National Center for Research Resources
National Institutes of Health
Institutional Development Award (IDeA) Workshop Summary
July 21, 2000

Welcome and Introductory Remarks – Dr. Ruth Kirschstein, Acting Director, NIH

Dr. Kirschstein welcomed IDeA-state representatives and encouraged them to share their ideas for developing the IDeA program. She emphasized the need for institutions to network and partner within states, establish consortiums, develop faculty, and conduct research feasibility studies.

Goals of the Meeting and Logistics – Dr. Judith Vaitukaitis, Director, NCRR

Dr. Vaitukaitis provided an overview of the Workshop and encouraged active participation from all IDeA-state representatives. The overall purpose of the meeting was to allow NIH and IDeA-state representatives to exchange information and discuss approaches to address the needs of the IDeA-eligible states.

Overview of the IDeA program – Dr. Sidney McNairy, Associate Director for Research Infrastructure, NCRR

Dr. McNairy discussed the various programs offered by NCRR and presented an overview of the IDeA program from its inception in 1993. The IDeA program was authorized by the NIH Revitalization Act of 1993 with a congressional intent to enhance geographical distribution of research funds. It is comparable to the NSF Experimental Program to Stimulate Competitiveness in Research (EPSCoR) established in 1980.

Eligible states for the IDeA program had a success rate of obtaining NIH grant awards of less than 20 percent between 1995-1999. Also included are states with higher success rates, but less than $60 million average NIH funding over those five years. He provided a brief history of funding for the IDeA program and the characteristics of the current fiscal year 2000 Centers of Biomedical Research Excellence (COBRE):

- Multi disciplinary
- Led by an established funded senior investigator
- Direct cost up to $1.5M/year for 5 years
- Thematic focus as determined by the institution
- Collaboration within and between institutions
- Support of 3-5 pilot projects
- Support for faculty expansion
- Support for core laboratories
- Advisory Steering Committee

Dr. McNairy ended his presentation with a summary of grantsmanship workshops and effective dates for IDeA/COBRE application deadlines.

Program Staff Interactions with COBRE applicants – Dr. John McGowan, Director, Division of Extramural Activities, NIAID

Dr. McGowan provided strategies to improve the competitive edge of applications from institutions in IDeA-states:

- Set expectations for today
- Identify opportunities
- Realize no one laboratory can do it all
- Develop a matrix of expertise
- Cooperate and collaborate
- Be aware, connected, truthful, and committed

He encouraged the IDeA states to assess their strengths and weaknesses by obtaining perspectives from key scientific and administrative people. As part of this assessment, IDeA-state institutions should:

- Examine specific factors to determine their mission
- Decide whether to go big or small
- Decide whether to expand ongoing research, launch new research, or do both
- Address issues that are institution or state specific
- Realize that marketability is determined by reputation, resume, contacts, and resources
- Know what each NIH institute or center's area of emphasis is and target NIH staff in your research areas of interest.

Development of State-wide or Regional Web-based Networks. Impact on Infrastructure. – Dr. Jerry Draayer, President, Southeastern Universities Research Administration (SURA) and Ms. Mary Fran, IT Program Coordinator, SURA

SURA has developed a state-wide and regional web-based network involving high speed connections and multimedia conferencing that resulted in a true network-based collaboratory infrastructure. They shared ideas on how to build a shared resource and the requirements and interactions for each type of resource. They described ViDeNet, which is a global, virtual network that provides video and voice-over-IP to the Internet, Internet 2, and advanced networking communities. This project started with four campuses united in a regional effort and then grew to an inter-regional and now international effort. Other efforts include EPSCoR and Internet2 which includes over 170 universities, 37 affiliates, and 78 corporate partners working together.

Reports from Discussion Groups by IDeA-State Representatives

Discussion groups consisting of NIH staff facilitators and IDeA-state representatives met to discuss ideas for developing a competitive biomedical research base for institutions in IDeA states. Representatives from IDeA-states presented the following summaries of their group discussions.

Group I: Partnerships within and among states to develop scientific partnerships among institutions – Dr. William Harlan, moderator and Dr. Coleman, Nevada IDeA representative

The COBRE program provided a framework to create a center which included:

- Administrative Core
- Leader
- Organization Consultation
- Management Information
- Scientific Core
- Career Development/Training

Participants' Ideas/Concerns/Needs:

Flexibility

- Human Infrastructure
  - Critical mass
- Mentoring and Release Time
- Collaborations
  overcomes geographic isolation, lack of people or expertise and no medical school
  - Intra-institutional
  - Inter-institutional
  - Interstate
- Inventory of IDeA-state Institutions
- Physical Infrastructure
  - Large pieces of equipment or specialized facilities

Process

- Grant Selection Committee within the State
  - Allow flexibility in committee structure
  - Establish appeal process for grant selection
  - Involve all institutions, not just large, research intensive ones
- Allow submission of unlimited grant applications
  - Keep the application focused on science
- Participation should be inclusive
  - Research Institutions

- Industry
- Baccalaureate & Masters
- Advisory/Review System in Place
- Time to prepare the application

- IDeA states reacted negatively to Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) regional resource – just more money for Washington
- IDeA states do not want to have to provide matching funds

Group II: How to best meet the needs of Baccalaureate and Masters' level institutions; partnerships with graduate level institutions. How can IDeA facilitate? Dr. Paulette Gray, moderator and Dr. James Roberts, Kansas IDeA representative

Faculty
- Encourage joint grant proposals by collaborating PI at different institutions
- Provide opportunities to gather preliminary data

Students
- Attract students to research through institutional collaborations
- Expose high school students to careers in science
- Provide financial support for students

Equipment
- Develop resources within a region
- Establish core facilities for use by ALL institutions
  - a core facility advisory committee should be required
  - advisory committee provides oversight and develops guidelines for the user community
- Establish core facilities for animal resources at smaller institutions

Institutional Support
- Release time
- Long-term commitment
- Grantsmanship workshops

Collaborations
- Encourage the development of win/win situations.
- Large research-intensive institutions should be encouraged to collaborate with smaller institutions.
- Modify language in Request for Applications (RFA) to include ALL types of research institutions
- Link undergraduate institutions with large institutions in a way that small institutions do not get lost

- Additional funding is needed to encourage collaborations

Other

- Consider allowing additional number of proposals per state
- No matching funds requirement
- Should not be too prescriptive in how program is set up regarding faculty, students, equipment, and institutional support.

Group III: How to effectively build biomedical research capacities within Graduate Schools and Research Institutes. Dr. John McGowan, moderator and Dr. Manuel Gomez, Puerto Rico IDeA representative

Infrastructure Development

- Expand development of faculty start up packages to recruit new faculty
- Train post-doctoral fellows or graduate students, and recruit laboratory technicians
- Increase support for senior investigators
- Build administrative infrastructure to recruit staff, purchase/repair equipment and computers, enable animal research, and support an IRB
- Use IDeA funds to cofund C06 applications that are just below the payline
- Provide NIH training, education, and outreach programs on the NIH application process with mock reviews
- Provide travel funds to attend regional conferences and training seminars
- State matching funds force states to set priorities

Application Process

- Allow flexibility in the applications submitted: number and types of mechanisms
- Allow one application from each university, rather than two applications per state
- COBRE I for doctoral/research institutes and COBRE II for non doctoral/research institutes
- Implement a five year program where first year is dedicated to infrastructure (facility construction/staff development) grant and consecutive years are COBRE-like.

Collaboration

- Allow collaboration between states that enhance competitiveness or expertise of IDeA states.

Group IV: Internet Linkage; bioinformatics; forming networks within and among IDeA states. Dr. Steven Hausman, moderator and Dr. James Roberts, Kansas IDeA representative

Collaborations

- Partner with industry but be aware of intellectual property guidelines.
- Develop research capacity at IDeA-state institutions through multi disciplinary collaborations with non-IDeA-state institutions.

Technology Development

- Connect users (biomedical researchers) with developers (computer scientists).
- Develop collaborations between engineering and medical schools.
- Include information technology as a core IDeA component.
- Share technology applications among IDeA states through regional networks and other tools.
- Strengthen infrastructure, such as powerful computers and faster Internet connections, in "low tech" IDeA-state institutions. However, IDeA-state institutions should not invest in expensive infrastructure that may be underutilized.
- Establish collaborations with the Internet2 community

Human Resource Development

- Develop a virtual critical mass through network technologies.
- Access information and opportunities in more developed states through telecommunications to retain investigators.
- Expand human resources and training in applications development and bioinformatics.

Communication and Outreach Activities

- Sponsor meetings, workshops, and other activities to foster networking.
- Expose next generation of students to latest technologies through K-12 outreach programs.

Perspectives of Two IDeA-state Representatives - Dr. Frank Waxman, University of Oklahoma and Dr. Tom McCoy, Montana State University

Dr. Waxman, Chair of the Oklahoma State EPSCOR committee, shared his views about how the IDeA program should be shaped for FY 2001. First, he described the advantages and disadvantages of funding another round of COBRE applications. COBRE could help states that were not successful in FY 2000 but each round of COBRE applications obligates five years of funding with questionable impact on infrastructure development and promotes inter-state competition rather than cooperation. Instead, Dr. Waxman recommended IDeA-state institutions build infrastructure according to an NSF model. Under the model, one application is submitted per state and is coordinated by the state EPSCoR Committee. Specifically, this model:

- would be flexible to meet each state's needs
- could include core facilities, equipment, and personnel
- should not require matching funds
- should not allow direct support for specific research projects
- include a strategic plan, only if necessary
- promote inter-institutional cooperation and planning
- include NIH peer review but allocate sufficient funds to all states
- provide NIH guidance for state program development

C phase in a cofunding program gradually

Dr. Waxman also discussed the need for outreach activities. He encouraged IDeA-state conferences on priority research themes and visits from NIH program officials to IDeA states. He also suggested that funds be allocated to cofund C06 applications from IDeA states that are just below the payline.

Dr. McCoy described the following ways to enhance competitiveness at IDeA-state institutions:
C Salary package supplements and start-up funds
C Graduate student support
C Renovation funds
C Cofund Shared Instrumentation Grant applications from IDeA states that are just below the payline
C Support for personnel and technicians to maintain instrumentation

If the IDeA program is funded at $60M in FY 2001, Dr. McCoy suggests that NCRR support the current COBRE recipients with $30M, and slightly modify the COBRE program to fund another round of applicants at $30M. If the IDeA program receives $100M, the additional $40M should be used for infrastructure awards to IDeA states to enhance biomedical research excellence. He recommended that programs should be flexible to allow states/institutions to do a combination of the above and provide some general comments about funding infrastructure development in IDeA-states:
- Competitive funding based on quality science
- Competition not limited to one proposal
- Fund only PhD-granting institutions in biomedical-related sciences
- Co-fund only those applications that just missed the cut off and would not be funded.

What Makes a Good Application? - Dr. Charles McCall and Dr. Mark Lively, Wake Forest University

Dr. McCall stated that the best proposals are skillfully choreographed, well rehearsed, contain a promise of commitment and leadership, touch all points of the RFP, and guide the reviewers through the application. The presence of, or a plan to procure and secure, scientists with peer reviewed research and mentorship skills should be included in the structure of an application. Each application should also reflect a commitment to COBRE and make research a major component of the mission of an academic institution. The application should contain an updated strategic plan for research and research education as well as offer a quantifiable commitment of resources. Applications that do not fare well in peer review have weak advisory committees, padded resumes, and missing information. Other "zingers" that are often found in applications are wimpy leadership, questionable support letters, Research Assistants and Associate Professors (RAPS), tiny print, a ponderous proposal, and no tracking of investment outcomes.

Dr. Lively advised applicants to detail the need for core facilities and instrumentation in their applications. Applicants should keep COBRE objectives in mind while writing their proposals and they should describe how the mentoring relationship is going to be developed. He noted that it is difficult to evaluate science when no preliminary data is required for the application.

Research Administration/Grants Management (expectations/requirements from the NIH and perspective from the institutions in IDeA states) - Ms. Carol Tippery, OPERA, NIH and Dr. Delwood Collins, University of Kentucky

Ms. Tippery offered suggestions on how to minimize institutional problems and maximize public trust by offering staff education and training, defining individual roles within an organization, and making sure research is conducted in a safe and ethical manner that complies with federal rules and regulations. She also indicated that the different NIH institutes and centers are good information sources to get questions about policy issues answered.

Dr. Collins provided an overview of the organizational structure of the University of Kentucky which has an extensive research administration and management personnel infrastructure. He emphasized that research cannot succeed without adequate research administration and management.

Four Breakout Sessions with NIH Program Staff: "Making Contacts"
The meeting concluded with four breakout sessions for IDeA-state representatives to talk to NIH program officials.

Group I:	NIA, NIAA, NIDA, NINDS, NIDCR, NIMH, NIDCD, NIAID
Group II:	NCI, NICHD, NIEHS, NIDDK, NHLBI, NIAMS, NEI, FIC
Group III:	NCRR, NIGMS, NHGRI, NLM, NINR, NCCAM, CIT
Group IV:	Grants Managements and Review staff