



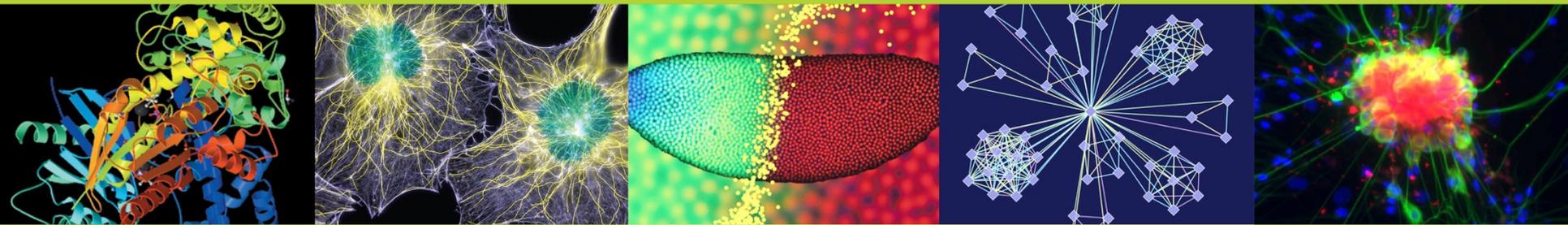
National Institute of
General Medical Sciences



National Advisory General Medical Sciences Council

May 20, 2016

Jon R. Lorsch, Ph.D., Director
National Institute of General Medical Sciences



New Hires

- **Dmitriy Krepkiy, Ph.D.**, Program Director, Division of Biomedical Technology, Bioinformatics, and Computational Biology
- **Brian Iglesias**, Grants Management Specialist, Grants Administration Branch
- **Maricela Trujillo**, Grants Management Specialist, Grants Administration Branch
- **Millie Williams**, Budget Analyst, Financial Management Branch



Retirement

Helen Sunshine, Ph.D.

- Chief, Office of Scientific Review since 1989
- Leader in review policies and procedures
- Established MIRA review process
- Brian Pike, Ph.D., is serving as acting chief



Departures

- **Michelle Hamlet, Ph.D.**, Division of Training, Workforce Development, and Diversity
- **Jeni Smits**, Grants Administration Branch

National Library of Medicine Director

Patricia Flatley Brennan, R.N., Ph.D.

- Selected as Director, National Library of Medicine
- Comes to NIH from the University of Wisconsin-Madison
- M.S. in nursing, Ph.D. in industrial engineering
- Past president of the American Medical Informatics Association
- Expected to start in August



Presidential Early Career Awards for Scientists and Engineers (PECASE) for Two NIGMS Grantees

Namandje Bumpus
Johns Hopkins

Amy Ralston
Michigan State

Current RFIs

- Need for and support of research resources (NOT-GM-16-103)
 - Led by Douglas Sheeley and Jean Chin
 - Responses due June 3
- Approaches for supporting team-based science (NOT-GM-16-104)
 - Led by Susan Gregurick and Catherine Lewis
 - Responses due June 17



Learn more on the *Feedback Loop* Blog

<https://loop.nigms.nih.gov/>

Maximizing Investigators' Research Award (MIRA) Pilot Program Status

- Authorized 123 awards to established investigators
- Median yearly direct cost is \$399,842; mean is \$405,884
- Average 12% reduction of budgets relative to recent NIGMS funding history
- FOA for the second round of MIRAs for established investigators issued March 9; applications due May 20
- Awards for the new and early stage investigators MIRA will be made after Council

Symposium on Catalyzing the Modernization of Graduate Education

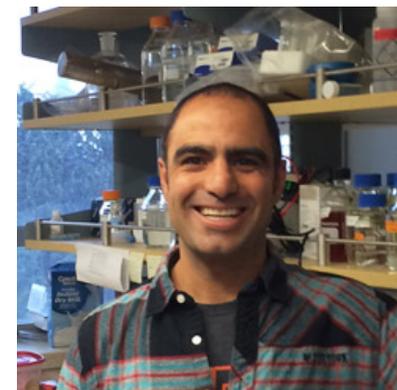
- More than 150 stakeholders from academic institutions, private industry, professional organizations and NIH attended the event on April 11
- Videocast viewed live and later by 400-plus people
 - <https://videocast.nih.gov/summary.asp?Live=18392&bhcp=1>
- Tweeted about more than 700 times; #4 trending topic on Twitter



Inaugural NIGMS Director's Early Career Investigator Lecture

- Blake Wiedenheft, Ph.D., Assistant Professor, Montana State University
- “*Bacteria, Their Viruses and How They Taught Us to Perform Genome Surgery*”
- 30 minute scientific talk followed by 30 minute Q&A about science and career paths
- Questions sent in by undergraduate students
- Over 300 views

➤ <https://videocast.nih.gov/summary.asp?Live=18680&bhcp=1>

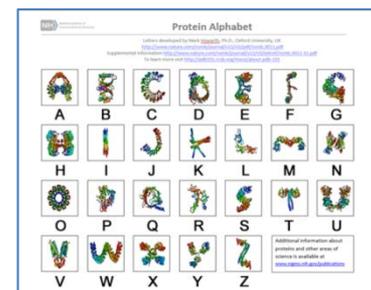


Science (2014) **345**: 1473–1479

USA Science & Engineering Festival

Washington, DC, Convention Center
April 15-17

- 365,000 students, parents and teachers attended
- The NIGMS booth theme was “Cell-e-bration of Science”
- Activities included spelling names with protein letters and a selfie station with science-related props



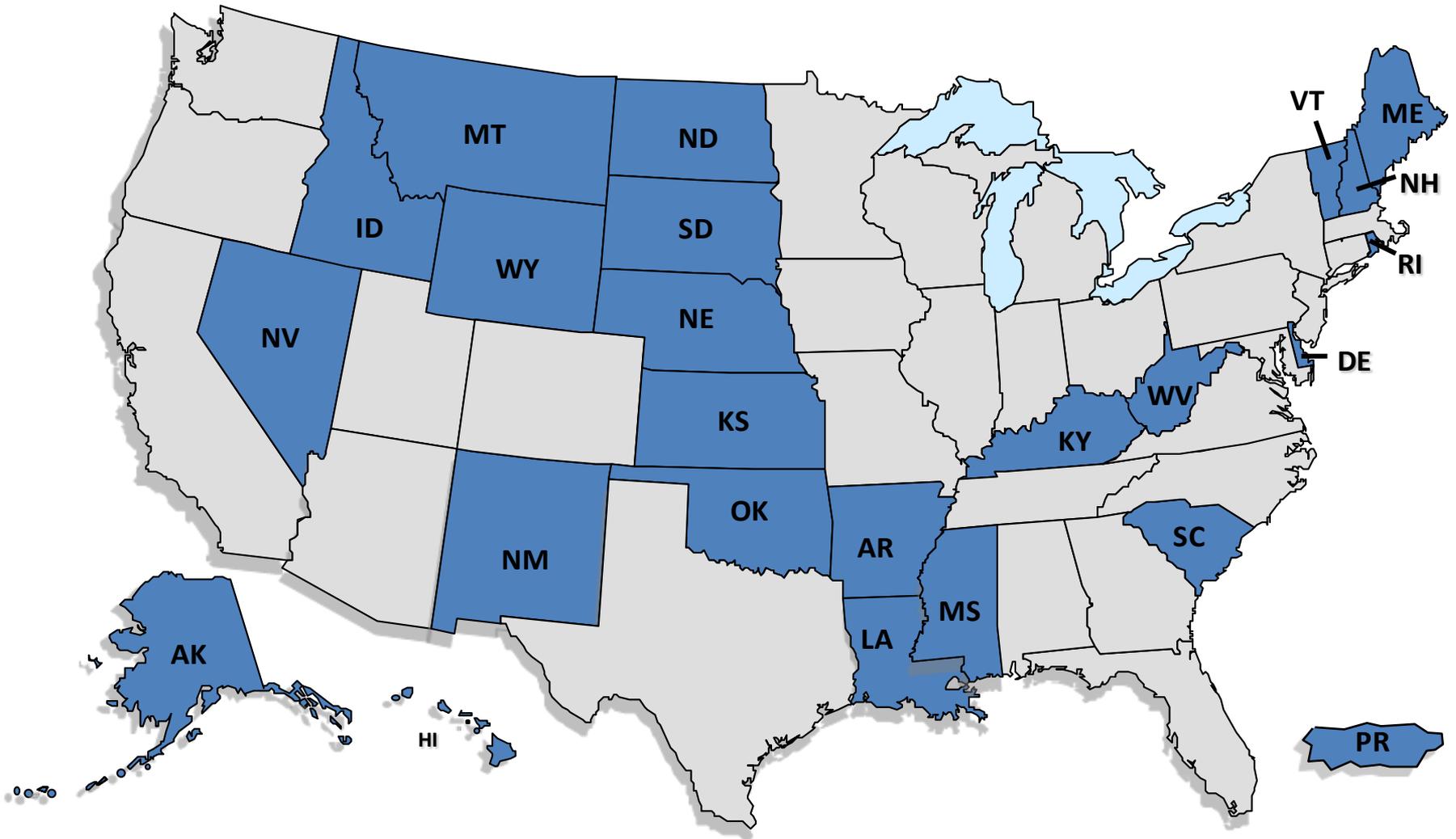
<https://www.bioch.ox.ac.uk/howarth/alphabet.htm>

EPSCoR/IDeA Annual Meeting

- Rayburn Senate Office Building, February 29
- Addressed the EPSCoR/IDeA Foundation Board and Congressional Staff
- Discussed the importance of the IDeA program, recent outcomes measures and current initiatives



Currently 23 States and Puerto Rico Are IDeA States



Why have an IDeA program?

- Enhance the biomedical research enterprise in states that have historically received little NIH funding
- Improve outcomes for state-specific disease burdens
- Increase economic activity in the biotechnology sector in IDeA states

Why have an IDeA program?

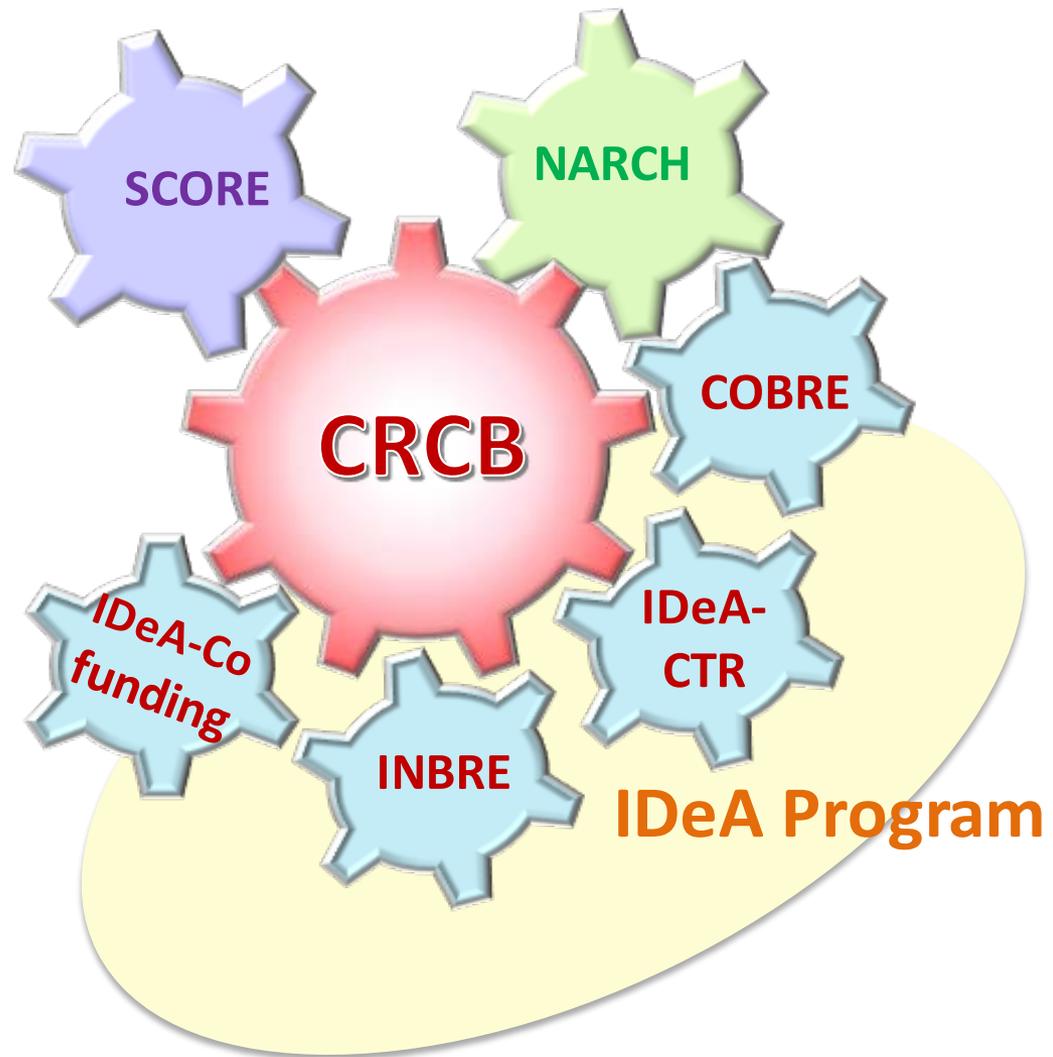
Ensure that cutting-edge biomedical research is conducted in every state in the Nation

- Diversity of past and present experiences enhances the strength of the scientific enterprise
- Tap into the country's entire talent pool, not just the students who happen to live in certain states

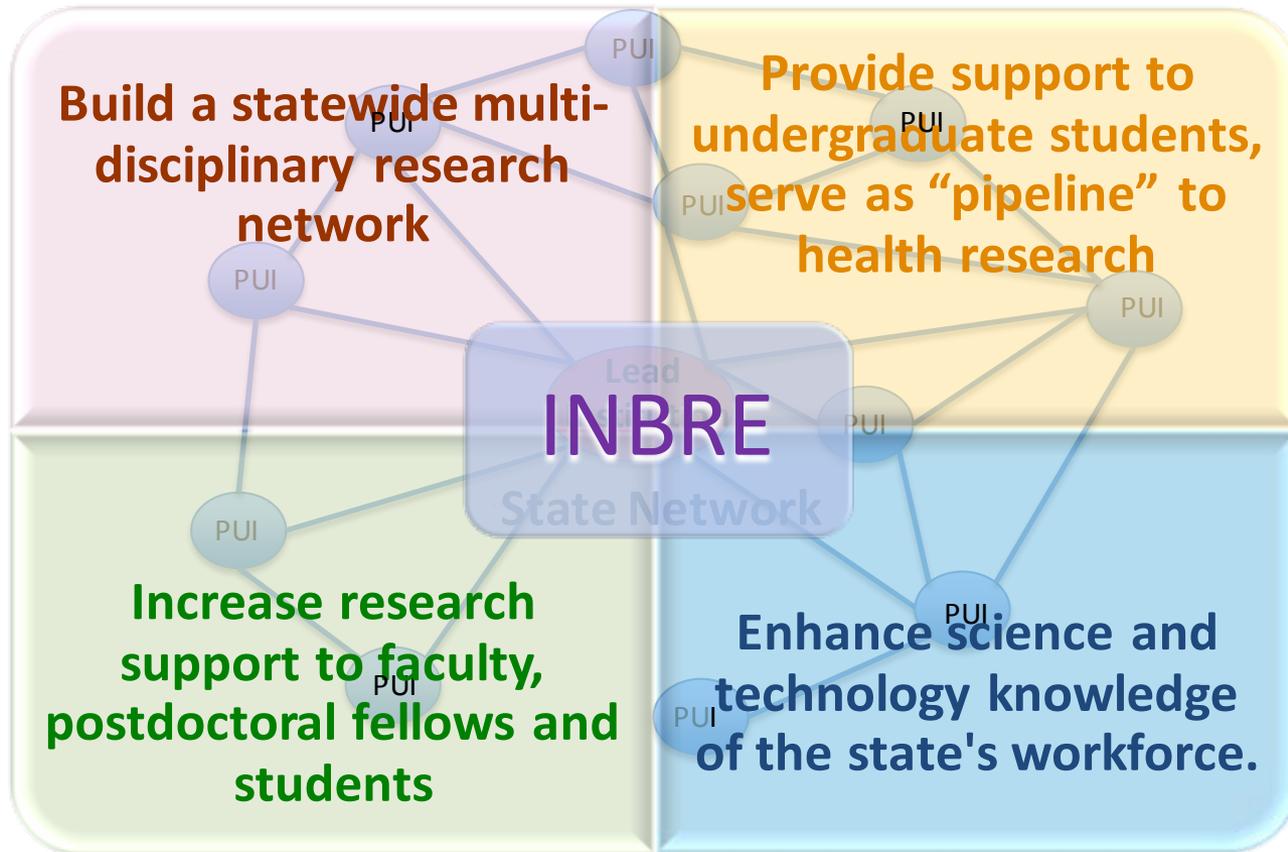
Programs in the NIGMS Center for Research Capacity Building (CRCB)



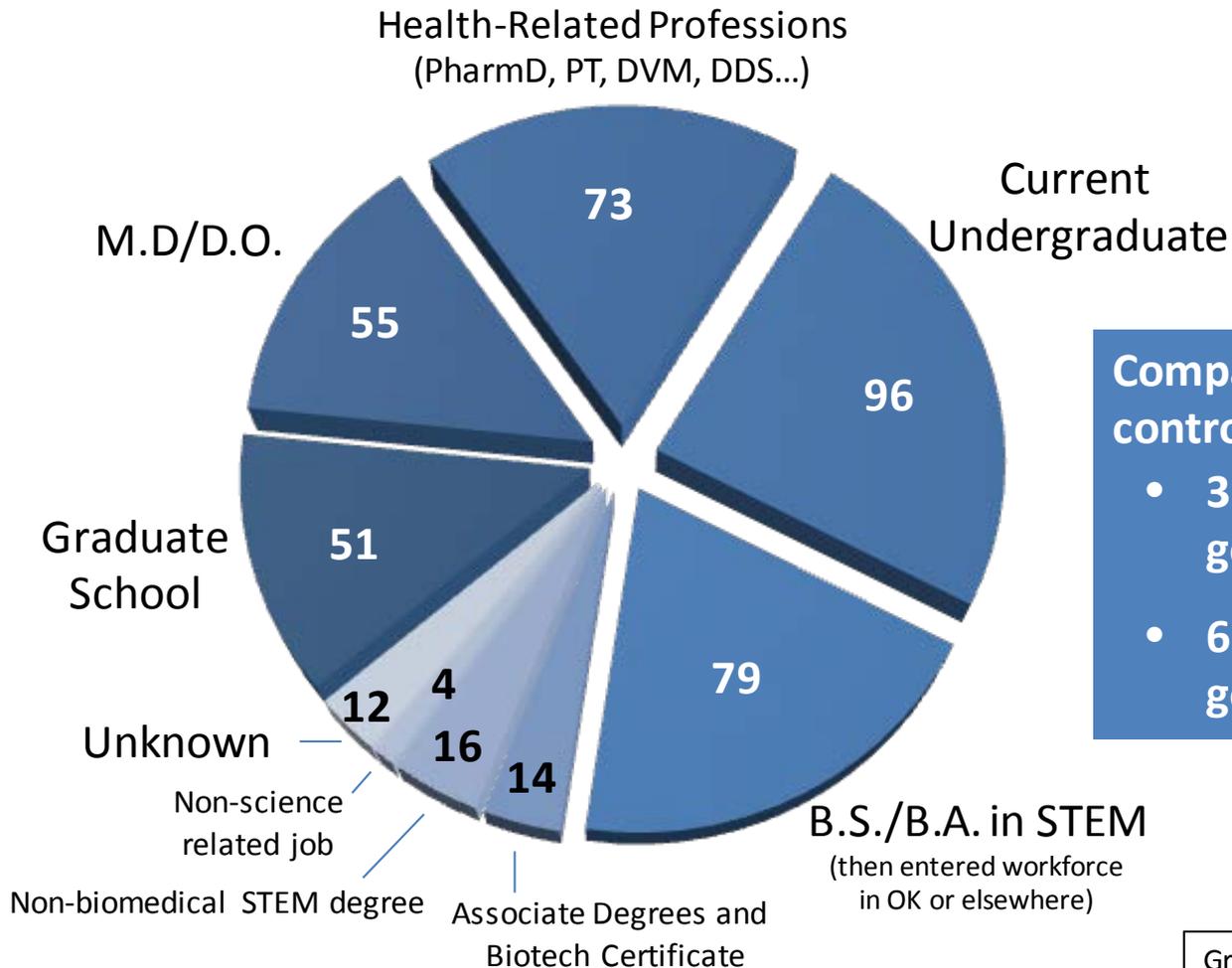
Fred Taylor
Acting Director, CRCB



INBRE Program



Participant Outcomes Oklahoma INBRE



Compared to matched control group:

- 350% increase in students going to graduate school
- 67% increase in students going to medical school

Grant #: P20GM103447 (Oklahoma INBRE)
PI: Darrin Akins, Ph.D.
INBRE Program Coordinator: Dawn Hammon

INBRE Students' Own Words on INBRE

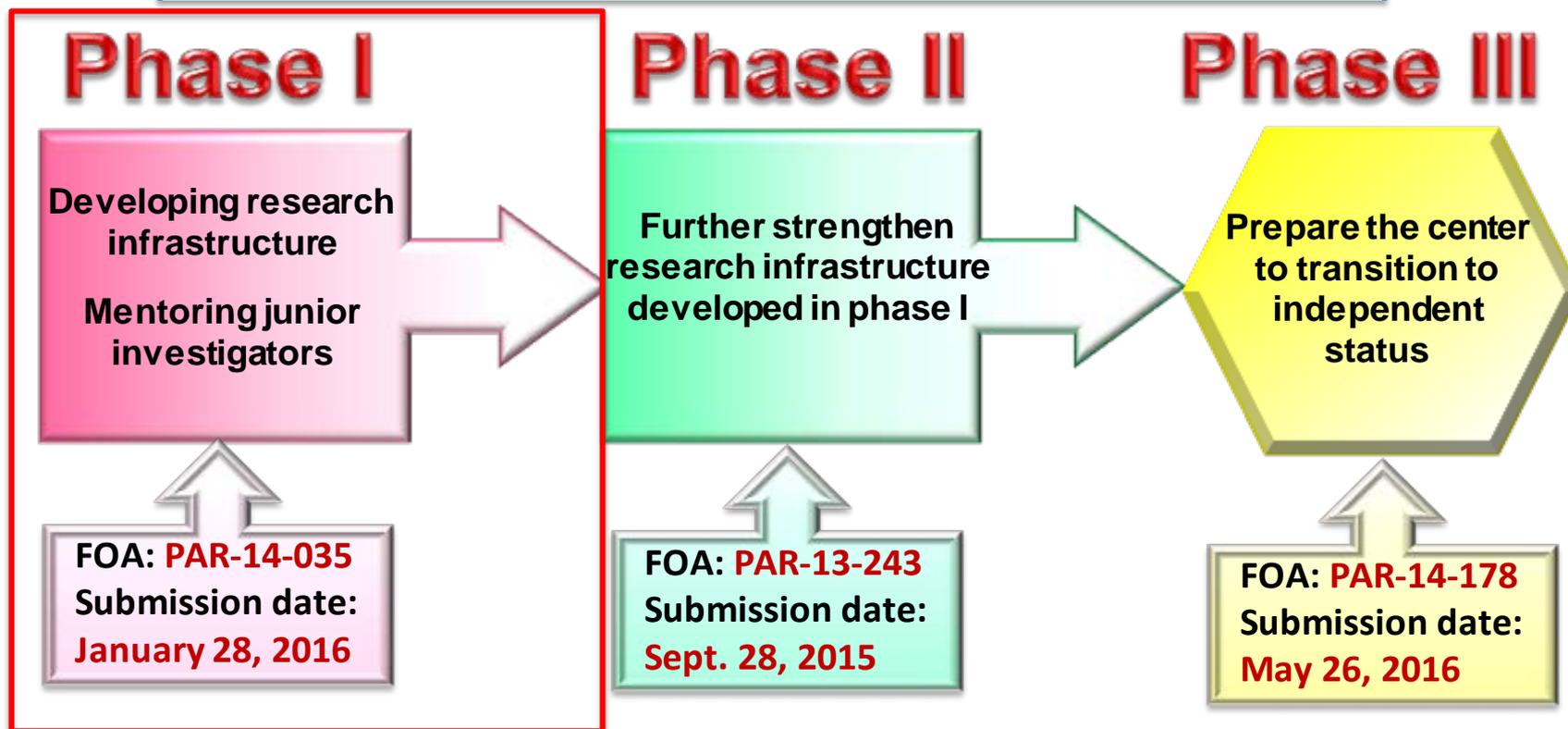
“Daily I see myself achieving and conducting scientific research I never in my wildest dreams thought possible.”

“...I don't think I would have continued my education had it not been for this program...Currently I am in my second year as a graduate student and am in the middle of submitting my first fellowship.”

“I had never thought about research as a career prior to being an INBRE student. This fall I will attend graduate school, working towards a PhD in biochemistry, and I give credit for INBRE for first showing me the possibility of this career path.”

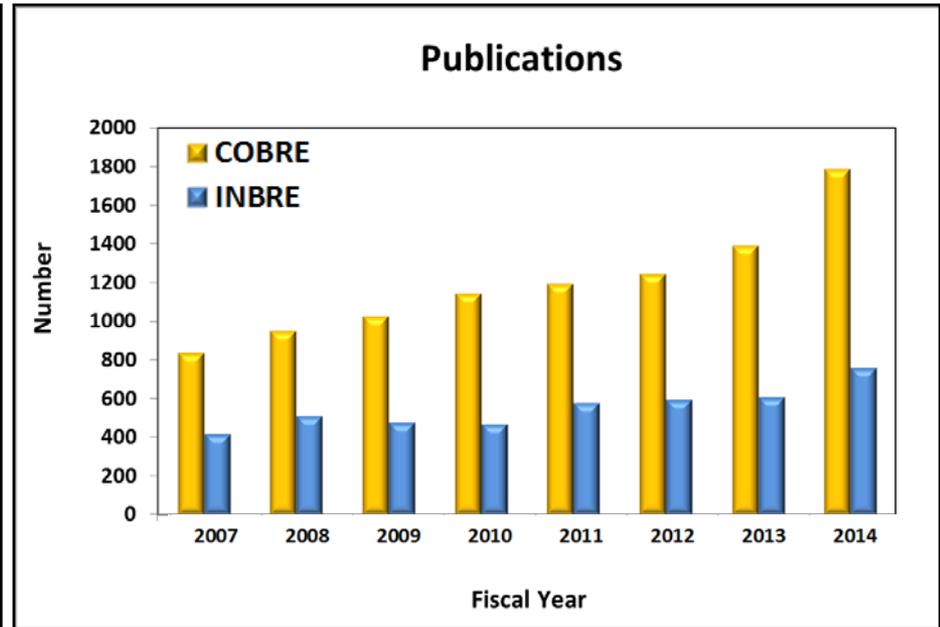
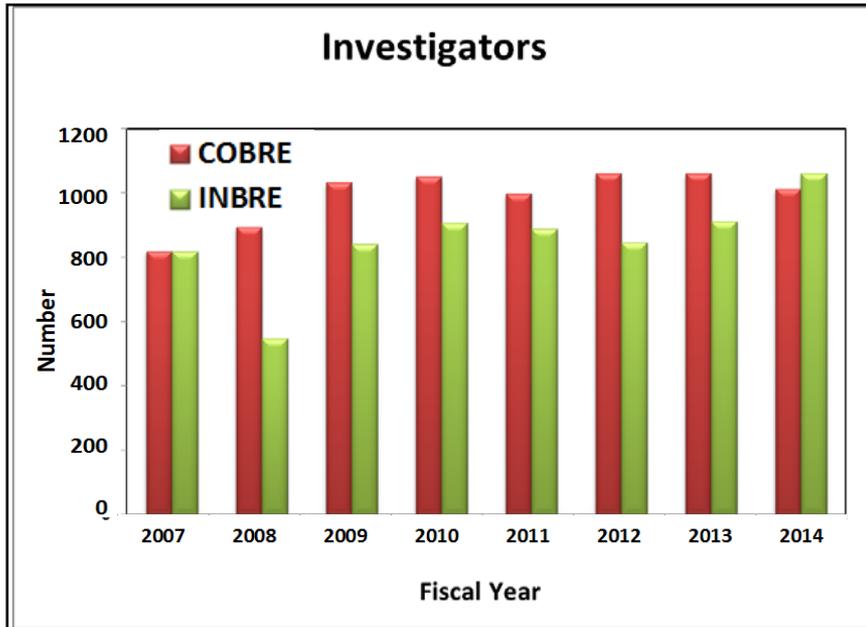
Centers of Biomedical Research Excellence (COBRE)

Objective: Develop advanced research infrastructure and a critical mass of investigators in thematic areas



Concept clearance for reissued FOA

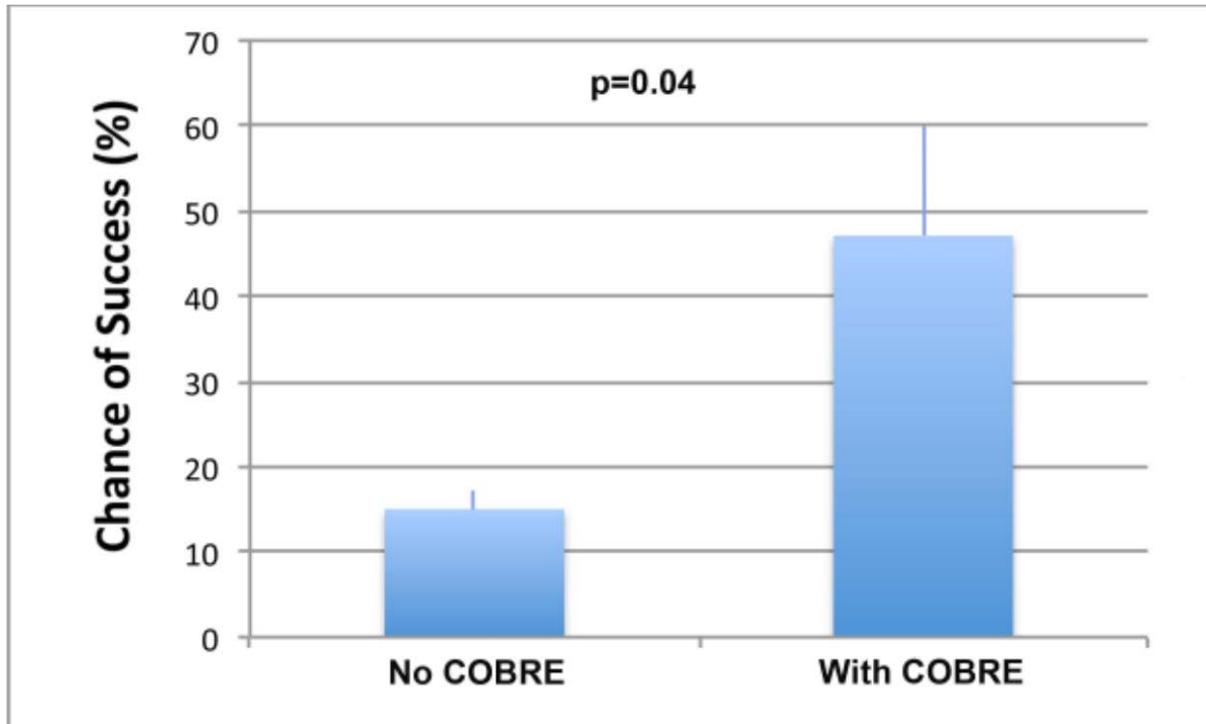
Overall Impact of the IDeA Program



As of 2013

**> 80% of COBRE junior investigators
had obtained non-IDEA research funds
from NIH and other sources**

Recent Analysis of Nevada COBRE Indicates Strong Enhancement of Junior Faculty Success



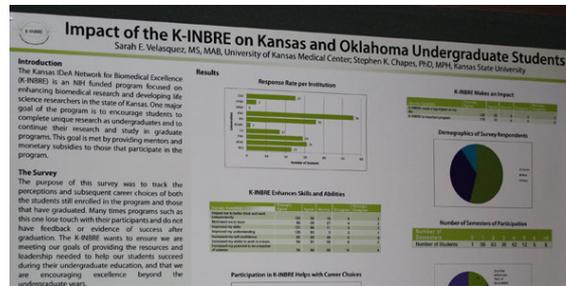
Success = Non-IDEA external funding and at least one paper on which the investigator was senior author

COBRE support increases junior faculty success from 15% to over 47%, n=37, bars=SEM, p=0.04

Von Bartheld et al. (2015) *Peer J*

The IDeA Program Is Full of Best Practices that Should Be Used Nationally

- Scientific training and opportunities provided by the INBRE networks
- Support and mentoring of early-stage independent investigators through the COBREs
- Cooperation and sharing of resources to create synergies and economies of scale



The Entire Northeast IDeA Region Shares Its Bioinformatics Resources: Northeast Bioinformatics Collaborative (NEBC)



- Improve access and create synergies and efficiencies
- Use as shared teaching platform for hands-on, discovery-based learning
 - ✧ Skate Genome Sequencing Project
- Create new research opportunities and collaborations

Overview of Today's Meeting

- **Vision from the National Institute on Minority Health and Health Disparities Director – Eliseo J. Pérez-Stable**
- **NIGMS Council Working Group Report on the Evaluation of the Biomedical Technology Research Resources Program – Dave Sept**
- **IRACDA Outcomes Assessment – Jessica Faupel-Badger**
- **MARC U-STAR Outcomes Assessment – Alison Hall**
- **Do Science Training Programs Work? A 10-Year Longitudinal Study of Minority Students Funded Through Science Training Programs – Paul Hernandez**
- **Concept Clearance: Reissuing COBRE Phase 1 FOA – Jon Lorsch**
- **Public Comment Period**
- **Council-Initiated Discussion**

Questions & Comments

