Agenda

for the

7th Annual Louisiana Conference on Computational Biology and Bioinformatics

April 5-6, 2019

LSU Digital Media Center
Baton Rouge, LA

Friday, April 5
12:50 p.m. - 9:00 p.m.

Saturday, April 6
9:00 a.m. - 4:30 p.m.

7TH ANNUAL LA CONFERENCE ON

COMPUTATIONAL BIOLOGY & BIOINFORMATICS

April 5-6, 2019 · LSU Digital Media Center · Baton Rouge, LA

· Cancer Informatics
· Microbiome and Metagenomics
· Health Informatics, Big Data, and Computing
· Translational Bioinformatics and Data Visualization
· Evolutionary Genomics and Phylogenetics
· Virology and Infectious Diseases

LSU
Center for Computation & Technology

LSU
Office of Research & Economic Development

LBRN

iSCB
INTERNATIONAL SOCIETY FOR COMPUTATIONAL BIOLOGY
AFFILIATED CONFERENCE

LSU
CENTER FOR EXPERIMENTAL INFECTIOUS DISEASE RESEARCH
DIVISION OF BIOTECHNOLOGY AND MOLECULAR MEDICINE · SCHOOL OF VETERINARY MEDICINE

Elodie Ghedin, PhD
Director of Center for Genomics and System Biology – New York University

Devin Absher, PhD
Faculty Investigator - Hudson Alpha Institute for Biotechnology

Byoung-Do (BD) Kim, PhD
Director of Research Computing - University of Virginia School of Medicine

Michael Robeson, PhD
Assistant Professor of Biomedical Informatics - University of Arkansas for Medical Sciences

Ying Xu, PhD
Professor of Bioinformatics and Computational Biology - University of Georgia

Jeremy M. Brown
Associate Professor at Biological Science - LSU

Isidore Rigoutsos, PhD
Director of the Computational Medicine Center, Professor, Thomas Jefferson University

Hanoch Kaphzan, MD PhD
Principal Investigator, Faculty member, University of Haifa

Registration: https://lbrn.lsu.edu/conference-on-biology-and-bioinformatics.html

Friday April 5, 2019

Welcome and Opening Remarks

12:50 - 1:00 pm ……………………………………………………...…… Gus Kousoulas

Associate Vice President (LSU ORED) / LBRN PI

1:00 - 1:05 pm ……………………………………………………….... Stacia Haynie

Executive Vice President & Provost (LSU)

1:05 - 1:25 pm ………………………………………………………... Alfred Tauber

Chairman of the Board of Governors of the University of Haifa

Zoltan Kohn Professor Emeritus of Medicine, Boston University

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Session I: Microbiome Data Science and Protein Interactions

1:25 – 2:25 pm.. Michael Robeson

University of Arkansas for Medical Sciences

Cultivating a community that enables scalable, extensible, and reproducible microbiome data science

2:25 – 2:45 pm.. Seetharama Jois

University of Louisiana Monroe

Conformation convergence: NMR and MD simulations of SFTI grafted peptides that inhibit protein-protein interaction

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Session II: Epigenomics and Complex Human Traits

2:45 – 3:45 pm.. Devin Absher

Hudson Alpha Institute for Biotechnology

Bioinformatic approaches to untangling epigenetic complexity

3:45 – 4:05 pm.. Manisha Panta

University of New Orleans

Prediction of hierarchical classification of transposable elements using machine learning techniques

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4:05 – 4:20 pm... Break

Session III: Computational Evolutionary Biology and Sequence Variation

4:20 – 5:20 pm.. Jeremy Brown

Louisiana State University

The genomic landscape of phylogenetic variation

5:20 – 5:40 pm.. Joshua Vandenbrink

Louisiana Tech University

Transcriptomic analysis of arabidopsis thaliana exhibiting novel blue-light phototropism on board the international space station

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Session IV: Health Disparities and Clinical Informatics

5:40 – 6:40 pm.. Isidore Rigoutsos

Thomas Jefferson University

Novel nuclear and mitochondrial RNAs that are linked to key pathways and depend on sex, population origin, and race

6:40 – 7:00 pm.. Loren Gragert

Tulane University

Clinical informatics tools for precision histocompatibility assessments in solid organ transplantation

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7:00 pm – 9:00 pm Poster Session and Dinner
: at Emerging Technology Center

End of Day 1

Opening Remarks

9:00 - 9:10 am .... Gus Kousoulas

Associate Vice President (LSU ORED) / PI LBRN

Session V: Psychiatric Disorders and Viral Genome Evolution

9:10 – 10:10 am.. Hanoch Kaphzan

University of Haifa

The use of bioinformatics tools in the study of Angelman syndrome

10:10 – 10:40 am.. Leonid Brodsky

University of Haifa

Virus genome micro-evolution: computational study of mutations in virus genome sequencing data

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10:40 – 10:50 am...Break

Session VI: Cancer Bioinformatics

10:50 – 11:50 am... Ying Xu

University of Georgia

Maintaining intracellular acid-base homeostasis is probably at the core of cancer formation, progression and metastasis

11:50 – 12:10 pm... Chindo Hicks

Louisiana State University Health Sciences Center - New Orleans

A novel integrative bioinformatics approach to modeling pathway crosstalk between germline and somatic genomes in cancer

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12:10 pm – 1:10 pm Lunch: at DMC Building Lobby

Session VII: Genomics of Infectious Diseases and Respiratory Infections

1:10 – 2:10 pm... Elodie Ghedin
New York University
Microbial networking in respiratory infections

2:10 – 2:30 pm.. Weishan Huang
Louisiana State University
Heterogeneity of regulatory T cells in the mouse airway during influenza infection

2:30 – 2:40 pm...Break

Session VIII: High Performance Computing, Cloud Computing and Big Data

2:40 – 3:40 pm.. Byoung-Do Kim
University of Virginia
Advanced computing solutions for biomedical research

3:40 – 4:10 pm.. Ruzhu Chen
International Business Machines
Genomics Application Performance on Power

4:10 - 4:30 pm…………………………….... Meeting Wrap-Up and Awards Announcement

End of Meeting