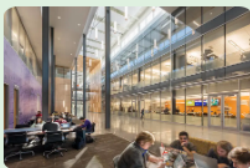**News, Opportunities and Deadlines for July 2024**

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## 2024 LBRN
## Summer Undergraduate Research Forum (SURF)



### 2024 LBRN Summer Undergraduate Research Forum

**Event Date: Friday, Aug 2nd, 2024**

The 29th annual Summer Undergraduate Research Forum (SURF) will showcase the numerous undergraduate students who have engaged in summer research projects this year at institutions throughout the LSU System. SURF will take place on Friday, July 28th in the LSU Patrick F. Taylor hall.

View full story



The Louisiana Biomedical Research Network (LBRN) organizes a summer research program that supports undergraduate students, graduate students, and faculty across Louisiana state. 20+ students are participating in the SRP out of which 17 undergraduate students will present the poster of their summer research at the Summer Undergraduate Research Forum (SURF) program on Friday, August 02, 2024, at Louisiana State University, Baton Rouge.

The image above is of the undergraduate and graduate students participating in the LBRN SRP program at Department of Pathobiological Sciences at School of Veterinary Medicine (SVM), Louisiana State University, Baton Rouge. The students are looking at the core facility driven by Dr. Konstantin Gus Kousoulas, Head Department of Pathobiological Sciences and PI LBRN and his team.

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## HPC Training



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

**Wednesday, July 31, 2024: Basic Shell Scripting**
Time: 9:00 AM - 11:00 AM
For anyone who works in a Linux/Unix environment, a working knowledge of shell scripting is essential and will boost their efficiency and productivity tremendously. For this tutorial, we will focus on bash as it is one of the most popular shells. This tutorial will include topics such as creating simple bash scripts, flow control, command line arguments, regex, grep, awk and sed. This is a practical tutorial, so we will provide examples and/or hands-on exercises for most of the covered materials.
Prerequisites: Access to a Linux/Unix based environment, i.e. Linux (VirtualBox images), Mac OSX and Windows with Cygwin or Bash installed.
Registration click here

Next HPC Training:

**Wednesday, August 7,2024: LONI QB4 Launch Workshop**
Time: 9:00 AM - 11:00 AM
LONI QB4 is a 4.3 PetaFlop peak performance cluster with 35,008 CPU cores and 144 NVIDIA A100 GPUs, comprised of 547 compute nodes connected by 200 Gbps Infiniband fabric:

- 480 regular nodes, each with two 32-core Intel Ice Lake CPUs and 256 GB RAM.
- 52 2-GPU compute nodes, each with two 32-core Intel Ice Lake CPUs, 512 GB RAM, and 2 NVIDIA A100 GPUs.
- 10 4-GPU compute nodes, each with two 32-core Intel Ice Lake CPUs, 512 GB RAM, and 4 NVIDIA A100 GPUs.
- 5 big memory nodes, each with two 32-core Intel Ice Lake CPUs and 2 TB RAM.

This tutorial will provide an overview of the LONI QB-4 cluster, designed to enhance computational capabilities for HPC workloads, especially those utilizing GPUs. Participants will gain insights into the architecture and advantages of this new system, along with practical guidance on utilizing the Slurm workload manager. In addition, the session will include a review of the results of some performance benchmarks, demonstrating the cluster's efficiency and potential to accelerate various computational workloads. Attendees will leave with a foundational understanding of how to leverage QB-4 for their research projects effectively.
**Registration click here**

Please visit 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.

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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.

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## Weekly opportunities and events from NIGMS
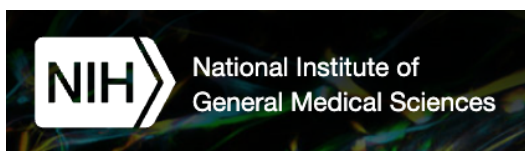


**Issue 194, 07/22/2024**

NIH Funding Opportunity and/or Policy Announcements
Clarification of Data Management and Sharing Plan Instructions in CTR-N NOFO (NOT-GM-24-036) and CTR-D NOFO (NOT-GM-24-037).
Attention NARCH PIs: Building Partnerships and Broadening Perspectives to Advance Ethical, Legal, and Social Implications (ELSI) Research (BBAER) Program (RFA-HG-24-026). Applications Due: November 15. See more information about ELSI Research Program.
Bridges to the Doctorate Research Training Program (PAR-24-232). Applications Due: September 27.
Innovative Programs to Enhance Research Training (PAR-24-252). Applications Due: October 17.
SBIR (PA-24-245) & STTR (PA-24-247). Applications Due: September 5.

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**Issue 193, 07/15/2024**

NIH Funding Opportunity and/or Policy Announcements
SBIR (PA-24-245) & STTR (PA-24-247). Applications Due: September 5.
Upcoming Events
SuRE Biennial Conference, July 23-24, NIH Campus, Bethesda.

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NIH Funding Opportunity and/or Policy Announcements
SBIR (PA-24-245) & STTR (PA-24-247). Applications Due: September 5.
Clarification of Data Management and Sharing Plan Instructions in NARCH NOFO (NOT-GM-24-034), COBRE 3 NOFO (NOT-GM-24-035), and COBRE 1 NOFO (NOT-GM-24-038).
Upcoming Events
SuRE Biennial Conference, July 23-24, NIH Campus, Bethesda.

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## LBRN REDCap - mosio

Improve adherence and data collection efforts with one-way or two-way text messaging. Mosio checks all of the privacy, data security, and compliance boxes others don't. Plus, we handle all 10DLC text number registration challenges for you. Mosio is made for researchers.

Mosio must be used as an integration with REDCap and not used independently.
Please obtain IRB approval to use the Mosio integration with your REDCap project.
Some fees may apply for each REDCap/Mosio integration.

Virtual Office Hours

We have virtual office hours every Wednesday at 1pm Pacific. Users can sign up, ask questions about their projects and get a demo of modules that will best help them.

Pricing/Quick Proposal
Automated PDF via email with pricing details. For two-way texting, appointment reminders, etc: Basic or Plus Plan.

REDCap Info
Details about functionality, plans and short video "how to" walkthroughs.

Knowledge Base for Questions
Includes video and training guides.

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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.

## SuRE R16 NOFO Announcement



**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 Attachement**
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

- ### NIH All About Grants Podcast – Why Would NIH Withdraw an Application?

It can be quite stressful to hear NIH has withdrawn your submitted grant application before it went to peer review. In this NIH All About Grants podcast episode, we get into why and how administrative withdrawal of applications happens. Dr. Ray Jacobson, the Acting Director of the Division of Receipt and Referral at the Center for Scientific Review, walks us through the process. He discusses the reasons for withdrawing an application, how often it may happen, what you will hear from NIH staff, next steps you may take (including appealing a determination), the difference from when applicants request a withdrawal, and other advice to reduce the likelihood your application may be withdrawn.

"We don't withdraw applications lightly at all…we actually will do quite a bit to try to avoid withdrawing an application because our primary intent is to…get applications to review." – Dr. Ray Jacobson

- ### Updated Resource for Who Can Do What in eRA Commons

Need to know which role can do what in eRA Commons? A handy matrix, recently updated, gives you information about eRA Commons Roles and Privileges at a Glance. You can also export the information in Excel or PDF formats.

For instance, only a signing official (SO) can submit or reject a grant application. A principal investigator (PI) can initiate, view, and edit all flavors of a Research Performance Progress Report (RPPR) and also submit an RPPR if delegated the Submit role. A PI can also delegate the ability for another user at their institution with an eRA Commons account to edit their RPPR (Progress Report delegation).

Pair it with the eRA Commons User Roles companion document to get a good understanding of roles in eRA Commons.

## • Awarded R&D Contract Vendors May Be Asked To Submit Inclusion Data Directly Into NIH Systems

New eRA system capabilities now provide the ability for R&D contract vendors to directly submit inclusion data on their awarded contracts through the Human Subjects System (HSS), accessible through the eRA Commons, when requested by NIH staff. This process, for submitting and updating data on participant inclusion in clinical research associated with NIH policies, is now available for all new and existing contracts (see NIH guide notice NOT-OD-24-128).

The existing process for inclusion reporting by contract vendors is email based, with NIH staff requesting contract vendors for the inclusion data. Contract vendors respond via email with a PDF form with the inclusion data, which is then entered into HSS by NIH staff.

Direct submission of this data into HSS will streamline the process; ensure secure data transfer in HSS; avoid the back and forth of emails; and bring the inclusion reporting process for contracts in line with grants.

Affected contract vendors will be notified of any changes to contract requirements by their NIH Contracting Officer.

For access to HSS, the vendor organization must be registered in eRA Commons. The signing official creates their account at the time of registration and can create Commons accounts for any principal investigators associated with the vendor organization who will be entering information in HSS.

## • Why Do I Sometimes Get Different RePORTER Results when Using Advanced Search vs. Quick Search?

Research Portfolio Online Reporting Tools Expenditures and Results (RePORTER) is an electronic tool that allows users to search a repository of both intramural and extramural NIH-funded research projects and publications and patents resulting from NIH funding. Users can query the system in two distinct ways, either via "Advanced Search" or "Quick Search." But its worth noting there can be a difference in the query results depending on which approach is used.

As we first explained on this NIH Open Mike blog post, Quick Search is helpful for performing simple queries. Advanced Search allows you to use precisely defined data fields when searching for NIH funded research. Thus, there may be differences in the results that are obtained when using both distinct search options.

An illustrative example would be searching for "gene," which could be someone's name or something biological. When inputting that into Quick Search as of a couple weeks ago, there are 1,006,815 projects. However, inputting that into the text search box on Advanced Search and selecting all fiscal years will return 1,004,888 projects. If you moved it to the principal Investigator field, 6,881 results are returned. These results may also change each week when the RePORTER data are refreshed.

**Quick Search** is simply that, a quick list of results for quick searches. Quick Search also automatically looks across a limited number of common data fields, like principal investigator, recipient organization, and the text in a project abstract.  For instance, if you input something that looks like a name or a location, this search feature will match the query with information in the principal investigator or city/state/country fields, respectively.

**Advanced Search** allows users to filter resulting projects more precisely, specifically choosing exactly which fields to search across. If you enter "Cleveland" into the text search part of Advanced Search, the tool will only search against title, abstract, and/or NIH Research, Condition, and Disease Categorization (RCDC) terms depending on which checkboxes were selected). Quick

Search, on the other hand, would try to match the term against title, abstract, institution name, and institution city. Please also keep in mind though that there is no connection between the two search options. It is not possible to start with a Quick Search and then further refine the results with the Advanced Search filters.

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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 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

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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 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.***