

EPSCoR Funding: What IS IT?

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Established Program to Stimulate Competitive Research

NSF EPSCoR Established: 1978

- 1987 MS became an NSF EPSCoR state

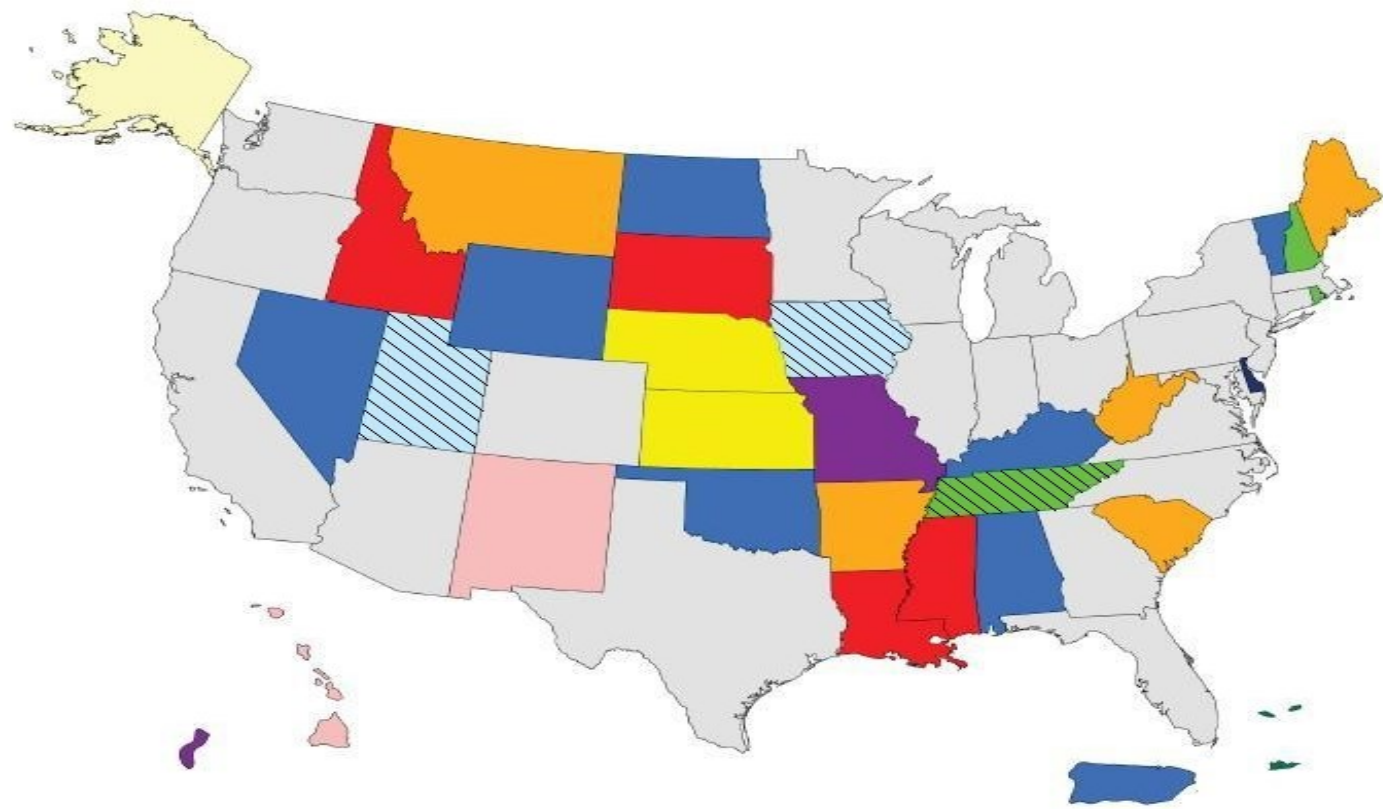
Why? “To stimulate competitive research in regions of the country that were less able to compete successfully for research funds.”

Who? A state, US territory or US commonwealth that receives less than or equal to 0.75 percent of NSF research funding averaged over the preceding three years.



EPSCoR Jurisdictions

- 28 eligible jurisdictions
- Graduated jurisdictions
 - Tennessee
 - Utah
 - Iowa (re-eligible 2019)
 - S. Carolina (current RII)



1980 Arkansas Maine Montana South Carolina West Virginia	1985 Alabama Kentucky Nevada North Dakota Oklahoma Puerto Rico Vermont Wyoming	1987 Idaho Louisiana Mississippi South Dakota	1992 Kansas Nebraska	2000 Alaska	2001 Hawaii New Mexico	2002 U.S. Virgin Islands	2003 Delaware New Hampshire Rhode Island Tennessee	2004	2009 Iowa Utah	2012 Guam Missouri
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Note: Iowa, Tennessee, and Utah are no longer EPSCoR-eligible



EPSCoR Among Agencies

• National Science Foundation



• National Aeronautics and Space Admin.



• Department of Defense



• Department of Energy



• US Dept. of Agriculture



• National Institutes of Health



National Science Foundation



Goals:

1. Catalyze research capability across and among jurisdictions
2. Establish STEM professional development pathways
3. Broaden participation of diverse groups/institutions in STEM
4. Effect engagement in STEM at national and global levels
5. Impact jurisdictional economic development



National Science Foundation

- Research Infrastructure Improvement (RII)
 - Tracks 1, 2, 3 & 4
- Co-Funding
- Outreach Funding



NSF EPSCoR RII Programs



RII Track 1 (19-580)

- \$4M per year for 5 Years to improve academic research infrastructure
- Due Dates:
 - Letter of Intent: Early July
 - Full proposal: Late July or Early August
- Jurisdiction-wide projects that align with the state's S&T plan
- MRC limited submission
- MSU fiscal lead
- 20% Cost Share required



NSF EPSCoR RII Programs

RII Track 1: Center for Emergent Molecular Optoelectronics

PI/PD: David Shaw, MSU

PA: Katie Echols, MSU

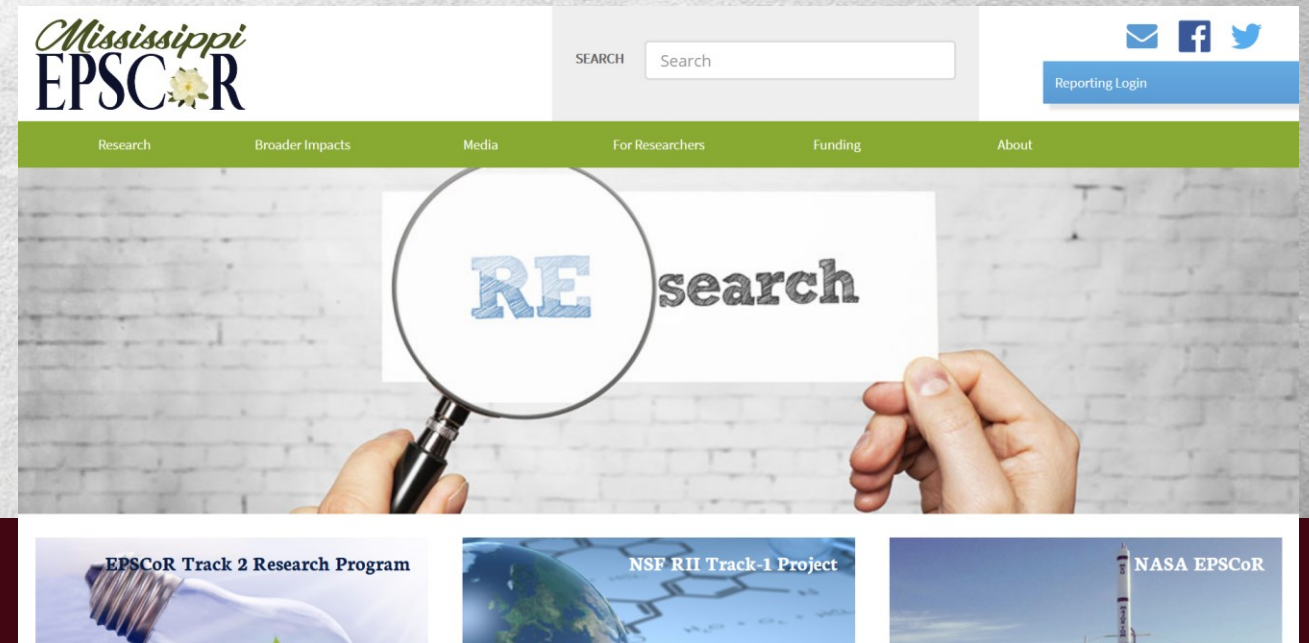
Science Director: Sarah Morgan, USM

EOD: Kim Wingo, USM



Getting involved in Track-1

- MRC Preproposals (2021-2022)
- Reach out to PDs
- Visit jurisdictional websites
 - Seed Grant Opportunities
 - Msepacor.org
- NSF Award Search: RII Track-1
 - <https://www.nsf.gov/awardsearch>



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NSF EPSCoR RII Programs



RII Track 2 FEC (18-589)

- \$1M - \$1.5M per year for four year
- Due dates
 - Letter of Intent: Late November
 - Full proposals: Late January
- Theme changes every few years. Current theme is related to *Big Data*
- Must collaborate with at least 1 other EPSCoR jurisdiction
 - Collaborations between 3 jurisdictions can receive \$1.5M/year
- Limited to one proposal/project per **institution**
- Investigators cannot be PI or co-PI on more than one proposal

Some existing projects will incorporate seed grants



NSF EPSCoR RII Programs



Active Track 2 Awards in Mississippi

RII Track-2 FEC: Emergent Polymer Sensing Technologies for Gulf Coast Water Quality Monitoring

University of Southern Mississippi

Principal Investigator: Jason Azoulay

Co-Principal Investigator: Alan Shiller, Eugenia Kharlampieva, Marco Bonizzoni, Jared Delcamp

RII Track-2 FEC: Feeding and Powering the World - Capturing Sunlight to Split Water and Generate Fertilizer and Fuels

University of Mississippi

Principal Investigator: Nathan Hammer

Co-Principal Investigator: Russell Schmehl, Thedford Hollis, Charles Edwin Webster, Shanlin Pan

RII Track-2 FEC. Collaborative Research and Education on Synergized Transformational Solar Chemical Looping and Photo-Ultrasonic Renewable Biomass Refinery

Jackson State University;

Principal Investigator: Jerzy Leszczynski

Co-Principal Investigator: Chin-Pao Huang, Wei-Yin Chen, Maohong Fan, Paresh Ray



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NSF EPSCoR RII Programs



RII Track 4: EPSCoR Research Fellows (18-526)

- \$300,000 over 2 years
- Due date: 2nd Tuesday in March
- Opportunities for investigators in pre-tenure/tenure positions
- Develop individual research potential through extended collaborative visits to national, governmental or academic research centers
- Institutional limit of 3 proposals
- No Co-PIs allowed
- **Non-faculty research staff positions or fixed-term postdocs are not eligible**



NSF EPSCoR RII Programs



Active Track 4 Awards in Mississippi

RII Track-4: Sharp arithmetic transitions and universality in one-frequency quasiperiodic systems

University of Mississippi

Principal Investigator: Sasa Kocic

RII Track-4: Determining the Importance of Select Olfactory Proteins and Diapause-Related Protein in Aedes Albopictus Mosquitoes

Mississippi State University

Principal Investigator: Jonas King



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NSF EPSCoR Co-Funding



Goal: To accelerate the movement of EPSCoR researchers and institutions into the mainstream of NSF support.

- Funding mechanism for “fund-if-possible” proposals
- Not a program with a unique RFP
- Managing Program Manager must request from EPSCoR office
- Proposals must align with EPSCoR priorities for co-funding



NSF EPSCoR Co-Funding



EPSCoR Programmatic Priorities:

- Researchers with no active NSF awards in 3 years
- Collaborative efforts across jurisdictions
- Cross-discipline, cross-directorate or NSF-wide funding opportunities
- NSF investments and funding priorities in current fiscal year
- Enhancing participation of underrepresented individuals, organizations and/or institutions
- Equipment that builds institutional/jurisdictional research capacity
- Enhances institutional research capacity and competitiveness
- Training K-12 students/teachers
- Activities that exemplify NSF's commitment to the integration of research and education



NSF EPSCoR Outreach Funding

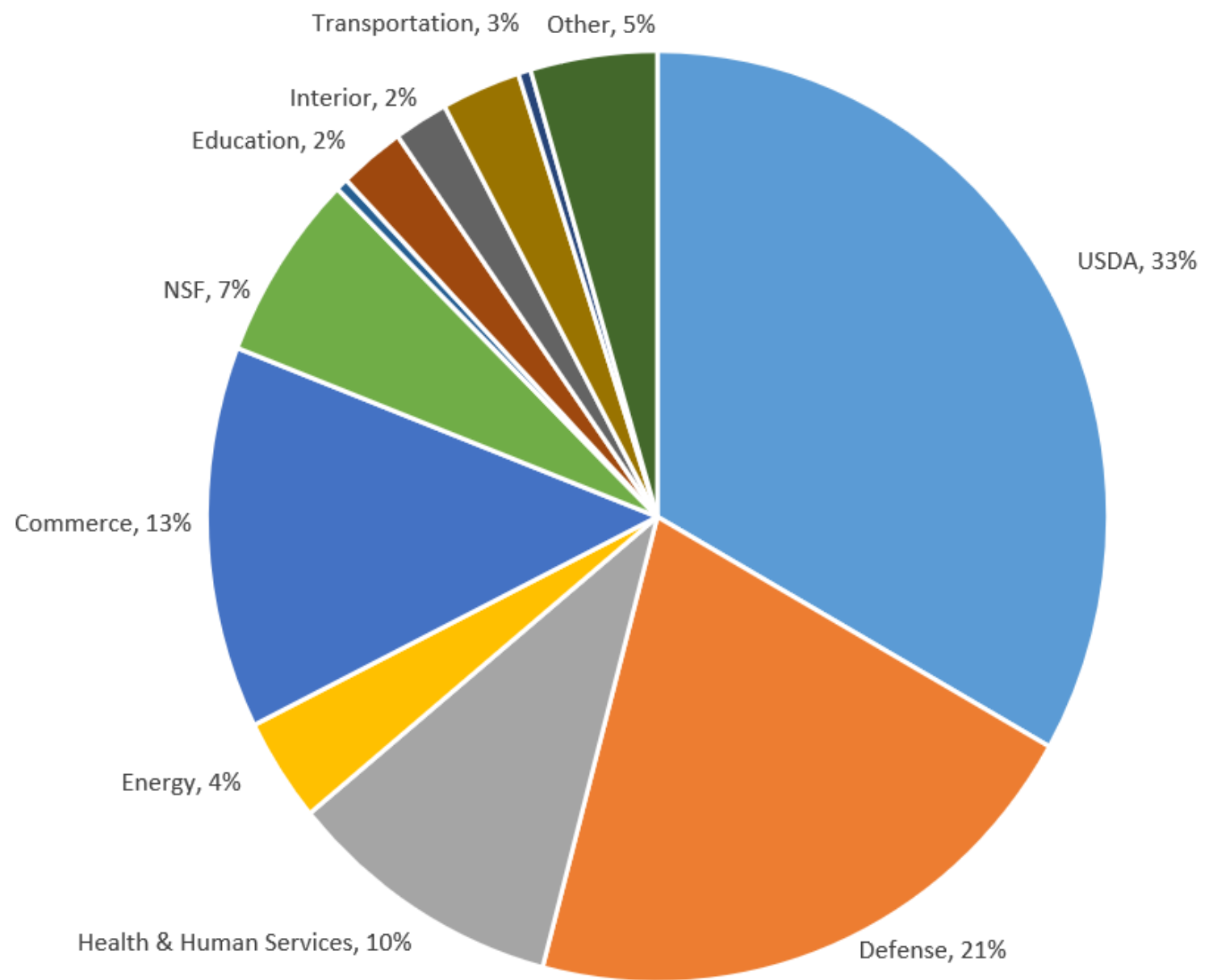


EPS-WO: Workshop Opportunities (NSF 19-588)

- Up to \$100,000 for one year
- 5-10 awards per year
- No cost-share requirement
- Not intended to proposal development
- Topic: Any topic, including the exploration of topic areas that have been described as NSF priorities
 - Must be of importance to relevant science or engineering fields
 - Must be of particular interest to the greater EPSCoR community (multi-jurisdictional)
 - Inclusive of underrepresented groups



FY 19 Federal Awards by Agency



US Department of Agriculture



- Qualifying states have a funding level no higher than the 38th percentile of all states, based on a 3-year rolling average of Ag and Food Research Initiative (AFRI) funding levels, excluding Food and Ag Science Enhancement (FASE) Strengthening funds granted to EPSCoR states.
- Funds competitive research, education and extension/outreach programs in high-priority areas of national need in agriculture, food, and environmental sciences.

4 AWARD COMPONENTS

1.) Seed Grants

- Provide up to \$150,000 over two years
- Collect preliminary data for future AFRI funding
- Single function research, education or extension

USDA Established Program to Stimulate Competitive Research (EPSCoR) States FY2007-FY2019

State	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Alabama	yes	yes	yes	yes	yes	yes	yes	yes	yes	-	-	-	-
Alaska	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Arizona	-	-	-	-	-	-	-	-	yes	-	-	-	-
Arkansas	yes	yes	-	-	-	-	-	-	-	-	-	yes	-
Connecticut	-	-	yes	yes	yes	yes	yes	yes	yes	yes	-	-	yes
Delaware	yes	yes	yes	yes	-	-	-	-	-	-	-	-	-
Hawaii	yes	yes	yes	yes	yes	-	-	-	-	-	-	-	yes
Idaho	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Kentucky	yes	yes	yes	yes	yes	yes	yes	yes	yes	-	-	-	-
Louisiana	yes	yes	yes	yes	yes	-	-	-	-	-	-	yes	yes
Maine	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Mississippi	-	-	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Montana	-	-	-	-	yes	yes	yes	yes	yes	yes	yes	yes	yes
Nevada	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	-
New Hampshire	-	-	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
New Jersey	yes	yes	-	-	-	-	-	-	-	yes	yes	yes	yes
New Mexico	yes	yes	-	-	yes	yes	yes	yes	yes	yes	yes	yes	yes
North Dakota	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Oklahoma	yes	yes	-	-	-	yes	yes	yes	-	yes	yes	yes	yes
Rhode Island	-	-	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
South Carolina	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
South Dakota	yes	yes	yes	yes	-	yes	-	yes	yes	yes	yes	-	-
Utah	-	-	-	-	-	-	yes	yes	yes	yes	yes	yes	yes
Vermont	yes	yes	yes	yes	yes	yes	yes	yes	yes	-	yes	yes	yes
West Virginia	yes	yes	yes	yes	yes	yes	yes	-	-	yes	yes	yes	yes
Wyoming	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes



US Department of Agriculture



2.) Sabbatical Grants

- Up to one year of salary, funds for travel & supplies; mini-sabbaticals also appropriate

3.) Equipment Grants

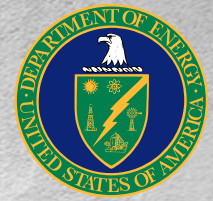
- 50% of cost or \$50,000 (whichever is less) for one piece of equipment in the range of \$10,000-250,000
- Require non-federal matching, but waivers (<\$25K) for lowest one third institutions are available

4.) Strengthening Standard Grants:

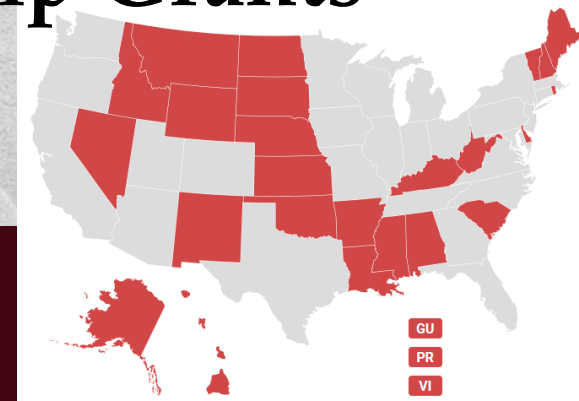
- Single function (research, education, extension) or integrated
- Proposals same as standard proposal.



Department of Energy



- Established 1992 – follows NSF eligibility.
 - Supports basic and applied research and development across a wide range of **interdisciplinary** program areas including:
 - * *Advanced Scientific Computing Research*
 - * *Basic Energy Sciences*
 - * *Biological and Environmental Research*
 - * *Fusion Energy Sciences*
 - * *High Energy Physics and Nuclear Physics*
- 1.) **Implementation Grants**
 - 2.) **EPSCoR-State/National Laboratory Partnership Grants**
 - 3.) **DOE Office of Science Early Career Awards**



Ntnl. Aeronautics & Space Administration (NASA)

Established and authorized in 1933

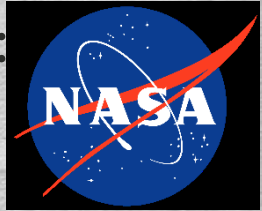
Two Types of NASA EPSCoR Awards:

1. EPSCoR Cooperative Agreement Notice (CAN) for Research Awards:

- Provides up to \$750,000 over three years
- Awards 1 proposal
- 50% cost sharing requirement

2. **Research Infrastructure Development (RID) Awards**

- Provides up to \$125,000 a year for three years
- 100% cost sharing
- Solicitation may/may not be released every year based on funding
- Enables jurisdictions to build and strengthen relationships with NASA



National Institutes of Health



<http://www.epscorideafoundation.org/about/agencies/nih-idea>

- Established the Institutional Development Award (IDeA) program in 1993. IDeA—the largest of the EPSCoR-like programs—is designed to broaden the geographic distribution of NIH funding for **biomedical research**.
- Award Components
 - Centers of Biomedical Research Excellence (COBRE)
 - IDeA Networks of Biomedical Research Excellence (INBRE)
 - IDeA Clinical and Translational Research (CTR)
 - Co-Funding



National Institutes of Health



Centers of Biomedical Research Excellence (COBRE)

Designed to increase the pool of well-trained investigators in the IDeA states.

- Expands research facilities
- Equips laboratories with the latest research equipment
- Provides mentoring for promising candidates, and;
- Develops research faculty through support of a targeted multi-disciplinary center, led by an established, senior investigator with expertise in the research focus area of the center.



National Institutes of Health



IDeA Networks of Biomedical Research Excellence (INBRE)

Designed to increase the pipeline of outstanding students and enhance the quality of science faculty in the IDeA states by networking research intensive and undergraduate institutions.

- Prepares students for graduate and professional schools as well as careers in the biomedical sciences
- Supports research and mentoring of young investigators
- Enhances research infrastructure at participating institutions



National Institutes of Health



IDeA Clinical and Translational Research (CTR)

Designed to encourage applications from IDeA states to develop infrastructure and capacity in order to conduct clinical and translational research on diseases that affect the medically underserved populations and/or the diseases prevalent in IDeA states.

- Provides for both mentoring and career development initiatives in clinical and translational research.

Co-Funding: When funding is available, NIGMS co-funds awards made by other NIH institutes and centers (ICs) in support of investigator-initiated research project grants at institutions within IDeA-eligible states.



Comments/Questions?



Contact: 662-325-3570



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