## CENTER FOR COMPUTATIONAL BIOTECHNOLOGY AND GENOMIC MEDICINE

A NSF Industry/University Cooperative Research Center

Monday, June 8, 2015; 9:30 am - 4:00 pm

**Meeting Agenda** 

Drop Box CCBGM Meeting Materials: <a href="http://go.illinois.edu/ccbgm\_meeting">http://go.illinois.edu/ccbgm\_meeting</a>

9:30-10:45 am **OPENING SESSION** 

Welcome, Kevin White

**Self-Introductions,** Attendees

Update from Center Leadership, Liewei Wang

- Where we are current status of CCBGM
- Industry Memberships
- Industry Participation

Overarching Center Theme - Computational Predictive Genomics, Ravi Iyer

**Discussion and Questions** 

10:45-11 am **BREAK** 

11 am-12:15 pm Computing and Data Management – Scale Big Data

Moderator: Kevin White

Panelists: Travis Drucker, Matt Hudson, Victor Jongeneel, Olgica Milenkovic

- Ultra-high-resolution MR spectroscopic imaging
- Scaling the computation of epistatic interactions in GWAS data
- Information compression algorithms for genomic data storage and transfer

12:15 -1:15 pm **LUNCH** 

1:15-2:30 pm Actionable Intelligence – *Big Data to Knowledge* 

Moderator: Richard Weinshilboum

Panelists: Liewei Wang, Bryan White, Kevin White, Derek Wildman

- Process and integrate multi-omics data
- Merge unstructured phenotypic data, genetic/genomic data and curated data sources to improve diagnostics, prognostics, and theranostics

2:30-3:45 pm **Systems Innovation –** *Accuracy, Speed, and Energy Efficiency* 

Moderator: Mat Wiepert

Panelists: Deming Chen, Andrew Chien, Eric Klee, Ravi Madduri

- Quantifying and improving the accuracy of detecting genomic variation
- Optimize architecture to accelerate genomic workflows

3:45-4 pm Wrap-up, Ravi lyer

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