CoCoH 2019

Aug 27, 2019 Secchia Center, Rm 120, Grand Rapids, MI

Sponsored by:

- MSU College of Human Medicine
- MSU College of Natural Science
- Spectrum Health
- Institute for Quantitative Health Science and Engineering (IQ)

RNA-Seq Data Analysis Psychiatry Genetics

Statistical Learning Comparative pathogenomics Systems Medicine

Molecular networks
Penalized Regressions

Transcriptional Analysis Complex Networks Computational Genetics

Phylogenetics Quantitative Genetics Development
Boolean Models

Deep Learning Statistical Genetics Metabolomics

Deta integration

Text-mining Proteomics

Proteomics

Data Visualization Systems Biology Metastatic cancer

Neural Networks

Signaling Pathways Leukemia and Myeloma Computational Biology

Molecular Evolution Multi-Omics Integration Chromatin Structure

Translational bioinformatics Machine learning Computational Toxicology

Drug Repositioning

Bioinformatics Transcriptomics

Statistics

Personalized cancer therapy

Bayesian Methods

Stem Cell Therapy Network Biology ER stress

8:30 am	9:15 am	Registration & Poster set-up	
9:15 am	9:25 am	Welcome & Opening remarks	
9:25 am	9:40 am	Keynote 1: Keith English (MSU)	
Session 1: 9.40am-10.40 am (12 min talks + 3 min Q & A)			
9:40 am	9:55 am	Short talk 1.A George Mias (MSU/IQ) Omics, Individualized Medicine and Detecting Adverse Events in Deep Space Missions	
9.55	10.10	Short talk 1.B Janani Ravi An integrative computational evolutionary approach to accelerate the discovery of molecular targets in prevalent under-studied pathogens	
10.10	10.25	Short talk 1.C Jeremy Prokop Building Precision Medicine Tools with Helen DeVos Children's Hospital	
10.25	10.40	Short talk 1.D Carlo Piermarocchi Neural network models of cell dynamics in normal and hematological cancer cells	
10:40 am	11:00 am	Break	
Session 2: 11am-12 pm (12 min talks + 3 min Q & A)			
11:00 am	11.15	Short talk 2.A Arjun Krishnan Machine learning for fast and accurate for network-based gene classification	

11.15	11.30	Short talk 2.B Sudin Bhattacharya Predictive models of gene regulatory networks in health and disease	
11.30	11.45	Short talk 2.C Gustavo de los Campos Powerful & Safe: Bayesian Models & Decision Rules for GWA analyses with Big Data	
11.45	12.00	Short talk 2.D Yuehua Cui High-dimensional mediation analysis in (epi)genomics studies	
Noon	2:00 pm	Lunch (Boxed Lunch Provided) + Poster Session	
2:00 pm	2:30 pm	Keynote 2: Surender Rajasekaran (HDVCH) Pediatric Multi-Organ Dysfunction Syndrome: A Sequence of Unfortunate Events	
Session 3: 2.30-3.30 pm (12 min talks + 3 min Q & A)			
2:30 pm	2:45 pm	Short talk 3.A Ana Vazquez Integrating Whole Genome Omics to Understand Cancer	
2.45 pm	3.00 pm	Short talk 3.B Yuying Xie Predicting Plant Stress Responses Using Deep Neural Network	
3.00 pm	3.15 pm	Short talk 3.C Adam Alessio Where Artificial Intelligence Meets Quantitative Imaging Biomarkers	
3.15 pm	3.30 pm	Short talk 3.D Bin Chen Harnessing big omics data and artificial intelligence to guide therapeutic discovery	
3:30 pm	4:45 pm	Research Speed-dating	
4:45 pm	5:00 pm	Break	
5:00 pm	5:30 pm	Keynote 3: Hui Shen (VAI) 'Global' DNA Hypomethylation: where, when and why	
5:30 pm	5:40 pm	Closing remarks	
5:40 pm	8:00 pm	Reception Mixer in Secchia	
		·	