NIGMS INBRE Team

- Jessica Faupel-Badger, Branch Chief and Program Officer, NDP, DRCB
  - badgerje@mail.nih.gov

- Lakshmi Matukumalli, Program Officer, NDP, DRCB
  - lakshmi.matukumalli@nih.gov

- Jagpreet Nanda, Program Officer, NDP, DRCB
  - jagpreet.nanda@nih.gov

- Yang Zhou, Program Officer, NDP, DRCB
  - yang.zhou@nih.gov

- Christy Leake, Grants Management Specialist - christy.leake@nih.gov

Overview of IDeA INBRE Program

- **Institutional Development Awards (IDeA) Program** - Build research capacity in 23 states and Puerto Rico with lower levels of NIH funding

- **IDeA Networks of Biomedical Research Excellence (INBRE)**
  - Statewide network of higher education and research institutions in IDeA-eligible states and PR to build biomedical research capacity
  - **24** INBRE awards
  - IDeA Dashboard tracks all funded awards

INBRE: Program Objectives: **PAR-23-100**

- **Build biomedical research capacity by supporting**
  - **Faculty** research in <u>all</u> biomedical fields and research mentoring
  - **Student** participation in research and
  - Enhancement of institutional **research infrastructure**

INBRE: Eligible Institutions

- **Lead/applicant institution:** that has a broad and strong biomedical research base to lead the research and capacity building activities, as well as established research administration infrastructure to effectively administer the multi-component INBRE award with sub-awards to network institutions

- **Eligible network partner institutions:**
  - Primarily undergraduate institutions (PUIs), including four-year colleges, two-year colleges, and minority-serving institutions that award associate degrees, bachelor's degrees, and/or Master's degrees in biomedical sciences, but have awarded 20 or fewer Ph.D./D.Sc. degrees in biomedical sciences in the previous two academic years; and
  - Other higher education and biomedical research institutions, including receiving COBRE and IDeA-CTR awards

PD/PI Eligibility (applies to all PD/PIs if MPI* INBRE)

Established biomedical researcher

- **Must** have administrative and mentoring experiences to lead the INBRE
- Primary faculty appointment **must** be at the applicant lead institution
- **Must** devote a minimum of 3.6 person months per year and a max. of 6
- A PD/PI succession plan is encouraged
- An INBRE PD/PI **may not** simultaneously serve as a COBRE or IDeA-CTR PD/PI, nor can a COBRE or IDeA-CTR PI simultaneously serve as a PD/PI of an INBRE

*MPIs from different Network institutions are encouraged, particularly when they bring diverse and complementary expertise. For MPI applications, each PD/PI must commit at least two person months effort to the INBRE

INBRE Components and Governance

Components

- **Administrative Core (AC)** *(required)*

  o Student Research Program (SRP)

  o Evaluation (*an external evaluator not required*; AC responsible)

- **Developmental research Project Program (DRPP)** *(required)*
  o **Data Science Core** *(required)*
  o **Research Core(s)** *(a maximum of two) (optional)*
  o **Alteration and Renovation Projects** *(optional)*

Governance Committees

- **Steering Committee (SC)** PD(s)/PI(s) and one senior institutional leader (Vice President/ President or equivalent) from each network institution

- **Executive Committee (EC)** PD(s)/PI(s), one faculty lead from each network institution, and other key personnel appointed by the PDs/PIs

- **External Advisory Committee (EAC)** 3-5 members with expertise in research, mentoring, and administration

Key requirements of Student Research Program (SRP)

- **Managed** by Administrative Core (AC)

- **Supports** undergraduate student participation in mentored research during the summer and/or academic semesters

- **Open** to Students in all fields of study enrolled in all network institutions, including PUIs and non-PUIs

- Faculty investigators in all biomedical fields in the INBRE network institutions, including PDs/PIs of IDeA awards, may **serve as preceptors for SRP students**

- **Information about the SRP and contact information of individuals** managing SRP at the AC and each network institution **must** be disseminated to students and faculty of network institutions

Key Requirements for DRPP

- **Must** be led by <u>an established scientist with experience in mentoring and applying for external research funding</u>

- <u>**Two types of grants**</u>:

  - **Research Projects (RPs)** may be funded for <u>up to two years</u> with direct costs up to $125,000 per year; <u>six person months effort</u> is required of a RP leader; RPLs <u>must</u> have a mentor

  - **Pilot Projects (PPs)** may be funded for <u>one year</u> with direct costs up to $50,000; <u>three person months effort</u> is required of a PP leader; <u>Should</u> have a mentor unless PPL is a senior and experienced faculty

  - **Student participation** is strongly encouraged for all DRPP-funded research

- **A mentor** for RPLs and PPLs may be supported for <u>up to 1.0 person month</u>

- **DRPP funds** may be used for salary for the investigators, postdoctoral fellows, students (including graduate, undergraduate and high school students), and research assistants/ technicians, as well as for supplies and/or equipment costs

- **Information about the DRPP** funding opportunity <u>**must**</u> be disseminated to all the network institutions

Key requirements for Data Science Core (DSC)

- **Build and expand** data science expertise including scientific programming, data analysis, data management, data security, using big data and cloud computing <u>for biomedical research</u>

- **Data science educational activities,** including topics developing and expanding *<u>quantitative and computational research skills</u>* of investigators and students

- **Core Director** <u>must have appropriate expertise and experience</u> to manage the DSC

- **Collaborations** across other <u>INBRE Data Science Cores for sharing training and research resources</u> are strongly encouraged

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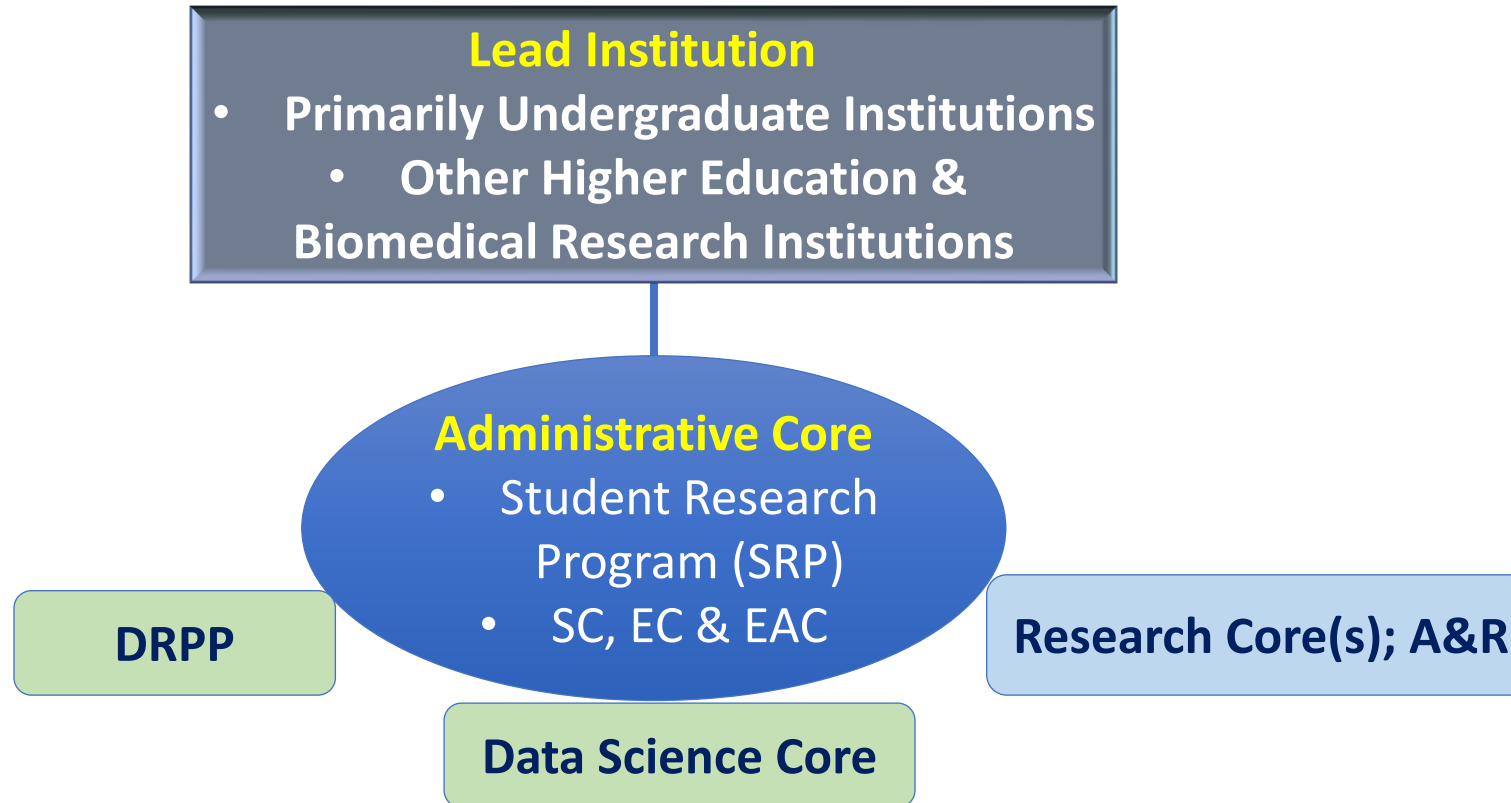
Key Requirements for Research Core(s)

- Should support a **broad user base, meet anticipated needs** of faculty and students in the Network, and **should be accessible** to them

- **Not duplicate** services that already exist within the Network, or that are supported by other IDeA programs, e.g., IDeA-CTR and COBRE(s) in the state

- **Core Director** must have appropriate expertise and experience to manage the Core

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Key Requirements for Alteration and Renovation Projects

- **Improve existing research laboratories or animal facilities <u>at PUIs</u>** to be used broadly by DRPP faculty and students

- **Cannot support**
  - New construction, including completion of shell space
  - Movable equipment/instrumentation
  - Equipment for teaching or non-research use

INBRE: Network Structure

Lead Institution
- Primarily Undergraduate Institutions
- Other Higher Education & Biomedical Research Institutions

Administrative Core
- Student Research Program (SRP)
- SC, EC & EAC

DRPP

Data Science Core

Research Core(s); A&R

IDeA Networks of Biomedical Research Excellence (INBRE) (P20 Clinical Trial Optional)

PAR-23-100

Next Application Due Date: May 22, 2025

FY	Due Date	Council
2024	June 26, 2023	January 2024
2025	May 22, 2024	January 2025
2026	May 22, 2025	January 2026

Application Requirements – Overall (12 pages)

Overall Plan for the Network must include the following:

- **Program Accomplishments** during INBRE current support for <u>Renewals</u> *(required)*

- **Network Organization:** the institutions, components and the relationship among them

- **Plan for three required committees:** roles and responsibilities, and frequency of meetings

  - **Steering Committee (SC):** PD(s)/PI(s) and one senior institutional leader (Vice President/ President or equivalent) from each network institution

  - **Executive Committee (EC):** PD(s)/PI(s), one faculty lead from each network institution, and other key personnel appointed by the PDs/PIs

  - **External Advisory Committee (EAC):** Three to five members with appropriate expertise in research, mentoring, and administration – *DO NOT name new members*

- **Overall Goals and General Strategies –** with milestones and benchmarks

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Application Requirements – Overall (contd.)

Letter of Support: letters from network institutions demonstrating support for the INBRE and its components must be included only under the Overall section. No letters should be included under individual components.

Memorandum of Understanding: An MOU between each of the network institutions and the INBRE must be included, describing's institutions' commitment to provide release time for DRPP-supported investigators.

Data Management Sharing Plan (DMSP) —*NEW— (required)*

As no Human Subjects research (HS) proposed at the time of the application, check "No" for HS; same for Vertebrate Animals (VA) research

Overall: Data Management Sharing Plan (NOT-OD-22-189)

- Purpose is to emphasize good data management practices and set the expectation for maximizing the sharing of scientific data generated by NIH-funded research awards (NOT-OD-21-013)

- New requirement for competing (type 1 or type 2) applications submitted for receipt dates after January 25, 2023 –*reviewed by Program staff*

- The description of the elements to be included in the DMSP and a template can be found in the NIH Scientific Data Sharing webpage

- DMSP incorporates Data Management and Genomic Data Sharing (removed from the Resource Sharing Plan, which is still required)

- DMSP (1-2 pages recommended) should be included in the Overall component in the "Other Plans" attachment. ***Only one DMSP is required per application.***

- If a budget is requested for DMSP implementation (expected to be rare), it must be included in the Administrative Core; the total INBRE budget remains $2.75M DC/year

Application Requirements for Administrative Core (12 pps)

Management Plan:
- administrative
- governance of three required committees (SC, EC and EAC)
- fiscal and preparing program and financial reports and
- ensuring that scientific activities follow federal regulations and requirements

Student research Program (SRP): the plan should include

- <u>eligibility</u> of applicants, number of students to be selected and supported, and duration of the support
- the <u>application and selection</u> processes
- how students will be <u>matched with preceptors</u> *(An IDeA awarded PD/PI may also serve as a preceptor for the SRP students)*
- <u>expectations</u> for students and preceptors
- <u>plans to track</u> outcomes and evaluation matrix
- how the information about the SRP will be <u>disseminated</u> to students and faculty of network institutions
- Individual <u>managing</u> the SRP and the budget

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Application Requirements for Administrative Core (contd.)

Research, career development and enhancement, mentoring, and outreach activities for faculty and students

- **Evaluation Plan**: monitor and evaluate performance and impact of the award
- **A succession plan** for the PD/PI, if applicable
- **The contact PD/PI and the plan for MPI applications**, if applicable
- **No Letters of Support Allowed**

Application Requirements for DRPP (6 pages)

Plan: applicant eligibility criteria, the application, review, and selection process, matching with mentors, expectations for RP and PP leaders and mentors, and matrix for their evaluation

- ***RPLs and PPLs are <u>encouraged</u> to publish and seek external funding awards such as SuRE (R16), AREA (R15), R03 and R21***

If the DRPP intends to fund projects involving <u>human subjects including short term (1-2 years) clinical trials</u>, the **lead of the DRPP** assumes the oversight responsibilities of these studies, to ensure:

- each clinical trial has a strong scientific rationale and is ethical, safe, inclusive and effective;
- preliminary data and/or literature support for the clinical trial;
- the project leaders and key personnel will have the expertise, experience, and ability to design, organize, and implement the proposed clinical trial, as well as to manage data and statistics safely;
- the appropriate mentoring and oversight will be in place to assure safety of the clinical trial;
- potential ethical issues will be adequately addressed; and
- proposed trial site(s) will have appropriate research capacity to support the trial.

No Letters of Support Allowed

Application Requirements for Data Science Core (DSC) (6 pages)

- Plans to build and expand data science expertise including scientific programming, data analysis, data management, data security, using big data and cloud computing for biomedical research

- Plans for data science educational activities including topics, sources of content, intended participants, and providers of the educational activities. The training plans must include topics developing and expanding *quantitative and computational research skills* of investigators and students

- The **qualifications and role** of the DSC Director and other key personnel *(without duplicating information already provided in the Biosketch)*

- **Funds** may be requested to procure appropriate equipment, software, service, and access to data, data management, and cloud computing time.

- **Funds** may be requested for data science educational activities.

- **No Letters of Support Allowed**

Application Requirements for Research Core(s) (optional) (6 pages)

- **Provide justification** for supporting a Research Core

- **Using/modifying/expanding existing resources <u>is encouraged</u>** but duplication is not

- **Funds for equipment and instrumentation** are allowed

- **A description of the Core's user base, a Business plan** to manage use of the Core, including its **marketing** should be provided

- **No Letters of Support Allowed**

Application Requirements for Alteration and Renovation Projects (optional) (6 pages)

- **Up to $250,000** in DC allowed only in year 1 of the award

- **Direct Costs only** – no F&A

- **More than one A&R project** as long as the costs not exceed the allowed budget

- **Provide line drawings** (not blueprints) to show feasibility

- **No Letters of Support Allowed**

The INBRE Review Process: STEP 1 – Administrative Review

- Review of all INBRE applications is organized by the NIGMS Scientific Review Branch (SRB)

- All applications go through Administrative Review by the Scientific Review Officers

- All applications deemed non-compliant/not eligible are withdrawn

To avoid your application from being withdrawn:

- **Read and follow the instructions in the current FOA carefully!**

- Try to apply a few days prior to the deadline, check your application, and make corrections, if needed

STEP 2 – SCIENTIFIC REVIEW

- **Applications are reviewed by a Special Emphasis Panel (SEP)**

  - Reviewer Orientation Meeting by Program and Review

- **Reviewer Assignments**

  - At least three reviewers are assigned to each application

  - Overall: three primary reviewers

  - At least two reviewers are assigned to each of the components

    - Administrative Core, DRPP, Data Science Core, Research Cores and A&R

- **Process**

  - Assigned reviewers comment on each component, then the panel discusses the Overall

- **Voting: All panel members vote on the Overall Network only (not individual components)**

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Additional Information about the Review

- Reviewers will evaluate the <u>progress and accomplishments of current INBRE support</u> <u>for Renewals</u>

- <u>Research Cores</u> should continue to develop strong user bases that include DRPP investigators and students at the network institutions, and others in the state and beyond

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Preparation Advice to Applicants

- **Read the FOA's review criteria (Section V) carefully** – the critique templates contain these criteria/questions

- **DO NOT duplicate** letters of support. Avoid including letters of support that do not add substance – it can limit the pool of reviewers

- **Include the Component Title at** the beginning of each component summary. Reviewers have access to full applications **but not during the Recruitment Phase** when only summaries are available.

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IDeA Funding Restrictions

- **The PD(s)/PI(s) may not use INBRE funds to support research activities in his/her laboratory. This includes supplements unless allowed by the NOSI or FOA**

  - PI **is not eligible** for research support from this INBRE or any INBRE, COBRE or IDeA-CTR award

- **INBRE DRPP Research and Pilot Project leaders <u>are not eligible</u>** for simultaneous research funding from two IDeA programs (other INBRE, COBRE or IDeA-CTR)

- **COBRE and CTR supported investigators <u>may serve as mentors</u>** of INBRE RPLs and PPLs as appropriate

Reporting Requirements

- **Annual Progress Reports (RPPR) due 60 days before the end of the active budget period:**
- Include progress towards the **program accomplishments** listed in the description of the **Overall** component
- Describe **status of DRPP Projects**, including data and safety monitoring and notify NIH of serious adverse events, and unanticipated problems for human subjects and clinical trials projects
- **For DRPP investigators**, include evidence of scholarly activities such as:
  - Publications
  - offering of new courses and programs
  - providing research experiences to students
  - attending and presenting research findings at scientific meetings and conferences
  - submission of external grant applications to NIH and other federal and non-federal agencies, and acquisition of awards such as AREA, R15, SuRE, R16, R03 and R21
- **Outcomes of students,** the total number of students who had research experiences, have gone to graduate and professional schools, or have entered the biomedical workforce

Post-Award Program Requirements

Prior Approval of Research and Pilot Projects

- *New INBRE RPs and PPs* that **do not** include human subjects or vertebrate animals research will only require official notification to NIGMS with appropriate documentation, including the EAC approval, at least 14 days before the projects begin. <u>Prior approval by NIGMS is no longer required to initiate these projects</u>

- *New INBRE RPs and PPs* that **include** human subjects or vertebrate animals research will continue to require NIGMS prior approval before the projects can begin. The following documentation for each project must be submitted to NIGMS Program Official and Grants Management Specialist listed on the Notice of Award for administrative review at least 30 days before the projects begin (see Notice <u>NOT-GM-14-111</u> for details)

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