The National Research Mentoring Network (NRMN) is an NIH-funded project to develop and provide substantially expanded mentoring and coaching for aspiring young scientists with an overall mission to increase the diversity of the scientific workforce.

Thank you for your interest in this research study. NRMN will be hosting a Grantwriting event...
GeneLab Launched Two New Illumina Sequencing Machines

GeneLab (School of Veterinary Medicine - Louisiana State University) is a multi-faceted core laboratory directed by the Division of BIOMMED in the School of Veterinary Medicine at Louisiana State University. GeneLab engages in specific research and training projects, which require expertise in Next-Generation Sequencing, traditional DNA sequencing, gene cloning, PCR, gene expression and other molecular methods. The goal of GeneLab is to facilitate the utilization of the state-of-the-art technologies in genomics research by LSU faculty and researchers nationwide at a competitive price and in a timely fashion.

The primary focus of GeneLab is its portfolio of sequencing capabilities. Currently, two Next Generation Sequencing instruments, the Illumina NextSeq, the Illumina MiSeq and 10X Genomics Chromium Controller along with bioinformatics support for NGS data are provided to the research community and offering will be extended rapidly as NGS and other emerging sequencing technologies are evolving.

**Illumina NextSeq**

The Illumina NextSeq System is a desktop sequencer with power and flexibility to carry out applications such as whole genome sequencing, exome sequencing, whole transcriptome sequencing, mRNA-Seq, and others. In one run it can sequence a full human genome at 30x coverage. Users can choose between high output or mid output flow cell configurations. At high output, up to 800 million paired end reads can be generated (at 150 bp read length) to produce up to 120 Gb of data in 29 hours. The Illumina sequencing systems utilize a well-established
sequencing by synthesis (SBS) method and patented cluster generation technology in which fluorescently labeled nucleotide bases are detected as they are incorporated into DNA template strands. All four reversible terminator-bound dNTPs are present in each sequencing cycle.

**Illumina MiSeq**

Cluster generation, sequencing, and analysis are all done on a single instrument. The sequencing process takes place on a flow cell with 1 channel. Multiple samples can be run at once by using indices for each sample. 2x300bp reads are supported on the MiSeq and takes ~3 days to run. With v.3 kits the MiSeq can produce >25 million reads or 15GB per run. With v.2 kits the MiSeq can produce >15 million reads or 7.5 GB per run with standard flow cells. There is also the option of using micro and nano flow cells which produce up to 4 million and 1 million reads per run (1.2Gb & 500Mb). Actual output can vary depending on cluster density.
10X Genomics Chromium Controller
Go beyond traditional gene expression analysis to characterize cell populations, cell types, cell states, and more on a cell-by-cell basis. From assessing tumor heterogeneity and stem cell composition, to dissecting neuronal populations—the technological advancements provided by the Chromium Single Cell Gene Expression Solution allow the creation of high complexity libraries from single cells to maximize insight from any sample type.
Services and collaboration can be delivered through the LBRN cores.

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**Fall 2019 NIH Regional Seminar on Program Funding and Grants Administration**

**Nov. 6-8 in Phoenix, Arizona.**

The NIH Regional Seminar serves the NIH mission of providing education and training for the next generation of biomedical and behavioral scientists. This seminar is intended to:

- Demystify the application and review process
- Clarify federal regulations and policies
- Highlight current areas of special interest or concern

**Who Should Attend?** The seminar and optional workshops are appropriate for those who are new to working with the NIH grants process – administrators, early stage investigators, researchers, graduate students, etc. For those with more experience, the seminar offers a few more advanced sessions, updates on policies and processes direct from NIH staff, as well as
valuable presentation resources to share with your institution.

Who are the Presenters? The NIH Regional Seminar involves approximately 65 NIH and HHS staff who are brought to a central location in order to educate, share, and hear your questions over the course of two days, plus the pre-seminar workshops. (Faculty page with pictures and bios will be posted this spring, so keep watching this website!)

This seminar is your opportunity to make direct contact with NIH policy officials, grants management, program and review staff, and representatives from the HHS Office for Human Research Protections (OHRP), HHS Office of the Inspector General (OIG), and others. In addition, take advantage of discussions involving more than 600 fellow attendees from around the world.

In addition to learning more about the NIH grants processes and policies through the optional workshops and 2-day sessions, there are opportunities throughout the seminar to Meet the Experts 1:1. These 15 minutes chats are a great way to get more specific questions answered by NIH & HHS experts. You’ll have the opportunity to sign up in advance or on-site to speak with the expert(s) of your choice participating in the seminar.

What are some of the topics? Here’s a quick overview of some of the topics:

- Budget Basics for Administrators and Investigators
- Career Development Awards
- Clinical Trials
- Compliance (Case Studies)
- Current Issues at NIH
- Diversity in the Extramural Research Workplace
- electronic Research Administration (eRA)
- Financial Conflict of Interest
- Fundamentals of the NIH Grants Process
- Grant Writing for Success
- Human Research Protections
- Intellectual Property, Inventions, and Patents
- Loan Repayment Program
- Office of Laboratory Animal Welfare (OLAW)
- Peer Review Process
- Preventing & Detecting Fraud
- Public Access
- SciENcv
- R&D Contracts
- Research Integrity
- Rigor & Reproducibility
- Training/Fellowships
- SBIR/STTR Program
- ….and that’s not all!

Can I go ahead and make my hotel reservations now? Yes! See our Hotel/Travel page for all the details. The room block is for a limited time and rooms traditionally sell out before the date for this seminar.
For inquiries regarding the seminar, email NIHRegionalSeminars@mail.nih.gov.

Listserv information is available on the NIH Regional Seminar Webpage.

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**HPC Training**

Our next two HPC training will be held on Wednesday, October 9 at 9:00 AM in 307 Frey Computing Service Center and broadcast online for remote users.

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

**Wednesday, October 9, 2019: Introduction to Python**

Python is a high-level programming language, easy to learn yet extremely powerful. This training will provide an introduction to programming in Python. The subjects include basic Python syntax, Python classes used in object-oriented programming. Basic Python modules for scientific computing and plotting will also be introduced. During the training, simple Python programs will be provided for demonstration.

Prerequisites: Basic understanding of a programming language is assumed but not required.

Next HPC Training:

**Wednesday, October 23, 2019: Run HPC jobs with Agave Web Interface**

Would you like to submit your HPC jobs without using the command line? Agave is a science gateway that has a web interface. Once you get an Agave account you can submit your jobs to any cluster you have an account and allocation on using the Agave web interface. While this tutorial concentrates on getting you comfortable with running code from the Agave portal web interface here are other things you can use Agave for:

The list provided is not intended to be exhaustive. To simplify, we group it into four categories.

* Run Code This is our primary concern in this tutorial. Agave will run your scientific code from a web page, enable you to track its progress.
* Collaborate Anywhere Running a program is not enough. You need to enable other people to
run your code, or see the output it generates. Agave lets you do that too. Once you make it possible for a large user base to run your scientific code through Agave’s web interface, you will have a scientific gateway.

* Manage Data Running a program generates data, and frequently that data needs to be moved around, shared, or stored. Agave provides methods to uniquely identify data and to transfer it from one resource to another. When multiple protocols are available, it will use the fastest one available.

* Connect Anything Agave can send notifications as jobs progress through the system. Jobs can also create custom call-backs to handle events.

Prerequisites:

* Some experience running jobs on a super computer will be useful.

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 who plan on joining remotely 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/201362023-System-Requirements-for-PC-Mac-and-Linux](https://support.zoom.us/hc/en-us/articles/201362023-System-Requirements-for-PC-Mac-and-Linux).

CFA for Short Term Core Projects

Molecular Cell Biology Research Resources Core (MCBRC) and Bioinformatics, Biostatistics, and Computational Biology Core (BBCC) are calling for proposals to carry out short term projects in collaboration with the Cores. All LBRN researchers can submit a proposal for a defined project that can be carried out in collaboration with the Core facilities listed in the attached Call for Proposals (CFP) on a competitive basis. Each selected project will be allocated $1,500 to fully or partially offset Core expenses. More details can be found in the attached CFP.

*More details can be found in the attached CFP.*
The BBC Core provides introductory educational lecture series on informatics topics that are recorded and streamed. Prior offerings that are available for on demand streaming include:

- An Introduction to Computers and Informatics in the Health Sciences
  
  [http://metagenomics.lsuhsc.edu/lectures/introinformatics/](http://metagenomics.lsuhsc.edu/lectures/introinformatics/)

- An Introduction to Microbial Community Sequencing and Analysis
  
  [http://metagenomics.lsuhsc.edu/lectures/intromicrobiota/](http://metagenomics.lsuhsc.edu/lectures/intromicrobiota/)

On demand streaming links are available by each lecture along with downloadable lecture slides.
To support the LBRN / BBC Core community on LONI HPC systems, we have renewed our high-performance computing allocation for 2019/2020.

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.
Final Report on Reducing Administrative Burdens Associated with Research Involving Laboratory Animals

We are pleased to announce that last month the National Institutes of Health (NIH), the Animal and Plant Health Inspection Service of the United States Department of Agriculture (USDA), and the Food and Drug Administration (FDA) published their final report on Reducing Administrative Burden for Researchers: Animal Care and Use in Research (NOT-OD-19-136). This report, called for in the 21st Century Cures Act, is the culmination of more than two years of diligent work to address inconsistent and overlapping policies governing oversight of research involving animals, while ensuring research findings remain credible and research institutions safeguard animal welfare.

Regulations and policies overseeing federally-sponsored research help ensure NIH remains a responsible steward of public funds. This extends to properly enforcing the public’s expectation on how laboratory animals will be used in biomedical research, teaching, and testing. Many stakeholders have pointed out, rightfully so in some cases, that with federal regulations comes increasing reporting requirements which adversely affect research productivity without necessarily improving animal welfare.

Don’t Miss Out! NIH Loan Repayment Applications Now Being Accepted

Applications are currently being accepted for the FY 2020 NIH Loan Repayment Program (LRP) until November 15, 2019. And, there are some important changes to the program we would like to spotlight for you.
For over three decades, the NIH LRPs have helped recruit and retain highly qualified health professionals into biomedical or biobehavioral research careers. LRP award funds repay a recipient’s qualified educational debt in return for a commitment to engage in NIH mission-relevant research at a domestic, nonprofit, or government entity. Priority research areas for the NIH LRPs include clinical, pediatrics, health disparities, contraception and infertility, as well as clinical research for individuals from disadvantaged backgrounds.

...Continue reading...

- Seeking Comments on Using Fast Healthcare Interoperability Resources for NIH-Supported Research

NIH is currently accepting public comments on the use of standards for capturing, integrating, and exchanging clinical data for research purposes (NOT-OD-19-150). This is a great opportunity to hear more from the community on ways to strengthen approaches that find, share, and access high-quality patient data, while also making it more interoperable and reusable. Such goals align with long-standing NIH data sharing policies and what was also called for in a related NIH strategic plan on data science.

The Request for Information focuses on the Fast Healthcare Interoperability Resources (FHIR®) standard (see also NOT-OD-19-122). Widely promoted and adopted for use in clinical care, FHIR is a standardized way to transmit structured clinical data between health information systems, while also protecting patient privacy and security, via an application programming interface.

The 21st Century Cures Act also called for such computational strategies to enhance the interoperability of electronic health records. The U.S. Department of Health and Human Services is coordinating this process and has called for the health care industry to adopt such strategies by using the FHIR standard to share patient data. Moreover, federal agencies and the private sector have used FHIR in various ways, from exchanging claims data, allowing individuals to import health records from providers, and integrating clinical trial management.

When putting the FHIR standard into practice, NIH can better ensure taxpayer resources are efficiently used to maximize their public value. For example, it could quicken the pace and lower costs for collecting, integrating, and using patient data available on trusted electronic health records for medical research. It is conceivable that when clinical, genomic, demographic, billing, claims, and socioeconomic information is easily accessible and interoperable, novel biomedical
and behavioral research ideas could be tested, possibly leading to advances in science and public health. As a start towards this, we began soliciting ideas from the small business community to implement this standard in health information technology (NOT-OD-19-127).

Your thoughts on how NIH-funded researchers could adopt FHIR are welcomed electronically here through November 23, 2019. General topics of interest include researcher experiences with FHIR, one’s willingness to use it, any necessary tools, the need for research related to standards development, opportunities, and challenges.

- Reminder to Review Accuracy of Grant Information Before October 11

We make data on all funded NIH grants available to the public on the RePORT website. One of the ways we provide information is by school/department, which you can explore using the Awards by Location feature. Because of inconsistencies in the way information on department and school names are provided in grant applications, grantee officials may want to make changes in how that information is reflected in NIH systems.

NIH’s fiscal year ended on September 30, 2019, so now is the time for Signing Officials to verify the accuracy of their grant assignments to departments or components within institutions of higher education using the Grant Re-assign function in eRA Commons. Since the data in these files are “frozen” annually to ensure the reporting files produce consistent and meaningful results, any corrections must be made by 8:00 PM EDT on Friday, October 11, 2019 to be reflected in NIH annual reports.

Read the NIH Guide Notice for more information.

- New “All About Grants” Podcast on Letters of Support

Letters of support are a valuable part of your grant application. They provide an opportunity for you to document the commitment and support of your institution and collaborators, the availability of required resources, and more.

In this next installment of the NIH’s All About Grants podcast series, Cathleen Cooper, Ph.D., who directs the NIH’s Center for Scientific Review’s Division of Receipt and Referral, joins us to talk all about letters of support (MP3 / Transcript). Hear what information should be included in these letters, what should not, how they differ from other letters submitted as part of an
• **Roundup of Research Career Development (K) Award Resources**

Whether you’re an awardee or an applicant interested in Career Development (K) awards, you probably have some questions. Use this post as a starting point to getting your answers with the following resources:

- [Clarifying Percent Effort and Support for Career Development (K) Awardees](#)
- [Frequently asked questions](#)
- [NIH Grants Policy Statement](#)
  - Provides helpful information on:
    - level of effort,
    - concurrent support,
    - temporary adjustments to the percent effort requirement,
    - And more.
- [Research Career Development Awards](#) page for current funding opportunities
  - Check out the policy notices and NIH resources along the side!

Still have questions about percent effort and K awards for your K award, or for a specific K award PI at your institution? Contact the grants specialist listed on the notice of award for guidance specific to you. General policy questions may be directed to the Division of Biomedical Research Workforce at NIHTrain@mail.nih.gov.

• **Tips Before You Submit - When in Doubt, Reach Out**

The [NIH Grants & Funding](#) website has a wealth of information to help applicants and grant recipients navigate application submission and grant administration requirements. When you can’t find what you need online, don’t hesitate to reach out to NIH staff. Often, the best folks to talk to will be in one of the [NIH institutes or Centers](#). Our [Contacting Staff at the NIH Institutes and Centers](#) page can help you understand the roles of NIH staff and help you contact the right person at each phase of the application and award process.

Having trouble navigating our eRA systems? Check out our general [Help](#) page for eRA Service Desk and other general support contacts.
Communicating with NIH staff is not only okay, it is encouraged. When in doubt, reach out – we’re here to help.

**Fall is Here – NIH Regional Seminar Deadlines Near!**

General registration rates for the NIH Regional Seminar on Program Funding and Grants Administration in Phoenix, AZ end on October 11. If you are new to the world of NIH funding then don’t miss this opportunity to register before the deadline!

The NIH Regional Seminar is a great introduction to NIH grants process and policies, offering flexible session tracks for administrators, new investigators, and all interests. Just some of the featured hot topics include:

- Application Preparation and Submission
- Understanding NIH Funding Mechanisms
- NIH Biosketch
- Peer Review Mock Study Section
- Budget Basics
- Navigating NIH Programs to Advance Your Career
- And more, including the opportunity to meet with NIH experts one on one!

Get to know the ins and outs of NIH funding by joining us on November 6-8 for the Fall 2019 NIH Regional Seminar in Phoenix, Arizona. See the tentative agenda, hotel/travel details, and more on the NIH Regional Seminar site.

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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 GM103424-15 and 3 P20 GM103424-15S1.

• 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 P20GM12345.

• 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 (P20GM12345) 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.