

# AGENDA UAB 2012 Research Computing Day

September 13, 2012

UAB Hill University Center, Alumni Auditorium

- 8:15 - 9:00 Registration -- coffee
- 9:00 - 9:05 Welcome and Overview, David Shealy, PhD
  - 9:05 - 9:35 "Building Capacity in Data Sciences," Dr. Richard B Marchase, Interim President UAB
  - 9:40 - 10:10 UAB IT 2012 Annual Report, E. Douglas Rigney, PhD, PE, Interim Vice President for Information Technology, Professor, Biomedical Engineering
  - 10:10 - 10:50 Update on UAB Research Computing John-Paul Robinson, Bob Cloud, David Shealy
- 10:50 - 11:00 Break
- 11:00 - 11:45 "Using UAB HPC Computing Resources for Next-Generation Sequence Analysis," Elliot J Lefkowitz, Ph.D., Associate Professor, Department of Microbiology, and Curtis Hendrickson, Research Associate, CCTS/BMI
- 11:45 - 12:30 Lunch
- 12:30: - 2:10 Bioinformatics Session -- listing of talks by section and arrange later
  - 12:30 - 12:50: "Research Computing across the Tree of Life", Bob Thacker, Professor & Interim Chair, Department of Biology
  - 12:50 - 1:10: "Using Power Insight for Research at UAB," James H. Willig, Assistant Professor, Department of Medicine - Infectious Diseases, UAB
  - 1:10 - 1:30: "Computational challenges in storage, analysis and interpretation of Next Generation Sequencing data " Dr. Shouguo Gao, Research Associate, Department of Physics
  - 1:30 - 1:50: "Microbiome analysis", Ranjit Kumar, Research Associate CCTS/BMI
  - 1:50 - 2:10: "Detecting sequence variation in genomic samples", Curtis Hendrickson, Research Associate, CCTS/BMI and John Osborne, CCTS/BMI
- 2:10 - 2:30 Coffee Break
- 2:30 - 4:30 Science and Engineering Applications Session -- listing of talks by section and arrange later
  - 2:30 - 2:50: "Numerical investigation of phase transition in a cellular network and disease onset," I. Johanna Stamper, Xujing Wang, Serkan Guldal, and Elais Jackson
  - 2:50 - 3:10: "Diffusion of odorants into the binding region of the olfactory receptor—a novel perspective." Peter C. Lai and Chiquito J. Crasto, Division of Research, Department of Genetics.
  - 3:10 - 3:30pm: " Computational model to the simulation of cardiac electrical wave propagation" LuFang Zhou, Ph.D., Assistant Professor, Division of Cardiovascular Disease, Department of Medicine & Department of Biomedical engineering
  - 3:30 - 3:50: "Neuroimaging workflow" , Frank Skidmore, Assistant Professor of Neurology
  - 3:50 - 4:10: "Exploration of the microbiota in inflammatory diseases" Matthew Stoll MD; Assistant Professor in Pediatric Rheumatology, Matthew Stoll, M.D. [mstoll@peds.uab.edu]
- 4:15pm -- closing remarks/discussions of issues that need to be resolved.