News, Opportunities and Deadlines for May 2020

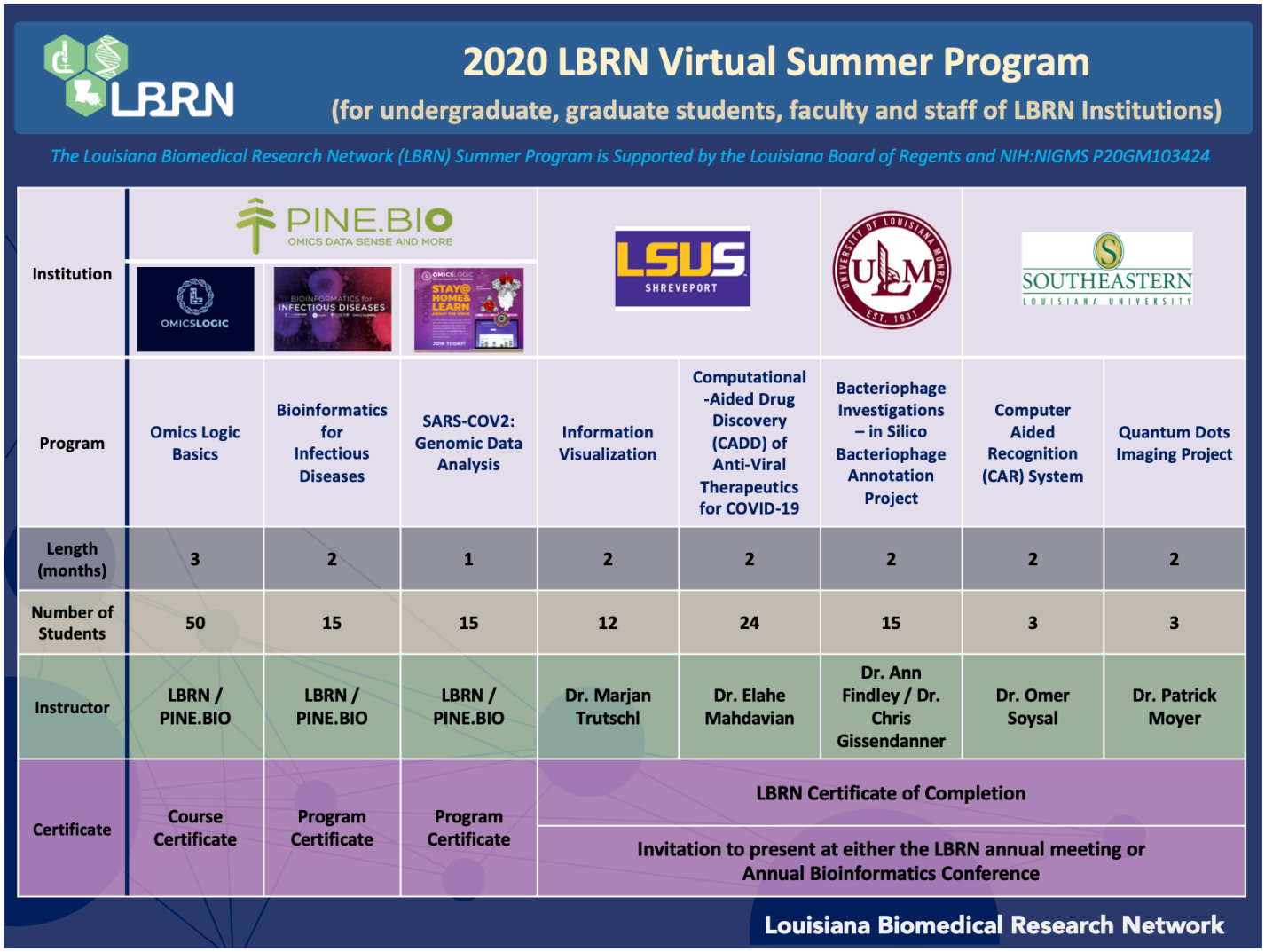
2020 LBRN Virtual Summer Program

LBRN is pleased to make available our 2020 Virtual Summer Program Opportunities for LBRN participants. This program is in place of our regular summer program, which was cancelled due to COVID-19. This program will proceed in various virtual/online formats with support from our LBRN PUI campuses and Pine BioTech.

Deadline for registration is June 3, 2020. Program begins June 8, 2020. Applications will be reviewed on a first come basis immediately after the deadline. All these courses are free to LBRN participants. We are unable to provide financial support of any kind to the participants.

Please see the following listed programs available for all the program details from each participating LBRN Partner.

Owing to scheduling logistics "Omic Logic" is the only course that can be taken as a combination.



Event Date: Beginning June 8, 2020

Registration Deadline: June 3, 2020

Complete Program List:

- Pine.Bio:
  - Omics Logic Basics
  - *Bioinformatics for Infectious Diseases
  - *SARS-COV2: Genomic Data Analysis
- LSU Shreveport:
  - Information Visualization
  - Computational -Aided Drug Discovery (CADD) of Anti-Viral Therapeutics for COVID-19
- University of Louisiana at Monroe:
  - Bacteriophage Investigations – in Silico Bacteriophage Annotation Project
- Southeastern Louisiana University:
  - Computer Aided Recognition (CAR) System

- Southeastern Louisiana University: Quantum Dots Imaging Project

Please use the link for more detailed information and registration.

3rd LBRN-LONI Scientific Computing Bootcamp

HPC@LSU will hold the 3rd LBRN-LONI Scientific Computing Bootcamp on June 1 - 5 in an online virtual form via Zoom.

The LSU Information Technology Services, LSU Center for Computation & Technology, Louisiana Biomedical Research Network (LBRN), Louisiana Optical Network Infrastructure (LONI) are pleased to announce the following workshop:

Due to concern about the COVID-19 pandemic, the workshop will be held in a virtual online form via Zoom. The lectures will be given in every morning and recorded. Attendants can either attend the live sessions or view the recordings later. Online hands-on sessions will be held in every afternoon. More details will follow.

Description:
Scientific computing is becoming more ubiquitous for all types of research areas. Skills and knowledge that are necessary to take full advantage of the power of computing, however, are often inadequately present in both curricular and extracurricular training. The purpose of this workshop is, by both presentation and hands-on experiences, to help attendants understand the usage of popular scientific computing programming tools and prepare for their future computational study and research career.

In five days the attendants will learn:

- The basics of Python programming language and using it in scientific computing
- Introduction to R programming language with its applications
- Introduction to Deep Learning

Schedule:

Note: This tentative Schedule is subject to change.

All sessions below include online hands-on sessions.

- **June 1: Introduction to Scientific Computing and Python Basics**
- **June 2: Scientific Computing with Python**
- **June 3: Introduction to R**
- **June 4: Intermediate R**
- **June 5: Introduction to Deep Learning**

Registration Deadline: May 27, 2020

For more information for the schedule and registration, please use this link.

LBRN Summer Research Program 2020 Cancelled

Thank you for your interest in the LBRN Summer Research Program. We regret that owing to COVID-19 related issues LBRN Summer Research Program as advertised for 2020 is cancelled.

Plans are underway to have a virtual Summer program with at least four different modules/modes

available for participants. We will have more details including registration information posted on the LBRN website soon. We hope to start this virtual summer program on June 8th.

We realize these are unique times that we live in posing a variety of different challenges to all. Rest assured that we at the LBRN are trying our best to provide an enriching summer research/educational experience.

More details coming soon. In the meanwhile sit tight and stay safe.

With best regards, Team LBRN

Newest CDC COVID-19 Recommendations for Pet Owners

CDC has posted new recommendations for pet owners, as well as new QAs, on the CDC COVID-19 website. Main messaging regarding COVID-19 and animals remains the same. New information includes recommendations to limit pets' contact with people and animals outside the household, to wear a cloth face covering if sick and caring for pets, and to contact your vet if sick and your pet gets sick. New QAs cover concerns about what animals can be infected with SARS-CoV-2, pet cats, walking dogs, what to do if a pet gets sick, and testing animals.

See below for a summary of new pet recommendations.

- Until we learn more about how this virus affects animals, treat pets as you would other human family members to protect them from a potential infection.
    - Do not let pets interact with people or other animals outside the household.
    - Keep cats indoors when possible to prevent them from interacting with other animals or people.
    - Walk dogs on a leash, maintaining at least 6 feet (2 meters) from other people and animals.
    - Avoid dog parks or public places where a large number of people and dogs gather.
    - Talk to your veterinarian if your pet gets sick or if you have any concerns about your pet's health.

- If you are sick with COVID-19 (either suspected or confirmed by a test), you should restrict contact with your pets and other animals, just like you would around other people.
    - When possible, have another member of your household care for your pets while you are sick.
    - Avoid contact with your pet including, petting, snuggling, being kissed or licked, and sharing food or bedding.
    - If you must care for your pet or be around animals while you are sick, wear a cloth face covering and wash your hands before and after you interact with them.

- If you are sick with COVID-19 and your pet becomes sick, do not take your pet to the veterinary clinic yourself.
    - Call your veterinarian and let them know you have been sick with COVID-19.
    - Some veterinarians may offer telemedicine consultations or other alternate plans for seeing sick pets.
    - Your veterinarian can evaluate your pet and determine the next steps for your pet's treatment and care.

Notice of Special Interest : NIH

- **Availability of Administrative Supplements to INBRE Awards to Fund Research Collaborations**

The National Institute of General Medical Sciences (NIGMS) announces the availability of funds for Administrative Supplements to NIGMS-funded Institutional Development Award (IDeA) Networks of Biomedical Research Excellence (INBRE) (P20) awards. These funds are intended for existing INBREs to develop collaborations between investigators at the INBRE partner institutions, including primarily undergraduate institutions (PUIs), community colleges (CCs) and Tribally Controlled Colleges and Universities (TCCUs), and investigators supported by Centers of Biomedical Research Excellence (COBRE), IDeA-Infrastructure for Clinical and Translational Research (IDeA-CTR), IDeA States Pediatric Clinical Trials Network (ISPCTN) awards or Clinical and Translational Science Awards (CTSA) to institutions located in IDeA states, in research areas that are currently supported by these programs. The goal of this funding opportunity is to encourage collaborations by investigators in IDeA states while providing students a broad continuum of research opportunities. Although in-state collaboration is encouraged, the collaborative projects can also be proposed between programs across the IDeA states.

The collaborative project should be an expansion of a project currently supported by a COBRE, IDeA-CTR, ISPCTN or CTSA award. The project must not constitute a change in scope of the parent INBRE or COBRE/IDeA-CTR/ISPCTN/CTSA awards.

For these supplements, all active INBREs, including those in their final year of funding or in a no-cost extension, are eligible to apply. This applies also to COBRE, IDeA-CTR, ISPCTN or CTSA programs that will collaborate with INBREs.

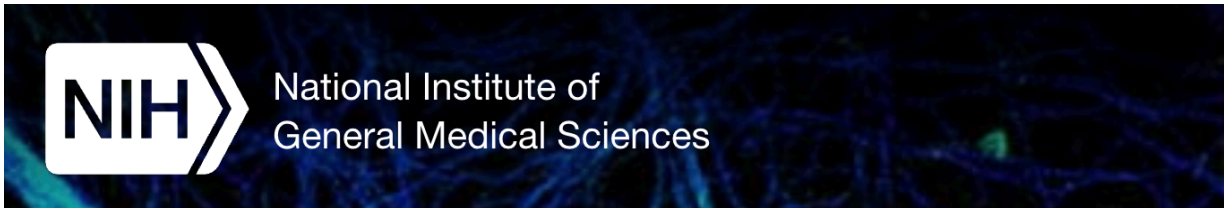
..... More in detail

- **Administrative Supplements for Research on Women's Health in the IDeA States**

The Office of Research on Women's Health (ORWH) and the National Institute of General Medical Sciences (NIGMS), along with Institutes and Centers (ICs) of NIH participating in this Notice, announce the availability of administrative supplements to IDeA awards to expand research and research capability in the IDeA states to address important issues of women's health with a special interest in maternal and infant mortality and morbidity. The proposed research must address at least one of the strategic goals of the 2019-2023 Trans-NIH Strategic Plan for Women's Health Research "Advancing Science for the Health of Women".

..... More in detail

IDeA Co-Funding



The IDeA program managed by NIGMS is pleased to announce the 2020 co-funding opportunity for investigators in IDeA-eligible states whose R01 or R15 applications scored well but fall just outside of an IC's funding range. The IDeA program provides a maximum of $320K in total costs for each of the first two consecutive years of a selected award. Nominations are made by the NIH IC that has the primary assignment for the application. PIs wishing to be considered for IDeA co-funding should contact directly the program officer at the IC assigned to the application.

IDeA co-funding is conducted once per year, and the nomination period will close in early April. Final selections will be made in June of 2020. Please visit https://www.nigms.nih.gov/Research/DRCB/IDeA/Pages/IDeA-Co-funding.aspx for further information about this initiative.

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 offerring 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.

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.

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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

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.

NIH Extramural Nexus (NIH/OD)

National Institutes of Health
Office of Extramural Research

- # Extramural Investments in Research: FY 2019 By the Numbers

In times of stress and uncertainty, such as what we are all experiencing now, seeing something different may be welcome. With that in mind, we are taking a few moments to continue our annual tradition spotlighting NIH's research investments, grant funding, and success rates from the previous fiscal year (FY). You can read these posts from FY 2018, FY 2017, and FY 2016 as well as information on the NIH Data Book for more.

NIH's total budget in FY 2019 was $39.2 billion (see page 76 of the FY 2021 Congressional Justification overview for more). Of that appropriation, $29.466 billion was awarded to 55,012 new and renewed meritorious extramural grants (excludes research and development contracts). This investment was up $2.354 billion from FY 2018 (8.68% increase), with 2,369 more grants funded (4.50% increase). 2,738 organizations received these awards—ranging from academic universities, hospitals, small businesses, and others—throughout the U.S. and internationally.

Table 1 – All Extramural Research (competing and non-competing, excluding contracts)

	2016	2017	2018*	2019***	2019 % Change from 2018
Number of Awards	48,906	50,103	52,643	55,012	4.50%
Total Amount (in millions)	$23,541	$25,013	$27,112	$29,466	8.68%

NIH made a total of 11,035 competing Research Project Grant (RPG) awards in FY 2019. Though 36 fewer awards were made compared to FY 2018, spending on RPGs reached $21.589 billion, rising $1.719 billion over the previous year (8.65% increase), with the average size per award increasing by $18,440 (3.45% increase).

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- # Temporary, Emergency Situations Due to COVID-19 and Application Scores Received During Peer Review

As we continue to address the effects of the COVID-19 public health emergency on NIH-supported research, we are aware of applicant concerns about the potential impact of this temporary emergency

situation on the outcome of peer review. We want to reassure applicants that we released guidance for reviewers that makes it clear that, when reviewing applications during the coronavirus pandemic national emergency, reviewers should assume that issues resulting from the coronavirus pandemic, such as the following, should not affect scores.

- Some key personnel on grant applications may be called up to serve in patient testing or patient care roles, diverting effort from the proposed research
- Feasibility of the proposed approach may be affected, for example if direct patient contact is required
- The environment may not be functional or accessible
- Additional human subjects protections may be in order, for example if the application was submitted prior to the viral outbreak
- Animal welfare may be affected, if institutions are closed temporarily
- Biohazards may include insufficient protections for research personnel
- Recruitment plans and inclusion plans may be delayed, if certain patient populations are affected by the viral outbreak
- Travel for key personnel or trainees to attend scientific conferences, meetings of consortium leadership, etc., may be postponed temporarily
- Curricula proposed in training grant applications may have to be converted to online formats temporarily
- Conferences proposed in R13/U13 applications may be cancelled or postponed.

NIH will work with the applicant to resolve issues related to temporary, emergency conditions prior to award.

We have also had many questions from applicants asking what they should do if they don't have enough preliminary data for the application they had planned to submit. While it may not be the most popular answer, we always recommend that applicants submit the best application possible. If preliminary data is lacking, consider waiting to submit a stronger application for a later due date.

The COVID-19 reviewer guidance, along with FAQs for applicants and awardees can be found in our central repository of resources, Coronavirus Disease 2019 (COVID-19): Information for NIH Applicants and Recipients of NIH Funding.

Working on an NIH Grant Application? Make Sure You Are Using the Right Forms!

NIH is transitioning to an updated set of application forms we refer to as FORMS-F. Use FORMS-F forms for grant application due dates on or after May 25, 2020 and FORMS-E for due dates on or before May 24, 2020.

For tips on navigating this transition, see our previous Nexus post, guide notices (NOT-OD-20-026, NOT-OD-20-077), and the resources listed below.

Resources related to form updates:

- How to Apply – Application Guide
- Grants Administration Take 10: NIH FORMS-F Application Forms Update video
- Annotated Form Set for NIH Grant Applications
- Do I Have the Right Form Version For My Application?
- Application Forms, Form Updates, and Choosing the Correct Forms FAQs

Direct questions regarding our form update to:

NIH Office of Policy for Extramural Research Administration (OPERA)
Systems Policy Branch
Email: OPERAsystemspolicy@nih.gov

Late Window Extension for T32 and T35 Applications to Parent Announcements

Training grant applications submitted to parent funding opportunity announcements PA-20-142 (T32) and PA-20-162 (T35) for the May 25th due date will be accepted through June 30, 2020 (NOT-OD-20-105).

A large percentage of the NIH Institutes/Centers (ICs) who participate on these parent opportunities only accept applications once per year – on the May 25th due date. So, we are providing additional flexibility in accepting late applications due to the impact of the public health emergency. Although this particular flexibility only applies to applications submitted to the T32 and T35 parent announcements, some ICs have implemented late application flexibilities for their non-parent opportunities through other notices in the NIH Guide.

Animal Oversight Changes for Institutions Receiving National Aeronautics and Space Administration (NASA) Funding

On April 16, 2020, NIH and the National Aeronautics and Space Administration (NASA) announced a new agreement to ensure consistent and effective oversight of the welfare of animals used in NASA-

funded activities. The agreement provides a framework to enhance communication and harmonize the agencies' efforts while reducing regulatory burden to supported institutions. According to this agreement, institutions receiving NASA funding will need to:

1. include NASA-supported activities with live vertebrate animals as covered activities in their PHS Animal Welfare Assurance (Assurance), and
2. promptly report situations involving NASA-supported animal activities to the NIH Office of Laboratory Animal Welfare (OLAW) as required by PHS Policy.

If your institution receives NASA support for animal activities, and already has a PHS Assurance (a requirement of all NIH grantee institutions conducting research with animals):

- Do not submit a new Assurance.
- In your 2020 annual report to OLAW, indicate that you have a program change and attach an update to your Assurance Part I. Applicability section so that it reads: **Applicability of Assurance** – "This Assurance applies whenever this Institution conducts the following activities: all research, research training, experimentation, biological testing, and related activities involving live vertebrate animals supported by the PHS, NSF, HHS *and NASA.* This Assurance covers only those facilities and components listed below."

If your institution receives NASA support for animal activities and does not have PHS Assurance:

- NASA will notify OLAW that a PHS Assurance is needed. Then OLAW will contact your institution to negotiate an Assurance.

For more information on laboratory animal welfare, please visit the NIH Office of Laboratory Animal Welfare website.

• New "All About Grants" Podcast – All About Contracts

Yes, we are talking about contracts in this next installment of the NIH's All About Grants podcast series. Our guests will be George Kennedy and Brian O'Laughlin, who are acquisition staff from the National Institute of Allergy and Infectious Diseases and National Institute on Drug Abuse, respectively. The conversation (MP3 / Transcript) will introduce you to the world of contracts at NIH, what they are, how they differ from grants, where to find them, what types of research are solicited, tidbits to focus on when developing a proposal, and more.

Check out the System for Awards Management (SAM) to find more information on contract solicitations.

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 GM103424-18 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 (*P20 GM103424-18*) 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.
