

CHITA

CONFERENCE ON HEALTH IT AND ANALYTICS

Westin Georgetown 2350 M St NW • Washington, DC 20037

Schedule: Day 1, Friday, November 3, 2017

Time	Session
08:00 am – 08:30 am	Breakfast
08:30 am – 08:40 am	Welcome and Opening Remarks
08:40 am – 09:20 am	Machine Learning in Clinical Decision-Making Insights Panel
09:20 am – 10:00 am	Analytics in the Field Insights Panel
10:00 am – 10:20 am	Break
10:20 am – 11:00 am	Research Panel 1: Healthcare Machine Learning
11:00 am – 12:20 pm	Research Session 1: Physician Decision Making
12:20 pm – 01:20 pm	Lunch
12:45 pm – 01:20 pm	Keynote - Warren D. D'Souza Vice President, Enterprise Data & Analytics University of Maryland Medical System
01:20 pm – 01:30 pm	Break
01:30 pm – 02:30 pm	Research Session 2: Telehealth
02:30 pm – 02:50 pm	Break
02:50 pm – 03:20 pm	Research Session 3: mHealth
03:20 pm – 04:00 pm	Research Session 4: Genetics
04:00 pm – 04:15 pm	Break
04:15 pm – 05:00 pm	Research Panel 2: Payment Reform
05:00 pm – 05:15 pm	Day 1 Wrap-up and Adjournment
06:30 pm – 08:30 pm	Reception

Presented by:



ROBERT H. SMITH
SCHOOL OF BUSINESS

CHIDS CENTER FOR HEALTH INFORMATION
AND DECISION SYSTEMS



SCHOOL OF
PUBLIC HEALTH
UNIVERSITY OF MICHIGAN

Day 2, Saturday, November 4, 2017

Time	Session
08:30 am – 09:00 am	Breakfast
09:00 am – 09:20 am	Research Panel 3: Technology Adoption and Impact
09:20 am – 10:00 am	Research Panel 4: Health Information Exchange
10:00 am – 10:15 am	Break
10:15 am – 11:15 am	Research Session 5: Social Media and Online Ratings
11:15 am – 11:45 am	Break
11:45 am – 12:20 pm	Keynote - Martin “Marty” Makary Surgical Oncologist, Professor of Surgery, NYT best-selling Author Johns Hopkins University School of Medicine
12:20 pm – 01:20 pm	Awards Luncheon and Book Signing
01:20 pm – 02:00 pm	Research Panel 5: mHealth
02:00 pm – 02:45 pm	Research Panel 6: Data Security and Management
02:45 pm – 03:00 pm	Break
03:00 pm – 03:45 pm	Research Panel 7: Social Media
03:45 pm – 03:50 pm	Final Notes on Behavior
03:50 pm – 04:00 pm	CHITA Synthesis and Envisioning a Research Agenda
04:00 pm	Adjourn

Program - Friday, November 3rd, 2017

Time	Session
08:00 am – 08:30 am	Breakfast
08:30 am – 08:40 am	Welcome and Opening Remarks
08:40 am – 09:20 am	Machine Learning in Clinical Decision-Making Insights Panel

*Moderator: **Gordon Gao**, University of Maryland, College Park*

Rema Padman

Professor of Management Science and Healthcare Informatics
Carnegie Mellon University

Hoo Chang Shin

Solutions Architect
NVIDIA

Hong Yu

Professor of Quantitative Health Sciences
University of Massachusetts Medical School

09:20 am – 10:00 am	Analytics in the Field Insights Panel
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*Moderator: **Jeff McCullough**, University of Michigan*

Cupid Chan

Chief Technology Officer
Index Analytics

Charles Gabriel

Analytics & Data Science Manager
Defense Health Agency

Anna Fernandez

Senior Associate, Health Informatics
Booz Allen Hamilton

10:00 am – 10:20 am	Break
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10:20 am – 11:00 am	Research Panel 1: Healthcare Machine Learning
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*Moderator: **Gondy Leroy**, University of Arizona*

Writing for Impact – The Influence of Features in Medical Texts on Comprehension, Perceived Severity and Perceived Susceptibility of Developing the Condition

Gondy Leroy, Mengni Li, Stephen Rains, Nick Kloehn, David Kauchak, Debra Revere
University of Arizona, Pomona College, University of Washington at Seattle

Temporal Pattern Recognition for Acute Kidney Injury Prediction

Mohammad Amin Morid, Olivia R. Liu Sheng, Brian Sheng
University of Utah

A Machine Learning Approach for Understanding Population-Level Health Effects of E- Cigarettes

Wenli Zhang and Sudha Ram
University of Arizona

Predicting Risk of Cervical Cancer Using Artificial Neural Network and Logistic Regression

Yirui Deng , Betty Wang
Ivy Analytics LLC, Bellevue High School

Assessing Multi-Modality Screening Strategies for Women at High Risk of Developing Breast Cancer

Caqlar Caqlayan, Turgay Ayer, Donatus U. Ekwueme
Georgia Institute of Technology, Division of Cancer Prevention and Control,
Centers for Disease Control and Prevention

A Configurational Analysis of Risk Patterns for Predicting the Outcome After Traumatic Brain Injury

Niku Gorji, Zsolt Zador, Simon Poon
University of Sydney, Salford Royal Foundation Trust, University of Manchester

11:00 am – 12:20 pm

Research Session 1: Physician Decision Making

*Session Chair: **Huaxia Rui**, University of Rochester*

How Does Awareness of Financial Incentives Affect Physician Behavior? Evidence from a Randomized Experiment

Margaret McConnell, William Rogers, Emilia Simeonova, Ira Wilson
Johns Hopkins University, Harvard University, Brown University, Tufts University

Way to Better Healthcare: How Clinical Guidelines Guide Surgeons

Yanzhen Chen, Oscar Madrid, and Andrew B. Whinston
Hong Kong University of Science and Technology, University of California, Berkeley, University of Texas at Austin

To Predict or Not to Predict: The Case of Inpatient Admissions to the Emergency Department

Sriram Somanchi, Idris Adjerid, Ralph Gross
University of Notre Dame, Carnegie Mellon University, Disruptive Robotics

12:20 pm – 01:20 pm

Lunch

12:45 pm – 01:20 pm	Keynote - Warren D. D'Souza , Vice President, Enterprise Data & Analytics University of Maryland Medical System
01:20 pm – 01:30 pm	Break
01:30 pm – 02:30 pm	Research Session 2: Telehealth

*Session Chair: **Kartik Ganju**, McGill University*

Rebalancing Geographic Healthcare Disparity through Telemedicine Consultations

Elina Hwang, Xitong Guo, Yong Tan, Yuanyuan Dang
University of Washington, Harbin Institute of Technology

Considering the Efficacy of Telemedicine: A Comparison of Three Analysis Methods

Brent Kitchens, Jennifer Claggett, Elena Karahanna, Thomas Hartka
University of Virginia

Making IT-enabled Organizational Work Practices Work through Knowledge Sharing Mechanisms

Roopa Raman, Varun Grover, Nick Roberts
University of Dayton, University of Arkansas, Colorado State University

02:30 pm – 02:50 pm	Break
02:50 pm – 03:20 pm	Research Session 3: mHealth

*Session Chair: **Haijing Hao**, University of Massachusetts*

Using Exact Patient Mobility Data to Predict Wandering Behavior

Reyhaneh Mogharab Nia, Lorens A. Helmchen, Janusz Wojtusiak
George Mason University, George Washington University

Is It Better to Give Than to Receive? Leveraging Digital Social Connections for Precision Motivation

Che-Wei Liu, Gordon Gao, Ritu Agarwal
University of Maryland, College Park

03:20 pm – 04:00 pm	Research Session 4: Genetics
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*Session Chair: **Aaron Baird**, Georgia State University / **Gwanhoo Lee**, American University*

Personalized Medicine and Big Data: The Value of Targeting

Manuel Hermosilla, Jian Ni
Johns Hopkins University

Exploring Medical Genetic Platforms: The Reuse Challenge

Sirkka Jarvenpaa, M. Lynne Markus
University of Texas at Austin, Bentley University

04:00 pm – 04:15 pm	Break
04:15 pm – 05:00 pm	Research Panel 2: Payment Reform

*Moderator: **Nirup Menon**, George Mason University*

Did Hospitals Benefit from Quality Improvement Efforts of Insurers? A Study of Semicollaborative Networks and Patient Outcomes in the PPACA Era

Nirup M. Menon

George Mason University

The Business of Healthcare: Physician Integration in Bundled Payments

Jan Vlachy, Turgay Ayer, Mehmet U.S. Ayvaci, Srinivasan Raghunathan

Georgia Institute of Technology, University of Texas at Dallas

Measuring Relative Performance of Accountable Care Organizations: The Role of Health Information Technology

Chenzhang Bao, Indranil Bardhan

University of Texas at Dallas

Accelerating the Adoption of Bundled Payment Reimbursement Systems: A Data-Driven Approach Utilizing Claims Data

Wenchang Zhang, Margrét V. Bjarnadóttir, Rubén Proaño, David Anderson, Renata Konrad

University of Maryland, Rochester Institute of Technology, City University of New York, Worcester Polytechnic Institute

Examining Impacts of Clinical Practice Variation on Operational Performance: Implications for Bundled Payment Reform Models

Seokjun Youn, Gregory R. Heim, Subodha Kumar, Chelliah Sriskandarajah

Texas A&M University, Temple University

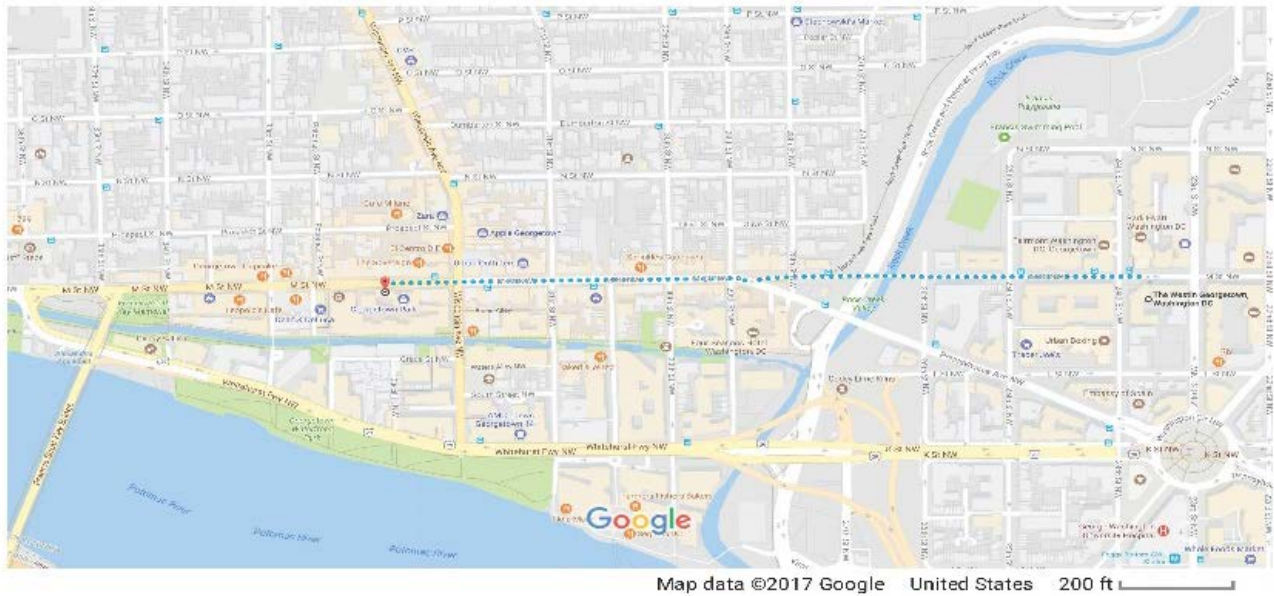
Coordinated Information Flow Improves Chronic Heart Failure Patient Care

Tala Mirzaei, Rahul Singh, Rajiv Kohli, Janice Gasaway

Florida International University, University of North Carolina, College of William and Mary Health Care Analytics at Cone Health

05:00 pm – 05:15 pm	Day 1 Wrap-up and Adjournment
06:30 pm – 08:30 pm	Reception – Clyde's of Georgetown

3236 M Street NW Washington, DC 20007



The Westin Georgetown, Washington D.C. Use caution - may involve errors or sections not suited for walking
 2350 M St NW, Washington, DC 20037

- ↑ 1. Head west on M St NW toward 24th St NW 0.4 mi
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- ↑ 3. Continue onto M St NW 0.3 mi
i Destination will be on the left.

Program - Saturday, November 4th, 2017

Time	Session
08:30 am – 09:00 am	Breakfast
09:00 am – 09:20 am	Research Panel 3: Technology Adoption and Impact

*Moderator: **Christian Wernz**, Virginia Commonwealth University*

Audit or Subsidize? The Impact of IoT Adoption on Nursing Home Rating System

Xu Han, Niam Yaraghi, Ram Gopal
 Florida Atlantic University, University of Connecticut

Repairing the Digital Divide Can Increase the Service Divide: The Effects of Patient Portals on Kidney Allocation

Yeong-In Kim, Mehmet Ayvaci, Srinivasan Raghunathan, Bekir Tanriover
 University of Texas at Dallas, University of Texas Southwestern Medical Center

Downtime of Electronic Health Record Systems and Its Impact on the Clinical Laboratory and Patient Care

Ethan Larsen, Raj Ratwani, Christian Wernz
 Virginia Polytechnic Institute and State University, National Control for Human Factors in Healthcare, Virginia Commonwealth University

09:20 am – 10:00 am

Research Panel 4: Health Information Exchange

*Moderator: **Yuriy Pylypchuk**, HHS/ONC*

The Impact of Health Information Exchange Use on Chronic Disease Management: An Empirical Investigation

Hilal Atasoy, Emre Demirezen, Pei-Yu Chen

Temple University, University of Florida, Arizona State University

Payment Mechanisms, Incentives for Adoption and Value of Health-Information Exchanges (HIEs)

Mehmet Ayyaci, Huseyin Cavusoglu, Yeongin Kim, Srinivasan Raghunathan

University of Texas at Dallas

Does Health Information Exchange Improve Patient Outcomes? Empirical Evidence from Florida Hospitals

Min Chen, Sheng Guo, Xuan Tan

Florida International University

Uncovering Differences in Interoperability Among Hospitals

Yuriy Pylypchuk, Vaishali Patel, Carla S. Alvarado, Talisha Searcy

US Department of Health and Human Services, Office of the National Coordinator for Health Information and Technology, (HHS, OS/ONC)

Participation in Health Information Exchanges and Physicians' Referral Patterns: Are they Mutually Reinforcing?

Saeede Eftekhari, Niam Yaraghi, Ram Gopal, R. Ramesh

State University of New York at Buffalo, The Brookings Institution, University of Connecticut

10:00 am – 10:15 am

Break

10:15 am – 11:15 am

Research Session 5: Social Media and Online Ratings

*Session Chair: **Jennifer Claggett**, University of Virginia*

Are Online Reviews of Physicians Reliable Indicators of Clinical Outcomes? A Focus on Chronic Disease Management

Danish Saifee, Zhiqiang (Eric) Zheng, Indranil Bardhan, Atanu Lahiri

University of Texas at Dallas

Visual Social Media Analytics: Impact of Medical Knowledge on User Engagement

Xiao Liu, Bin Zhang, Anjana Susarla, Rema Padman

University of Utah, University of Arizona, Michigan State University, Carnegie Mellon University

User Engagement and Doctor-Seeking Decision in an Online Health Infomediary

Dobin Yim, Jiban Khuntia, Sanghee Lim, Wenjing Duan

Fordham University, University of Colorado Denver, Johns Hopkins University, George Washington University

11:15 am – 11:45 am	Break
11:45 am – 12:20 pm	Keynote - Martin “Marty” Makary Surgical Oncologist, Professor of Surgery, NYT best-selling Author Johns Hopkins University School of Medicine
12:20 pm – 01:20 pm	Awards Luncheon and Book Signing
01:20 pm – 02:00 pm	Research Panel 5: mHealth

Moderator: Sanghee Lim, Johns Hopkins University

Riding for Likes: Effects of Badge Features in a Wellness Field Experiment

Zachary J. Sheffler, De Liu, Shawn P. Curley

University of Minnesota

The Impact of Sensing Technologies on Multiple Stakeholders in the Elderly Ecosystem

Sharon Tan, Oteng Nstweng, Zhiquan Ong, Fang Zhou, Yingqiu Dong, Kai Luo

National University of Singapore

The Effects of User Contests on Sustained Use of m-Health Applications

Sanghee Lim, Juntae Kim, Nakyung Kyung, Byungtae Lee

Johns Hopkins University, KAIST

Unlocking the Potential of Economic Incentives in Healthcare: The Role of Health Wearables

Idris Adjerid, George Loewenstein, Aaron Striegel, Rachael Purta

University of Notre Dame

02:00 pm – 02:45 pm	Research Panel 6: Data Security and Management
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Moderator: Liz Davidson, University of Hawai'i

Deidentify

Philipp Burckhard, Rema Padman

Carnegie Mellon University

Do Hospital Data Breaches Reduce Patient Care Quality?

Sung Choi, M. Eric Johnson,

Vanderbilt University

Contextual Integrity and Governance of Personal Health Data

Jenifer Sunrise Winter, Liz Davidson

University of Hawai'i at Mānoa

Understanding and Detecting Data Defects in Medicaid Datasets: Towards Higher Data Quality for Better Decision Support

Yili Zhang, Pratik Tamakuwala, and [Günes Koru](#)
University of Maryland, Baltimore County

Population Health and Distributed Health Data Networks: Privacy Preserving Menu-Driven Approaches to Querying Electronic Health Data Sources

[Jessica M. Malenfant](#), Kyle Erickson, Kimberly Barrett, Adam Paczuski, Zachary Wyne, Chayim Herzig-Marx, Jeffrey Brown
Harvard University

A Multi-level Clustering Approach for Anonymizing Physical Activity Data

Pooja Parameshwarappa, [Zhiyuan Chen](#), Günes Koru
University of Maryland, Baltimore County

Synthesizing Data to Target Outreach Efforts for National Disease Control

[Sze-chuan Suen](#)
University of Southern California

02:45 pm – 03:00 pm	Break
03:00 pm – 03:45 pm	Research Panel 7: Social Media

Moderator: **Heiko Gewald**, *The Neu-Ulm University of Applied Sciences, Germany*

Non-Clinical Ratings Provided by Commercial Websites and Clinical Ratings Provided by the Government are Equally Important for Online Users: A Controlled Experimental Survey Study

[Niam Yaraghi](#), Weiguang Wang, Gordon Gao, Ritu Agarwal
University of Connecticut, University of Maryland, College Park

Modeling Physicians' Dynamic Behaviors in an Online Healthcare Community: An Empirical Study Using a Vector Autoregression Approach

Liuan Wang, [Lu \(Lucy\) Yan](#), Xitong Guo, Greg Heim
Harbin Institute of Technology, Indiana University, Texas A&M University

What Satisfies the Patient? An Analysis of Factors Influencing Patient's Online Ratings

Maximilian Haug, [Heiko Gewald](#)
The Neu-Ulm University of Applied Sciences

Using Web-based Social Network Analysis to Guide Behavioral Interventions in Medically Underserved Communities

Erh-Hsuan Wang, [Leming Zhou](#), Valerie Watzlaf, Paul Abernathy
University of Pittsburgh, FOCUS Pittsburgh

Does Psychological Language Used on Twitter Exert a Placebo Effect on County-Level Cancer Mortality?

[Anton Ivanov](#), Raj Sharman, Reda Wilson
State University of New York at Buffalo

Mitigating Data Quality Hurdles in Patient-to-Patient Portals: Are Online Cues Predictors of Good Responses?

Srikanth Venkatesan, Raj Sharman, Ashish Kumar, Ram Bezawada
State University of New York at Buffalo

Healthcare Crowdsourcing: Harnessing the “Wisdom of the Crowd” to Solve Medical Mysteries

Indika Dissanayake, Sridhar Neru, Yang Lee, Rahul Singh
University of North Carolina at Greensboro, University of Texas at Arlington, Northeastern University

03:45 pm – 03:50 pm	Final Note on Physician Behavior
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A Glass Ceiling on Living: Gender Overlap and Disparities in Heart Attack Survival

Brad N Greenwood, Seth Carnahan, Laura Huang
University of Minnesota, University of Michigan, University of Pennsylvania

03:50 pm – 04:00 pm	CHITA Synthesis and Envisioning a Research Agenda
04:00 pm	Adjourn