

## Agenda

# 5th Annual Louisiana Conference on Computational Biology and Bioinformatics

April 7-8, 2017

Xavier University Convocation Center Annex Building,  
New Orleans, LA

Friday, April 7  
1:00 pm - 9:00 pm

Saturday, April 8  
8:00 am - 7:30 pm

## Friday April 7, 2017

1:00 - 1:10 pm ..... Welcome and Opening Remarks  
[K Gus Kousoulas Associate Vice President](#)  
[\(LSU ORED\) / PI LBRN](#)

### Session I: Drug Repurposing, Informatics, and Forensics

Chair: Seetharama Jois, University of Louisiana, Monroe

1:10 – 2:10 pm ..... [Ram Samudrala,](#)  
[University at Buffalo, Jacobs School of Medicine](#)  
*“The Comprehensive solution to characterize and treat every disease”*

2:10 – 2:40 pm ..... [Lisa White](#)  
[Baylor College of Medicine, Genomic & RNA Profiling Core](#)  
*“Forensic Genomics - We've come a long way baby!”*

2:40 – 3:10 pm ..... [Jeremy Brown](#)  
[Louisiana State University](#)  
*“Title: Resolving the tree of life with genome-scale data: consensus, conflict, and extreme influence”*

3:10 – 3:40 pm ..... [Sanjit Batra](#)  
[Baylor College of Medicine, Center for Genome Architecture](#)  
*“Three Dimensional Genome Assembly”*

3:40 – 4:00 pm ..... Break

### Session II: Health Informatics, Big Data, and Computing

Chair: Lucio Miele, LSU Health Sciences Center

4:00 – 5:00 pm ..... [Esteban Gershanik,](#)  
[Office of Public Health, Louisiana Department of Health](#)  
*“Building a Health Information Technology Vision and Strategy for the Future of Louisiana”*

5:00 – 5:30 pm ..... [Phillip Kilgore](#)  
[Louisiana State University, Shreveport](#)  
*“Circos Plots: The Good, the Bad, and the Ugly”*

5:30 – 6:00 pm ..... [Wei Feinstein](#)  
[Louisiana State University](#)  
*“High Performance Computing: Your Partner for Research Competitiveness”*

6:00 – 7:00 pm ..... Cherry Ignacio  
[Partek](#)  
*“From Raw Data to Pathways: Easy Bioinformatics Analysis With Partek Solution”*

**7:00 – 9:00 pm Poster Session and Dinner**

**End Day 1**

## Saturday, April 8, 2017

7:00 – 8:00 am ..... Breakfast

8:00 – 8:10 am ..... Opening Remarks

### Session III: Genomics and Data Visualization

Chair: Urska Cvek, Louisiana State University, Shreveport

8:10 – 9:10 am ..... [Christopher Mason](#),  
[Weil Cornell Medical College, NY](#)  
*“Genomics on Earth and in Space”*

9:10 – 9:40 am ..... [Michelle Lacey](#),  
[Tulane University](#)  
*“Modeling Methylation Patterns with Long Read Sequencing Data”*

9:40 – 10:10 am ..... [Seung-Jong Park](#),  
[Louisiana State University](#)  
*“Development of Large-scale de novo assemblers using high performance computing clusters”*

10:10 – 10:30 am ..... Break

### Session IV: Microbiome and Epidemiology

Chair: Christina Muzny, University of Alabama, Birmingham

10:30 – 11:30 am ..... [Rebecca Brotman](#),  
[University of Maryland, School of Medicine](#)  
*“Molecular Epidemiology of the Vaginal Microbiome”*

11:30 am – 12:00 pm ..... [Christopher Taylor](#),  
[LSUHSC New Orleans, School of Medicine](#)  
*“Visualization and Analysis of Temporal Changes in the Human Vaginal Microbiome”*

12:00 – 12:30 pm ..... Johanna Holm  
[University of Maryland, School of Medicine](#)

*“PECAN: a fast, clustering-independent 16S rRNA gene sequence taxonomic assignment tool”*

12:30 – 1:00 pm ..... J. Cameron Thrash  
[Louisiana State University](#)

*“Exploring microbial relationships to eutrophication in the Mississippi River via a human-powered 2900 km transect”*

1:00 – 2:00 pm ..... Lunch Break

## **Session V: Virology and Infectious Diseases**

Chair: Rhonda Cardin and Joel Baines, Louisiana State University

2:00 – 3:00 pm ..... [Timothy Kowalik,](#)  
[University of Massachusetts, Medical School](#)

*“Leveraging population genetics to reveal clinically relevant aspects of viral infections”*

3:00 – 3:30 pm ..... [Erik Flemington](#)  
[Tulane Health Sciences Center](#)

*“Revealing hidden secrets in viral gene expression through single cell RNA-seq”*

3:30 – 4:00 pm ..... [Nicholas Maness](#)  
[Tulane National Primate Research Center](#)

*“Transcriptional analysis of SIV infected macrophages reveals novel insights into viral and host biology”*

4:00 – 4:30 pm ..... [Shahid Karim](#)  
[University of Southern Mississippi](#)

*“Within the tick vector: Sialome switches to sialome shifts and sialome phases”*

4:30 – 4:50 pm ..... Break

## Session VI: Metabolomics and Proteomics

Chair: Michal Brylinski, Louisiana State University

- 4:50 – 5:50 pm .....[Shawn Campagna](#)  
[University of Tennessee at Knoxville](#)  
*“Application of metabolomics and kinetic flux profiling to understand the metabolic function of microbial consortia and mixed species interactions”*
- 5:50 – 6:20 pm .....[Avdesh Mishra](#)  
[University of New Orleans](#)  
*“Improved Protein Structure Prediction using Advanced Scoring Function and Effective Sampling”*
- 6:20 – 6:50 pm .....[Seetharama Jois](#)  
[University of Louisiana at Monroe](#)  
*“Homo- and heterodimerization of proteins and its inhibition: Implications in cancer and autoimmune diseases”*
- 6:50 – 7:20 pm .....[Sumaiya Iqbal](#)  
[University of New Orleans](#)  
*“Prediction of Peptide-Binding Residues of Receptor Proteins in a Complex”*
- 7:20 - 7:30 pm .....Concluding Remarks

**Dinner on your own**