

# 3<sup>rd</sup> LA Conference on Computational Biology & Bioinformatics

Apr. 17 & 18, 2015

Center for Computation  
& Technology

LSU - ORED

Bioinformatics

Proteomics

Molecular Modeling

Cancer Informatics

NGS Sequencing

Infectious Diseases

Genomics

Drug Discovery

Metagenomics

Medical Diagnostics

LBRN - INBRE

CEIDR - COBRE



## Keynote Speaker

**Anton Nekrutenko (Penn St. U)**  
**James Cavalcoli (Univ of Mich)**

**Christopher Mason (Weil Cornell Med.)**  
**Michael J Salbaum (PBRC)**

## At LSU Digital Media Center

- For registration, agenda, and other detail information, please visit Bioinformatics Conference page : <http://lbrn.lsu.edu/events/bioinformatics-conference/>
- Conference Registration and Hotel Lodging (if required) Deadline:  
Wednesday, April 1st, 2015

**Poster Abstract Deadline: Wednesday, April 1st, 2015**

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# **3rd Annual Louisiana Conference on Computational Biology and Bioinformatics**

April 17-18, 2015

Digital Media Center, LSU Baton Rouge

# **Agenda**

**April 17**

**1:10 pm - 1:20 pm.....Welcome and Opening Remarks**  
**Dr. Gus Kousoulas, Associate Vice President (LSU ORED)**

**Session I:**  
**Computational Tools and Bioinformatics I**  
**Chair: Dr. Brygg Ulmer**

**1:20 pm - 2:20 pm.....Dr. Anton Nekrutenko**  
**“Next-generation sequencing data interpretation: enhancing reproducibility and accessibility”**  
**Penn State University, PA**

**2:30 pm - 2:55 pm.....Dr. Brygg Ullmer**  
**“Toward computational genomics support via ecologies of tangible interfaces and interactive supercomputing”**  
**Louisiana State University CCT**

**2:55 pm - 3:20 pm.....Dr. John R. Caskey**  
**“Big Data and New Methods for Bioinformatics: Analysis from sequence to result”**  
**LSU School of veterinary Medicine and LSU CCT**

**3:20 pm - 3:45 pm.....Dr. Diana Williams**  
**“The Transcriptome of Mycobacterium leprae During Log Phase Growth”**  
**National Hansen’s Disease Program (LSU-SVM)**

**3:45 pm - 4:00 pm.....Break**

## **Session II:**

### **Computational Tools and Bioinformatics II**

**Chair: Joohyun Kim**

**4:00 pm - 5:00 pm.....Dr. James Cavalcoti**  
**Bioinformatics Research Challenges: Producing high-quality, high-confidence & understandable results**

University of Michigan Ann Arbor, MI

**5:00 pm - 5:25 pm..... Dr.Kim Hye-Young**  
**“Self-Assembled Nanostructures of VECAR molecules in Water: Molecular Dynamics Study”**

Southeastern Louisiana University

**5:25 pm - 5:50 pm..... Dr. Seetharama Jois**  
**“Surfing PPI surfaces: Proteomimics and applications in drug design and imaging”**

University of Louisiana at Monroe

**5:50 pm - 6:15 pm..... Dr. Surabhi Mahehwari**  
**“Molecular reconstruction of protein-protein interactions”**

Louisiana State University at Baton Rouge

## **End of Day 1**

# Agenda

**April 18**

## **Session III: Applied Omics**

**Chair: Christopher Taylor**

**9:30 am - 10:30 am.....Dr. Christopher Mason**

**Integrative Genomics in Single Cells, Entire Cities, and Astronauts**

Weill Cornell Medical College, NY

**10:30 am - 10:55 am..... Dr. Kui Yang**

**“Genome-wide screening of human haploid cell to identify cellular factor  
essential for herpes simplex virus replication”**

LSU SVM Baton Rouge

**10:55 am - 11:20 am..... Dr. Pushpendra Singh**

**“Deciphering the molecular markers of mycobacterial transmission and evolution  
using comparative genomics”**

National Hansen's Disease Program, LSU-SVM, Baton Rouge

**11:20 am - 11:55 am..... Dr. Rebecca Christofferson**

**“Exploring arbovirus transmission assumptions”**

LSU SVM Baton Rouge

**12:00 am - 1:30 am..... Posters and Lunch**

## **Session IV: Infectious Diseases**

**Chair: James Cavalcoli**

**1:30 am - 2:30 pm..... Dr. Michael J Salbaum**  
**“Functional Genomics of Birth Defects.”**

Pennington Biomedical Research Center, LA

**2:30 pm - 2:55 pm..... Dr. Juan J Martinez**  
**“Utilization of next generation sequencing technologies (RNAseq) to analyze the transcriptome of Rickettsia rickettsii during fatal Rocky Mountain Spotted Fever infections in a murine model of disease”**

LSU-SVM, Baton Rouge

**3:00 pm - 3:25 pm..... Dr. Jong Hyun Ham**  
**“RNA-seq analyses revealed novel biological functions controlled by the intercellular signaling system of the rice pathogenic bacterium, Burkholderia glumae”**

Louisiana State University-Baton Rouge

**3:25 pm - 3:50 pm..... Dr. Urska Cvek**  
**“A hypothesis-driven approach to identify functionally relevant transcription factor binding sites in ChIP-seq data”**

LSU Shreveport

**3:50 pm ..... Closing Remarks and Acknowledgements**