Proposal Success

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Private Public Partnerships
U.S. Department of Commerce

EDA

Economic Adjustment Assistance
Public Works and Economic Development Facilities
University Centers Program
Planning and Local Technical Assistance

SBA

Small Business Development Centers
Sixteen federal agencies are working together on this unprecedented initiative to drive job growth through public-private partnerships in at least 20 regions around the country. High-growth clusters from rural and urban regions across the nation will compete for award funds.

The Innovation Accelerator Challenge will accelerate the development of strong industry clusters - like the Research Triangle in North Carolina - that promote robust economic ecosystems and the development of a skilled workforce.
SBIR/STTR Programs

http://www.sbir.gov/solicitations

- Coordinated by SBA; authorized through 2017
- 3 phase programs geared toward commercialization
- **Small Business Innovation Research**
  - Only small businesses can apply but universities can partner
  - 12 participating agencies
  - 2.5% of the agency R&D budget; increasing through 2017
- **Small Business Technology Transfer**
  - Small business must formally collaborate with IHEs for research
  - 5 participating agencies: DOD, DOE, HHS, NASA, NSF
  - 0.3% of the agency R&D budget; increasing through 2017
Hollings Manufacturing Extension Partnership Program (MEP)

- Leverages public and private resources to create centers that provide manufacturing extension services to small and medium-sized manufacturers nation-wide.
- IHEs encouraged to collaborate with local centers.
- MEP Database of public-private initiatives provides networking and resource sharing opportunities
- Find a center near you

http://www.nist.gov/mep/find-your-local-center.cfm
Industry Commitment
R&D Upward Trend Continues

- 2012: $280 (Industry), $126 (Federal), $31 (Academic and Other Sources)
- 2011: $270 (Industry), $128 (Federal), $30 (Academic and Other Sources)
- 2010: $259 (Industry), $127 (Federal), $29 (Academic and Other Sources)
Corporation for National and Community Service

Highlights of CNS’ FY 12 Budget

- $400 million for the continued expansion of AmeriCorps State and National to almost 80,000 participants
- $70 million for the Social Innovation Fund to increase non-profits’ capacity to offer services in high-need communities

FY 13 Total Request of $1.063B, up from $1.048B
- No cuts for AmeriCorps or Social Innovation Fund
The Emphasis on Competitiveness, Job Creation, and Economic Recovery
Components

- Workforce Development
- Economic development
  - Institutional intellectual property to the market
  - Local entrepreneurs linking to campus facilities/people
  - Collaboration on loan and start-up funding
- Community Development
  - Health care, K-12, social service collaboration
  - Civic engagement
  - Healthy social environments

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Inter-Agency Collaborators
NEA Partnerships

National Arts and Humanities Youth Program Awards
- Recognizes the accomplishments of arts and humanities after-school and out-of-school programs with $10,000 awards

The Big Read
- Partnership with Arts Midwest to restore reading to the center of American culture with awards of $2,500 to $20,000

The Arts and Human Development
- A new task force of 13 federal agencies including divisions of HHS, NIH, NSF, Dept. of Ed, and IMLS designed to examine links between the arts and positive developmental, behavioral, and social outcomes
- No new funding opportunities released yet, stay updated through the quarterly webinars
NEH Interagency Partnerships

Documenting Endangered Languages
- Jointly administered between NEH and NSF, awards fellowships, dissertation grants, and institutional grants

Let’s Talk About It: Making Sense of the Civil War
- Partnership between NEH and American Library Association granted funds and materials to 65 libraries for reading and discussion groups

Digging Into Data
- Partnership between NEH, Arts & Humanities Research Council, Economic and Social Research Council, IMLS, NSF, and other British, Canadian, and Dutch agencies to answer the question “What do you do with a million books?”
Scholar Collaborations
There is a growing emphasis on crosscutting and interdisciplinary collaboration agency-wide.

Some initiatives require partners from multiple departments and institutions.

Even when not required, these collaborations can increase a proposal’s competitiveness—but only if well-coordinated

Priority programs include **Partnerships for Innovation**: Accelerating Innovation Research (letters of intent due March 13), which supports technology translations and research alliances, and **Interdisciplinary Research in Hazards and Disasters (Hazards SEES)** (proposals due February 4)
International

- Office of International Science and Engineering coordinates and co-funds projects, but international partnerships are supported agency-wide.
- *Catalyzing New International Collaborations* funds planning visits to prepare for future collaborative research proposals.
- Current discipline-specific examples include [U.S.-Israel Collaboration in Computer Science](#) (proposals due February 1) and supplements for [Developing Country Collaborations in Plant Genome Research](#) (proposals accepted at any time).
- Past solicitations have ranged from support for chemistry and organismal biology to neuroscience.
NIH - Multiple PI

- The multiple PD/PI option presents an important opportunity for investigators seeking support for projects or activities that require a team science approach and is the responsibility of the investigators and the applicant organization.

- The multiple PD/PI option is extended to most research grant applications submitted electronically.

- Contact an NIH program officials at the earliest possible date to discuss the appropriateness.

Examples of Project Leadership Plans for Multiple PI Applications:

More details: http://grants.nih.gov/grants/multi_pi/
Collaborative submissions encouraged

- New investigator (NI): has not previously competed successfully as PD/PI for a significant NIH independent research
- Early Stage Investigator (ESI): is a new investigator within 10 years of completing his/her terminal research degree or is within 10 years of completing medical residency (or the equivalent)
- NIH has the goal of accelerating the addition of those moving to independent scientific career.
- NIH will strive to support new investigators on R01 equivalent awards at success rates equivalent to that of established investigators submitting new (Type 1) R01 equivalent applications.
Proposal Writing Under the Obama Administration

- We are operating at an unprecedented pace!
  - 30 day turnarounds for applications
  - No commenting on rule making
  - Delaying a day before starting a proposal can be fatal
- Local agendas will trump the Washington agenda.
- Accountability and responsibility have meaning and ‘teeth.’
- Every proposal must address workforce and economic impact issues.
- This government is and will be transparent from top to bottom.
Proposal Writing Under the Obama Administration

- Partnerships and collaboration are the orders of the day and we must re-think the way we approach these relationships: mutual benefit, long-term
- Conflict of interest issues must be reviewed for every project.
- Infrastructure to review the economic impact of ideas must be developed.
- Ethics need to take center stage.
- The role of higher education as regional economic engine, stewards of place, needs to be re-thought and energized.
Funding Priorities

STEM
Climate Change
Health Policy/Reform
Regionalism/Innovation
Job Creation

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Health

Regionalism

STEM

International

Innovation

Energy

Jobs

Climate change
Inter-institutional & Community Relationships Essential

- Expands impact of the project
- Grounds R&D in regional and community needs
- Encourages self-examination of strengths
- Reduces duplication of resources
- Uses human capital and technology most effectively in research/learning

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Approach to a Sound Proposal

Hypothesis → Identify Funder → Outline Proposal

GrantSearch

(Project Management and Assessment Plans) → Write Proposal

(Budget)
The Hypothesis, Problem Statement or Research Question

- An explanation of the relationship being proposed.
- No more than three to five sentence paragraph.
- Elements include the following:

- Statement of the research target (evidence of the importance of the issue)
- Hypothesis, research question or problem statement (clear identification of the variables and their proposed relationship)
- Quantitative/Qualitative criteria for measuring the solution (how the outcome will be measured, not a description of the specific outcome).
In opposition to national trends, the incidence of AIDS among the homeless in Baltimore has increased by more than 30% in the last six years. The disease’s progression for many of these individuals is accelerated by the fact that most of these homeless individuals are IV drug users. The establishment of a residential facility to house homeless individuals stricken with AIDS would provide a controlled environment for the treatment of both their addictions and illness.
Students in grades 5 and 6 are America’s future. But the vast majority of these students are performing at sub-standard academic levels. This project aims to engage students in an applied research project analyzing the water quality of the Chesapeake Bay. Activities will include collecting samples, testing, analysis of impact and reporting results. The standardized science scores for students engaged in the project will improve by 12 percent.
Cardiovascular diseases is the leading cause of death in the United States, and five million years of potential life are estimated to be lost annually. Cardio-pulmonary resuscitation restores spontaneous circulation to about 70,000 cardiac arrest patients a year in the US, but 60% of these patients die subsequently in the hospital due to extensive brain damage and only 10% are able to resume their normal lifestyles. There are currently no approved drugs to improve patient quality of life or neurological function. A recent emerging trend suggests that use of the body's natural defense pathways, a mechanism called preconditioning, can lead to robust recovery and improved outcomes. First, I hope to quantify the injury precisely using brain rhythms, neurological behavior scoring and cell morphology in a rat model. Second, I hope to optimize the preconditioning effect. Finally, I hope to elucidate possible mechanisms of preconditioning and mimic the preconditioning effect through pharmacological intervention to establish the effectiveness of preconditioning pathways.
HYPOTHESIS STATEMENT

HYPOTHESIS

- Importance
- Relationship
- Assessment
HYPOTHESIS STATEMENT BECOMES

HYPOTHESIS
- Importance
- Relationship
- Assessment

PROPOSAL
- Introduction
- Background
- Problem
- Statement
- Goals & Objectives
- Procedures (research plan)
- Timeline
- Assessment
- Project Management
- Budget
- Credentials
HYPOTHESIS STATEMENT BECOMES

HYPOTHESIS

Importance

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PROPOSAL

Introduction

Background

Problem

Statement

Goals & Objectives

Procedures (research plan)

Timeline

Assessment

Project Management

Budget

Credentials
The Approach Is Applicable to All Disciplines

- A $100,000 NEH challenge grant to the South Dakota Humanities Council will help the Council raise $300,000 to endow its Speakers Bureau Programs and Teacher Institutes on Native American Cultures.
The Approach Is Applicable to All Disciplines

- A $238,000 challenge grant from FIPSE to Allegheny College (MD) will overcome curriculum irrelevance, which prompts students to lose interest in their mathematics courses. Mathematics curriculum will be revised and made applicable to the health professions.

Mathematics Curriculum Revision

Increase Student Learning & Health Career Persistence
The Approach Is Applicable to All Disciplines

- USDA Institute for Research on Poverty (Univ. Of Wisc.) funded Middle Tennessee State University to study "The Effects of the Food Stamp Program on Weight Gained by Expectant Mothers."

Receipt of Food Stamps

Weight Gain Among Pregnant Women
Outline Your Proposal

• Entire document consistent with funder’s criteria and guidelines

• Goals and objectives based on hypothesis statement
  - Goals should divide your project into its logical components.
  - Objectives should speak to goal attainment with a timeline and basis of assessment included.
Develop Reliable Timelines

- Useful to PI
- Tracking Aid to Sponsored Programs
- Required by Federal Agency
The Best Proposals Tell a Story

- Action-based
- Outcome-oriented
How to Win at Wordcraft

Systematic Word Projector

0. integrated
1. total
2. systematized
3. parallel
4. functional
5. responsive
6. optional
7. synchronized
8. compatible
9. balanced

0. management
1. organizational
2. monitored
3. reciprocal
4. digital
5. logistical
6. transitional
7. incremental
8. third-generation
9. policy

0. options
1. flexibility
2. capability
3. mobility
4. programming
5. concept
6. time-phase
7. projection
8. hardware
9. contingency

Philip Broughton, Public Health Service

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Avoid Using Gender-Specific Terms

- Plural
- Reword the sentence
  (The PI demonstrated that his theory was correct.)
- Neutral expressions
- Avoid male-centric expressions
Clear Writing

- Avoid fuzzy or inappropriate use of words:

The intrinsic labyrinth of wires must be first disentangled. The liquid contents of container should then be disgorged via the spout by the operator.
Reviewer Writing Issues

- Disturb/Irritate
  - Spelling errors
  - Overusing technical terms
  - Using acronyms

- Confuse
  - Writing overly complex sentences
  - Failing to attend to paragraph coherence issues
  - Using passive voice
  - Including non-parallel lists

- Diminish Credibility
  - Failing to address criteria
  - Abstract, problem statement, budget disconnect
  - Failing to address assessment and administration
  - Including extraneous information
Use First Person with Caution

- Consistency throughout the document
- Define ‘we’
Headings

LEVEL 1

Level 2

Level 3

Level 4. Xxxx xxx xxxxxxx xxxxxxxxxxxx
       xxxxxx xxx xxxxxxx xxxxxxxx xxxxxx xxx
       xxxxx xxxxxxx xxxxxxxxxx xxxxxxxxxx xxx
       xxxxx xxxxxx xxxxxxxxxx xxxxxxxxxx xxx
Section headings should be descriptive and parallel

Non-Parallel
Non-Descriptive

Parallel
Descriptive

Introduction
Background
Marx Generators
Line Pulse
Beam Generation
Transporting Beam
Pellets
Results
Conclusions

Introduction
Past Designs for Particle Beam Fusion
New Design for Particle Beam Fusion
Charging Marx Generators
Forming Line Pulse
Generating Particle Beam
Transporting Particle Beam
Irradiating Deuterium-Tritium Pellets

Results of New Design
Conclusions and Recommendations

Source: Alley, M. THE CRAFT OF SCIENTIFIC WRITING, 1996
Questions