Scientific Program

8:00 - 9:00 AM .................................................................Poster Set Up

9:00 - 9:15 AM .................................................................Welcome and Opening Remarks

Jake Chen, PhD
Professor of Genetics and Computer Science
Associate Director, Informatics Institute
Chief Bioinformatics Officer

9:15 - 10:00 AM .................................................................Keynote Presentation

Ying Xu, PhD
Regents-GRA Eminent Scholar Chair
Professor of Bioinformatics and Computational Biology
University of Georgia

"Searching for roots of cancer formation and development in the chemistry of cellular acid-base homeostasis"

Session I: Clinical Informatics and Clinical Research Informatics
Chair: Wayne H. Liang, MD, MS

10:00 - 10:15 AM Talk 1 ......................................................... Wayne Liang, MD, MS
Assistant Professor of Pediatrics and UAB Informatics Institute
Introduction to Clinical Informatics

10:15 - 10:30 AM Talk 2 ......................................................... Stephanie Lenz-Norman, MSN, RN
UAB School of Nursing Adjunct Instructor
EMR Transition for Ambulatory Care
10:30 - 10:45 AM  Talk 3 ............................................. Christine Stoop, DO, MPH  
  Fellow  
  UAB Department of Pediatrics  
  “Baby NINJA: Reduction of Nephrotoxic Medication-Associated Acute Kidney Injury in the NICU

10:45 - 11:00 AM  Talk 4 ............................................. Namasivayam Ambalavanan, MD  
  Professor  
  Departments of Pediatrics  
  Division of Cell Biology and Pathology  
  Clinical Research Informatics, Disease Data Analytics, and Translational Bioinformatics in Neonatal Intensive Care

11:00 - 11:15 AM  Talk 5 ............................................. Matthew Wyatt, MSHI  
  Director of Clinical Research Informatics  
  UAB Informatics Institute  
  UAB i2b2: Present and Future

Poster Session  
  Chair: Matthew Wyatt, MSHI  
  UAB Informatics Institute  

11:15 - 12:30 PM ............................................. Poster Session and Lunch Break

Session II: Biocomputing and statistical genomics  
  Chair: Purushotham V. Bangalore, PhD  
  Professor of Computer Science, Director of Collaborative Computing Laboratory

12:30 - 12:45 PM  Talk 6 ............................................. Sean Davis, MD, PhD  
  Staff Scientist  
  Center for Cancer Research, National Cancer Institute  
  Bioconductor and NCI data resources at Genomic Data Common

12:45 - 1:00 PM  Talk 7 ............................................. Aaron Hall  
  Vulcan Informatics  
  Analyzing large public datasets with automated software solutions can greatly increase research efficiency

1:00 - 1:15 PM  Talk 8 ............................................. Zongliang Yue  
  PhD Student Trainee  
  UAB Informatics Institute  
  WIPER: Weighted in-path edge ranking for biomolecular association networks

1:15 - 1:30 PM  Talk 9 ............................................. Hemant Tiwari, PhD  
  Professor  
  Department of Biostatistics  
  William “Student” Sealy Gosset Professor  
  Statistical genetics and Bioinformatics Toolbox from UAB
Session III: Bioinformatics Methods

Chair: Hemant Tiwari, PhD

1:45 - 2:00 PM  Talk 11  Darshan Shimoga Chandrashekar, PhD  Postdoctoral Fellow  UAB Comprehensive Cancer Center  Department of Molecular and Cellular Pathology  
**UALCAN**: An integrated data-mining platform to facilitate the comprehensive analysis of cancer transcriptome

2:00 - 2:15 PM  Talk 12  Da Yan, PhD  Assistant Professor  UAB Department of Computer Science  
**Scalable De Novo Genome Assembly Using Pregel**

2:15 - 2:30 PM  Talk 13  Alexander Stepanov, PhD  Scientist  UAB Department of Pharmacology and Toxicology  
**Effective analysis of multigenic traits in GWAS**

2:30 - 2:45 PM  Talk 14  Peng Xu, PhD  Postdoctoral Fellow  UAB Informatics Institute  
**Identification of meiotic recombination events based on pedigree analysis of linked reads sequencing data**

2:45 - 3:00 PM  Talk 15  Malay Basu, PhD  Assistant Professor  Department of Pathology  Division of Informatics  
**Developing a Drp1-based gene expression signature (DBGES) as a predictive and prognostic marker for ovarian and other cancers**

3:00 - 3:15pm  ..............................................................Break

Session IV: Applications in Translational Sciences and Precision Medicine

Chair: Elliot Lefkowitz, PhD  
Professor  Department of Microbiology  Director of Informatics  UAB Center for Clinical and Translational Science.
3:15 - 3:30 PM  Talk 16 ....................................................... Christopher Fucile, MS
Scientist
UAB Informatics Institute
Visualizing the B Cell Receptor Repertoire

3:30 - 3:45 PM  Talk 17 ............................................................. Min Gao, PhD
Scientist
UAB Informatics Institute
PAIRS: Partnered Advancement of Informatics Research and Support—A Case Study

3:45 - 4:00 PM  Talk 18 ............................................................. Deeann Wallis, PhD
Associate Professor
UAB School of Medicine
Department of Genetics
Transcriptomic and Proteomic changes in NF1 deficient cells

4:00 - 4:15 PM  Talk 19 ............................................................. Chindo Hicks, PhD
Professor
LSU Health, School of Medicine
Department of Genetics
Program Director
Bioinformatics & Genomics Program
Integrating Germline with Somatic Mutation Information for the Discovery of Biomarkers in Prostate Cancer

4:15 - 4:30 PM

Education Panel ......................................................... Moderator: James Willig, MD, MSPH
Associate Professor
UAB School of Medicine
Division of Infectious Diseases
Assistant Dean for Clinical Education
Director, Research and Informatics Services Center (CFAR).

4:30 - 5:00 PM ............................................................. Eta Berner, EdD
Professor
UAB School of Health Professions
Director
UAB Center for Health Informatics Program
Reception and Poster Award Ceremony
5:15 - 6:30 PM ................................................................. UAB Informatics Institute
THT 144, Vault Conference Room

Committee
Jake Chen (Chair), James Cimino, Hemant Tiwari, James Willig, Elliot Lefkowitz, David Crossman,
Purushotham Bangalore, Merry-Lynn McDonald, Alex Rosenberg, Wayne Liang, Zechen Chong, Matt
Wyatt, Amanda Carballo, Stephanie Ledbetter

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Pathology, UAB Department of Biochemistry and Molecular Biology, UAB Multidisciplinary Clinical
Research Center, UAB Comprehensive Cancer Center.