News, Opportunities and Deadlines for November 2017

2018 LBRN Annual Meeting



JANUARY 26-28, 2018

Register at lbm.lsu.edu/events/annual-meeting



The 2018 LBRN Annual Meeting will be held at the LSU Health Sciences Center in Shreveport.

Please see below for additional information.

- What: 2018 LBRN Annual Meeting
- When: January 26 28, 2018
- Where: LSU Health Shreveport

Additional information is in the <u>LBRN webpage</u>. Please check the LBRN website periodically for additional information.

BBC Core Educational Resource



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/

• An Introduction to Microbial Community Sequencing and Analysis

http://metagenomics.lsuhsc.edu/lectures/intromicrobiota/

On demand streaming links are available by each lecture along with downloadable lecture slides.

LONI HPC Allocation for LBRN



We are happy to announce that High Performance Computing allocation for supporting LBRN/BBC Core community from the LONI HPC system.

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 <u>Dr. Nayong Kim</u>.

CFA for Short Term Core Pojects



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.

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LBRN Call for Proposals



The purpose of this release is to solicit Letters of Intent for new project proposals to be funded by the LBRN. The RFAs for each funding programs listed here can be accessed using the clicking on the respective title. The expected start date for these projects is **May 1**, **2018**. The selection and distribution of these projects by the Steering Committee will be based on the quality of the proposal and the needs of the LBRN program. Proposed projects should be consistent with the program's focal research areas. All interested researchers are

encouraged to contact Dr. Ramesh Subramanian <u>ramji@lsu.edu</u> prior to submitting a proposal to ensure that the proposed research is eligible for inclusion in this program. The letter of intent should be submitted using the LBRN-InfoReady-Review online form (use the links below) no later than 4:30 pm on September 11, 2017. **Only those applicants who submit the LOI will be able to submit a proposal**.



RFAs (click on title to download proposal information)

- 1. Letter of Intent for LBRN Full Projects 2018-2021
- 2. Letter of Intent for LBRN Pilot Projects 2018-2019
- 3. Letter of Intent for LBRN Shared Instrumentation 2018-2019
- 4. Letter of Intent for LBRN Startup Projects 2018-2020
- 5. Letter of Intent for LBRN Translational Projects 2018-2019

National Research Mentoring Network



MyNRMN is a powerful social networking platform for students and researchers across the biomedical, behavioral, social, and clinical sciences to connect with one another for anything from general questions about research and professional development as a scientist to scheduling more formal mentorship appointments one-on-one or as a group.



Accessible when you log in to your profile on NRMNet, MyNRMN allows you to:

- · Browse profiles of registered NRMN mentors and mentees from around the country
- · Build your network by connecting with mentees and mentors that share interests with you
- Send direct messages to your connections (SMS and posts)
- · Share documents
- Build your CV using the CV Builder tool (for mentees)
- Set appointments with your mentee/mentor through your personalized calendar
- · Invite new mentees/mentors to the NRMN network to connect with you

Haven't registered yet? Click here to create your NRMNet profile and start building your network with MyNRMN today!

NIH Extramural Nexus (NIH/OD)



National Institutes of Health Office of Extramural Research

· What Can We Learn from the Early Outcomes from the NIH Director's New Innovator

Awards?

In earlier posts, <u>like this one</u>, we discussed the importance of moving towards "evidence-based funding.". NIH seeks to apply data-driven strategies to conceptualize, develop, implement, and evaluate policies, such as those that will affect the NIH-supported biomedical research workforce. Today, we'd like to spotlight a <u>recently</u> <u>published analysis</u> of an award program directed to investigators early in their careers – a population that has received much <u>attention at NIH</u> and beyond in recent years.

For a decade, the <u>NIH Director's New Innovator Award</u> has sought to support exceptionally creative and innovative early career investigators across the country. To receive an award, applicants must be an <u>early-stage</u> investigator and must not have received a substantial NIH award. No preliminary data are required in the application. As only one component of a wider high-risk, high-reward portfolio, projects supported through this program are meant to be unusually bold and innovative, with the potential for broad impact across biomedicine. But are they?

· Continuing Steps to Ensuring Credibility of NIH Research: Selecting Journals with

Credible Practices

The scientific community is paying increasing attention to the quality practices of journals and publishers. NIH recently released a <u>Guide notice (NOT-OD-18-011)</u> to encourage authors to publish in journals that do not undermine the credibility, impact, and accuracy of their research findings. This notice aims to raise awareness about practices like changing publication fees without notice, lacking transparency in publication procedures, misrepresenting editorial boards, and/or using suspicious peer review.

This may not be a big problem for NIH-funded publications now; our colleagues Jennifer Marill, Kathryn Funk, and Jerry Sheehan from the National Library of Medicine <u>note that</u> more than 90% of the 815,000 publicly available journal articles reporting on NIH-funded research are published in MEDLINE indexed journals. Nonetheless, we do know that <u>a problem exists</u> – there are articles reporting NIH-funded research appearing in journals that engage in questionable practices. Ensuring the credibility of NIH funded research is important to maintaining public trust in research.

Continue reading ...

A Sampling of Recent Literature on the Scientific Workforce

Earlier this year, we discussed a paper by our NIH colleagues who looked at data on the shifting demographics of lead principal investigators (PIs) on NIH and National Heart Lung and Blood Institute (NHLBI) research project grants. One of their findings is a decline in the representation of PIs aged 41-55. A <u>recent paper</u> by Michael Levitt (Stanford University) and Jonathan Levitt (Statistical Cybermetrics Research Groups) published in the *Proceedings of the National Academy of Science*supports these observations. The authors combined NIH data on R01-funded PIs and Association of American Medical Colleges (AAMC) data on U.S. medical school faculty to examine trends among three age groups: over 55, between 46-55, and under age 46. The number of medical school faculty and NIH R01 grantees over age 55 has increased steadily since 1980. Focusing on faculty in basic science departments, the authors see a similar trend to NIH R01 grantee data, where the representation of younger and middle aged PIs has remained stagnant, or declined, since 2000.



Continue reading ...

Top Stories

· Tell Us About Areas of Scientific Opportunity that Would Benefit from the Unique

Research Resources of the NIH Clinical Center

The NIH Clinical Center, as the largest biomedical research hospital in the world, is a unique local, regional, and national research resource. To ensure the Clinical Center is maximizing its potential to support the best possible science, the NIH Director is seeking input regarding needs and opportunities for inpatient clinical research

• NIH Loan Repayment Program (LRP) Reminder

Applying for an NIH Loan Repayment Program (LRP) award? A reminder that applications along with supporting documentation are due on November 15. The NIH Loan Repayment Programs are a set of Congressionallymandated programs that are designed to recruit and retain highly qualified health professionals into biomedical or biobehavioral research careers. Read more about the programs in this recent Open Mike blog post.

Revised NIH Grants Policy Statement

NIH issues a revised Grants Policy Statement each fall. The latest version, <u>issued in October</u>, introduces no new policies. Rather, it incorporates updates made throughout the year. This revision applies to all NIH grants and cooperative agreements with budget periods beginning on or after October 1, 2017.

Changes in NIH policy made throughout the year are issued as policy notices in the <u>NIH Guide to Grants and</u> <u>Contracts</u>. We aggregate these notices on our <u>Notices of Changes to Grants Policy</u> web page for your convenience. Remember that applicants and grantees are responsible for tracking policy changes as they happen.

You can track publication of policy notices in a number of ways:

- 1. <u>Sign up</u> to receive the weekly Table of Contents for the NIH Guide to Grants and Contracts via email or RSS feed.
- 2. Get immediate updates on new funding opportunities and notices by following @NIHFundingon Twitter.
- Or set and save a query to receive just the policy notices by email as they are issued (you can cancel any time):
 - Go to the NIH Guide for Contracts
 - Deselect funding opportunities
 - Select "NIH" under organization
 - · Add today's date for release date
 - · Select "save this search" under the top current search box
 - Provide your email

NIH Plans for Issuing Clinical Trial Specific Parent Announcements

In February NIH announced plans to require clinical trial specific funding opportunity announcements (FOAs) for due dates of January 25, 2018 and beyond. Expect to see clinical trial specific parent FOAs on the streets for select activity codes at least 60 days ahead of the first due date after January 25, 2018. Some NIH Institutes and Centers will join these parent FOAs; others will publish IC-specific Clinical Trial FOAs.

Guide notice NOT-OD-18-010 announces NIH's plans for clinical trial specific parent R01 and parent R21 funding opportunity announcements.

Guide notice <u>NOT-OD-18-001</u> provides plans for career development parent clinical trial announcements and explains NIH's approach to supporting clinical trial research experiences for fellowship, training, and career development awards.

New Resources

New Podcast: "Understanding the Definition of a Clinical Trial and What That Means for You"

A new "<u>All About Grants</u>" podcast is now available! In "Understanding the Definition of a Clinical Trial and What That Means for You" (<u>mp3</u>, <u>transcript</u>), Dr. Mike Lauer, NIH deputy director for extramural research, discusses the NIH definition of a clinical trial, addresses community questions, and speaks to how changes to clinical trials policies will impact applicants and grantees.

All About Grants podcast episodes are produced by the NIH Office of Extramural Research, and designed for investigators, fellows, students, research administrators, and others just curious about the application and award process. The podcast features NIH staff members who talk about the ins and outs of NIH funding, and provide insights on grant topics from those who live and breathe the information. Listen to more episodes via the <u>All</u> <u>About Grants podcast page, through iTunes</u>, or by using <u>our RSS feed</u> in your podcast app of choice.

Multiple Speakers - Panel of Early Career Researchers

Date: November 15, 2017 - 5:00 PM (Live Online information on Nov 15 on website to join)

Location: Life Sciences Building Annex A101



Technology and the Louisiana Biomedical Research Network

Role of Proteins Pocket Similarity in Drug Discovery

Rajiv Gandhi Govindaraji

Louisiana State University I Computational Systems Biology I Center for Computation & Technology. PhD Candidate

Abstract:

Proteins serve various functions in living cells. Interactions between proteins and other molecules are responsible for various biological processes. Modern drug design not only deals with discovery of a small molecule that modulate or block specific protein functions but also aims to uncover the function and ligands of yet uncharacterized proteins having impact on various diseases. During drug design process, ~96% promising molecules are not translated into effective drugs. Over ~50% of FDA approved drugs have unexpected interactions with more than five proteins called off-targets leads to adverse effects. Toxicity and off-targets are the major cause of this drug termination. Therefore, potential off-target identification is important to avoid drug side effects or to discover new targets for existing drugs or to repositioning an existing drugs for new targets to treat rare diseases. This talk will focus on how computational biology approaches can help to predict both drug targets and drug indications for systematic drug repositioning in rare diseases. In addition, some outstanding examples will be briefly introduce to show how computational based binding site comparison approach can be applied in discovery of therapeutics for rare diseases

Bio

Dr. Rajiv Gandhi is currently a postdoctoral researcher in the department of biological sciences at Louisiana State University. He has a Master's degree in Bioinformatics and a Ph.D, in Computational biology with fouryears of postdoctoral research experience. His current research focuses on developing an algorithms for acrossproteome modeling of protein-drug interaction networks, advance understanding of binding promiscuity of drug causing side effects and systematic drug repositioning approach to treat rare diseases.

Drug Prediction, Human Genome Project, and more : the intersection of biology and data science

Jeffrey Lemoine

Louisiana State University I Data Science and Analytics, Junior Undergraduate

Abstract:

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Pattern recognition: using specimens, genomics, and digital photography to decode the evolution of a hyperdiverse quail

Jessie F. Salter

Dept. of Biological Sciences I Museum of Natural Science, PhD Candidate

Abstract:

Why do organisms look different in different parts of their range? This question lives at the heart of evolutionary biology, and new advances in molecular and computational methods are bringing us closer to understanding the interplay of genes, environment, and phenotype in non-model organisms. The Northern Bobwhite (Colinus virginianus) presents a perfect case-study; across its range from the southeastern U.S. to southern Mexico, there are 22 subspecies of Northern Bobwhite recognized by male plumage pattern, making it one of the most phenotypically diverse birds in the world. These patterns vary dramatically from horizontal and vertical stripes, spots, and plain chests, with just about everything in-between. What explains this incredible phenotypic diversity within a single species, and how is this variation reflected at the genetic level? At the population level, what evolutionary processes are responsible for driving these patterns? To answer these questions, I'm using genomic approaches in concert with digital photography of specimens to understand the genetic mechanisms responsible for generating the diversity of plumage patterns in Northern Bobwhite. My talk will focus on my current research and how my experiences with high school and undergraduate research led me to pursue my PhD.

Bio:

A native of the Chicago-area, I got my first taste of research in biochemistry labs at the University of Chicago and Northwestern University as a high school student. My interest in research led me to pursue my undergraduate degree at Occidental College in Los Angeles, which has an award-winning undergraduate research program. While at Occidental, I worked with John McCormack in the Moore Laboratory of Zoology, home to the largest collection of Mexican birds in the world, where I developed a passion for natural history collections. My undergraduate research focused on the comparative phylogeography of birds in the Mexican highlands. These experiences led me to pursue my PhD at LSU with Brant Faircloth and Robb Brumfield in the LSU Museum of Natural Science. My current research focuses on the drivers of speciation in birds.

XSEDE HPC Training



XSEDE along with the Pittsburgh Supercomputing Center is pleased to announce a two day **Big Data workshop**, to be held December 5-6, 2017.

This workshop will focus on topics such as Hadoop and Spark and will be presented using the Wide Area Classroom (WAC) training platform.

Start time : 05 Dec, 2017 11:00 EST End time : 06 Dec, 2017 17:00 EST

Posted on 08 Nov, 2017 14:22 UTC by Tom Maiden

XSEDE HPC Workshop: BIG DATA December 5-6, 2017

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This workshop will focus on topics such as Hadoop and Spark and will be presented using the Wide Area Classroom (WAC) training platform.

Agenda

Tuesday, December 5

All times given are Eastern 11:00 Welcome 11:25 Intro to Big Data 12:00 Hadoop 12:30 Intro to Spark 1:00 Lunch break 2:00 Spark 3:30 Spark Exercises 4:30 Spark 5:00 Adjourn

Wednesday, December 6

All times given are Eastern 11:00 Machine Learning: Recommender System with Spark 1:00 Lunch break 2:00 Deep Learning with Tensorflow 4:30 Bridges: A Big Data Platform 5:00 Adjourn

Due to demand, this workshop will be telecast to several satellite sites.

You may attend at any of the following sites.

- * Pittsburgh Supercomputing Center
- * University of Delaware
- * Harvey Mudd College
- * Kennesaw State University
- * Tufts University
- * National Center for Supercomputing Applications
- * Oklahoma State University
- * Georgia State University
- * George Mason University
- * University of Houston Clear Lake
- * Purdue University
- * Ohio Supercomputer Center
- * Pennsylvania State University
- * North Carolina A&T State University
- * Yale Center for Research Computing
- * Howard University
- * University of Nebraska-Lincoln
- * Lehigh University
- * University of Texas at El Paso
- * San Diego Supercomputer Center
- * Old Dominion University
- * University of Tennessee, Knoxville National Institute for Computational Sciences
- * University of Iowa
- * University of California, Los Angeles
- * Louisiana State University
- * Michigan State University

Register via the XSEDE Portal



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