Agenda

for the

8th Annual Louisiana Conference on Computational Biology and Bioinformatics

April 15-17, 2021

Virtual Meeting via Zoom

Thursday, April 15
12:30 pm - 5:30 pm (CDT)

Friday, April 16
12:30 pm - 5:30 pm (CDT)

Saturday, April 17
9:00 am - 12:00 pm (CDT)

All Times given in Central Time Zone
Thursday April 15, 2021

12:30 – 12:40 pm ................................................................. Day 1 Opening Remarks
Louisiana Biomedical Research Network

Session I: NIH STRIDES Initiative
12:40 – 1:00 pm ................................................................. Dr. R. Todd Reilly
NIH STRIDES
The NIH STRIDES Initiative - Overview

1:00 – 1:30 pm ................................................................. Dr. Ankit Malhotra
Amazon Web Services
Transforming Biomedical Research with AWS

1:30 – 2:00 pm ................................................................. Dr. Erin Chu
Amazon Web Services
Powering the Open Science Flywheel

2:00 – 2:15 pm ................................................................. Amazon Web Services Q&A

2:15 – 2:30 pm ................................................................. Break

2:30 – 3:00 pm ................................................................. Dr. Alexander Titus
Google Cloud
Life Sciences with Google Cloud

3:00 – 3:30 pm ................................................................. Dr. Ross Thomson
Google Cloud
Multi-Cloud for Science Productivity

3:30 – 3:45 pm ................................................................. Google Cloud Q&A

3:45 – 4:00 pm ................................................................. Break

4:00 – 4:20 pm ................................................................. Mr. Matt Gieseke
NIH STRIDES
The NIH STRIDES Initiative - Training Spotlight

4:20 – 4:30 pm ................................................................. Day 1 Closing Remarks
Louisiana Biomedical Research Network

4:30 – 5:30 pm ................................................................. Poster Session #1
Friday April 16, 2021

12:30 – 12:50 pm.................................................................Lakshmi Kumar Matukumalli
NIGMS/NIH
Introductory Remarks

Session II
12:50 – 1:50 pm.................................................................Dr. Lauren Ancel Meyers
Director, UT COVID-19 Modeling Consortium, University of Texas at Austin
Modeling to Mitigate COVID-19 in a Large US City

1:50 – 2:25 pm.................................................................Dr. Sara Suliman
Brigham and Women’s Hospital, Harvard Medical School
Integration of Genetic and Transcriptional Profiles of Innate Cells to Decipher Mechanisms of TB Susceptibility

2:25 – 2:45 pm.................................................................Dr. Matthew Hayes
Xavier University of Louisiana
Leveraging Hi-C and Whole Genome Shotgun Sequencing for Double Minute Chromosome Discovery

2:45 – 3:00 pm.................................................................Break

3:00 – 3:20 pm.................................................................Md Wasi Ul Kabir
University of New Orleans
A Sequence-based Machine Learning Method to Effectively Predict DNA and RNA Binding Residues

3:20 – 4:20 pm.................................................................Dr. Catherine Lozupone
University of Colorado Anschutz Medical Campus
Systems Analysis of Gut Microbiome Influence on Metabolic Disease in HIV and High-risk Populations

4:20 – 4:30 pm.................................................................Day 2 Closing Remarks
Louisiana Biomedical Research Network

4:30 – 5:30 pm.................................................................Poster Session #2
Saturday April 17, 2021

9:00 – 9:10 am................................................................. Opening Remarks
Louisiana Biomedical Research Network

Session III

9:10 – 10:10 am.................................................................Dr. Moriah Szpara
The Pennsylvania State University
Herpes Simplex Viruses -- As Unique and Long-lived as their Human Hosts

10:10 – 10:30 am.................................................................Dr. Claire Birkenheuer
Louisiana State University School of Veterinary Medicine
ICP22 Maintains Transcriptionally Active RNA Polymerase II on the HSV-1 Genome During Lytic Infection

10:30 – 10:45 am.................................................................Break

10:45 – 11:45 am.................................................................Dr. Michelle Lacey
Tulane University
Beyond p-Values: The Role of Statistics in Epigenetic Research

11:45 - 12:00 pm......................................................... Meeting Wrap-Up and Awards Announcement
Louisiana Biomedical Research Network
### Thursday April 15, 2021 Poster Session from 4:30pm - 5:30pm CDT

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<tr>
<th>Session Day / Room #</th>
<th>Name</th>
<th>iPoster Title</th>
<th>Institution</th>
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<tr>
<td>Thursday, Room #1</td>
<td>Jacob Elnaggar</td>
<td>Shotgun Metagenomic Sequencing of Vaginal Specimens Suggests Potential Involvement of Lactobacillus Phage Preceding Incident Bacterial Vaginosis</td>
<td>LSUHSC-NO</td>
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<tr>
<td>Thursday, Room #2</td>
<td>Claire Birkenheuer</td>
<td>ICP22 maintains transcriptionally active RNA Polymerase II on the HSV-1 genome during lytic infection</td>
<td>LSU-BR</td>
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<td>Thursday, Room #3</td>
<td>Waneene Dorsey</td>
<td>Comparison of Differential Gene Expression in Cultured Human Tissue Exposed to the Human Rhinovirus 16 and Carbamate/Organophosphate Pesticides</td>
<td>GSU</td>
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<td>Thursday, Room #4</td>
<td>Ugochi Emelogu</td>
<td>Target genes of Hoxa1 time series sequencing: a gene regulatory network approach.</td>
<td>SUBR</td>
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<tr>
<td>Thursday, Room #5</td>
<td>Seetharama Jois</td>
<td>EGFR in cancer: dimers, dynamics and more.</td>
<td>ULM</td>
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<td>Thursday, Room #6</td>
<td>Derrick Mullins</td>
<td>Simulating Double Minute Evolution using Java</td>
<td>XULA</td>
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<td>Thursday, Room #7</td>
<td>Urska Cvek</td>
<td>Substance Abuse Trends in North Louisiana Young Women of Child Birth Age and Children</td>
<td>LSU-S</td>
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<td>Thursday, Room #8</td>
<td>Achyut Dahal</td>
<td>Design of Peptides as Protein-Protein Interaction Inhibitors for SARS-CoV-2 and Angiotensin-Converting Enzyme2 Interaction.</td>
<td>ULM</td>
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<td>Thursday, Room #9</td>
<td>Marjan Trutschl</td>
<td>Pharmacometabolomics and Pharmacoproteomics Analysis for Cardiovascular Disease</td>
<td>LSU-S</td>
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<td>Thursday, Room #10</td>
<td>Jafin Jobayer Sonju</td>
<td>pH-sensitive liposome formulation of peptidomimetic-doxorubicin conjugate for targeted delivery of anticancer conjugate on HER2 positive lung and breast cancer</td>
<td>ULM</td>
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<td>Thursday, Room #11</td>
<td>April Wright</td>
<td>Discriminating among complex hierarchical models for phylogenetic inference</td>
<td>SELU</td>
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<tr>
<td>Thursday, Room #12</td>
<td>Md Wasi Ul Kabir</td>
<td>Machine Learning-based Effective Prediction of Protein Disordered Regions</td>
<td>UNO</td>
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### Friday, April 16, 2021 Poster Session from 4:30pm - 5:30pm CDT

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<td>Leveraging Hi-C and Whole Genome Shotgun Sequencing for Double Minute Chromosome Discovery</td>
<td>XULA</td>
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<td>Friday, Room #2</td>
<td>Kyle Piller</td>
<td>Life in the fastlane: Testing for congruence among transcriptomic signatures in model organisms</td>
<td>SELU</td>
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<td>Friday, Room #3</td>
<td>Basanta Khakurel</td>
<td>Species Delimitation in Eastern Pine Snakes (Pituophis melanoleucus)</td>
<td>SELU</td>
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<td>Friday, Room #4</td>
<td>Angela Nguyen</td>
<td>Cancer Genomes with eccDNA Oncogene Amplification Show Evidence of Deletion-Episome Model of Double Minute Chromosome Formation</td>
<td>XULA</td>
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<td>Friday, Room #5</td>
<td>Aasish Rijal</td>
<td>A Sequence-based Machine Learning Method to effectively predict DNA and RNA Binding Residues</td>
<td>UNO</td>
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<td>Friday, Room #6</td>
<td>Duaa Alawad</td>
<td>Reconstructing gene regulatory network for the differentiation of hematopoietic stem cells</td>
<td>UNO</td>
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<td>Friday, Room #7</td>
<td>Ishita Choudhary</td>
<td>Compartment-specific transcriptomics of ozone-exposed murine lungs reveal sex- and cell type-associated perturbations relevant to mucoinflammatory lung diseases</td>
<td>LSU-BR</td>
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<td>Friday, Room #8</td>
<td>Thao Vo</td>
<td>Vesicular and extravascular protein signatures from the airspaces of ozone-exposed mice reflect mucoinflammatory disturbances</td>
<td>LSU-BR</td>
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<td>Friday, Room #9</td>
<td>Chukwumaobim Nwokwu</td>
<td>Small RNA Sequencing and Computational Analysis Identifies Differentially Transcribed MicroRNAs that Regulate Nuclear Oxidative Damage in Human Astrocytes Exposed to Sodium Dichromate</td>
<td>LATECH</td>
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<td>Friday, Room #10</td>
<td>Elia Brodsky</td>
<td>Effect of circulating PfAMA1 haplotype variants in Ghana on interaction with PFRON2 for merozoite invasion and vaccine development strategies</td>
<td>PineBio</td>
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<td>Friday, Room #11</td>
<td>Phillip Kilgore</td>
<td>Augmenting Self-Organizing Maps to Depict Categorical Data</td>
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