

[View this email in your browser](#)

## News, Opportunities and Deadlines for January 2024

### Report : 22nd LBRN Annual Meeting

January 19-20, 2024



We are pleased to invite you to

# 22<sup>nd</sup> LBRN Annual Meeting

Baton Rouge Marriott | January 19-20, 2024

Registration at  
<https://lbrn.lsu.edu/>

The 22nd LBRN Annual Meeting was held on 19-20 January 2024. We recorded 180 conference registrations via online and onsite for the event, 43 posters were presented by project PIs, graduate students, and undergraduates in our partners, and outreach campuses that are part of the LBRN system throughout the state of Louisiana.

#### **The meeting hosted three invited speakers:**

On the first day, Friday, Dr. Ram Samudrala gave a presentation on CANDO and the infinite drug discovery frontier, and Dr. Oliver A. Garden also gave a presentation on the topic of Innovating in the Era of One Health Through IDeAs.

On the second day, Saturday morning,

Dr. Charles Wood gave a presentation on Research, Training and Capacity building on HIV and Associated Diseases in Sub-Saharan Africa: Opportunities and Challenges.

**Dr. Ram Samudrala**

Dr. Ram Samudrala is a professor of computational biology and bioinformatics at the University at Buffalo, United States. He researches protein folding, structure, function, interaction, design, and evolution. Samudrala's research focuses on protein challenges such as their inception. His work has been published in the *CASE* protein structure prediction competition. With co-authors, he has developed and applied protein structure prediction models to predict protein structures with combined hierarchical search space with parallel search as well as the Decoy RF evaluation. His research group has developed a framework for protein structure, function, atomic, molecular, genomic, proteomic, systems, and organismal framework to explore the interaction of protein sequences based on genomic single molecules as well as entire systems. The framework was developed by analysis of Novartis Drug Opportunities (CANDO) and finished genome sequence analysis. His group has also applied these methods to drug discovery.

**Dr. Oliver Garden**

Dean and Kenneth P. Burns Endowed Chair in Veterinary Medicine, LSU School of Veterinary Medicine, Louisiana State University

My research focuses on mechanisms of peripheral resistance in health and disease, spanning the molecular, cell, tissue, and organ levels of both autoimmune disease and cancer. I have interrogated the role of regulatory T cells and more recently myeloid-derived suppressor cells in this context.

**Dr. Charles Wood**

Dr. Charles Wood is Cancer Crusader Professor of the Department of Interdisciplinary Oncology at the LSUHSC and Associate Professor of Research at the LSUHSC Cancer Center. His significant academic and administrative experience includes serving as the director of a research center, the principal investigator (PI) and Co-PI of several active major grants, and multi-investigator projects, serving as PI of two Fogarty International training programs on HIV, and a virology T32 training program. He joined LSUHSC and the University of Nebraska, where he held the University Professorship and was founder and director of the Nebraska Center for Virology in 2000, an COBRE grant system that spans the entire University of Nebraska system. During his first entree into the network throughout the state. While with Abbott Laboratories in the early 1980s, he was a member of the team that developed the world's first Human Immunodeficiency Virus (HIV) antibody test and was the first to clone an HIV recombinant protein to be used in western blot for HIV confirmatory assay.

Attendees from a total of **12 campuses** throughout Louisiana attended for posters, presentations, and the exchange of scientific opinions. The following is a list(alphabetical order) of campuses that attended.

- Grambling State University
- Louisiana State University - Baton Rouge
- Louisiana State University - Shreveport
- Louisiana Tech University
- Loyola University New Orleans
- LSUHSC - New Orleans
- Southeastern Louisiana University
- Southern University and A&M College
- Southern University at New Orleans
- Tulane University
- University of Louisiana at Monroe
- Xavier University of Louisiana



### Poster Presentation Results:

1st Place

**Erica Delaune** (Southeastern Louisiana State University)

Title: Effect of Sodium Bicarbonate on Antimicrobial Resistance

2nd Place

**Duaa Mohammed Alawad** (University of New Orleans)

Title: EnsembleRegNet: Leveraging Ensemble Encode-decoder and Multiple-Layer Perceptron Bagging for Predicting Gene Regulatory Networks form Single-Cell RNA-Seq Data

3rd Place

**Christella Nelson** (Louisiana State University- BTR (VETMED)

Title: Kinase Inhibitors as a Potential Antiviral Drug against HSV-1 infection



## Oral Presentation Results:

### 1st Place

Pilot Project: **Stassi DiMaggio** "Development of a Targeted Dual Acting Drug Delivery System"  
(Assistant Professor: Xavier University of Louisiana)

### 2nd Place

Full Project: **Jean Christopher Chamcheu** "Development of fisetin as a novel inhibitor co-targeting PI3K/AKT/mTOR/Rac1 and IL-17A"  
(Assistant Professor: Southern University and A&M College)

### 3rd Place

Start-Up Project: **Hailey Barnett** "Development of a modeling system for hydrogel-based drug delivery predictions"  
(Assistant Professor: University of Louisiana at Monroe)



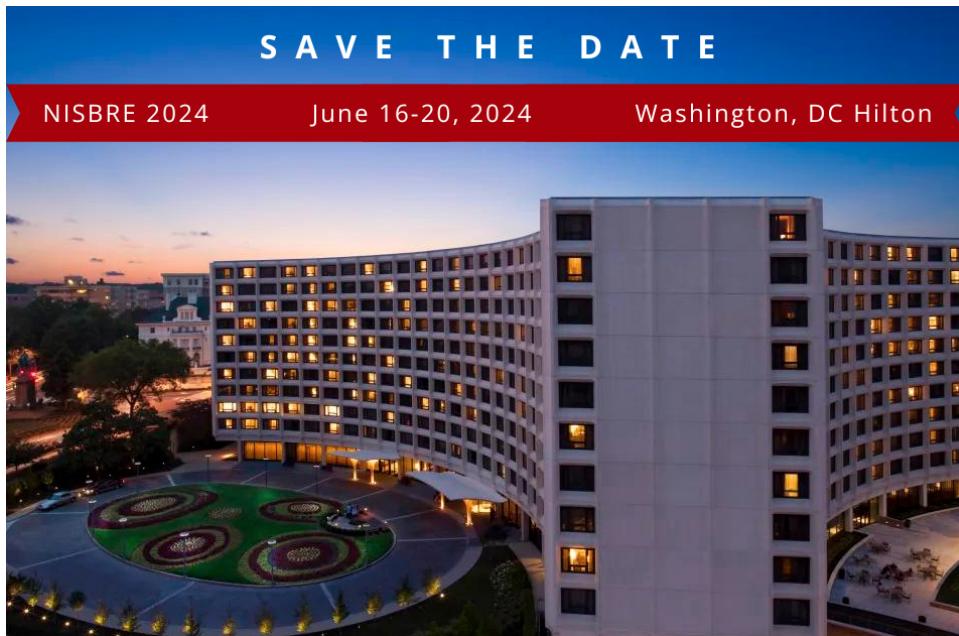
***Please click the link below to view the award results***



---

**Save the Date  
for  
2024 NISBRE Conference**

2024 National IDeA Symposium of Biomedical Research Excellence (NISBRE) Conference



NAIPI aims to protect and promote the IDeA programs. It fosters interactions, promotes resource sharing, enhances the national visibility of the INBREs, COBREs, and CTRs, develops consensus on priorities, identifies and disseminates best practices, identifies opportunities and develops strategies.

The 9<sup>th</sup> Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE) will be held in Washington, D.C. June 16-20, 2024 at the Washington Hilton. Louisiana State University (LSU) has been awarded an NIH: NIGMS U13 grant to organize 2022, 2024, and 2026 NISBRE meetings.

**Dates : JUNE 16-20, 2024**

**Location : Washington Hilton, Washington, D.C.**

More information to follow

---

## The Next Gen. Conversations at Louisiana Tech University

Please join the Next Gen. Conversations.

Albany at Tech

June 11 - 15, 2024

Louisiana Tech University in Ruston

After a very successful 40 year series of Conversations at SUNY Albany,  
the Next Gen. Conversations will be held at Louisiana Tech

Additional information is at <https://coes.latech.edu/albany-conversations/>



## Fundamentals for Proteomics Workshop



The Fundamentals for Proteomics Workshop targets those investigators and their students considering an experiment in global proteomics to enhance their understanding of their biological system. Various topics are included from experimental design, sample preparation, data collection, and bioinformatics analysis. This year the workshop's theme is "**Pitfalls of Proteomics**" (and how to avoid them). To increase the success of any protein mass spectrometry experiment the researcher needs to communicate with the National Resource before beginning the experiment. Faculty and students with research projects heavily utilizing proteomics techniques are encouraged to apply. Preference will be given to attendees in [IDeA-states](#). Travel and lodging are provided for selected attendees.

The 2024 workshop will be held March 13 – 14, 2024. The deadline to apply is December 15, 2023.



# Fundamentals of Proteomics Workshop

**March 13-14, 2024**

University of Arkansas for Medical Sciences  
Little Rock, Arkansas



Hosted by Dennis Province, PhD  
Director of Education and Outreach

**This Fundamentals of Proteomics Workshop is designed  
for research faculty and students to provide:**

- Overview of quantitative proteomics workflows
- How to design a proteomics experiment
- Avoiding sample preparation pitfalls
- Leveraging proteomics data for publications and grant submissions

**Deadline to apply for all workshops is Dec. 15, 2023.**



Stephanie Byrum, PhD



Rick Edmondson, PhD



Mike Kinter, PhD



Sam Mackintosh, PhD



Alan Tackett, PhD



**APPLY NOW**

Applications are available by scanning the QR code above or visit [UAMS.info/ProteomicsFundamentals](https://UAMS.info/ProteomicsFundamentals). For more information, contact Dennis Province ([DProvince@UAMS.edu](mailto:DProvince@UAMS.edu)). Preference is given to researchers in IDeA-eligible states. Travel and lodging are provided to attendees.

Workshop is supported by the IDeA National Resource for Quantitative Proteomics (R24GM137786).

## Symposium for Proteomics Core Directors and Staff



The topic for the symposium this year is the DIA workflow. Data Independent Acquisition (DIA) is rapidly becoming the most popular global proteomic workflow. Instrumentation geared towards the DIA workflow have dominated the market in recent years. This year's symposium is centered around this very important technique. Whether you are a facility that has never tried DIA or you have years of experience this workshop will cover the details from experimental design to data processing in a highly interactive format. Attendees will also share best practices, discuss cutting-edge techniques, and dialog about shared instrumentation grants.

The 2024 workshop will be held February 20 – 21, 2024. The deadline to apply is December 15, 2023.

**IDeA** National Resource for Quantitative Proteomics

# Core Directors' Symposium

**February 20-21, 2024**  
University of Arkansas for Medical Sciences  
Little Rock, Arkansas

Hosted by Dennis Province, PhD  
Director of Education and Outreach

**This Symposium is designed for Proteomics Core Directors and staff to provide the following:**

- Best business and operational practices
- Current trends in sample preparation, data collection, and bioinformatics
- Discovery proteomics workflow implementation into a core lab
- Dialog about shared instrumentation grants
- Positioning a core lab for long-term sustainability

**Deadline to apply for all workshops is Dec. 15, 2023.**

Stephanie Byrum, PhD   Rick Edmondson, PhD   Mike Kinter, PhD   Sam Mackintosh, PhD   Alan Tackett, PhD

APPLY NOW

Applications are available by scanning the QR code above or visiting [UAMS.info/ProteomicsCore](http://UAMS.info/ProteomicsCore).  
For more information, contact Dennis Province ([DProvince@UAMS.edu](mailto:DProvince@UAMS.edu)). Preference is given to core directors and their staff in IDeA-eligible states. Travel and lodging are provided to attendees.  
Workshop is supported by the ID*E*A National Resource for Quantitative Proteomics (R24GM137786).

### • New Year's Resolutions: NIH Funding Edition

New year, same list of resolutions as last year, right? Consider freshening them up with some suggestions from NIH staff.

- **Start the year with a [plan](#).** If your NIH-funded research generates scientific data, make sure you develop a [data management and sharing plan](#), specifically.
- **Keep it simple.** We're taking this one to heart and working to [simplify the peer review framework of research project grant applications](#) and [improve NRSA fellowship review](#) in 2025. On a related note, make it easy on reviewers by making sure your application clearly responds to the [review criteria](#) found in the funding opportunity.
- **Embrace change.** And not just grant application form changes.

---

### LONI HPC Allocation for LBRN



To support the LBRN / BBC Core community on LONI HPC systems, we have renewed our high-performance computing allocation for 2024.

This can be utilized in lieu of individual investigators having to apply for and acquire their own allocations to access the HPC resources. If any of your campus members need access to high performance computing, please have them interface with [Dr. Nayong Kim](#).

---

## LBRN "Core Bucks"



The BBC Core and MCBR Core offer researchers the opportunity to earn “Core Bucks” to support faculty and students upto \$1500. Requests for Core Bucks from Member Institutions must be initiated through the respective Core Contact on campus.



### - The Bioinformatics, Biostatistics, and Computational Biology Core (BBC Core)

The BBC Core serves to train and support project investigators and their teams across Louisiana. It works to enable Louisiana Biomedical Research Network project PIs and their teams to employ Louisiana cyberinfrastructure (especially high performance computing), and to provide bioinformatics services, training, and educational support.

The core provides bioinformatics training, conducts workshops, and provides bioinformatics analysis services. The core also provides access to the IBM Delta Cluster and has a dedicated BBC allocation for the high performance computing resources at LSU. The BBC Core maintains software licenses and access to Ingenuity Pathway Analysis (IPA), Partek Flow, DNASTAR, and Ion Torrent analysis software. In addition, several open source tools for bioinformatics such as bowtie, tophat, cufflinks, samtools, GATK, QIIME, DADA2, Phyloseq, etc. are installed and maintained.

Some examples of standard bioinformatics workflows that can be supported through core bucks requests:

- Gene Pathway Analysis

- RNA-Sequencing Processing and Analysis
- 16S rRNA Microbial Community Analysis
- ITS2 Fungal Community Analysis

Other workflows can be developed or adapted from existing software on an as needed basis.

For more information, see: <https://lbrn.lsu.edu/cores.html#corebucks>



#### **- The Molecular and Cell Biology Resources Core (MCBR Core)**

MCBR Core Services include both one-on-one training for faculty and students as well as workshops on topics like bioinformatics and protein purification.

Sample services:

##### **1. Molecular Biology Reagent Equipment and Services**

- GeneLab provides conventional and next generation nucleic acid sequencing (NGS), and recombinant DNA Service. NGS equipment includes Torrent PGM, Ion Proton etc
- NGS Services provides a reliable connection between NGS experiments and the analysis of NGS data

##### **2. Protein Production, Purification and Characterization Laboratory**

- Protein Purification and Characterization includes semi automated Bio-rad profinia affinity chromatography system, AKTA Explorer FPLC system, and HPLC and ultracentrifugation equipment
- Peptide Synthesis and purification
- Protein-protein interactions are investigated using primarily Surface Plasmon Resonance (SPR) implemented on Biacore and ForteBio SPR equipment. Additional physicochemical characterization of protein-protein interactions is available through collaborations with the LSU Department of Chemistry.
- Gene-to-Protein-to-Antibody Services – you provide the gene, we return an antibody

##### **3. Molecular Immunopathology Laboratory Services**

- Pathology Services including necropsy procedures, gross and histopathological examinations and interpretation of immunohistochemistry and special stains performed by veterinarians and histology specialists
- Flow Cytometry and immunophenotyping Services

- Multiplex/Luminex complements immunophenotyping services for rapid and standardized analysis of soluble factors e.g., lymphokines, using bead based array technology.
- Microscopy – contains transmission and scanning electron microscopes, a laser dissection microscope, a Leica TCS SP2 for 3D fluorescence microscope, and a high-throughput digital slide-scanner.

For more information, see: <https://lbrn.lsu.edu/cores.html#corebucks>

---

## NIH LBRN Acknowledgement

So that we can most effectively communicate the scope and results of our funding support, we would like to know when you are planning news announcements about IDeA awards or program activities and achievements...

When you produce such material, please be sure to identify the IDeA program, not just the INBRE, COBRE or sub-program, and to provide context about the program's goals along the lines of:

The University of \_\_\_\_\_ has received \$XXX from the National Institutes of Health (NIH) to support an Institutional Development Award (IDeA) Center of Biomedical Research Excellence. The IDeA program builds research capacities in states that historically have had low levels of NIH funding by supporting basic, clinical and translational research; faculty development; and infrastructure improvements.

In journal articles, news releases, or other materials about your program's activities or achievements, please use funding acknowledgement language such as:

Research reported in this {publication, release} was supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under grant number 5 P20 GM103424-21.

- In journal articles, oral or poster presentations, news releases, news and feature articles, interviews with reporters and other communications, acknowledge the IDeA program's full or partial support of the research. The citation in scientific publications should use the following format:

*Research reported in this publication was supported by an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under grant number P20GM103424-21.*

- If you wish to acknowledge NIH/NIGMS funding on your Web site or other communication product, you may use wording such as:

*Funded by an Institutional Development Award (IDeA) from the National Institutes of Health.*  
or

*Funded by the LBRN (2P20GM103424-21) an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health.*

**Please do not use the NIH or NIGMS logo to acknowledge funding, as these logos are only to be used for material produced by NIH and its components.**



Copyright © LBRN

Want to change how you receive these emails?  
You can [update your preferences](#) or [unsubscribe from this list](#).

This email was sent to [nkim@lsu.edu](mailto:nkim@lsu.edu)  
[why did I get this?](#) [unsubscribe from this list](#) [update subscription preferences](#)  
LSU · Louisiana State University · 2017 Digital Media Center · Baton Rouge, La 70803 · USA

