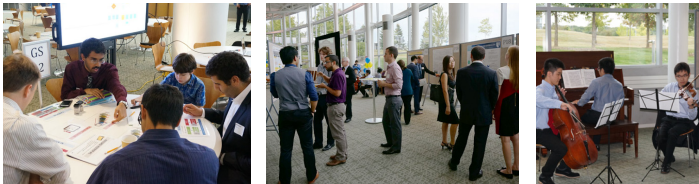# 2016 Healthcare Engineering & Patient Safety Symposium

Monday, September 26th

5 – 7:30 p.m.

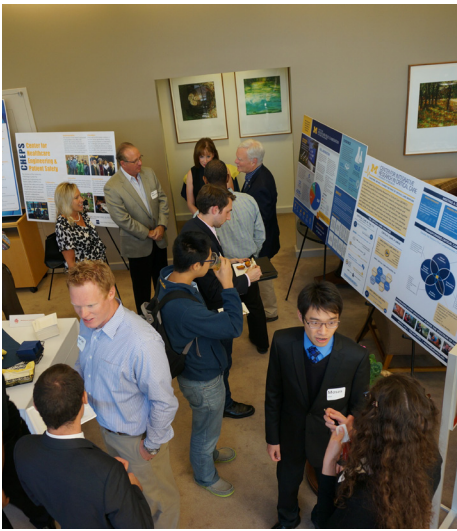Robert H. Lurie Engineering Center
3rd & 4th Floors

Learn more about how the Center for Healthcare Engineering and Patient Safety (CHEPS) is improving the safety and quality of healthcare delivery by identifying, fostering, and promoting collaborative projects across the University.

Posters represent collaborations between:
- Engineering
- Medical School
- School of Public Health
- School of Nursing
- UMHS
- and more...

M CENTER FOR
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UNIVERSITY OF MICHIGAN

Masco Commons (3rd Floor)

The Center for Healthcare Engineering & Patient Safety
CHEPS

Master's Concentration in Healthcare Engineering & Patient Safety
CHEPS

The Health Infrastructures and Learning Systems Program at DLHS
Allen Flynn, Oliver J. Gadabu, Kyle Kerbawy, Nik Koscielniak, Michael G. Roth, Anne Sales, Gracie Trinidad, Jeffrey Vlasic

Hillman Scholars Program in Nursing Innovation: Student perspectives on accelerated BSN-PhD education
Megan Czerwinski, John Shaver, Emily Boltey, Kristen Choi

The Institute for Healthcare Policy and Innovation
IHPI

Seth Bonder
CHEPS and The Seth Bonder Foundation

The Seth Bonder Foundation
CHEPS and The Seth Bonder Foundation

Johnson Rooms (3rd Floor)

A New Framework for Tomotherapy Treatment Planning and Delivery
Wilmer Henao

Ebola in Texas: Using RCA² to Address System Vulnerabilities
Patricia Abbott

Evaluating and Improving Specialty Access to Endocrinology Care
Pranjal Singh, Amy Cohn, Amy Rothberg, Henry Ballout, Wesley Chen, Joseph Sorenson, William Yang

Evaluating Oncology Nurses' Safety Following Antineoplastic Drug Spills: Case Report Analysis from a Multi-site Study
Alex J. Fauer, Kari Mendelsohn-Victor, Marjorie C. McCullagh, Christopher R. Friese

Improving Shift Handovers Between Medical Residents: The Effects of Information Access Cost, Overconfidence and Media Affordances
Xi Jessie Yang, Christopher D. Wickens, Taezoon Park, Kewin T. H. Siah

Multicriteria Optimization For Brachytherapy Treatment Planning
Victor Wu, Marina Epelman, Mustafa Sir, Kalyan Pasupathy, Michael Herman, Christopher Deufel
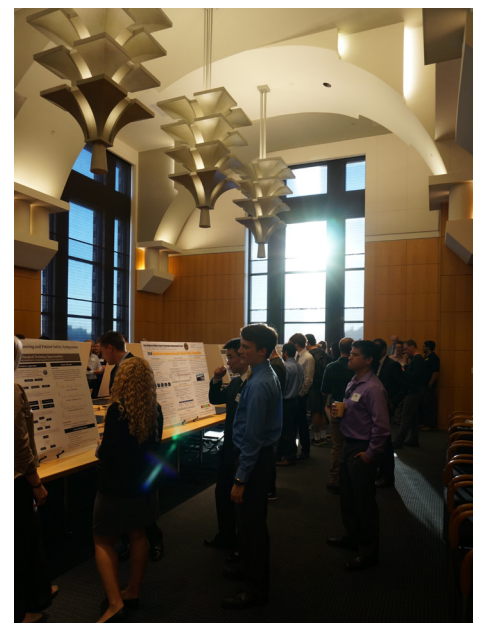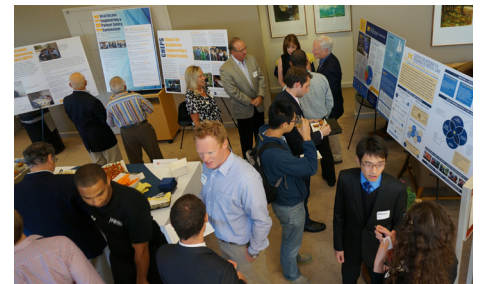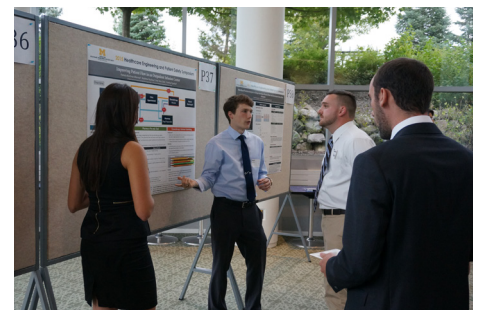
Patient and Caregiver Engagement in a Health Information Technology Tool in the Context of Hematopoietic Cell Transplantation
Alex Fauer, Anna Munaco, Roshun Sankaran, Maite Van Hentenryck, Rahael Gupta, Evan Bischoff, Amy Cohn, Lyndsey Runaas, Sung Won Choi

Scheduling Medical Residents With Conflicting Personal Requests
Brian Lemay, Amy Cohn, Marina Epelman, Steve Gorga

Transdisciplinary Learning & Analysis to Re-Imagine an Endoscopy Suite Experience
Valerie Miller, Brittany Lopez

Using Analytics to Drive Performance at UCH
Nicolas D. Tempels, Pamela Martinez Villarreal, Sara K Stowell, Derek B Birznieks

Using Integer Programming to Build Block Schedules for Medical Residents
William Pozehl, Amy Cohn

GM Room (4th Floor)

A Systematic Analysis of Procedures, Cleanability & Manufacturer Cleaning Instructions of Surgical Instrument Reprocessing
Bill Zhang, Megan Yanik, Maite Van Hentenryck, Wesley Chen, Roshun Sankaran, Hassan Abbas, William Pozehl, Joe DeRosier, Jim Bagian

Can Frequency of Prostate Biopsy on Active Surveillance be Reduced Without Significantly Increasing Risk?
Christine L. Barnett, Gregory B. Auffenberg, Zian Cheng, Fan Yang, Jiachen Wang, David C. Miller, James E. Montie, Mufaddal Mamawala, Brian T. Denton

Identifying Pareto-Dominant Solutions for Multi-Criteria Problems in Resident Scheduling
Young-Chae Hong, Amy Cohn, Marina Epelman

Improving Make-ahead Chemotherapy Drug Policies in the Outpatient Infusion Center Pharmacy
Donald Richardson, Ajaay Chandrasekaran, Elizabeth Olin, Pranjal Singh, Amy Cohn, Carolina Typaldos, Anna Kempke

Optimal Return-to-Play from Concussion
Gian-Gabriel P. Garcia, Mariel S. Lavieri, Steven P. Broglio

Patient-Centered Goals and Expectations Following Kidney Transplantation: Comparison of Patients to Providers
Emily L. Tucker, Kayse Lee Maass, Mark S. Daskin, Abigail R. Smith, Hannah Schapiro, Sabrina M. Cottrell, Evelyn Gendron, Minghao Li, Peg Hill-Callahan, Stephen J. Gill, Robert M. Merion, Alan B. Leichtman

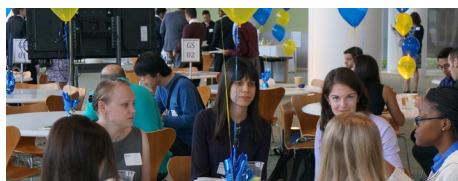**Projections of Non-Alcoholic Steatohepatitis Related Liver Transplantation Waitlist Additions**
Wesley J. Marrero, Neehar D Parikh, Jingyuan Wang, Justin Steuer, David W. Hutton, Eunshin Byon, Mariel S. Lavieri

Simulation of Patient Scheduling for Colonoscopy
Karmel Shehadeh, Jacob Kurlander, Sameer Saini, Amy Cohn, Luis Garcia-Guzman, Henry Ballout, Jackson Bennett, Ajaay Chandrasekaran, Abhilash Rao, Meng Sang, Pranjal Singh, William Yang, Bill Zhang

Using OpenSolver for Scheduling Medical Trainees
Roshun Sankaran, Anna Munaco, William Pozehl, Amy Cohn

Brian Lemay and Hassan Abbas, last year's winners for best tweet

Schedule of Events

5:00 – 7:30
Live music, refreshments, posters from units & researchers across the university & beyond, networking.

6:00
Remarks

7:00
Ballots due for Best Poster Award. Bingo cards due to enter the raffle. Turn both in at registration table.

7:15
Poster award announcement, raffle prizes, closing remarks, and more...

Rama Mwenesi, last year's best poster awardee, with Amy Cohn

Poster Voting & Raffles

Turn in your ballot at the registration table before 7:00 p.m. to vote for the People's Choice Best Poster Award!

Tweet with hashtag #cheps2016 for a chance to win a raffle prize.

Get a bingo on your bingo card for another chance at a raffle prize! Bingo cards with a completed bingo should be turned into the registration table by 7:00 p.m.

Providing Better Healthcare through Systems Engineering:

Mondays Fall 2016
4:40PM

September 12	"The Role of Intersectional Innovations in Preventing Hospital Infection"	Sanjay Saint, MD, MPH U-M Med School, VA Chief of Med
September 19	"Mathematical Classification of Bipolar Disorder from Longitudinal Mood Data"	Amy Cochran, PhD U-M, Dept of Mathematics
September 26	*4th Annual Symposium on Healthcare Engineering and Patient Safety, 5-7:30PM* *time change!*	*3rd/4th flrs Lurie Engineering Center 1221 Beal Ave* *place change!*
October 3	"Coordinating Clinic and Surgery Appointments to Meet Access Service Levels for Elective Surgery"	Pooyan Kazemian, PhD, Mass GH Mark Van Oyen, PhD, U-M IOE
October 10	"Prioritizing Hepatitis C Treatment in U.S. Prisons"	Turgay Ayer, PhD, Georgia Tech
October 24	"Examining the Influence of Peer Imitation on Smoking Initiation"	David Mendez, PhD, U-M SPH
October 31	"Age-related Differences in Multimodal Attention and their Implications for Display Design in Healthcare"	Brandon Pitts, PhD, U-M IOE
November 7	"Using Doctors' Notes to Uncover Everyday Natural Experiments in Healthcare"	Karandeep Singh, MD, MMSc U-M UMHS
November 21	"Getting Real Improvement: Differentiating Work as Imagined vs. Work as Performed"	Jim Bagian, MD, U-M CHEPS
November 28	"Engineering Improvements to Chronic Care Delivery"	Brian Denton, PhD, U-M IOE
December 5	"Forecasting and Control Methodology for Monitoring of Chronic Diseases"	Mariel Lavieri, PhD, U-M IOE Joshua Stein, MD, U-M UMHS Mark Van Oyen, PhD, U-M IOE
December 12	"Multidisciplinary Teams behind Radiation Treatment Planning "	Marina Epelman, PhD, U-M IOE Chuck Mayo, PhD, Radiation Onc Dawn Owen, MD, Radiation Onc

Please note on location: 1123 LBME is room 1123 in the Ann & Robert H. Lurie Biomedical Engineering Building (LBME). Street address is 1101 Beal Avenue, link to map and directions: http://www.bme.umich.edu/about/directions.php. **There will be no seminars on the Mondays of October 17 and November 14.**

This seminar series is presented by the U-M Center for Healthcare Engineering and Patient Safety (CHEPS): Our mission is to improve the safety and quality of healthcare delivery through a multi-disciplinary, systems-engineering approach. For additional information and to be added to the weekly e-mail for the series, please contact genehkim@umich.edu.

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