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#HealthTech18

4th Integrative Conference on Technology, Social Media, and Behavioral Health

University Club | 123 University Place | Pittsburgh, PA

Program Book
November 5th, 2018



UNIVERSITY OF PITTSBURGH
CENTER FOR
Behavioral Health +
Smart Technology

Friends and colleagues,

We are delighted to welcome you to our *4th Integrative Conference on Technology, Social Media, and Behavioral Health*. We hope our cross-disciplinary event will provide opportunities for you to meet, exchange ideas, and make new connections with individuals from across the University of Pittsburgh's Schools of the Health Sciences and School of Computing and Information, Carnegie Mellon University, UPMC, and with our distinguished keynote speakers, presenters, and guests.

In addition to thanking the Conference sponsors listed in this program for their support, we also wish to thank the Provost's *Social Science Research Initiative* whose generous support enabled us to host this Conference as well as launch the *Games4Health* competition organized by Dmitriy Babichenko, Professor of Practice at the School of Computing and Information at last year's Conference. This year's Games4Health "game jam" assembled cross-disciplinary teams of 3-5 students who worked overnight the weekend of October 19-21 to develop games that addressed an important health care problem. You can view the full program by visiting <https://pittgames4health.com/>.

New to our Program this year under the leadership of Dr. Carissa Low, Assistant Professor of Medicine and Psychology and Director of the Mobile Sensing + Health Institute, we added scientific abstracts, data blitzes, and poster presentations. We hope you will have an opportunity to view the posters and over a dozen additional behavioral health software programs - including some of the winning teams from Games4Health and the recent joint CMU Children's Hospital of Pittsburgh Foundation's #HackThisHelpKids "Hackathon for Hope" - over wine and hors d'oeuvres at our concluding Networking Reception!

Throughout the Conference, please share what interests you using our Twitter handle **@HealthTechPitt** and hashtag **#HealthTech18**. Finally, please complete our evaluation form so we can continue to improve for next year's program.

Thank you for taking the time from your busy schedule to join us today.

The Conference Organizing Committee

Bruce L. Rollman, MD, MPH

Carissa Low, PhD

Dmitriy Babichenko, MS

Julia Holber, BA

Amy Anderson, MS, LPC

The Conference Organizing Committee & Core Faculty Welcomes You to the 4th Integrative Conference!

Conference Organizing Committee



Bruce Rollman, MD, MPH



Carissa Low, PhD



Dmitry Babichenko, MS



Julia Holber, BA



Amy Anderson, MS, LPC

Core Faculty Members



Jared Magnani, MD, MSc



Stephen Smagula, PhD



Ana Radovic, MD, MSc



Armando Rotondi, PhD



Charles Jonassaint, PhD, MHS



Tamar Krishnamurti, PhD



Brian Suffoletto, MD, MS



The 4th Integrative Conference on Technology, Social Media, and Behavioral Health

AGENDA

8:00am-8:45 am

Ballroom A

Registration & Continental Breakfast

Sponsored by UPMC WorkPartners

8:45am-10:15 am

Ballroom B

Welcome & Morning Plenary Session

Sponsored by The University of Pittsburgh Department of Medicine

Introduction:

Bruce L. Rollman, MD, MPH

UPMC Endowed Professor of General Internal Medicine
Professor of Medicine, Psychiatry, Biomedical Informatics,
and Clinical and Translational Science
Director, Center for Behavioral Health and Smart Technology

Welcoming Remarks:

Rob A. Rutenbar, PhD

Senior Vice Chancellor for Research, University of Pittsburgh

Data Blitz:

Carissa Low, PhD

Assistant Professor of Medicine and Psychology
Director, Mobile Sensing + Health Institute (MoSHI)

Abdelkareem Bedri, MSc

Fitbyte: Towards automatic diet monitoring
PhD Student, Human-Computer Interaction Institute
Carnegie Mellon University

Kristen Allen, BA

Showing without telling: Indirect identification of psychosocial risks during and after pregnancy
PhD Student, Engineering and Public Policy
Carnegie Mellon University

Afsaneh Doryab, PhD

Modeling human rhythms with passive sensing in the wild: A case study to predict readmission risk in pancreatic surgery patients
Systems Scientist, Human-Computer Interaction Institute
Carnegie Mellon University

Keynote Speaker:

Sherry Pagoto, PhD

A Call for a Science of Online Patient Engagement
Director, Center for mHealth and Social Media
Institute for Collaboration on Health, Intervention, and Policy
Professor, Department of Allied Health Sciences
University of Connecticut

10:15-10:30am

Ballroom B Lobby

Coffee & Tea Break

Sponsored by the Clinical + Translational Science Institute

10:30-11:45 am

Ballroom B

Panel Discussion: Chatbots & AI for Behavioral Health

Moderator:

John S. Maier, PhD, MD

Program Director, Pitt Innovation Challenge (PInCh)
Co-Director of Innovation Core, CTSI
Director of Research and Development, Family Medicine

Panelists:

Ellen Beckjord, PhD, MPH

Use of Chatbots in a Mobile Intervention for Health Behavior Change
Director, Population Health Program Design & Engagement
Optimization
UPMC Health Plan

Jeffrey Bigham, PhD

Robust Conversational Assistance from the Top Down
Associate Professor, Human-Computer Interaction Institute
Carnegie Mellon University

Jeremy Guttman, MA

Technology and the Human Connection for Addiction
CEO, Biomotivate

11:45-1:15 pm

Ballroom A

Networking Lunch & Poster Display

Sponsored by UPMC Health Plan

1:15-2:30 pm

Conference Room B

Afternoon Breakout Sessions

Games for Health Workshop

Jessica Hammer, PhD

Exploring Design Practices for Health Behavior Change Games
Assistant Professor, Human-Computer Interaction Institute
Carnegie Mellon University

Conference Room A

Adolescent Mental Health

Moderator:

Elizabeth Miller, MD, PhD

Chief, Division of Adolescent and Young Adult Medicine
Professor of Pediatrics

Panelists:

Jessica Levenson, PhD

Development of a Smartphone-Based Sleep Promotion Program for Adolescents
Assistant Professor of Psychiatry

Ana Radovic, MD, MSc

Evolution of a Social Media Website Intervention for Treatment Uptake for Adolescents with Depression or Anxiety
Assistant Professor of Pediatrics

Jennifer Silk, PhD

SmartCAT: A Mobile Health Intervention to Increase the Efficiency and Efficacy of Cognitive Behavioral Therapy for Child and Adolescent Anxiety Disorders
Professor of Psychology and Psychiatry

Commercializing Technology

Moderator: **Don Taylor, PhD, MBA, MS**
Assistant Vice Chancellor, Health Sciences Translation
Executive Director, sciVelo, Innovation Institute

Panelists: **Jeffrey Depp, JD, MBA**
Technology Commercialization Associate, Innovation Institute

Jim Jen, MBA
COO and Managing Director, AlphaLab

Catherine Mott, MBA
CEO and Founder of Blue Tree Capital Group, LLC

Jim Osborn, MS
Founder, Health IT Pittsburgh

2:30-2:45 pm
Ballroom B Lobby

Coffee & Tea Break

Sponsored by the Clinical + Translational Science Institute

2:45-4:30 pm
Ballroom B

Afternoon Plenary Session

Sponsored by University of Pittsburgh School of Computing and Information

Introduction: **Paul R. Cohen, PhD**
Founding Dean, School of Computing and Information

Data Blitz: **Carissa Low, PhD**

Traci Kennedy, PhD

Does monitoring ADHD symptoms improve them? A smartphone based ecological momentary assessment (EMA) study of adolescents with ADHD

Postdoctoral Associate, Department of Psychiatry

Aditi Sinha, MSIS

Smartphone sensors to infer gait abnormalities associated with alcohol intoxication

Data Scientist, University of Pittsburgh School of Medicine

Dan Wolpow, BA, Yidi Zhu, BSc

Prism: A Game to Promote Autism Acceptance Among Elementary School Students

Graduate Students, Entertainment Technology Center
Carnegie Mellon University

Keynote Speaker: **Yaser Sheikh, PhD**
Social Perception for Machines
Director, Facebook Reality Labs, Pittsburgh
Associate Professor, Robotics Institute
Carnegie Mellon University

Games4Health Awards: **Babs Carryer, MPM**
Director of Education and Outreach, Innovation Institute

Concluding Remarks: **Bruce L. Rollman, MD, MPH**

Networking Wine Reception

Smart Technology Demonstrations and Poster Session

Sponsored by the UPMC Aging Institute

Smart Technology Demonstrations:

1. **BEARS Aphasia Treatment Game**

William Evans, PhD, CCC-SLP

University of Pittsburgh, School of Health and Rehabilitation Sciences

BEARS is a picture naming treatment game for people with aphasia that teaches users to balance speed and accuracy in their language.

2. **Brite**

Candice Biernesser, MPH, LCSW, Jamie Zelazny RN, MPH, PhD, Giovanna Porta, MA, Katia Goga, BS

University of Pittsburgh, Department of Psychiatry

Brite is a smartphone application that aims to reduce suicidal behavior among hospitalized adolescents. Brite offers tools to assist youth in emotion regulation and tolerance of distress.

3. **Circadian Activity Profiling System (CAPS)**

Stephen Smagula, PhD

University of Pittsburgh, Department of Psychiatry

CAPS provides the first wearable circadian assessment in both consumer and medical settings and can be used to precisely tailor interventions and monitor their effects.

4. **Dash**

Carissa Low, PhD, Krina Durica, MA, Elyna Youm, BA

University of Pittsburgh, Biobehavioral Oncology + Technology Lab

Dash uses a smartwatch and smartphone to promote physical activity before and after cancer surgery using personalized prompts after prolonged sedentary bouts are detected.

5. **MyHealthyPregnancy (MHP)**

Tamar Krishnamurti, PhD, Alexander Davis, PhD, Hyagriv Simhan, MD, MS

University of Pittsburgh, Division of General Internal Medicine

MHP is a digital health application for pregnant and postpartum women that provides users with educational content and personalized risk detection using machine learning.

6. **MyPath**

Sonya Borrero, MD, MS, Lisa Callegari, MD, MPH

University of Pittsburgh, Division of General Internal Medicine

MyPath is an interactive web-based tool designed to improve provider-patient communication and promote informed, value-concordant reproductive decision making.

7. **MATCH App**

Sam Shabaan, MBA, Brian Suffoletto, MD, Tammy Chung, PhD

Nurelm

The MATCH App incorporates a brief Alcohol Stroop Task and an Alcohol Relevant Approach Avoidance Task to identify temporal biases to alcohol cues.

8. **Painimation**

Charles Jonassaint, PhD

University of Pittsburgh, Division of General Internal Medicine

Painimation is a mobile assessment tool to improve communication about pain between patients and physicians by using animations to assess pain quality, type and location.

9. **Rallyest: A Treatment Success App**

Tim Thayne, PhD

Rallyest connects individuals with a “home team” of trusted therapists, family, and friends, who use the program to track outcomes and rally around them.

10-12. **Games4Health Winners**

13-14. **Hack This, Help Kids Winners**

Poster Presentations:

1. **Acceptability of mHealth-based behavior intervention for older adults with type 2 diabetes and obesity**

Yaguang Zheng, PhD, MSN

University of Pittsburgh, School of Nursing

2. **Adherence to 6-Mercaptopurine and smartphone app preferences for a behavioral intervention to improve adherence among parents of children with acute lymphoblastic leukemia**

Sherif Badawy, MD

Northwestern University, Lurie Children's Hospital of Chicago

3. **Automated tremor detection in Parkinson's Disease using accelerometer signals**

Ada Zhang, BS

Carnegie Mellon University, The Robotics Institute

4. **Beating the Blues**

Renee Thomas, BS, Christianne Johnson, MA

UPMC Health Plan

5. **Brite**

Candice Biernesser, MPH, LCSW, Jamie Zelazny RN, MPH, PhD

University of Pittsburgh, Department of Psychiatry

5. **Digital health app to promote self-awareness through cognitive bias modification using powerful data visualizations**

Archana Bahuguna, MS

Pahoti

6. **Engaging Afrofuturism as a speculative design lens: Toward more inclusive wearable health technologies**

Woodrow Winchester III, PhD, CPEM

Robert Morris University, Department of Engineering

7. **From concept to clinic: Implementing sensor-based functional assessment at the point of oncology care**

Grace Campbell, PhD, MSW, RN

University of Pittsburgh, School of Nursing, Health and Rehab Sciences

8. **Identifying college students with depression using passive sensing**

Perna Chikersal, MS

Carnegie Mellon University, Human-Computer Interaction Institute

9. **Inpatient sleep quantity and quality as predictors of clinical outcomes after cancer surgery**

Carissa Low, PhD

University of Pittsburgh, Department of Medicine

10. **Perceptions toward automated monitoring of suicidal adolescents' social media**
Candice Biernesser, MPH, LCSW
University of Pittsburgh, Department of Psychiatry
11. **Predicting changes in relationship from cell phone behavior**
Siyan Zhao, BS
Carnegie Mellon University, Human-Computer Interaction Institute
12. **Sensed physical activity level before and after pancreatic surgery**
Carolyn Brown
University of Pittsburgh
13. **Text-facilitated home blood pressure monitoring: A qualitative analysis of health behavior change**
Matthew Allen, BA
University of Pittsburgh, School of Medicine
14. **Understanding the effect of marijuana use on cognitive functions in young adults for just-in-time interventions**
Grace Bae, PhD
Carnegie Mellon University, Human-Computer Interaction Institute
15. **Virtual reality use in bias training for healthcare providers**
Rony Kahana, BA, MET, Kuk Kim, BA, MET, Trisha Surve, BA, MET
Carnegie Mellon University, Entertainment Technology Center

Conference Organizing Committee



Bruce L. Rollman, MD, MPH

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 @HealthTechPitt

Director, Center for Behavioral Health and Smart Technology
UPMC Endowed Professor of General Internal Medicine
President, American Psychosomatic Society, 2018-2019

8:45 am Welcome & Morning Plenary, 2:45 pm Afternoon Plenary Session

Dr. Rollman's research focuses on developing novel interventions to treat mood and anxiety disorders in primary care and cardiac settings. He has been principal investigator for six NIH-funded R01 clinical trials including the Online Treatment for Mood and Anxiety Disorders Trial, the first study to use a computerized cognitive behavioral therapy program and internet support group in primary care (Rollman BL, et al., *JAMA Psychiatry*, 2018); and the Hopeful Heart Trial presently testing the effectiveness of a "blended" collaborative care model for treating both heart failure and depression. Dr. Rollman also pioneered the use of electronic medical record system alerts to identify patients for clinical trials; has published over 100 scientific papers, including first-authored papers in the *New England Journal of Medicine* and the *Journal of the American Medical Association*; has 4 U.S. patents for health-related innovations; and is presently a co-investigator on six federally-funded studies. In addition to launching the Center for Behavioral Health and Smart Technology in 2015, he is the current president of the American Psychosomatic Society, an international scientific organization whose goals are to advance the scientific study of biological, psychological, behavioral, and social factors in health and disease (www.psychosomatic.org). As a result of these and other projects and through nearly 25 years of primary care practice, Dr. Rollman has become highly experienced with state-of-the-art techniques for treating mood and anxiety disorders in non-psychiatric settings, mental health services research, and has developed a local, national, and international network of collaborators to inform his work and that of his collaborators.

Assistant Professor of Medicine and Psychology
University of Pittsburgh, Department of Medicine

8:45 am Welcome & Morning Plenary, 2:45 pm Afternoon Plenary Session

Dr. Low's research focuses on interactions between behavior, biology, and patient-centered outcomes in the context of cancer. She is particularly interested in the use of mobile technology to detect and target risk states during cancer treatment, including sedentary behavior, worsening symptoms, psychological stress, and social isolation. Current projects include a prospective study harnessing smartphones and wearable sensors to predict readmission after cancer surgery; a pilot study testing whether smartphone and wearable sensor data can detect changes in patient-reported stress and symptoms during chemotherapy; a laboratory study using wearable physiological sensors to characterize positive and negative emotional states; and a randomized controlled trial testing a technology-mediated sedentary behavior intervention before and after cancer surgery.



Carissa A. Low, PhD

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Dmitriy Babichenko, MS

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Professor of Practice
Director, Learning Technologies Labs
Department of Informatics and Networked Systems
University of Pittsburgh, School of Computing and Information

Mr. Babichenko has extensive industry experience in educational software design and development, learning technologies, IT project management, and web systems architecture design. Since joining SIS in 2013, Mr. Babichenko has taught undergraduate courses in programming and information systems analysis, design and implementation, databases, and games design. In 2015 he founded a Learning Technologies Laboratory at the School of Information Sciences, a lab dedicated to development of serious games, learning technologies, and undergraduate research.

Research Associate & Program Coordinator
Center for Behavioral Health and Smart Technology

After graduating from Washington University in St. Louis with a B.A. in Educational Studies, Ms. Holber joined the Center for Behavioral Health and Smart Technology in the summer of 2017. As a research associate for the Hopeful Heart Trial, she recruits and assesses patients for a study examining the effectiveness of a collaborative care model treating heart failure and co-morbid depression. As Program Coordinator, she oversees the Center’s website and social media accounts, creates weekly newsletters, coordinates Core Faculty events, and organized our 3rd and 4th Integrative Conferences on Technology, Social Media, and Behavioral Health. Ms. Holber has completed the Jewish Healthcare Foundation’s Jonas Salk Health Activist Fellowship and hopes to begin medical school in August.



Julia Holber, BA

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Associate Director, Clinical Trials Core
Center for Behavioral Health and Smart Technology

Ms. Anderson is the Associate Director of the Clinical Trials Core at the Center for Behavioral Health and Smart Technology. She has worked with Dr. Rollman for the past five years, first as a care manager for the Online Treatment for Mood and Anxiety Disorders Trial and then as the project coordinator for the Hopeful Heart Trial. In addition, Ms. Anderson is coordinating recruitment for the OPTIMUM Trial, a five-city national PCORI -funded study for treatment resistant depression in older adults. She also leads the Assessment and Recruitment Core (ARC) for the new NIMH-funded ETUDES Center to prevent adolescent suicide, led by Dr. David Brent and co-directed by Dr. Rollman. Ms. Anderson earned her Masters of Science in Counseling Psychology at Chatham University.



Amy Anderson, MS, LPC

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Conference Speakers



Ellen Beckjord, PhD, MPH

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**Director, Population Health Program Design and Engagement Optimization
UPMC Health Plan**

10:30 am Panel Discussion: Chatbots & AI for Behavioral Health

Dr. Beckjord trained in clinical psychology at the University of Vermont. There she worked with cancer survivors and their families, delivering evidence-based behavioral medicine interventions from time of diagnosis through end-of-life care. After completing her internship at the Vanderbilt-VA, she entered the National Cancer Institute's Cancer Prevention Fellowship Program and earned her Masters in Public Health. Dr. Beckjord then completed her post-doctoral research in the Health Communication and Informatics Research Branch within the Division of Cancer Control and Population Sciences. From NCI, Dr. Beckjord spent three years in research consulting with RAND Corporation before spending nearly five years at the University of Pittsburgh and Hillman Cancer Center, where she received a Career Development Award to develop and test a context-aware mobile application for smoking cessation. In February 2015, she joined UPMC Health Plan as Director of Population Health Program Design and Engagement Optimization. Dr. Beckjord is interested in the role of consumer generated health data in an informatics-enabled learning health care system. Her current projects focus on behavioral informatics and population health, specifically, the use of mobile technology to promote health, wellness, and health behavior change.

Assistant Professor

Carnegie Mellon University, Human-Computer Interaction Institute

10:30 am Panel Discussion: Chatbots & AI for Behavioral Health

Dr. Bigham's research combines crowdsourcing and machine learning to make novel deployable interactive systems, and ultimately solve hard problems in computer science. Many of these systems are designed with a deep understanding of the needs of people with disabilities to be useful in their everyday lives. He received his B.S.E degree in Computer Science from Princeton University in 2003 and Ph.D. in Computer Science and Engineering from the University of Washington in 2009. He has received the Alfred P. Sloan Foundation Fellowship, the MIT Technology Review Top 35 Innovators Under 35 Award, and the National Science Foundation CAREER Award. He is currently spending time at Apple, where he is starting a new Machine Learning + Accessibility Research group.



Jeffrey P. Bigham, PhD

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Babs Carryer, MPM

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**Director of Education and Outreach
Innovation Institute**

2:45 pm Afternoon Plenary Session

As Director of the Big Idea Center for student entrepreneurship at Pitt's Innovation Institute, Ms. Carryer's role encompasses programs to encourage and support innovation and entrepreneurship across campus to all students. She is also a serial entrepreneur, writer and educator and has been invited to present her work internationally. Ms. Carryer is the author of "Startup Briefs" (available on Amazon) and blogs about entrepreneurship at the website *NewVenturist*. Ms. Carryer is also a co-founder of the business incubator *LaunchCyte*, with a portfolio of five companies that have commercialized university technologies into marketplace products, and the *Pittsburgh Chapter of Women in Bio*. She earned her Masters in Public Management from CMU and BA from Mills College.



Paul Cohen, PhD

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Founding Dean
University of Pittsburgh, School of Computing and Information

2:45 pm Afternoon Plenary Session

Dr. Cohen is the founding Dean of School of Computing and Information. Prior to becoming Dean in 2017, he was a Program Manager at the Information Innovation Office at Defense Advanced Research Projects Agency (DARPA). There he promoted AI techniques to model and manage complicated, interacting systems. Dr. Cohen was founding director of the University of Arizona's School of Information: Science, Technology and Arts and served as the Chairman of the University's Department of Computer Science. Dr. Cohen earned his Doctor of Philosophy degree in Computer Science and Psychology from Stanford University, Master of Science degree in Psychology from the University of California, Los Angeles and Bachelor of Science degree in Psychology from the University of California, San Diego.

Technology Commercialization Associate
Innovation Institute, University of Pittsburgh

1:15 pm Afternoon Breakout Session: Commercializing Technology

Mr. Depp is a licensing and commercialization alliance manager at the University of Pittsburgh Innovation Institute. Prior to joining the Innovation Institute, he worked for a federal district court judge focused on intellectual property litigation and spent over 25 years in the pharmaceutical industry. Mr. Depp earned his bachelor's degree in chemical and biomedical engineering from Carnegie Mellon, master's degree in business from Carnegie Mellon, and law degree from the Duquesne University School of Law. Now, in the PhD program at the University of Pittsburgh Graduate School of Public and International Affairs, he studies public policy with an emphasis on international political economy and policy research and analysis. Mr. Depp's research interests focus on the intersection of intellectual property policy, anti-trust policy, regulatory policy, and the judiciary and its impact on innovation here in the U.S. and around the world.



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Jeremy Guttman, MA

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CEO, Biomotivate

10:30 am Panel Discussion: Chatbots & AI for Behavioral Health

Mr. Guttman is an expert on the use of technology to address behavioral health issues, with a focus on the opioid crisis. He recently founded Biomotivate, a company that is creating motivational technology tools to analyze behavioral risk trends with proactive frameworks. Mr. Guttman grew up in Pittsburgh and earned his Economics and Medical Ethics degrees from the University of Chicago and the University of Pittsburgh. His master's thesis analyzed the complications that arise in fitting the study of complex treatment interventions into the evidence-based medicine hierarchy. He has also worked as a health services researcher for a health IT company and has participated in a number of fellowships at the Jewish Healthcare Foundation.



Jessica Hammer, PhD

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**Thomas & Lydia Moran Assistant Professor of Learning Science
Human- Computer Interaction Institute & Entertainment Technology Center
Carnegie Mellon University**

1:15 pm Afternoon Breakout Session: Games for Health Workshop

Dr. Hammer's research focuses on the design and development of *transformational games* that are intended to change how players think, feel, and behave. She studies the mechanisms by which these games affect players, as well as the design processes that produce effective transformational experiences. Dr. Hammer is also an award-winning game designer. Most recently, *Rosenstrasse*, her historical game about a women's protest under the Nazi regime, was featured at Indiecade 2017. Her work on improving the game design process has been adopted both in academia and in industry, and led to her winning CMU's Teaching Innovation award in 2018. Her research has been funded by the National Science Foundation, the Heinz Foundation, as well as industry partnerships with Amazon, Verizon, and Google.

COO & Managing Director

Alpha Lab

1:15 pm Afternoon Breakout Sessions: Commercializing Technology

Mr. Jen has been an active part of the Pittsburgh tech community since 2002 and has mentored and guided the development of some of Pittsburgh's fastest-growing tech companies. He is currently the Chief Operating Officer & Managing Director Software/AlphaLab for Innovation Works where he has led the initial investments in over 100 companies. As a co-founder of the AlphaLab accelerator programs, Jim helped launch one of the nation's first software accelerators and one of the first hardware accelerators to provide funding, mentorship, education, network-building and space for high potential technology startups. Mr. Jen has also served on the Advisory Board of GAN, the world's leading association of accelerators for high growth startups. Prior to moving to Pittsburgh, he built and launched software businesses at venture-backed companies in California and also advised executive management of Fortune 500 companies as a management consultant. Mr. Jen earned his BA and MA in Economics and an MBA from Stanford University.



Jim Jen

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Jessica Levenson, PhD

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**Assistant Professor of Psychiatry
University of Pittsburgh**

1:15 pm Afternoon Breakout Sessions: Adolescent Mental Health

Dr. Levenson is a Clinical Psychologist and Assistant Professor of Psychiatry at the University of Pittsburgh. She is also affiliated with the Division of Adolescent and Young Adult Health within the Department of Pediatrics, and she conducts clinical work in the Center for Adolescent and Young Adult Health. Dr. Levenson joined the faculty after completing a federally-funded postdoctoral program on Translational Research Training in Sleep Medicine. She was recently awarded a K23 award by the National Institute of Child Health and Human Development and a Focused Projects Award by the American Sleep Medicine Foundation to develop and test sleep-focused interventions for adolescents. Her clinical interests focus on mood disorders, interpersonal relationships, and sleep. Dr. Levenson earned her MS and PhD in Clinical Psychology from the University of Pittsburgh.



John Maier, PhD, MD

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Program Director, Pitt Innovation Challenge (PInCh)
Director of Research and Development, Department of Family Medicine
Co-Director of Innovation Core, CTSI

10:30 am Panel Discussion: Chatbots & AI for Behavioral Health

Dr. Maier is the Program Director and guiding force behind the Pitt Innovation Challenge (PInCh) and its various spin-off competitions sponsored by Pitt's Clinical and Translational Science Institute (CTSI). He joined the Department of Family Medicine at the University of Pittsburgh in 2011 and presently serves on its executive committee, providing leadership and support to numerous projects that range from comparative effectiveness research to health care system delivery innovation in community based settings. After completing his PhD in Physics and MD at the University of Illinois at Urbana-Champaign, Dr. Maier completed the Family Medicine Residency program at UPMC Shadyside. Afterwards, he worked as the leader of biomedical research for the ChemImage Corporation in Pittsburgh. Dr. Maier is a co-inventor on over 50 US patents and co-author on 14 peer-reviewed publications and numerous other scientific proceedings, abstracts and presentations.

Director, Division of Adolescent and Young Adult Medicine
Professor of Pediatrics, University of Pittsburgh
Children's Hospital of Pittsburgh of UPMC

1:15 pm Afternoon Breakout Session: Adolescent Mental Health

Trained in medical anthropology, as well as Internal Medicine and Pediatrics, Dr. Miller's research has included examination of sex trafficking among adolescents in Asia, adolescent relationship abuse, and reproductive coercion and its impact on reproductive health. Her current research focuses on developing and testing gender-based violence prevention and intervention programs to improve adolescent and young adult health. Dr. Miller earned her MD and PhD degrees at Harvard Medical School.



Elizabeth Miller, MD, PhD

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Catherine V. Mott, MBA

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CEO and Founder
BlueTree Capital Group

1:15 pm Afternoon Breakout Session: Commercializing Technology

Ms. Mott is the founder of BlueTree Capital Group, BlueTree Allied Angels, and the BlueTree Venture Fund that, as of 2017, have invested \$50+ million in several startup companies. Ms. Mott is the past Chairman of the Angel Capital Association and the Angel Resource Institute. She is a contributor to the Smart Business Magazine and has been quoted in the New York Times and Wall Street Journal as one of the few women who represent the industry of venture capital. Prior to forming the BlueTree Entities, Ms. Mott worked in corporate banking management, where she served in senior management roles for investment sales/wealth management, commercial lending, business development, and retail expansion. Ms. Mott earned a BS in Education, a Masters' Degree in Education, and an MBA in finance at Youngstown State University,



Jim Osborn, MS

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Founder, Health IT Pittsburgh

1:15 pm Afternoon Breakout Session: Commercializing Technology

Mr. Osborn is the architect of the *Health IT Pittsburgh* initiative, the Pittsburgh Life Sciences Greenhouse's effort to grow companies and jobs in health information technology across Western Pennsylvania. As a consultant to the Jewish Healthcare Foundation, he led development of its "Virtual Senior Academy," a 2018 UpPrize-Winning program to connect older adults to each other through online group learning experiences. Prior to that, he co-founded and served as Executive Director of the Quality of Life Technology (QoLT) Center at Carnegie Mellon University, which created intelligent systems to improve and enhance everyday living for older adults and people with disabilities. Mr. Osborn also served as CMU's Coordinator of University Life Science Initiatives from 2004 to 2015 and was previously Executive Director of CMU's Medical Robotics Technology Center and Founder of the Pittsburgh Robotics Initiative. Mr. Osborn led several multi-\$M robotics R&D projects sponsored by the US DOE, NASA and industry, including the first robot to explore an active volcano and robots for investigation of the Chernobyl and Three Mile Island nuclear accidents. He earned a BS in Electrical and Biomedical Engineering and an MS in Civil and Biomedical Engineering from Carnegie Mellon University.

Director, UConn Center for mHealth and Social Media

President, Society for Behavioral Medicine

Professor, Department of Allied Health Sciences, University of Connecticut

8:45 am Welcome & Morning Plenary Session

Dr. Pagoto, our Morning Keynote Speaker, is Director of the University of Connecticut Center for mHealth and Social Media and the current President of the Society of Behavioral Medicine. Her research leverages technology to develop and deliver behavioral interventions targeting diet, physical activity, and cancer prevention behaviors. She has had federal funding for her program of research for 14 consecutive years, totaling over \$11 million, and has published over 180 papers in peer-reviewed journals. Dr. Pagoto has received several awards for her work including the UMass Medical School Women in Science and Health Achievement Award, The Obesity Society Pioneer in mHealth/eHealth Award, Society of Behavioral Medicine Early Career/Young Investigator Award, and the Western Michigan University Distinguished Alumni Award. Devoted to science communication Dr. Pagoto has over 23,000 Twitter followers, and her work has been featured in major news outlets including CNN, NPR, NBC News, ABC News, and Good Morning America.



Sherry Pagoto, PhD

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Assistant Professor of Pediatrics

Division of Adolescent and Young Adult Medicine

UPMC Children's Hospital of Pittsburgh

1:15 pm Afternoon Breakout Session: Adolescent Mental Health

Dr. Radovic is a pediatrician and subspecialist in adolescent medicine who develops and tests technological interventions to improve mental health care delivery for adolescents. Her NIMH-funded K23 career award is presently testing a social media site for adolescents called Supporting Our Valued Adolescents or SOVA (visit sova.pitt.edu) referred to depression or anxiety treatment as compared to enhanced usual care as part of a pilot randomized controlled trial. Dr. Radovic hopes this intervention will increase adolescents' participation in mental health treatment through normalizing negative health beliefs about mental health treatment, increasing social support, and improving parent-adolescent communication. Dr. Radovic is also a co-principal investigator on a decision support intervention for adolescents identified with depression in primary care, and co-leads stakeholder engagement in the ETUDES center. Dr. Radovic earned her MD at Case Western Reserve University.



Ana Radovic, MD, MSc

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Rob Rutenbar, PhD

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**Senior Vice Chancellor for Research
University of Pittsburgh**

8:45 am Welcome & Morning Plenary Session

Dr. Rutenbar joined the University of Pittsburgh in July 2017 as its first Senior Vice Chancellor for Research. He oversees research initiatives and innovative opportunities while enriching and expanding the University's technological and corporate partnerships. These include the University's Center for Research Computing, the Innovation Institute, the Office of Export Controls, the Office of Research, and the Research Conduct and Compliance Office. Dr. Rutenbar has nearly 40 years of experience in innovation and technology. His own research has focused on a wide variety of integrated circuit design issues. In his spare time, he is a serial entrepreneur who has launched two venture-backed startups based on his academic research—both located in Pittsburgh. His work has been featured in venues ranging from the *Post-Gazette* to *The Economist*. Prior to coming to the University of Pittsburgh, Dr. Rutenbar served as the Abel Bliss Professor of Engineering and head of the Department of Computer Science at the University of Illinois at Urbana-Champaign. He was also a faculty member within Carnegie Mellon University's Department of Electrical and Computer Engineering for 25 years.

**Director, Facebook Reality Labs, Pittsburgh
Associate Professor, Robotics Institute
Carnegie Mellon University**

2:45 pm Afternoon Breakout Session: Games for Health Workshop

Dr. Sheikh directs the Facebook Reality Labs in Pittsburgh focused on achieving photorealistic social interactions in augmented and virtual reality. His research focuses on machine perception and rendering of social behavior, spanning sub-disciplines in computer vision, computer graphics, and machine learning and has been featured by various media outlets including The New York Times, The Verge, Popular Science, BBC, MSNBC, New Scientist, slashdot, and WIRED. He has won Popular Science's "Best of What's New" Award, the Honda Initiation Award and the Hillman Fellowship for Excellence in Computer Science Research. Yaser has served as a senior committee member at leading conferences in computer vision, computer graphics, and robotics and served as an Associate Editor of CVIU. His research is sponsored by NSF, DARPA, and several industrial partners including the Intel Corporation, the Walt Disney Company, Nissan, Honda, Toyota, and the Samsung Group.



Yaser Sheikh, PhD

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 @CMU_Robotics



Jennifer Silk, PhD

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 @silk_jennifer

**Professor of Psychology and Psychiatry
University of Pittsburgh**

1:15 pm Afternoon Breakout Session: Adolescent Mental Health

Dr. Silk is a licensed child clinical psychologist with expertise in cognitive behavioral therapy for anxiety disorders. Her research focuses on the development and treatment of anxiety and depression in the pre-teen and teen years, and she examines both biological factors and factors within the social environment that influence how pre-teens and teens learn to manage their emotions. She has published over 100 articles and chapters on this topic and has led 7 NIH-funded research grants. Dr. Silk has been honored for early career contributions to mental health research by the Brain & Behavior Research Foundation. Her work on the SmartCAT program was recognized at the White House as a winner of the National Behavioral Health Patient Empowerment Challenge. Dr. Silk earned her PhD in Clinical Psychology at Temple University.



Don Taylor, PhD, MBA, MS

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 @donaldptaylor

Assistant Vice Chancellor, Health Sciences Translation

Executive Director, sciVelo, Innovation Institute

Associate Professor, Biomedical Informatics

1:15 pm Afternoon Breakout Session: Commercializing Technology

Dr. Taylor is the founder and Executive Director of sciVelo, a program to engage in research of impact by identifying, cultivating and advancing Pitt's promising life and health sciences translational research to market-ready solutions. He also co-directs the Center for Commercial Applications of Healthcare Data helping to lead digital health translational science applied to areas such as cancer immunotherapy, biomarker discovery, and social determinants of health. His research spans translational scientific investigations into metastatic breast cancer latency and chronic wound healing as well as new methods for health sciences commercial translation. Dr. Taylor is currently a co-investigator on two NIH-funded U01 grants including the *Michigan-Pittsburgh-Wyss Regenerative Medicine Resource Center* and an FDA-funded P50 grant to establish the *Pennsylvania Pediatric Device Consortium*. Prior to his joining Pitt, Dr. Taylor served as Founder, Co-founder, Board Chairman, CEO, and Vice President across 6 life sciences companies – all of which have been acquired by companies including Hospira and IBM. Dr. Taylor earned his PhD in Bioengineering from the University of Pittsburgh.

Meet Graphic Illustrator, Leah Silverman



Leah is a graphic designer with an emphasis on graphic meeting documentation, information graphics, and illustration. Graphic recorders capture thoughts, ideas, and experiences in real time through graphics and text. Her company, DesignbyLeah, is based in the Pittsburgh area, and she travels throughout North America to work as a graphic recorder for numerous events hosted by Fortune 500 companies, non-profits and foundations, supporting clients in the automotive, banking, healthcare, pharma, manufacturing, transportation, and education industries. Leah has a Bachelor of Fine Arts from Carnegie Mellon University and would like to someday complete the master's degree program in media arts she started at Chatham University.

To learn more, visit www.designbyleah.com or email her at leah@designbyleah.com

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Join Us on Twitter!

Anatomy of a Tweet



The screenshot shows a tweet from Health Tech Pitt (@HealthTechPitt) posted 35 minutes ago. The text of the tweet is: "So excited to hear @SBMPresident @DrSherryPagoto of @UConnmhealth deliver her Keynote Presentation on "A Call for a Science of Online Patient Engagement" at the 4th Integrative Conference today! #HealthTech18 #digitalhealth". Below the text is a presentation slide titled "A Call for a Science of Online Patient Engagement" featuring a photo of Sherry Pagoto, PhD, at a computer. The slide also lists her affiliation: "UConn Center for mHealth and Social Media".

1. Tag Conference speakers, departments, universities, centers and other organizations that might have a Twitter to acknowledge their work!
2. Use our Conference Hashtag **#HealthTech18** and other relevant hashtags to be listed on Twitter with other people Tweeting about similar ideas.
3. Post pictures of presentation slides, you and your colleagues, and Conference swag for eye-catching and informative content on people's Twitter feeds!

Conference #Hashtags and @Handles

In addition to our Conference hashtag **#HealthTech18** and the speakers' handles listed with their bios, here are some other popular hashtags and handles you may wish to include in your Tweets!

@HealthTechPitt

@PittInnovates

#digitalhealth

@PittGIM

@CTSIInnovation

#technology

@PittDeptofMed

@sciVelo

#behavioralhealth

@PittPsychiatry

@cmuhcii

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@PittHealthSci

@cmuetc

#MondayMotivation

@UPMC

@CMU_Robotics

@TheISRll

@CarnegieMellon

@SBMDigitalHealth

@UConnmHealth



Pre-Registered Attendees

(as of October 24, 2018)

Mounika Abbareddy	Grace Campbell	Bashaer Halawani	Lea Martin	Andrew Sherow
Kaleab Abebe	Babs Carryer	Tara Hall	Loreta Matheo	Rachel Shields
Kurt Ackerman	Anabel Castillo	Jessica Hamilton	Kristin McCall-Kiley	Jennifer Silk
Emma Adams	Robert Cavanaugh	Jessica Hammer	Mark Meyer	Aditi Sinha
Nada Albar	Rebecca Chia	Bea Herbeck Belnap	Elizabeth Miller	Stephen Smagula
Steven Albert	Perna Chikersal	Will Hierholzer	Catherine Mott	Lillian Smith
Matthew Allen	Hardik Chinoy	Matthew Hogan	Matthew Muldoon	Carl Stevens
Kristen Allen	Mike Christel	Julia Holber	Amy Nevin	Brian Suffoletto
Sarah Alshahrani	Kar-Hai Chu	Linda Holber	Anne Newman	Trisha Surve
Rubaiya Amin	Tammy Chung	Elizabeth Holden	Ken Nischal	Megan Szatkiewicz
Amy Anderson	Joseph Cirrincione	James Huber	Caroline Oppenheimer	Eva Szigethy
Dmitriy Babichenko	Paul Cohen	Dmytro Ilin	Jim Osborn	Janina-Marie Tatar
Sherif Badawy	Jason Colditz	Evan Indianer	Laura Otchy	Don Taylor
Grace Bae	Theresa Crytzer	Kerri Jackson	Michael Ovalle	Renee Thomas
Archana Bahuguna	Jeffrey Depp	Jim Jen	Sherry Pagoto	Rebecca Thurston
Archana Bandi	Joshua Dixon	Manisha Jhamb	Kaidia Pickels	Courtney Tran
Jody Bechtold	Heidi Donovan	Christianne Johnson	Giovanna Porta	Rameshwari Tumuluru
Ellen Beckjord	Afsaneh Doryab	Zariel Johnson	Rishi Prasad	Irene Tung
Abdelkareem Bedri	Ryan Dunning	Charles Jonassaint	Celia Pulver	Melanie Turk
Kevin Bell	Krina Durica	Tafoi Kamara	Ridhima Puri	Raymond Uymatiao
Michele Bertocci	Utibe Essien	Roman Kasparian	Juliet Pusateri	Jonathan Velez
Candice Biernesser	Will Evans	Karen Schmidt	Ana Radovic	Leslie Washington
Jeffrey Bigham	Cori Faklaris	Matt Keener	Jeff Ritter	Andrew Watson
Amber Blackwood	Robert Ferguson	Ciara Kehoe	Bonny Rockette-Wagner	Jonathan Weingarden
Sonya Borrero	Mikael Fern	Betsy Kennard	Bruce Rollman	Woodrow Winchester III
Robert Bossarte	Toren Finkel	Tracy Kennedy	Jane Rollman	Kristin Wolfe
Jaspreet Brar	Ana Flores	Kuk Kim	Daniel Rosen	Daniel Wolpow
David Brent	Zaneta Franklin	Kristi King	Armando Rotondi	Linden Wu
Carolyn Brown	Ray Funahashi	Kathryn Kocurek	Rob Rutenbar	Michael Yingling
Coleton Bryan	Jessica Gannon	Melchizedek Kresge	Khlood Salman	Elynn Youm
Yina Quique Buitrago	Barbara Gawron	Tamar Krishnamurti	Cynthia Salter	Peng Yue
Ashutosh Burde	Brandie George	Jane Leibschutz	Mary Ann Sander	Jamie Zelazny
Lora Burke	Hayley Germack	Jessica Levenson	James Schuster	Ada Zhang
Megan Butler	Mayank Goel	Joan Lockhart	Craig Sewall	Siyang Zhao
Daniel Buysse	Tina Goldstein	Carissa Low	Sam Shabaan	Yaguang Zheng
Jack Cahalane	Katia Goga	John Maier	Yaser Sheikh	Yidi Zhu
Mia Cajita	Destin Groff	Joe Marks		Rick Zoucha

