

FRIDAY, APRIL 12

7:45 AM | WELCOME AND INTRODUCTIONS

Co-Chairs: Keith Gary, PhD, Vice President, BioNexus KC
Mark Hoffman, PhD, Chief Research Information Officer, Children's Mercy

8:00 AM | KEYNOTE

Digital Agriculture – Disruption or Distraction?

Scott Shearer, PhD, PE, Professor and Chair of the Food Agricultural and Biological Engineering, Ohio State University

9:00 AM | DATA ANALYSIS

Moderator: Ryan Moog, Director & Solution Executive, Research, at Cerner Corporation

Bayesian and Bioimmunoinformatic Methods to Understand Rotavirus

Genetics and Antigenicity

Douglas Marthaler, PhD, Associate Professor, Veterinary Diagnostic Laboratory, College of Vet Med, Kansas State University

Building a Quality of Life Prediction Model for Peripheral Artery Disease: A Simple Application of a Machine Learning Algorithm

Kim Smolderen, PhD, Assistant Professor, Implementation Science, University of Missouri-Kansas City

Brain Age Gap Estimate (BrainAGE): A Reliable Brain Health Measure

Hung-Wen (Henry) Yeh, PhD, Research Faculty, Children's Mercy

Digging in Dirt: Finding Signal From Noise

Adina Howe, PhD, Assistant Professor, Agricultural and Biosystems Engineering, Iowa State University

Drug Dosing Variability for Children with Obesity and Asthma

Student: Kathryn Kyler, Children's Mercy

10:00 AM | BREAK

10:30 AM | IMAGE ANALYSIS

Moderator: Devin Koestler, PhD, Assistant Professor of Biostatistics, University of Kansas Medical Center

Root Anatomy Based on Image Analysis with Deep Learning

Doina Caragea, PhD, Professor, Machine Learning & Data Science Lab, Department of Computer Science, Kansas State University

Clinical Applications of Deep Neural Network-Based Image Classification in Oncology

Andrés Bur, MD, Assistant Professor, Department of Otolaryngology – Head and Neck Surgery, University of Kansas Medical Center

Convolutional Neural Networks as an Image Processing Swiss Army Knife

Sean McKinney, Manager, Microscopy Center, Stowers Institute for Medical Research

11:30 AM | DATA APPLICATION

Moderator: Mark Nichols, PhD, TBD

Transforming Type 1 Diabetes Care with Advanced Machine Learning and Quality Improvement Methods

Mark Clements, MD, PhD, Endocrinologist, Associate Professor of Pediatrics, University of Missouri-Kansas City, Children's Mercy

Overcoming Resistance to Immune Based in Colorectal Cancer

Jonathan Mitchem, MD, Assistant Professor – Surgery, School of Medicine, University of Missouri

Improving Decision Making in Elderly Patients with Valvular Heart Disease

Suzanne Arnold, MD, MHA, Clinical Scholar and Noninvasive Cardiologist, Saint Luke's Mid America Heart Institute, Associate Professor, School of Medicine, University of Missouri-Kansas City

Utilizing AI and Embedded Sensors to Provide Early Alerts for Health Changes in Older Adults

Kari Lane, PhD, RN, MOT, Assistant Professor, School of Nursing, University of Missouri

12:30 PM | LUNCH

1:00 PM | MOCK INTERVIEWS