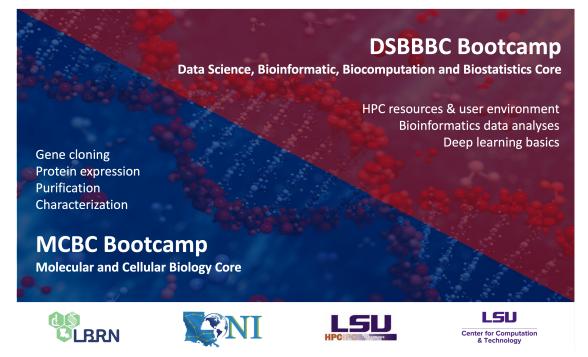
#### News, Opportunities and Deadlines for June 2023

### 6th LBRN Data & Protein Science Bootcamps

# **LRRN** Data & Protein Science Bootcamps



This summer, the LBRN will host boot camps organized by the Data Science, Bioinformatic, Biocomputation and Biostatistics Core (**DSBBBC**) and the Molecular and Cellular Biology Core (**MCBC**). These two boot camps will be offered back-to-back so that students and faculty can maximize their training. The DSBBBC bootcamp will focus on Data Science (high performance computing resources and bioinformatics analyses) and the MCBC bootcamp will focus on gene cloning, protein expression, purification, and characterization. The tentative dates for this are **July 31-August 4**. All expenses (travel, housing, tuition, per diem for meals, etc.) will be covered for LBRN campuses.

Event Date: July 31 - Aug 4, 2023 Event Time: 9am to 4pm Deadline: Deadline June 30, 2023, 4:30pm Location: LSU, Digital Media Center / LSU, Wilson Laboratories

Due to the nature of the training, seats are limited.

For more information or to register, please use the following links:



# LSU HPC Training



First HPC training will be held on Wednesday, June 28 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.

Windows with Cygwin or Bash installed.

#### Wednesday, June 28, 2023: 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

Next HPC Trainings:

Wednesday, July 12, 2023: HPC User Environment 1, Job Management on HPC Clusters Wednesday, July 26, 2023: 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 12 and July 26.

Prerequisite: Familiarity with Linux/Unix commands and editors.

#### Wednesday, July 19, 2023: Basic Shell Scripting

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.

Please visit <u>http://www.hpc.lsu.edu/training/tutorials.php</u> 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 <u>https://support.zoom.us/hc/en-us/articles/201362023-System-Requirements-for-PC-Mac-and-Linux</u>.

### **IDeA Southeast Regional Conference 2023**

Event Name: IDeA South Eastern Region Conference 2023 Where: Columbia, South Carolina When: September 15-17, 2023



Financial support may be available for LBRN PUI students or faculties to attend conferences if deemed necessary (conference presentation, paper submission). Please contact the Program Administrator, Danielle Stanfield, for more information.

The Albany Conversations at Louisiana Tech University

Please join the Next Gen. Conversations. Albany at Tech Tuesday June 11 to Saturday June 25, 2024 Louisiana Tech University

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

If you would like to organize a session or just attend please fill out the google interest form: <u>https://forms.gle/xoDFN9qhBRKYoEXC7</u> Additional information is at <u>https://coes.latech.edu/albany-conversations/</u>



## **July SuRE Training**

July '23 SuRE Bootcamp Grantsmanship Training



WEBINAR

**Grantsmanship Bootcamp Training** 

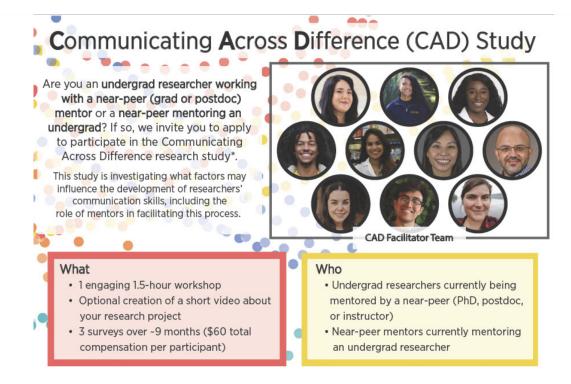
Tue, July 18 & Wed, July 19, 2023 Two-day event, 1:00-4:00 PM Eastern each day Two 3-hour sessions plus live Q&A <u>Register</u> to receive your Zoom link

#### TOPICS

- **Specific Aims:** Hear strategies for structuring your Specific Aims to establish context and rationale for your research, setting the stage for the entire grant application.
- Significance & Innovation: Learn how to consider the overall context of your research, its fit
  within the mission of the NIH, and its presentation to a diverse audience within a limited
  space.
- **Approach:** Learn various options and strategies to craft a professional, organized Approach and understand how to meet reviewer expectations.
- **Biosketch:** Learn the essential components of a successful Biosketch to maximize your professional career, along with R16 components that address student work and publications.
- Data Management & Sharing Policy: Gain an understanding of policy requirements and expectations, including the need to prospectively plan for scientific data preservation and sharing of study findings.
- **Institutional Letters:** Review content that should be included in the two institutional letters required for R16 applications.

### **National Research Mentoring Network**





# Register by June 30, 2023:

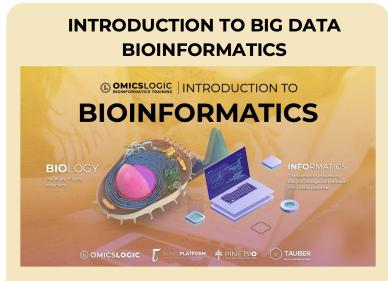
**REGISTER HERE** 

## Big Data Bioinformatics & Data Science Training for LBRN students

Live Orientation on June 18, 2023, at 1 PM CST

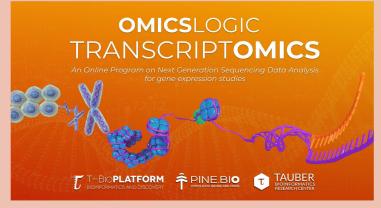
- LSU BIOMMED SUMMER PROGRAMS

While learning biotechnology, biochemistry and immunology (among other things) might be your passion, in every one of these domains analysis of experiments and clinical data is of a growing importance. While many prefer to rely on external experts to analyze their data, the understanding of basic principles behind such analysis is critical to be able to extract meaningful and reliable information that is critical for discovery. Research in life sciences is seeing an exponential growth in data volume, complexity and variability, placing bioinformatics, or data science for biological data, central to the learning path of anyone in this field.



- Introduction to methods for Genomics, Metagenomics, and Transcriptomics Data Analysis.
- Beginner level

### TRANSCRIPTOMICS FOR BIOMEDICAL RESEARCH



- Learn to analyze RNA-Seq data: From DGE analysis to pathway annotation, network visualization, & generating machine learning models
- Intermediate level

### CHEMINFORMATICS FOR BIOMEDICAL DRUG DISCOVERY





- Learn from Industry experts and leaders about the advancements in cheminformatics and modern drug discovery pipeline
- Advanced level

# BIOMEDICAL DATA SCIENCE USING PYTHON



- statistical analysis, & machine learning
- Advanced level





# Weekly Update from DRCB / NIGMS

# **Updates from DRCB/NIGMS**

#### Issue 137, 06/20/2023 NIH Funding Opportunity and/or Policy Announcements

- Interactive Digital Media (IDM) Biomedical Science Resources for Pre-College Students and Teachers (<u>PAR-23-213</u>). Applications Due: September 5.
- Assessing Real-World Effectiveness and Implementation of Telehealth-Guided Provider-to-Provider Communication among Rural Communities (<u>NOT-HL-23-083</u>). *Eligible for IDeA Co-Funding*. Applications Due: October 5.
- NARCH NOFO (PAR-23-166). Applications Due: July 08, 2024.
- Native Collective Research Effort to Enhance Wellness (N CREW) Program: Addressing Overdose, Substance Use, Mental Health, and Pain (<u>NOT-DA-23-022</u>).

#### **Upcoming Events**

- All of Us Tribal informational presentations and discussions. Register here.
  - Session 3: Describing Self-Identified AI/AN Participants in All of Us Data, TODAY, 1:00–3:00 pm ET.
  - Session 4: Data and Partnerships in All of Us, June 27, 1:00–3:00 pm ET.
- Webinar: The NIGMS Sandbox on Cloud, June 23, 1:30-3:30 p.m. ET. Zoom link.
- Virtual I-RED/SBIR Seminar, July 17, 11:00 am-12:00 pm ET. Zoom link.
- <u>SuRE Resource Center</u>: SuRE-First Application Bootcamp, July 18-19, 1:00-4:00 pm ET each day. <u>Register Here</u>. <u>Bootcamp page</u>.
- Informational Webinar for MIRA-ESI, July 26, 1:00-2:30 pm ET. <u>Zoom link</u>. See more information <u>here</u>.

#### Issue 136, 06/12/2023

#### NIH Funding Opportunity and/or Policy Announcements

- NARCH NOFO (PAR-23-166). Applications Due: July 08, 2024.
- Native Collective Research Effort to Enhance Wellness (N CREW) Program: Addressing Overdose, Substance Use, Mental Health, and Pain (NOT-DA-23-022).
- Supplements to IDeA Awards to Enhance Institutional Data Science Capacity (<u>NOT-OD-23-123</u>). Applications Due: June 19. Open to INBRE, COBRE, and IDeA-CTR awardees.
- Reminder: INBRE NOFO (PAR-23-100). Applications Due: June 26.

#### **Upcoming Events**

- Business Fundamentals for Core Facility Administrators course series:
  - Session 5—Guidance in Managing Biomedical Core Facilities: Value Assessment And Contributions To The Academic Mission, TODAY, 2:00-3:30pm ET. <u>Register Here</u>. Slides and recordings of previous sessions are available on the <u>website</u>.

- All of Us Tribal informational presentations and discussions. Register here.
  - **Session 2:** How Researchers Access and Use *All of Us* Data, June 13, 1:00–3:00 pm ET.
  - **Session 3:** Describing Self-Identified AI/AN Participants in *All of Us* Data, June 20, 1:00–3:00 pm ET.
  - Session 4: Data and Partnerships in All of Us, June 27, 1:00-3:00 pm ET.
- Informational Webinar for R15 Programs, June 15, 2:30-3:30pm ET. Register Here.
- Webinar: The NIGMS Sandbox on Cloud, June 23, 1:30-3:30 p.m. ET. Zoom link.
- Informational Webinar for MIRA-ESI, July 26, 1:00-2:30 pm ET. <u>Zoom link</u>. See more information <u>here</u>.
- <u>SuRE Resource Center</u>: SuRE-First Application Bootcamp, July 18-19, 1:00-4:00 pm ET each day. <u>Register Here</u>. <u>Bootcamp page</u>

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#### Issue 135, 06/05/2023 NIH Funding Opportunity and/or Policy Announcements

- NARCH NOFO (PAR-23-166). Applications Due: July 08, 2024.
- Native Collective Research Effort to Enhance Wellness (N CREW) Program: Addressing Overdose, Substance Use, Mental Health, and Pain (<u>NOT-DA-23-022</u>).
- Supplements to IDeA Awards to Enhance Institutional Data Science Capacity (<u>NOT-OD-23-123</u>). Applications Due: June 19. Open to INBRE, COBRE, and IDeA-CTR awardees.
- Reminder: INBRE NOFO (PAR-23-100). Applications Due: June 26.

#### Upcoming Events

- <u>All of Us</u> Tribal informational presentations and discussions. Register here.
  - **Session 1:** *All of Us* Research Program Overview and Tribal Engagement, June 6, 1:00–3:00 pm ET.
  - **Session 2:** How Researchers Access and Use *All of Us* Data, June 13, 1:00–3:00 pm ET.
  - **Session 3:** Describing Self-Identified AI/AN Participants in *All of Us* Data, June 20, 1:00–3:00 pm ET.
  - Session 4: Data and Partnerships in All of Us, June 27, 1:00-3:00 pm ET.
- Business Fundamentals for Core Facility Administrators course series:
  - Session 5—Guidance in Managing Biomedical Core Facilities: Value Assessment And Contributions To The Academic Mission, Monday, June 12, 2:00-3:30pm ET. <u>Register</u> <u>Here</u>.
    - Slides and recordings of previous sessions are available on the website.
- Informational Webinar for R15 Programs, June 15, 2:30-3:30pm ET. Register Here.
- Webinar: The NIGMS Sandbox on Cloud, June 23, 1:30-3:30 p.m. ET. Zoom link.

### **NIH Extramural Nexus**

# NIH All About Grants Podcast: What Researchers and Recipients Should Know about ClinicalTrials.gov

<u>ClinicalTrials.gov</u> is the world's largest repository of clinical trial information. The site allows the public to easily find and learn about the myriad of research studies in human participants. Users can determine which studies are recruiting, when they will be completed, and can even find trial results. But what should researchers and recipients be aware of regarding this system as it relates to reporting NIH grant-funded trials? Join us for this episode of the NIH All About Grants podcast to hear from Dr. Anna Fine, the Acting Director of ClinicalTrials.gov. She will discuss the <u>site's</u> purpose, some <u>requirements</u> for recipients (more on the reporting policy in a follow-up podcast), types of information to be submitted, the process for submitting information, relevant <u>resources</u>, and more.

"..Insuring transparency and accountability is really about good stewardship of NIH funds and it's a shared commitment between NIH and investigators. We are your partner in achieving these important goals." – Dr. Anna Fine

Also check out the ClinicalTrials.gov <u>FAQs</u>, and consider <u>signing up</u> for the "Hot Off the PRS" newsletter to receive timely email announcements about the ClinicalTrials.gov Protocol Registration and Results System.

## Tool Tip: Find the Help You Need to Navigate eRA Systems

Did you know that if you click on the question mark on any eRA module screen, it connects to the online help topic for that screen? So, if you are stuck on a screen, wondering what step you should take or do not know what a term means, simply click on the question mark.

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The online help for eRA modules — which is the user documentation containing step-by-step procedures and screenshots — can also be found on the <u>Help & Tutorials</u> webpage.

In addition to the online help, you can find the following information for each module:

- An overview of each module: Describes the purpose, how to access it, features, benefits, and its users.
- A PDF user guide: Contains identical information as the online help in PDF linear format.
- Features and updates: Details the changes made to the module over time.
- Training videos, tips, and FAQs: Provided when available

So go ahead and explore these resources today. You might find the answer you have been looking for! If you still need assistance after perusing these resources, please contact the <u>eRA Service</u> <u>Desk</u>.

# Administrative Supplements for Diversity, Re-entry, and Continuity

Many NIH recipients are aware that funds may be available for administrative supplements to address impacts to research following severe weather or other unforeseen events. Fewer recipients, however, are aware of these other administrative supplement programs to support research within the scope and timeline of a current award.

- <u>Research Supplements to Promote Diversity: Funding Opportunities</u>

   Aimed at diversifying the biomedical research workforce via support of investigators from diverse & underrepresented groups at various career stages.
- <u>Research Supplements to Promote Re-entry & Re-integration into Health-Related Research</u>
   <u>Careers: Funding Opportunities</u>

The Re-entry Supplements provide mentored research training opportunities to scientists who've had at least 6 months of career interruption due to experience of critical life events.
 The Re-integration Supplements provide opportunities for pre/postdoc students experiencing unsafe or discriminatory environments to transition to safer, more supportive research environments and continue their graduate careers.

<u>Research Continuity Supplements: Funding Opportunities</u>

 Supplements to Promote Research Continuity and Retention of NIH Mentored Career Development (K) Award Recipients and Scholars.

 Supplement for Continuity of Biomedical and Behavioral Research Among First-Time Recipients of NIH Research Project Grant Awards.

Review the awarding institute or center (IC) website to ensure you meet any IC-specific requirements and reach out to the IC contacts listed in your notice of award to discuss your administrative supplement request.

<u>Learn more about administrative supplements</u> and explore the active funding opportunities available to find one right for you!

### More Early Stage Investigators Supported in FY 2022

Over the past two years, we supported <u>1,412 early stage investigators (ESIs)</u> in fiscal year (FY) 2020 and <u>1,513</u> in FY 2021, which were both all-time highs. These ESIs were first-time Principal Investigators (PIs) designated on <u>type 1 (new)</u> R01-equivalent awards. Today, we are pleased to announce that even more ESIs were supported in FY 2022 as part of our continued <u>Next</u> <u>Generation Researchers Initiative (NGRI)</u> efforts.

Table 1 shows we supported an additional 1,609 ESIs in FY 2022 (a 6.3% increase over FY 2021). As there were 5,435 total applicants, this makes the ESI funding rate 29.6% (Table 2). 63.8% of the ESI applications were discussed in peer review, referred to as the discussion rate (Table 2).

We were also able to support 61 more At-Risk Investigators in FY 2022 (2,087) compared to the previous year (2,026) (Table 1). This group consists of researchers that received a prior substantial NIH award but to the best of our knowledge, would have no funding the following fiscal year if they

were not successful in securing a competing award. Their funding rate rose to 27.0%, from <u>25.4%</u> last year.

... continue to read

### **LBRN Cores Support Form**

LBRN Bioinformatics, Biostatistics, and Computational Biology Core (BBCC) and Molecular and Cell Biology Resources Core (MCBRC) remind you that they are available for questions and contact via our LBRN Cores website. If you're not sure who to reach out to, you can ask via our website <u>Cores Contact form</u> and we will get back to you with the appropriate resource to do the best we can to answer your question. Look for the "Cores Contact" on the Cores page.



#### LBRN Cores Contact Form



Thank you!

Your Name * must provide value	
Your Email * must provide value	
Your Institution * must provide value	\$
Indicate which core(s) that best fits / you'd like to contact: * must provide value	<ul> <li>Administrative Core</li> <li>Bioinformatics, Biostatistics, and Computational Core</li> <li>Molecular and Cell Biology Resources Core</li> <li>Other/Not Sure</li> <li>select all that apply</li> </ul>
Please describe what you would like to ask and the questio will get routed to the appropriate person in the core or the administrative core will contact you to try to help who is the appropriate person to contact you. * must provide value	
Submit	

# LONI HPC Allocation for LBRN



To support the LBRN / BBC Core community on LONI HPC systems, we have renewed our highperformance computing allocation for 2022 / 2023.

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>.



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.



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