. of Illinois at Chicago), Joanna Abraham (U. of Illinois at Chicago)

Tuesday, March 7, 8:30-10:00 a.m.
CCIT4 - Influencing Patient Behaviors with Persuasive Design
Clinical and Consumer Health-Care IT Lecture
Location: Grand Chenier

A System for Rewarding Physical Exercise in Dementia
Tiffany Tong (U. of Toronto), Andrea Wilkinson (U. of Toronto), Farzad Nejatimoharrami (U. of Toronto), Thomas He (U. of Toronto), Mark Chignell (U. of Toronto)

Participatory Design of a Social Networking App to Support Type II Diabetes Self-Management in Low-Income Minority Communities
Wayne Zachary (Starship Health Technologies), Pamela Surkan (Johns Hopkins Bloomberg School of
Capturing Workflow for Health Management in Daily Living
Mustafa Ozkaynak (U. of Colorado-Denver), Rupa Valdez (U. of Virginia)

**Tuesday, March 7, 8:30-10:00 a.m.**
HE4 - Information Display in the Intensive Care Unit - Considerations for System Design and Implementation
Hospital Environments Panel
Location: Grand Couteau
Yuval Bitan (Ben-Gurion U. of the Negev), Janene Fuerch (Stanford U.), Louis Halamek (Stanford U.), Steve Harris (Rational, LLC), Roy Ilan (Kingston General Hospital), Keith Karn (Human Factors in Context LLC), Nicole Yamada (Stanford U.)

**Tuesday, March 7, 8:30-10:00 a.m.**
MDD4 - Usability Design Foundations Medical and Drug-Delivery Devices Lecture
Location: Grand Ballroom A
Development and Validation of a Usability Metrics for Evaluation of Medical Equipment
Thomas Looke (Florida Hospital), Michelle Dolske (Florida Hospital), Julie Pepe (Florida Hospital)

A Rosetta Stone for Standards: Matching Up the Requirements of IEC, FDA, and Other Standards for Medical Devices
Robert Stephens (Medtronic)

“Easy to Use” – The Worst Requirement…Ever
Joe Cesa (Halyard Health Inc.)

**Tuesday, March 7, 8:30-10:00 a.m.**
PSRI4 - Who Is Drinking Our Kool-Aid? Clinician Perspectives of Their Human Factors Practitioner Patient Safety Research and Initiatives Panel
Location: Grand Ballroom B
Nana Khunlerkit (Armstrong Inst., Johns Hopkins Medicine), Joy Rivera (Children’s Hospital of Wisconsin), Shanqing Yin (KK Women's and Children's Hospital), Laurie Wolf (Barnes-Jewish Hospital), Dean Karavite (The Children’s hospital of Philadelphia), Catherine Dulude (Children's Hospital of Eastern Ontario), Susan Harkness Regli (U. of Pennsylvania Health System)

**Tuesday, March 7, 10:30 a.m.-12:00 p.m.**
CCIT5 - Human Factors in the Hospital Setting Clinical and Consumer Health-Care IT Lecture
Location: Grand Chenier
Experience of a Human Factor – Medical Collaboration: The Development, Evaluation, and Implementation of an Application to Support In-Hospital Resuscitation Teams
Tobias Grundgeiger (Julius-Maximilians Universität), Thomas Wurmb (U. Hospital Würzburg), Oliver Happel (U. Hospital Würzburg)

Bringing Our Toys to Your Sandbox: Developing Database-Driven EMR Indifferent Sepsis Alerts
Kristen Miller (Christiana Care Health System), Muge Capan (Christiana Care Health System), Danielle Mosby (Christiana Care Health System), Tim Shiuh (Christiana Care Health System), Eric Jackson (Christiana Care Health System), F. Jacob Seagull (U. of Michigan Medical School), Ken Catchpole (Medical U. of South Carolina), J. Sanford Schwartz (U. of Pennsylvania), Ryan Arnold (Christiana Care Health System)

Rendering ICU Data Useful via Formative Testing of Tracking, Trajectory, Trigger (T3) Software
Patrice Tremoulet (ECRI Inst.), Michael McManus (Etiometry Inc.), Dimitar Baronov (Etiometry Inc.)

Tuesday, March 7, 10:30 a.m.-12:00 p.m.
HE5 - Conscious Creation: Not by Accident, But by Design
Hospital Environments
Lecture
Location: Grand Couteau

Hospital Patient Room Design: Where Should the Bathroom Be Located?
Steven Lavender (Ohio State U.), Radin Zaid Radin Umar (Ohio State U.), Carolyn Sommerich (Ohio State U.), Elizabeth Sanders (Ohio State U.), Kevin Evans (Ohio State U.), Jing Li (Ohio State U.), Alex Pires (Ohio State U.), Emily Patterson (Ohio State U.)

Identifying Unmet Patient Expectations via Critical Review of Five Simulated Hospital Rooms
Emily Patterson (Ohio State U.), Elizabeth Sanders (Ohio State U.), Carolyn Sommerich (Ohio State U.), Steve Lavender (Ohio State U.), Jing Li, Kevin Evans (Ohio State U.)

Advancing Theory in HC Facility Design: Bridging EBD and HF/E
Ellen Taylor (Center for Health Design), Sue Hignett (Loughborough U.)

Tuesday, March 7, 10:30 a.m.-12:00 p.m.
MDD5 - Applied Usability Engineering Methods
Medical and Drug-Delivery Devices
Lecture
Location: Grand Ballroom A

New Measurement Tools Form Improving Human Factors Work
Stephen Wilcox (Design Science)

Multicenter Assessment and Future of Single-Site Surgery
Bernadette McCrory (U. of Nebraska-Lincoln), M. Susan Hallbeck (Mayo Clinic), Bethany Lowndes (Mayo Clinic), Andrew Christiansen (U. of Nebraska Medical Center), Chad LaGrange (U. of Nebraska Medical Center)
Fine Motor Skill Development Using Laparoscopic and Robotic Instruments: How Will Learning One Technique Help Me Learn the Other?
Asha Dektor (Intuitive Surgical, Inc), Jane Littau (Intuitive Surgical, Inc), Kate Knudsen (Intuitive Surgical, Inc)

**Tuesday, March 7, 10:30 a.m.-12:00 p.m.**

PSR15 - Handoffs
Patient Safety Research and Initiatives
Lecture
Location: Grand Ballroom B

Multidisciplinary Handover Study of Common and Unique Content in General Internal Medicine, Surgery, and the ED: Preliminary Results
Kathy Momtahan (Ottawa Hospital Research Inst.), Catherine Burns (U. of Waterloo), Jacinthe Lampron (Ottawa Hospital), James Chan (General Internal Medicine), Edmund Kwok (Ottawa Hospital), Allen Huang (Ottawa Hospital), Peggy Guilbeault (Ottawa Hospital), Kathleen Day (U. of Ottawa), Kate Scowcroft (U. of Ottawa), Ivanette Hargreaves (Ottawa Hospital), Shannon Leduc (Ottawa Paramedic Services), Jordan Andersen (Ottawa Hospital)

Handoff Standardization: Understanding Heterogeneity
Kristen Welsh (Embry-Riddle Aeronautical U.), Victoria Lew (Embry-Riddle Aeronautical U.), Amanda Tan (Embry-Riddle Aeronautical U.), Agnes Fagerlund (Embry-Riddle Aeronautical U.), Joseph Keebler (Embry-Riddle Aeronautical U.), Elizabeth Lazzara (Embry-Riddle Aeronautical U.)

Evaluating the Impact of Gender on Resident Handoff Communication
Kevin Jacob (U. of Illinois at Chicago), Shirley Burton (U. of Illinois at Chicago), Joanna Abraham (U. of Illinois at Chicago)

**Tuesday, March 7, 1:30-3:00 p.m.**

CCIT6 - More Proven User-Centered Design Methods
Clinical and Consumer Health-Care IT
Lecture
Location: Grand Chenier

Generative Design Research: Using Metaphor to Capture Complexity
Claire Tatro (athenahealth), Jack Fleming (athenahealth)

Improvements in Clinical Practice and Efficiency Through Electronic Patient Bedside Observations
Alexandra Lang (U. of Nottingham), Mark Simmonds (Nottingham U. Hospitals NHS Trust), James Pinchin (U. of Nottingham), Sarah Sharples (U. of Nottingham), Sue Clarke (Nottingham U. Hospitals NHS Trust), Lorrainey Dunn (Nottingham U. Hospitals NHS Trust)

Engineering Representations to Support Evidence-Based Clinical Practice
John Flach (Wright State U.), Peter Reynolds (Wright State School of Medicine), Carolin Cao (Wright State U.), Tiffany Saffell (Wright State U.)
**Tuesday, March 7, 1:30-3:00 p.m.**
HE6 - Safety First: Ensuring Patient Safety in the Health-Care Environment
Hospital Environments
Lecture
Location: Grand Couteau

When the Patient Moves Down in Bed, Caregiver Moves Them Back Up in Bed: The Repositioning Story
Kermit Davisi (U. of Cincinnati), Susan Kotowski (U. of Cincinnati)

Helen Fuller (Veterans Affairs), Hasan Shanawani (Veterans Affairs), Kyle Maddox (Veterans Affairs), Nancy Lightner (Veterans Affairs), Tandi Bagian (Veterans Affairs)

Defibrillator Design and Usability May Be Impeding Timely Defibrillation
Marc Reeson (U. of Ottawa), Kwadwo Kyeremanteng (U. of Ottawa), Gianni D'Egidio (U. of Ottawa)

**Tuesday, March 7, 1:30-3:00 p.m.**
MDD6 - Ethical Challenges with Usability Testing
Medical and Drug-Delivery Devices
Panel/Lecture
Location: Grand Ballroom A

Panel: Does the FDA Human Factors Guidance Help Curb Ethical Dilemmas in Health-Care Usability Testing?
Lawrence Wolpert (National Center for Human Factors in Healthcare, MedStar Health), Natalie Abts (National Center for Human Factors in Healthcare, MedStar Health), John Gosbee (Red Forest Consulting, LLC), Shannon Hoste (FDA), Sara Waxberg McNew (Eli Lilly and Company), Joshua Singer (National Center for Human Factors in Healthcare, MedStar Health)

Lecture: Recruiting Patients With Rare Diseases and Their Caregivers
Beth Loring (Loring Human Factors, LLC), Jacquelyn Wan (Radius Innovation & Development)

**Tuesday, March 7, 1:30-3:00 p.m.**
PSRI6 - Better Together: Safety Through Teamwork
Patient Safety Research and Initiatives
Lecture
Location: Grand Ballroom B

“Hot” Debriefing After Resuscitations in a Pediatric Cardiac Intensive Care Unit
Lillian Su (Children's National Health System), Ashleigh Harlow (Children's National Health System), Darren Klugman (Children's National Health System), Melissa Jones (Children's National Health System), Michael-Alice Moga (Toronto SickKids Children's Hospital), Mary Waller (Schulich School of Business)

Team Training in Health Care: An Examination of Effectiveness and Future Research
Ashley Hughes (Michael E. DeBakey VA Medical Center), Megan Gregory (Michael E. DeBakey VA Medical Center and Baylor College of Medicine), Shannon Marlow (Rice U.)

Educating Interprofessional Trainees to Provide Safe and Effective Team-Based Care: Perspectives on Curriculum Development and Implementation
Megan Gregory (Michael E. DeBakey VA Medical Center and Baylor College of Medicine), Jennifer Bryan (Michael E. DeBakey VA Medical Center & Baylor College of Medicine), Audrey Mendez (Michael E. DeBakey VA Medical Center & Baylor College of Medicine), Jessica Uriarte (Houston Methodist Hospital System), LeChauncy Woodard (Michael E. DeBakey VA Medical Center & Baylor College of Medicine)

**Tuesday, March 7, 3:30-4:30 p.m.**
CCIT7 - The Opportunity Project: Catalyzing User-Centered Health-Care Solutions Through Federal Data and Collaborative App Development
Clinical and Consumer Health-Care IT Panel
Location: Grand Chenier
Drew Zachary (U.S. Department of Health and Human Services), Olivier Kamanda (General Services Administration), David Maron (U.S. Department of Veterans Affairs)

**Tuesday, March 7, 3:30-4:30 p.m.**
HE7 - Designing Health-Care Systems With Human Factors Science Hospital Environments Panel
Location: Grand Couteau
Moshe Feldman (VCU Health), Jessica Ray (Yale New Haven Health)

**Tuesday, March 7, 3:30-4:30 p.m.**
MDD7 - Health-Care Facility Access Challenges for User Research Medical and Drug-Delivery Devices Panel
Location: Grand Ballroom A
Beth Loring (Loring Human Factors, LLC), Mary Beth Privitera (HS Design), Susan Feldman (Children’s Mercy – Kansas City), Ryan McDowell (Children’s Mercy – Kansas City), Stephen Wilcox (Design Science), Keith Karn (Human Factors in Context LLC)

**Tuesday, March 7, 3:30-4:30 p.m.**
PSRI7 - Errors/Identification Patient Safety Research and Initiatives Lecture Location: Grand Ballroom B
Identifying Health Information Technology-Related Patient Safety Events
Katie Adams (MedStar Inst. for Innovation), Allan Fong (National Center for Human Factors in Healthcare, MedStar Health), Raj Ratwani (National Center for Human Factors in Healthcare, MedStar Health)

An Extended Version of the Rasmussen’s Dynamic Safety Model for Measuring Multitasking Behaviors During Medical Emergency
Thierry Morineau (Université Bretagne Sud), John Flach (Wright State U.), Marion Le Courtois (Université Rennes II), Pascal Chapelain (Centre Hospitalier Bretagne Sud)

**Tuesday, March 7, 4:30-6:00 p.m.**

CCIT-POS2 - Clinical and Consumer Health-Care IT Track Posters Session 2
Clinical and Consumer Health-Care IT
Location: Grand Ballroom DE

A Gesture Is Worth a Thousand Touches: Mapping Gestural Inputs to Traditional Touchscreen Interface Designs
Katherina Jurewicz (Clemson U.), David Neyens (Clemson U.)

Applying User-Interface Design Heuristics on Computerized Clinical Decision Support Systems
Yaman Noaishe (Christiana Care Health System), Kristen Miller (Christiana Care Health System), Muge Capan (Christiana Care Health System), Dani Mosby (Christiana Care Health System), Ryan Arnold (Christiana Care Health System)

Benefits, Consequences, and Opportunities for Redesign Associated with Communication Technologies for Nurse-Physician Communication
Karen Dunn Lopez (U. of Illinois at Chicago), Joanna Abraham (U. of Illinois at Chicago)

Better Together? Examining the Usability of the EMR using the Desktop and Native Mobile Application
Tiffany Leverenz (Wichita State U.), Sarah Fouquet (Children's Mercy Kansas City), Barbara Chaparro (Wichita State U.), Raymond Chan (Children's Mercy Kansas City), Brandan Kennedy (Children's Mercy Kansas City), Laura Fitzmaurice (Children's Mercy Kansas City)

Development and Description of a Synthetic, High-Fidelity, Emergency Department Patient Dataset for the Evaluation of Healthcare IT Products
David LaVergne (U. at Buffalo), Sabrina Casucci (U. at Buffalo), Nicolette M. McGeorge (Armstrong Inst. for Patient Safety and Quality), Theresa Guerrera-Shick (Bose Corporation), Lindsey Clark (Medstar), A. Zachary Hettinger (Medstar), Robert Wears (U. of Florida), Shawna Perry (U. of Florida), Li Lin (U. at Buffalo, SUNY), Terry Fairbanks (Medstar), Ann Bisantz (U. at Buffalo, SUNY)

Identifying Information Requirements of Emergency Medicine Nurses and Physicians
Rebecca L. Berg (U. at Buffalo, SUNY), Akhila Iyer (National Center for Human Factors in Healthcare), Natalie C. Benda (National Center for Human Factors in Healthcare), Daniel J. Hoffman (National Center for Human Factors in Healthcare), Emilie M. Roth (Roth Cognitive Engineering), Nicolette M. McGeorge (U. at Buffalo), Ella S. Franklin (National Center for Human Factors in Healthcare), Shawna J. Perry (U. of Florida), Robert L. Wears (U. of Florida), Raj Ratwani (National Center for Human Factors in Healthcare), Aaron Z. Hettinger (National Center for Human Factors in Healthcare), Ann M. Bisantz (U. at Buffalo), Rollin J. Fairbanks (National Center for Human Factors in Healthcare)

Introducing an Electronic Whiteboard to Monitor Patients in Labor and Delivery
Barbara Chaparro (Wichita State U.), David Grainger (KU School of Medicine), Carmen Resco (Wichita State U.), Emily Grainger (Wichita State U.)

Learn the NCI Grants Process & Obtain Funding to Support for Your Teams in Cancer Care
Research
Veronica Chollette (National Cancer Inst.), Sallie Weaver (National Cancer Inst.)

Lessons Learned and Not Learned from Usability Testing of a Geriatric Self-Care Application
Carly Daley (Indiana U. Purdue U. Indianapolis), Victor Cornet (Indiana U. Purdue U. Indianapolis), Richard Holden (Indiana U. Purdue U. Indianapolis)

Observed Usage Errors During Meaningful-Use Stage 3 Safety-Enhanced Design Summative Testing

Strategies of Using Textual Information: Implications for Delivery of Health Information for Patients and Families
Elizabeth Papautsky (U. of Illinois at Chicago), Valerie Shalin (Wright State U.)

Subjective, But Not Objective, Workload Associated With Computerized Patient Alerts Is Associated With Burnout in Primary Care Providers
Megan Gregory (Michael E. DeBakey VA Medical Center), Elise Russo (Michael E. DeBakey VA Medical Center), Hardeep Singh (Michael E. DeBakey VA Medical Center)

The Value of Smart Home Laboratories to Support Older Adults' Home Health-Care Needs
Maurita Harris (U. of Illinois at Urbana-Champaign), Wendy Rogers (Georgia Tech)

Usability Testing in Health-Care: A Case Study on E4 Wristband
Yu-Shin Lin (Purdue U.), Monika Tomar (Purdue U.), Emily Abel (Purdue U.), A. J. Schwichtenberg (Purdue U.), Denny Yu (Purdue U.)

Tuesday, March 7, 4:30-6:00 p.m.
HE-POS2 - Hospital Environments Track Posters Session 2
Hospital Environments
Location: Grand Ballroom DE

Application of Participatory Ergonomics in Perioperative Handover Redesign
Philip Greilich (U. of Texas Southwestern Medical Center), Isaac Lynch (U. of Texas Southwestern Medical Center), Oren Guttmann (U. of Texas Southwestern Medical Center), Aditee Ambardekar (U. of Texas Southwestern Medical Center), Trent Bryson (U. of Texas Southwestern Medical Center), Gary Reed (U. of Texas Southwestern Medical Center), Joseph Keebler (Embry Riddle Aeronautical U.)

Applying Cognitive Work Analysis to a Quality Improvement Project to Promote ICU Patient Mobility
Anna Krupp (U. of Wisconsin-Madison), Barbara King (U. of Wisconsin-Madison), Linsey Steege (U. of Wisconsin-Madison), Heather Royer (William S. Middleton Memorial Veterans Hospital)

Evaluating the Impact of Emergency Department Facility Design on Health-care Worker’s Perception of Safety
Mary Hobbs (Clemson U.), David Neyens (Clemson U.), Christine Carr (Medical U. of South Carolina)
Exploration of Operational Data Streams as a Source of Actionable Insight
Dana Womack (Oregon Health & Science U.)

Medical Student Perceptions of Current and Potential Feedback Methods in Obstetrics and Gynecology: Is Gamification Suitable?
Tiffany Leverenz (Wichita State U.), Angela Strang (U. of Kansas School of Medicine - Wichita), Jennifer Duong (U. of Kansas School of Medicine - Wichita), Evan Palmer (San Jose State U.), David Grainger (U. of Kansas School of Medicine - Wichita)

Perceived Workload of the Surgical Team Members During Robot-Assisted Surgery

Relationships Between Anticipation, Teamwork, and Cognitive Load During Robot-Assisted Surgery

The Patient-Centered In-Bed Environment: A Participatory Design Approach
Elizabeth Sanders (Ohio State U.), Steve Lavender (Ohio State U.), Carolyn Sommerich (Ohio State U.), Emily Patterson (Ohio State U.), Kevin Evans (Ohio State U.), Jing Li (Ohio State U.)

Tuesday, March 7, 4:30-6:00 p.m.
MDD-POS2 - Medical and Drug-Delivery Devices Track Posters Session 2
Medical and Drug-Delivery Devices
Location: Grand Ballroom DE

A Controlled Clinical Trial Testing the Effectiveness of a Mindfulness Training Video Game
Paul Barclay (U. of Central Florida), Nicholas James (U. of Central Florida), Clint Bowers (U. of Central Florida)

A Research Consortium for Human Factors in Medical Devices and Combination Products
Frank Dews (U. of Utah)

Can Health Care Learn From the Other Industries Like Aerospace and Automotive?
Russell Branaghan (Research Collective), Jen Donahue (Beckman Coulter), Dean Barker (Optum Health), David Mitropoulos-Rundus (Hyundai Motor Company), Bryant Foster

In Situ Infusion Pump Usability Assessment: Do Active User Surveys Provide Future Design Insights?
Mary Gordon (Texas Children's Hospital), Krisanne Graves (Texas Children's Hospital), Courtney Titus (Baylor College of Medicine), Curt Braun (Benchmark Research & Safety)

Incorporating Diverse Patient Preferences Into a Medical Device Offering
Sarah Baer (BD Medical – Pharmaceutical Systems), Megan Lan (BD Medical – Pharmaceutical Systems)

Medical Device Design: Applying a Human-Centered Design Methodology
Gina Taylor (U. of Illinois at Urbana-Champaign), Matthew Bowman (U. of Illinois at Urbana-Champaign)

Optimizing Medications Arrangement Inside the Intensive Care Ambulance: Improving Prehospital Emergency Care and Safety
Avi Parush (Israel Inst. of Technology), Irit Demri (Israel Inst. of Technology), Noa Brotman (Israel Inst. of Technology), Shmuel Traub (Israel Inst. of Technology), Asher Hen (Israel Inst. of Technology), Eli Jaffe (Magen David Adom)

Out of Box Device Failures: One Institution's Experience and MAUDE Data
Michael Tanner (Beaumont Health)

Role of Human Factors in the Design of Infusion Pumps
Sunitha Narendra Babu (San Jose State U.), Dan Nathan-Roberts (San Jose State U.)

Strategic Sample Sizes for Summative Testing
Sarah Creasy (Medtronic), Graham Barrett (Medtronic)

Strategies for Successful Human Factors Collaboration With Medical Device Development Teams
Eric Shaver (Human Factors MD)

The Blurring of the Line Between Medical and Consumer Products
Russell Branaghan (Research Collective), Bryant Foster (Research Collective), Jessica Crosby (SynCardia), Mark Palmer (Lextant)

The Use of Eye-Tracking in Usability Testing of Medical Devices
Thomas Koester (FORCE Technology), Jesper Brøsted (FORCE Technology), Jeanette Jakobsen (FORCE Technology)

UI Form Design Considerations for Ergonomists Evaluating Computer Workstations
Allen Yagjian (British Standards Inst.)

Tuesday, March 7, 4:30-6:00 p.m.
PSRI-POS2 - Patient Safety Research and Initiatives Track Posters Session 2
Patient Safety Research and Initiatives
Location: Grand Ballroom DE

A Descriptive Model of the Current PTSD Care System: Identifying Opportunities for Improvement
Jukrin Moon (Texas A&M U.), Alec Smith (Texas A&M U.), Farzan Sasangohar, Justin Benzer (Texas A&M U.), Hye-Chung Kum (Texas A&M U.)

Appropriate Communication Theories and Implications for Health Care and Handoffs
Kristen Welsh (Embry-Riddle Aeronautical U.), Amanda Tan (Embry-Riddle Aeronautical U.), Joseph Keebler (Embry-Riddle Aeronautical U.), Elizabeth Lazzara (Embry-Riddle Aeronautical U.), Victoria Lew (Embry-Riddle Aeronautical U.), Agnes Fagerlund (Embry-Riddle Aeronautical U.)

Best Practices in Identifying User Groups for Medical Device Human Factors Studies
Kayley Wolf Raskin (Farm Design Inc.), Kristyn Berry (Farm Design Inc.), Laurie Reed (Farm
Eliciting Mental Models in Transitions of Care
Victoria Lew (Embry-Riddle Aeronautical U.), Joseph Keebler (Embry-Riddle Aeronautical U.), Elizabeth Lazzara (Embry-Riddle Aeronautical U.), Agnes Fagerlund (Embry-Riddle Aeronautical U.), Kristen Welsh (Embry-Riddle Aeronautical U.)

Exploring Pain and Fidelity in Health-Care Providers: Improving Insight in Current Measurements
Preston Long (U. of South Dakota), Elizabeth Sterling (U. of South Dakota), Denis Kozhokar (U. of South Dakota), X. T. Wang (U. of South Dakota)

Importance of Psychological Safety in Transitions of Care
Agnes Fagerlund (Embry-Riddle Aeronautical U.), Joseph Keebler (Embry-Riddle Aeronautical U.), Elizabeth H. Lazzara (Embry-Riddle Aeronautical U.), Kristen Welsh (Embry-Riddle Aeronautical U.), Victoria Lew (Embry-Riddle Aeronautical U.)

Information Need of Physicians in Pediatric Trauma
Bat-Zion Hose (U. of Wisconsin-Madison), Pascale Carayon (U. of Wisconsin-Madison), Peter Hoonakker (Center for Quality and Productivity), Abigail Wooldridge (U. of Wisconsin-Madison), Joshua Ross (UW School of Medicine and Public Health), Jonathan Kohler (UW School of Medicine and Public Health), Tom Brazelton (UW School of Medicine and Public Health), Ben Eithun (UW School of Medicine and Public Health), Michelle Kelly (UW School of Medicine and Public Health), Shannon Dean (UW School of Medicine and Public Health), Deborah Rusy (UW School of Medicine and Public Health), Ayse Gurses (Armstrong Inst. for Patient Safety and Quality at Johns Hopkins U.)

Investigating Guiding Attributes in Visual Search for Medication Vials
Logan Gisick (Wichita State U.), Evan Palmer (San Jose State U.)

Mental Models Physicians, Nurses, and Pharmacists Use to Support Patient Medication List Review Tasks
Kathryn Tippey (Vanderbilt U. Medical Center), Carrie Reale (Vanderbilt U. Medical Center), Scott Nelson (Vanderbilt U. Medical Center), Matthew Weinger (Vanderbilt U. Medical Center), Shilo Anders (Vanderbilt U. Medical Center)

Parallel Paths to Patient Safety: Complementary Education for Clinical Faculty and Medical Students
F. Jacob Seagull (U. of Michigan)

Primary Care Clinician Sensemaking for Managing Patients With Chronic Pain
Shilo Anders (Vanderbilt U. Medical Center), Laura Militello (Applied Decision Science), Sarah M. Downs (Indiana U.), Elizabeth C. Danielson (Indiana U.), Burke W. Mamlin (Indiana U.), Robert L. Cook (U. of Florida Health), Robert W. Hurley (Medical College of Wisconsin), Christopher A. Harle (Indiana U.)

TaskTracker: Providing Context in the Complex Health-Care Environment
Akhila Iyer (MedStar Inst. for Innovation), Allan Fong (MedStar Inst. for Innovation), Raj Ratwani (MedStar Inst. for Innovation)
Teaching a Human Factors Graduate Course to Health-Care Professionals Specializing in Health Quality, Risk, and Safety
Avi Parush (Israel Inst. of Technology), Debi Parush, Roy Ilan (Queen's U. and Kingston General Hospital)

Team Cognition as a Means to Improve Care Delivery in Critically Ill Patients With Cancer After Hematopoietic Cell Transplantation
Sandra Hinski (Arizona State U.), Nathan McNeese (Arizona State U.), Nandita Khera (Mayo Clinic Hospital), Sara Wordingham (Mayo Clinic Hospital), Noel Arring (Mayo Clinic Hospital), Sharon Nyquist (Mayo Clinic Hospital), Amy Gentry (Mayo Clinic Hospital), Brian Tomlinson (Cancer Care), Nancy Cooke (Arizona State U.), Ayan Sen (Mayo Clinic Hospital)

Testing Portable Medical Device Instructions: Comparing Experts and Nonexperts
David Borkenhagen (U. of Calgary), Greg Hallihan (W21C), Jan Davies (U. of Calgary)

The Impact of Improper Use of Safety Harness on Clinical Posturography Assessments
Qian Wang (Bertec Corp.), Jaswandi Pitale (Bertec Corp.), Necip Berme (Bertec Corp.)

The Influence of Patient Factors and Adverse Health Outcomes
Tolu Abe (U. of Washington), Linda Boyle (U. of Washington)

Toward More Resilient Performance of Emergency Department
Changwon Son (Texas A&M U.), Farzan Sasangohar (Texas A&M U.), S. Camille Peres (Texas A&M U.)

Understanding Team Complexity in Pediatric Trauma Care
Abigail Wooldridge (U. of Wisconsin-Madison), Pascale Carayon (U. of Wisconsin-Madison), Peter Hoonakker (U. of Wisconsin-Madison), Bat-Zion Hose (U. of Wisconsin-Madison), Joshua Ross (U. of Wisconsin School of Medicine and Public Health), Jonathan Kohler (U. of Wisconsin School of Medicine and Public Health), Tom Brazelton (U. of Wisconsin School of Medicine and Public Health), Benjamin Eithun (U. of Wisconsin School of Medicine and Public Health), Michelle Kelly (U. of Wisconsin School of Medicine and Public Health), Shannon Dean (U. of Wisconsin School of Medicine and Public Health), Deborah Rusy (U. of Wisconsin School of Medicine and Public Health), Ayse Gurses (Johns Hopkins U. School of Medicine)

Understanding the Types and Effects of Clinical Interruptions as Reported in a Multihospital Patient Safety Event Database
Joseph Puthumana (MedStar Inst. for Innovation), Kathryn Kellogg (MedStar Inst. for Innovation), Allan Fong (MedStar Inst. for Innovation), Raj Ratwani (MedStar Inst. for Innovation)

Utilizing Heart Rate Variability as an Indicator of Post-Traumatic Stress Disorder (PTSD) Carolina Rodriguez Paras (Texas A&M U.), Farzan Sasangohar (Texas A&M U.), Justin Benzer (Texas A&M U.), Hye-Chung Kum (Texas A&M U.)
**Wednesday, March 8, 8:30-10:00 a.m.**
CCIT8 - Design for Aging
Clinical and Consumer Health-Care IT
Lecture/Panel
Location: Grand Chenier

Lecture: Development of an Interface Checklist for Dementia Agitation Reporting by Caregivers
Harshitha Meda (North Carolina A&T State U.), Aaron Rollinson (North Carolina A&T State U.),
Tonya Smith-Jackson (North Carolina A&T State U.), Temple Newbold (Virginia Tech Carilion
Clinic Center for Healthy Aging), Azziza Bankole (Virginia Tech Carilion School of Medicine),
Martha S. Anderson (Virginia Tech Carilion Clinic Center for Healthy Aging)

Panel: Design for Older Adult Consumers of Health IT: Best Practice Guidance from CREATE
Wendy Rogers (Georgia Tech), Sara Czaja (U. of Miami), Neil Charness (Florida State U.), Walter Boot
(Florida State U.)

**Wednesday, March 8, 8:30-10:00 a.m.**
HE8 - Clustering and Prioritizing Patient Safety Issues During EHR Implementation and Upgrades in
Hospital Settings
Hospital Environments
Debate
Location: Grand Couteau
Shilo Anders (Vanderbilt U. Medical Center), Susan Moffatt-Bruce (Ohio State U.), Emily Patterson
(Ohio State U.)

**Wednesday, March 8, 8:30-10:00 a.m.**
MDD8 - Bridging the Industry/Regulatory HF/E Gap: Honoring Ron Kaye's FDA Leadership
Medical and Drug-Delivery Devices
Panel
Location: Grand Ballroom A
Robert North (Human Centered Strategies), Rollin Fairbanks (National Center for Human Factors in
Healthcare)

**Wednesday, March 8, 8:30-10:00 a.m.**
PSRI8 - Simulation
Patient Safety Research and Initiatives
Lecture
Location: Grand Ballroom B

Can Simulation Improve EMR Implementation? Application to Medication Reconciliation
Adjhaporn (Nana) Khunlertkit (Johns Hopkins Medicine), Allen Chen (Johns Hopkins Medicine)

Safety II, Simulation, and the Virtuous Spiral
Mary Patterson (Children's National Medical Center), Ellen Deutsch (ECRI/ Pennsylvania Safety
Authority)
The Cognitive-Sociotechnical Framework for Usability Evaluation: A Case Study for Improving Patient-Controlled Analgesia Order Sets
Kathleen Adams (Portland VA Health Care System), Blake Lesselroth (Portland VA Health Care System), Victoria Church (Portland VA Health Care System)

Wednesday, March 8, 10:30 a.m.-12:00 p.m.
CCIT9 - Supporting System Use
Clinical and Consumer Health-Care IT
Lecture
Location: Grand Chenier

A User-Centered Evaluation of the Yukon Telehealth System - Promising Telehealth Opportunities
Plinio Morita (U. of Waterloo), Dallas Smith (Yukon Government), Matt Jacques (Yukon Government), Emily Seto (U. of Toronto)

Developing Persuasive Health Messages for a Behavior-Change-Support-System That Promotes Physical Activity
Leila Sadat Rezai (U. of Waterloo), Jessie Chin (U. of Waterloo), Rebecca Bassett-Gunter (York U.), Catherine Burns (U. of Waterloo)

Going Down: A Case Report of an Extended EHR Down-Time in the Emergency Department
Natalie Benda (MedStar Health), Kathryn Kellogg (MedStar Health), Rollin Fairbanks (MedStar Health), Raj Ratwani (MedStar Health)

Wednesday, March 8, 10:30 a.m.-12:00 p.m.
HE9 - Changing Focus: Understanding and Improving the Delivery of Care
Hospital Environments
Lecture
Location: Grand Couteau

Physician Documentation in the Pediatric Emergency Department: A Sociotechnical Approach
Sarah Fouquet (Children's Mercy Hospital), Evan Palmer (San Jose State U.), Laura Fitzmaurice (Children's Mercy Hospital)

Environment Design and Doffing Safety: On the Importance of an Iterative Design Approach and the Need for Environment Design Principles
Tracey Herlihey (University Health Network), Stefano Gelmi (University Health Network), Joseph Cafazzo (University Health Network), Trevor Hall (Sunnybrook Health Sciences Centre)
Evaluating a Smartwatch-Based Notification System in a Simulated Nursing Home
Haneen Ali (Auburn U.), Jesse Wong (State U. of New York at Binghamton), Huiyang Li (Auburn U.)
Wednesday, March 8, 10:30 a.m.-12:00 p.m.
MDD9 - Medical Device Human Factors: FDA CDRH Panel
Medical and Drug-Delivery Devices
Panel
Location: Grand Ballroom A
Shannon Hoste (FDA Human Factors Premarket Evaluation Team), Xin Feng (FDA Human Factors Premarket Evaluation Team), Hanniebey Wiyor (FDA Human Factors Premarket Evaluation Team)

Wednesday, March 8, 10:30 a.m.-12:00 p.m.
PSRI9 - Teaching HF/E to Future Healthcare Professionals: Opportunities for Integrating Human Factors, Quality, and Safety Into Medical Education
Patient Safety Research and Initiatives
Panel
Location: Grand Ballroom B
Beth Blickensderfer (Embry-Riddle Aeronautical U.), Raymond Chan (U. of Missouri - Kansas City), Sarah Henrickson Parker (Virginia Tech Carilion School of Medicine), Emily Patterson (Ohio State U.), Shawna Perry (Virginia Commonwealth U. School of Medicine), Linsey Steege (U. of Wisconsin - Madison)

Wednesday, March 8, 1:30-5:30 p.m.
Post-Symposium Workshops

Workshop 1: Adopting the Human Factors Perspective in Handoff Research
Lee Ann Riesenberg, PhD, RN, CMQ; and Meghan Lane-Fall, MD, MSHP
Location: Grand Chenier

Workshop 2: Root Cause Analysis: A Structured Approach to Diagnosing the Cause of Medical Device Use Errors
Michael Wiklund, Andrea Dwyer, and Erin Davis
Location: Grand Couteau