9th National IDeA Symposium of Biomedical Research Excellence (NISBRE)

June 16-19, 2024
Washington Hilton, Washington DC
The LBRN team and the LSU College of Veterinary Medicine are hosting NISBRE 2024 in Washington, DC. We had an amazing attendance with around 30 school members and over 1,200 attendees. Congratulations to NISBRE 2024 Conference Chair Dr. Gus Kousoulas, Program Manager Ojasvi Dutta, and Business Coordinator Brattie Leary on their tremendous achievement!

### 2024 LBRN Summer Research Program

The Louisiana Biomedical Research Network (LBRN) sponsors a summer research program that supports undergraduate students, graduate students, and faculty from any Louisiana institute. Almost 20 students are participating in the SRP and will present the poster of their summer research at the Summer Undergraduate Research Forum (SURF) program on August 03, 2024.

### HPC Training

HPC training will be held on Wednesday, June 26 at 9:00 AM. All training sessions are Zoom online events from 9:00AM to 11:00AM. The sessions will be recorded for later review.  

**Note that all HPC trainings will start at 9:00AM.**

**Wednesday, June 26, 2024: Introduction to Linux**

The aim of this training is to get users familiar with using Linux systems e.g. the HPC resources. This training will cover basic Linux commands and editors (emacs and vi) on Linux systems. Anyone who is interested in learning about using a Linux based computer is encouraged to attend. If you are not familiar with using a Linux system particularly creating/writing files then this course is a prerequisite for the forthcoming training on HPC User Environment 1 & 2. This training is *mandatory* for HPC users who are not familiar with using a Linux/Unix system.
Prerequisite: Access to a Linux/Unix based computer i.e. Linux (VirtualBox images), Mac OSX and Windows with Cygwin or Bash installed.

Next HPC Trainings:

**Wednesday, July 3, 2024: HPC User Environment 1, Job Management on HPC Clusters**

**Wednesday, July 10, 2024: HPC User Environment 2, Job Management on HPC Clusters**

This training provides an overview of the HPC/LONI general account and allocation policies, hardware and software environments, queuing system, compiling programs, writing submit scripts, running and monitoring jobs on HPC systems.

This training is a *mandatory* two-day training event for all HPC/LONI new users held on July 3 and July 10.

Prerequisite: Familiarity with Linux/Unix commands and editors.

Please visit [http://www.hpc.lsu.edu/training/tutorials.php](http://www.hpc.lsu.edu/training/tutorials.php) for more details and register using the link provided. Users will be provided with a zoom link in their registration confirmation email. Please see the system requirements at [https://support.zoom.us/hc/en-us/articles/201362024-System-Requirements-for-PC-Mac-and-Linux](https://support.zoom.us/hc/en-us/articles/201362024-System-Requirements-for-PC-Mac-and-Linux).

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**ABRCMS 2024**

Join a vibrant community of the brightest minds in STEM at the Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS), taking place, November 13-16 in Pittsburgh, PA and the Graduate Symposium occurring November 16-17. Through cutting-edge scientific sessions in 12 scientific disciplines and interactive professional development sessions, covering topics like career pathways, curriculum development and more, ABRCMS delivers timely and relevant content for students and non-students in STEM fields to learn, connect and share. Get involved, and join us:

- **Submit a Session Proposal** — deadline July 10
- **Become a Judge** — deadline for travel award Aug. 20
- **Become a Reviewer** — deadline to sign up Aug. 31
- **Student Abstract Submission** — deadline Sept. 6 for abstracts. Travel awards are available.

As one of the largest communities for underrepresented groups in STEM, ABRCMS is the go-to conference for scientific and professional development. Learn more at [https://abrcms.org](https://abrcms.org).

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**LBRN REDCap Servers Replacement Plan**
LBRN REsearch Data Capture (REDCap), an application that allows users to quickly and securely build and manage online surveys and databases; this REDCap is currently hosted on LSU/LBRN servers. These two servers have already been used for five years, and their mechanical warranties have expired. LBRN has purchased new servers and will soon replace the existing servers. We are doing our best to ensure this does not affect REDCap and the databases that operate in conjunction with it. However, we strongly recommend that each user, mainly PI, take a data backup in preparation for any unexpected situation.

The servers are arriving at LSU, and the IT team will begin moving at the end of June 2024.

Global Health Research News

- **New funding aims to bring diverse perspectives to the research workforce**
  Fogarty news, June 18, 2024
- **Launch of the WHO Collaborating Center for Global Cancer Control**
  NCI Center for Global Health news, June 18, 2024
- **Fogarty Division of International Epidemiology and Population Studies Research Roundup**
  Fogarty news, June 14, 2024
- **Global cancer stigma research: a U.S. National Cancer Institute workshop report**
  JNCI Monographs, June 2024
- **NIAID Raises Awareness to Malaria-like Diseases in W. Africa**
  NIAID Now blog, June 6, 2024
- **NIH Releases H5N1 Influenza Research Agenda**
  NIH/NIAID news, June 5, 2024
- **Ambitious clinical trial could bring first TB vaccine in a century**
  Fogarty news, June 4, 2024
- **U.S. clinical trials begin for twice-yearly HIV prevention injection**
  NIH/NIAID news, June 4, 2024

SuRE R16 NOFO Announcement

SuRE Resource Center

A pathway for under-resourced academic institutions to build research capacity and increase NIH funding success.
SuRE R16 NOFO Announcement

The National Institutes of Health (NIH) has published NOFOs for the SuRE (PAR-24-144) and SuRE-First (PAR-24-145) R16 grant mechanisms. Notable changes include:

**Deadlines**
Beginning in 2024, each SuRE R16 grant now has two annual submission deadlines, with the due dates being the same for each. The next due date for both SuRE and Sure-First applications is May 29, 2024.

- 2024: May 29 and Sept 27
- 2025: May 28 and Sept 29
- 2026: May 27 and Sept 28

**PEDP Attachment**
The NIH now requires that an attachment called a Plan for Enhancing Diverse Perspective (PEDP) be included with all R16 submissions. This is a summary of strategies to advance the scientific and technical merit of the proposed project through inclusivity. The PEDP is submitted as a one-page "Other Attachment" to be included in grant applications. You may learn more by visiting this NIH page on PEDPs.

NIH Extramural Nexus

- **Marking a Milestone: The Modernized ClinicalTrials.gov Becomes the Singular Website Experience**

On June 25, 2024, the modernized ClinicalTrials.gov will become the singular website experience. This major milestone is part of NLM's multi-year ClinicalTrials.gov modernization effort, which has been guided by stakeholder engagement, input from the NLM Board of Regents Public Service Working Group, and a user-centered design approach.

Since 2019, we have provided updates on NLM's progress in modernizing ClinicalTrials.gov, the world's largest clinical trial and results registry. The modernization effort has focused on delivering an improved user experience on an updated platform that will accommodate growth and enhance efficiency. In March 2023, to provide users with time to transition, we announced that the classic ClinicalTrials.gov website will be retired in 2024.

Importantly, the retirement of the classic version of the website does not mark the end of this modernization. NLM will continue to enhance and update the modernized ClinicalTrials.gov and release additional features such as functionality to browse studies by topic and expert search capabilities. NLM also continues to work on modernizing the Protocol Registration and Results System (PRS), the clinical trial information submission and management portal for ClinicalTrials.gov. An enhanced results information submission process is coming soon, and PRS Beta will become the new primary registration website later this summer.

Feedback plays an important role in assessing the impact of this modernization effort, and we encourage users to share their comments. Please use the feedback button on the modernized website to ensure that we hear from you. For additional information about modernization-related events and resources, visit the [ClinicalTrials.gov Modernization webpage](#).

- **Making Advanced Research Computing More Accessible With NIH Cloud Lab**

As I step into my role as Director of the [NIH Center for Information Technology (CIT)](#), I am continually amazed by the contributions our NIH community makes to the digital ecosystem underpinning biomedical research. A key focus of mine is the advancement of collaborative, data-driven research in "the cloud", and my colleagues and I are determined to make access to and expertise in cloud computing more widely available across the NIH research community.
Researchers today often face barriers when adopting and integrating cloud-based technologies. Common concerns range from complex procurement processes and unpredictable costs to the availability of relevant training and assurances on data security. As a response, the NIH Center for Information Technology has partnered with NIH’s Office of Data Science Strategy to offer two programs: the NIH STRIDES Initiative and NIH Cloud Lab.

NIH STRIDES streamlines the procurement of commercial cloud services from our partners: Amazon Web Services, Google Cloud, and Microsoft Azure. Participating NIH-funded researchers benefit from exclusive features, favorable pricing, dedicated support, and discounted cloud training. As of May 2024, more than 2,300 research programs have enrolled in STRIDES, storing over 300 petabytes of data!

For those interested in using cloud technology without making an initial long-term commitment, NIH Cloud Lab enables researchers to try cloud capabilities at no cost in a secure, NIH-approved environment. Participants receive 90 days of access to Amazon Web Services, Google Cloud, or Microsoft Azure along with $500 of no-cost cloud credits.

To help accelerate researchers’ cloud fluency, we offer an extensive repository of interactive tutorials that demonstrate how to run realistic bioinformatic, data science, and AI workflows. Tutorials address a variety of scientific topics, including generative AI, variant calling, single-cell RNA sequencing, proteomics, medical imaging, and more! The best part is these tutorials are also public and available in GitHub to anyone with a self-funded cloud account.

Cloud Lab’s breadth of technical features and support from bioinformatic and cloud experts make it a good fit for individuals with all levels of cloud knowledge, from cloud beginners to experienced researchers. Regardless of a participant’s level of experience, Cloud Lab’s integration with the Researcher Auth Services (RAS) solution minimizes time spent setting up an account by enabling most researchers to log in with their home institution username and password. This helps participants get up and running as quickly as possible.

One of the most significant benefits of this simplified onboarding process has been the democratization of access to computational and data science resources. Since 2023, Cloud Lab has seen participation from 368 National Institute of General Medical Sciences (NIGMS) grantees from 102 research institutions in the Institutional Development Program, which builds research capacity in states that have historically received low levels of NIH funding. Our team also integrated twelve interactive bioinformatics tutorials developed by NIGMS grantees into the Cloud Lab experience!

NIH-affiliated* researchers interested in Cloud Lab are welcome to sign up at any time by visiting our Cloud Lab homepage, and academic institutions looking to supplement their coursework or workshops with Cloud Lab can contact our team at CloudLab@nih.gov. Stay tuned to the CIT homepage for exciting updates and enhancements to our offerings. We’re looking forward to helping you on your cloud adoption journey!

 NIH All About Grants Podcast: A Focus on Researchers With Disabilities

As part of fostering a strong, robust, and diverse biomedical research workforce, NIH must engage scientists from various backgrounds and lived experiences to solve complex issues facing public health, including researchers with disabilities. This NIH All About Grants podcast episode discusses particular challenges these researchers may experience and how NIH is working to address them.

Drs. Alison Cernich, Deputy Director of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) and Theresa Cruz, Director of the NICHD National Center for Medical Rehabilitation Research, join us for this conversation. They discuss civil rights protections, the Rehabilitation Act, and other relevant policies; reasonable accommodations and other allowable costs, such as for fellowship, training, and career development awards; diversity supplements; and the importance of maintaining communication with the institution and in the lab.

“People with disabilities are a very diverse group, and they bring a lot of creative problem solving experience to their work. And they have many years, often of experience adapting to environments that, unfortunately, aren’t always designed for their needs. And we think that type of thinking is very valuable to the problems that NIH is trying to tackle.” – Dr. Theresa Cruz

“We know that diverse teams are more innovative than sort of homogeneous teams... if we add people with disability, it really enhances the diversity of our workforce and gives us that whole other dimension and increases our creativity... we’re tackling hard and complex problems in NIH, and we can’t really afford to leave talented people out of the workforce. there’s value in that lived experience.” – Dr. Alison Cernich
These NIH Open Mike blogs from December 2022, June 2023, and May 2024 report some aggregate demographic data related to researchers with disabilities in the workforce. The NIH Center for Scientific Review also reports data on reviewers with disabilities. The data were obtained from self-reported information provided by researchers on their eRA profiles.

1. NIH Grants Process for Beginners: Webinar Resources Available

Did you miss the webinar on the NIH grants process for beginners? Not to worry, the event resources are now available! Reference the slides or dive right in to the video, which includes sections on:

- Learn the basics with NIH Grants Process: A Walk-Through for Beginners
- Tune in for answers to your questions in the NIH Expert Q&A Panel: Part 1
- Test your knowledge with Submission Policies: You Make the Call
- More questions and answers in the NIH Expert Q&A Panel: Part 2
- Take our panelists' advice: Grant Application Tips from NIH Experts

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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.

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LBRN "Core Bucks"
The BBC Core and MCBR Core offer researchers the opportunity to earn “Core Bucks” to support faculty and students up to $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

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**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 lower 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 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 P20 GM103424-21.

- In journal articles, oral or poster presentations, news releases, 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.