

Successful Grant Writing Strategies

Sally Bond

Assistant Director of Research Development Services

Proposal Coordination

Office of the Vice President for Research
and Partnerships

Purdue Research Development Services

Office for the Vice President for Research services and resources



PURDUE UNIVERSITY Office of the Vice President for Research

OVPR Main | OVPR Staff | Contact OVPR

Home Integrity/Regulatory/QA Research Development Funding Partnerships Center Support Policies Publications/Awards

Services & Resources

- Research Development Home
- Funding
- Limited Submissions
- Proposal Preparation
- Teambuilding
- Site Visits
- Grantsmanship Events
- FAQs
- Where do I go for help with...
- Other Useful Links

Research Development

The goal of the OVPR Research Development staff is to assist faculty in the development of research and education proposals. Our staff provide a broad range of services and resources related to funding and grantsmanship. Below are some of the ways we can assist.

FUNDING
The funding page provides information on internal, external, seed, and early investigator funding opportunities. Links to helpful funding search tools and e-mail alerts can also be found here.

LIMITED SUBMISSIONS
Check here for details on internal competitions including deadlines, templates and submission guidelines.

PROPOSAL PREPARATION
Research Development staff can provide assistance with both large and small proposals. This page explains our services and provides links to other useful proposal preparation resources.

TEAMBUILDING
Building a strong team is an important part of successful proposals. This link provides information on our project coordination services as well as resources for creating on-line expertise profiles.

SITE VISITS
Our staff can assist with the logistics and coordination of site visits allowing the research team to focus on their science and team. Follow this link to find out more about these services.

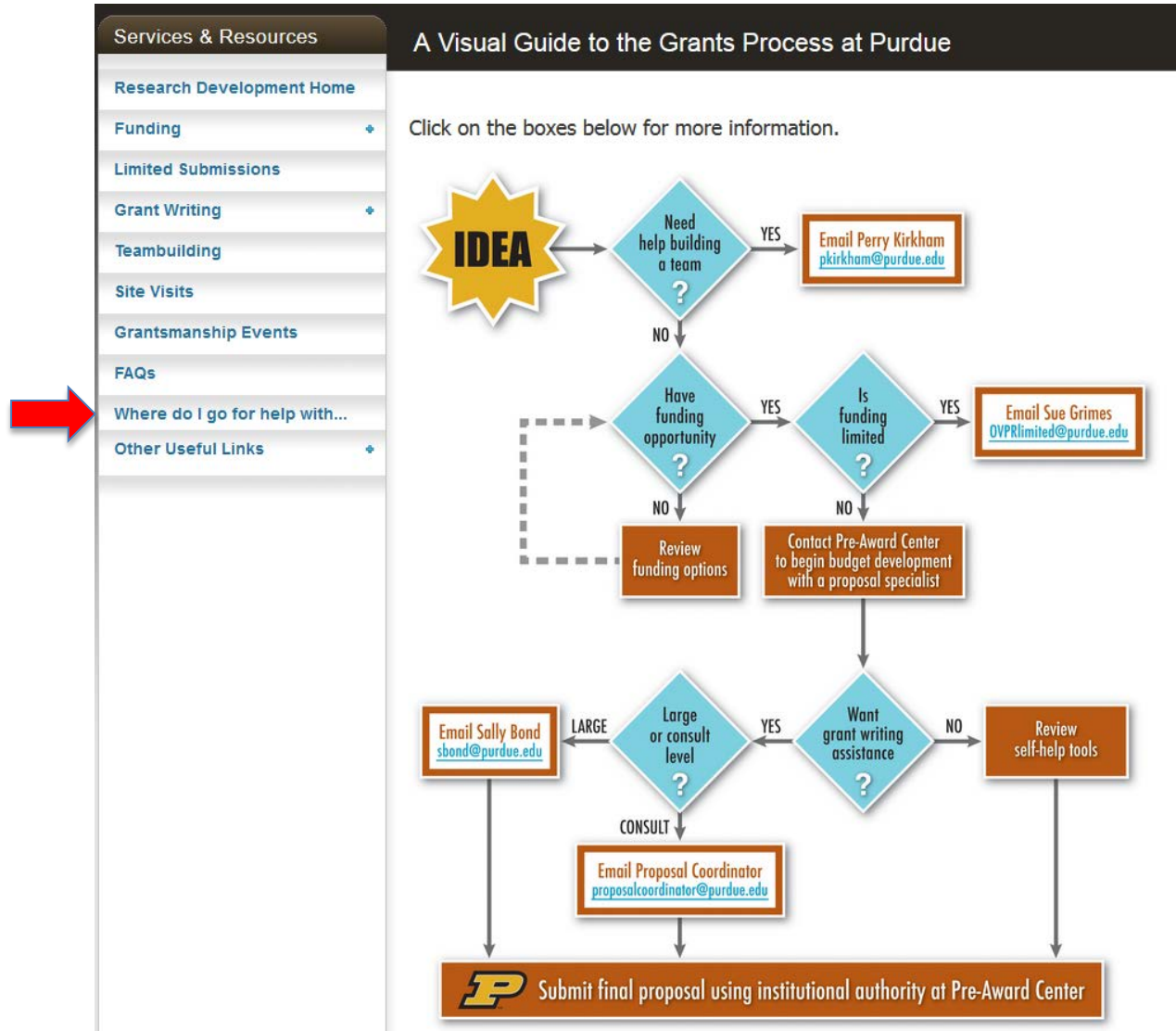
EVENTS
The events page provides information on upcoming grantsmanship workshops and events including dates, times, and registration information. Presentations from previous events can also be accessed from this site.

OTHER USEFUL LINKS
Our *Guide to the Grants Process at Purdue University* is available here as well as links to other programs and resources related to grantsmanship.

QUESTIONS, COMMENTS, and SUGGESTIONS
We'd like to hear from you about services and resources that are valuable to you. Please e-mail us with questions, comments,

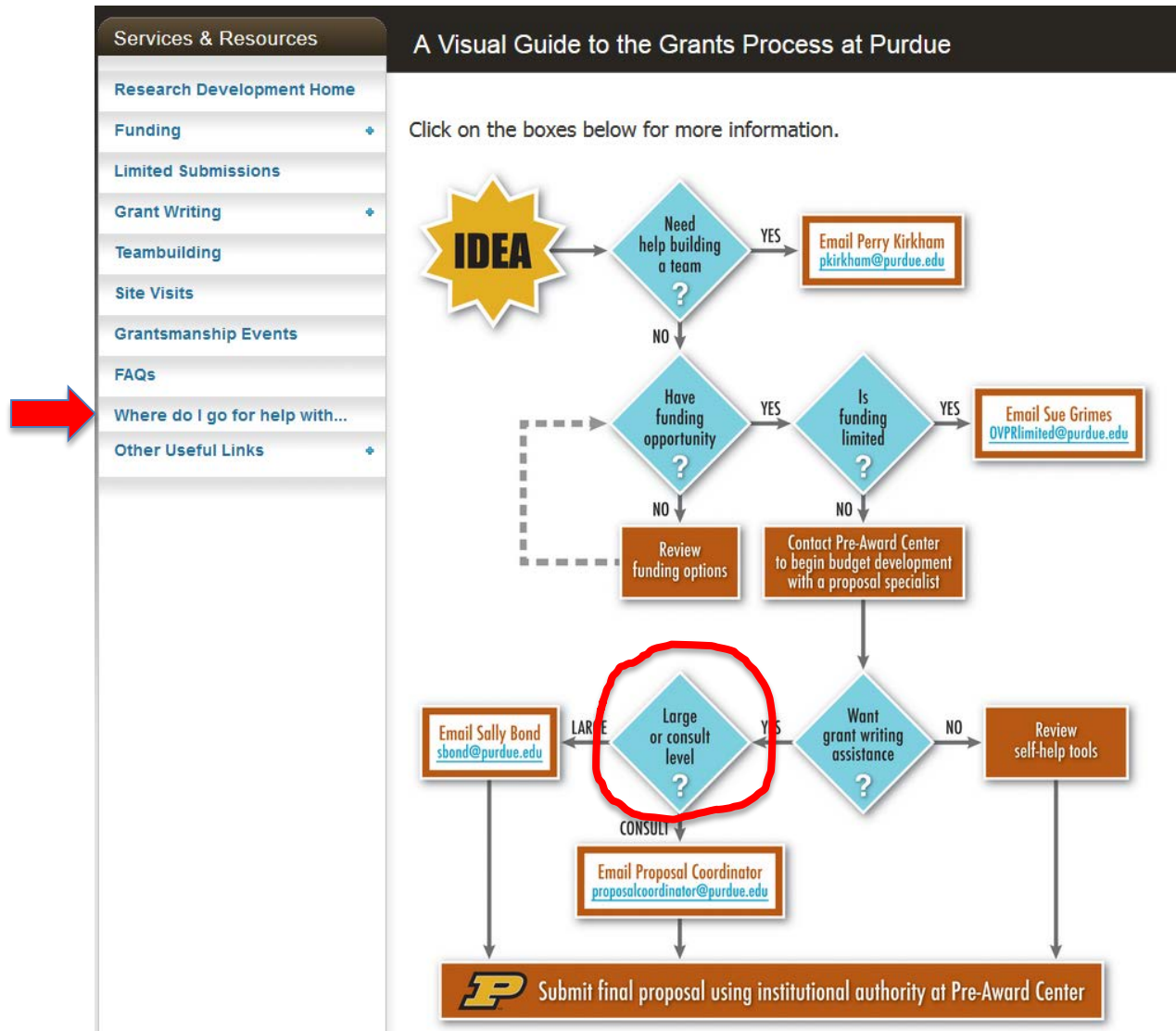
Where Do I Go for Help?

Hyperlinked "help" flowchart



Where Do I Go for Help?

Hyperlinked "help" flowchart



Large-Scale Proposal Coordination

High-value, higher-complexity, interdisciplinary

The screenshot shows the website for the Executive Vice President for Research and Partnerships at Purdue University. The header includes the Purdue University logo and the title. A navigation menu lists various sections like Home, Integrity/Regulatory/QA, Research Development, Funding, Partnerships, Center Support, Policies, and Publications/Awards. A search bar is located in the top right. The main content area is titled "Grant Writing Assistance" and is divided into two sections: "Large Proposal Development Services" and "Small Proposal Development Services". The "Large Proposal Development Services" section describes the role of EVPRP grant writers and lists various services provided, such as proposal preparation, writing, and support. The "Small Proposal Development Services" section describes the role of EVPRP grant writers for small grant proposals and lists services like agency solicitation, proposal preparation, and organization.

PURDUE UNIVERSITY Executive Vice President for Research and Partnerships

EVPRP Main | EVPRP Staff | Contact EVPRP

Search

Home Integrity/Regulatory/QA Research Development Funding Partnerships Center Support Policies Publications/Awards

Services & Resources

- Research Development Home
- Funding Resources
- Funding Strategies
- Limited Submissions
- Grant Writing
- Site Visits
- Grantsmanship Events
- FAQs
- Where do I go for help with...
- Other Useful Links

Grant Writing Assistance

Large Proposal Development Services

EVPRP grant writers assist faculty in the development of high-value, high-complexity proposals that often represent a multi-departmental and inter-institutional collaboration. If you have questions or would like to request EVPRP-funded proposal coordinator services, please contact **Sally Bond**. Our grant writers assist with:

- proposal preparation **timelines** and processes
- a compelling "**storyline**" or gap analysis
- agency mission and requirements of specific grant competitions
- meeting logistics
- assessment, outreach, and diversity component needs
- writing of non-technical text and transitions
- document control and copyediting
- graphics support
- institutional support letters (see **Self-Help Tools**)
- addendum forms such as conflict of interest and biosketches

(For information about cost-sharing commitments, please visit our **Cost Sharing** page)

Small Proposal Development Services

EVPRP grant writers are also available to consult individually with faculty who are writing small grant proposals for *external* funding. We can help you with:

- agency solicitation requirements
- a proposal preparation **timeline**
- proposal organization
- guidance for graphics
- specific proposal sections such as storyline or specific aims

Smaller Proposal Consultation

Help is available for proposals of all sizes.

The screenshot shows the website for the Executive Vice President for Research and Partnerships at Purdue University. The header includes the Purdue University logo and the title 'Executive Vice President for Research and Partnerships'. A search bar is located in the top right corner. The main navigation menu includes: Home, Integrity/Regulatory/QA, Research Development, Funding, Partnerships, Center Support, Policies, and Publications/Awards. The left sidebar is titled 'Services & Resources' and contains links to: Research Development Home, Funding Resources, Funding Strategies, Limited Submissions, Grant Writing, Site Visits, Grantsmanship Events, FAQs, Where do I go for help with..., and Other Useful Links. The main content area is titled 'Grant Writing Assistance' and is divided into two sections: 'Large Proposal Development Services' and 'Small Proposal Development Services'. The 'Large Proposal Development Services' section describes the assistance provided by EVPRP grant writers for high-value, high-complexity proposals, listing various services such as proposal preparation, agency mission analysis, meeting logistics, and document control. The 'Small Proposal Development Services' section describes the assistance provided for small grant proposals, listing services such as agency solicitation requirements, proposal organization, and guidance for graphics.

PURDUE UNIVERSITY Executive Vice President for Research and Partnerships

EVPRP Main | EVPRP Staff | Contact EVPRP

Search

Home Integrity/Regulatory/QA Research Development Funding Partnerships Center Support Policies Publications/Awards

Services & Resources

- Research Development Home
- Funding Resources
- Funding Strategies
- Limited Submissions
- Grant Writing
- Site Visits
- Grantsmanship Events
- FAQs
- Where do I go for help with...
- Other Useful Links

Grant Writing Assistance

Large Proposal Development Services

EVPRP grant writers assist faculty in the development of high-value, high-complexity proposals that often represent a multi-departmental and inter-institutional collaboration. If you have questions or would like to request EVPRP-funded proposal coordinator services, please contact **Sally Bond**. Our grant writers assist with:

- proposal preparation **timelines** and processes
- a compelling "**storyline**" or gap analysis
- agency mission and requirements of specific grant competitions
- meeting logistics
- assessment, outreach, and diversity component needs
- writing of non-technical text and transitions
- document control and copyediting
- graphics support
- institutional support letters (see **Self-Help Tools**)
- addendum forms such as conflict of interest and biosketches

(For information about cost-sharing commitments, please visit our **Cost Sharing** page)

Small Proposal Development Services

EVPRP grant writers are also available to consult individually with faculty who are writing small grant proposals for *external* funding. We can help you with:

- agency solicitation requirements
- a proposal preparation **timeline**
- proposal organization
- guidance for graphics
- specific proposal sections such as storyline or specific aims

Proposal Preparation

Tailored and intentional plan

General 10-week project timeline:

	1	2	3	4	5	6	7	8	9	10
Analysis and Planning										
Distribute documents noted in RFP	■									
Identify previously successful proposals	■									
Identify PI	■									
Notify Pre-Award Center for assigned budget specialist	■									
Problem Overview	■	■	■							
<ul style="list-style-type: none"> What is the problem What has already been done to address problem What gaps remain How we propose to address gaps 										
Vision			■							
Goals			■							
Identify proposal win themes/discriminators			■							
Program Officer Input										
Contact PO	initial	■	■							
Team debrief on meeting			■							
Refine initial analysis/planning				■						
Proposed Outline										
Discuss/refine outline structure				■						
More detailed outline, if needed				■						
Identify graphics needed			■	■						
Partnerships										
Recruit collaborative partners		■	■							
Produce "talking points" brochure or website			■	■						
Recruit industry affiliates					■	■	■	■		
Recruit advisory board members						■	■	■	■	
Collect letters of commitment									■	■
Management and Personnel										
Identify basic management structure			■	■						
Collect biosketches				■	■	■	■	■		
Proposal Writing and Editing										
Assign writing			■							
Write section components				■	■					
Compile 1 st draft						■				
Project team 1 st edit							■			
Any outside review input/edit								■		
Editing iterations									■	■
Write summary or abstract										■

Red Text: Important to have agreement (and explicit text for problem overview) prior to proposal writing

Key Strategies

Strategies to steer you away from common trouble spots

- tell a compelling story
- respond to solicitation
- answer “Why Purdue?”
- know your reviewer
- conduct internal review

Key Strategies

Addressing common trouble spots

- **tell a compelling story**

- respond to solicitation

- answer

- know your audience

- conduct

- good science is a story that begins with a problem
- narrative gives coherence
- hooks reviewer so weaknesses are not fatal flaws

Key Strategies

Addressing common trouble spots

- **tell a compelling story**

- respond to solicitation

- answer

- know

- conduct

- What is the problem?
- What has been done already to address the problem?
- What is the gap that remains?
- How do you propose to address this gap?

Key Strategies

Addressing common trouble spots

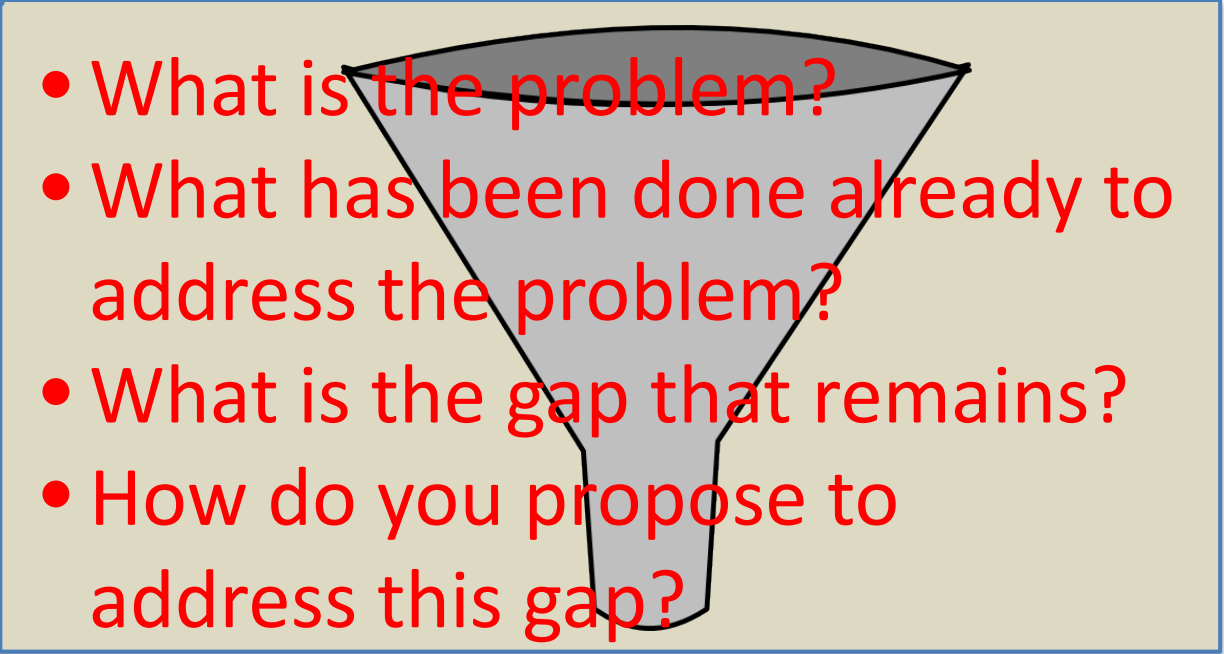
- **tell a compelling story**

- respond to solicitation

- answer

- know

- conduct

- 
- What is the problem?
 - What has been done already to address the problem?
 - What is the gap that remains?
 - How do you propose to address this gap?

Build the Storyline

Example narrative...in op-ed language

What is the problem?

What has been done already to address problem?

What is the gap that remains?

How do we propose to address this gap?

NSF IGERT: Solar Economy IGERT (SEIGERT)

PI: Rakesh Agrawal

2. Vision, Goals, and Thematic Basis

Currently, fossil fuel resources of coal, natural gas and petroleum supply nearly 85% of the total energy needs of the US economy. The flow of energy from fossil fuels to end-uses: 1) electricity, 2) heating, 3) chemicals, and 4) transportation is a complex system dictated by resource availability, processing capacity, government policy, world affairs, and market forces. However, recent volatility of petroleum prices, uncertainty of future carbon taxes, and the potential impact of greenhouse gasses on the environment has led to renewed efforts to reduce our dependence on fossil fuels.

Recently, 25 U.S. state legislatures passed legislation that establishes minimum percentages of the state's electricity supply that must come from renewables by a certain date. These so-called Renewable Portfolio Standards (RPS) are shown in Figure 1. The states with RPS account for over half the nation's electricity. The implementation of RPS presents the U.S. with great opportunities and challenges. Currently, the total primary power used in the U.S. by all four major end-uses is 3.3 TW (PCAST, 2006). When averaged over day, night, seasons, and cloud cover, over 1800 TW of sunlight falls on U.S. land. Clearly, economic collection and transformation of solar energy can provide a long-term solution for all the energy needs of the United States.

For decades, the U.S. enjoyed global leadership in solar energy innovation and market share. By 2005, however, the U.S. share of the world production capacity of solar cell modules dropped to 8% while shipments from Europe and Japan increased to 26% and 48%, respectively (EIA, 2007). The economic effect of the decreasing U.S. market share is exacerbated by a rapidly increasing need for solar cell manufacturing. The U.S. Photovoltaic Industry Roadmap foresees a 30% growth of the world solar industry over the next decade and a U.S. solar industry that needs to employ 250,000 people by 2030 (DOE, 2001). However, at a time when U.S. states and industry need a significant increase of highly skilled labor with solar energy expertise, the supply of Ph.D.s in this area is limited. Further, of all the research articles published on solar energy, the fraction published by U.S. authors has dropped significantly in the last 30 years, from 49% to 18%. More importantly, of all the journal citations for articles on solar energy, the fraction of citations that U.S. authors receive is down from 61% to 24% in that same time period (Hillhouse, 2007). The output and impact of U.S. research on solar energy is diminishing. These trends clearly define a challenge of national importance. *It is imperative that the U.S. strategy include effective education and training programs to develop the human resources and intellectual capital that will allow us to compete in this emerging world market for Sun-to-Electricity.* Our *vision* is to prepare for a fossil fuel-deprived world where nearly all energy demands are met sustainably by solar energy resources.

Build the Storyline

Example narrative for NIH specific aims page

What is the problem?

What has been done already to address problem?

What is the gap that remains?

How do we propose to address this gap?

Carolina Wählby of the Broad Institute

<http://www.niaid.nih.gov/researchfunding/grant/pages/appsamples.aspx>

Research Strategy

A Significance

The NIH is committed to translating basic biomedical research into clinical practice and thereby impacting global human health¹, and Francis Collins identifies high-throughput technology as one of five areas of focus for the NIH's research agenda². For many diseases, researchers have identified successful novel therapeutics or research probes by applying technical advances in automation to high-throughput screening (HTS) using either biochemical or cell-based assays³⁻⁶. Researchers are using genetic perturbations such as RNA interference or gene overexpression in cell-based HTS assays to identify genetic regulators of disease processes as potential drug targets⁷⁻⁹. However, the molecular mechanisms of many diseases that deeply impact human health worldwide are not well-understood and thus cannot yet be reduced to biochemical or cell-based assays.

Ideally, researchers could approach disease from a phenotypic direction, in addition to the traditional molecular approach, by searching for chemical or genetic regulators of disease processes in whole model organisms rather than isolated cells or proteins. Moving HTS towards more intact, physiological systems also improves the likelihood that the findings from such experiments accurately translate into the context of the human body (e.g., in terms of toxicity and bioavailability), simplifying the path to clinical trials and reducing the failure of potential therapeutics at later stages of testing. In fact, for some diseases, a whole organism screen may actually be necessary to break new therapeutic ground; in the search for novel therapeutics for infectious agents, for example, it is widely speculated that the traditional approach of screening for chemicals that directly kill bacteria *in vitro* has been largely exhausted¹⁰. Our work recently identified six novel classes of chemicals that cure model organisms from infection by the important human pathogen *E. faecalis* through mechanisms distinct from directly killing the bacterium itself¹¹. Anti-infectives with new mechanisms of action are urgently needed to combat widespread antibiotic resistance in pathogens.

Enabling HTS in whole organisms is therefore recognized as a high priority (NIH PAR-08-024)^{12,13}. *C. elegans* is a natural choice. Manually-analyzed RNAi and chemical screens are well-proven in this organism, with dozens completed¹⁴⁻¹⁶. Many existing assays can be adapted to HTS; instrumentation exists to handle and culture *C. elegans* in HTS-compatible multi-well. Its organ systems have high physiologic similarity and genetic conservation with humans^{17,18}. *C. elegans* is particularly suited to assays involving visual phenotypes: physiologic abnormalities and fluorescent markers are easily observed because the worm is mostly transparent. The worms follow a stereotypic development pattern that yields identically-appearing adults^{19,20}, such that deviations from wild-type are more readily apparent.

The bottleneck that remains for tackling important human health problems using *C. elegans* HTS is image analysis (NIH PA-07-320)^{21,22}. It has been recently stated, "Currently, one of the biggest technical limitations for large-scale RNAi-based screens in *C. elegans* is the lack of efficient high-throughput methods to quantitate lethality, growth rates, and other morphological phenotypes"²³. Our proposal to develop image analysis algorithms to identify regulators of infection and metabolism in high-throughput *C. elegans* assays would bring image-based HTS to whole organisms, and have the following impact:

- Identifying novel modulators of infection by the NIH priority pathogen Microsporidia (Aim 1). Microsporidia are emerging human pathogens whose infection mechanisms are almost completely unknown.

Build the Storyline

Create a one-page brief

One-page project description sent to program officer that includes:

- concise storyline
- vision/goals
- team
- methodology/approach
- impact

Build the Storyline

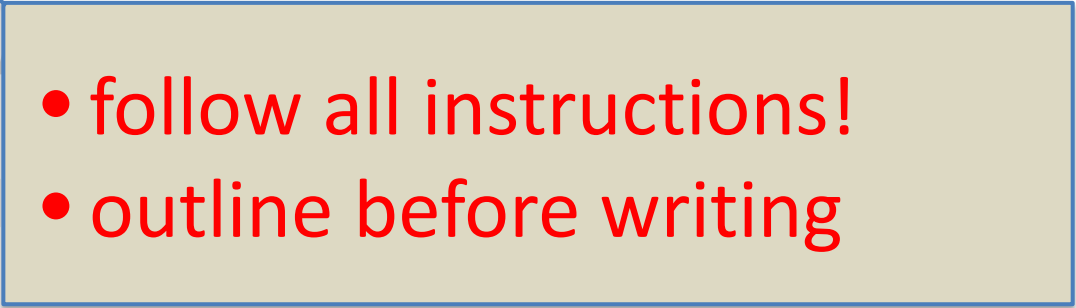
One-page...taste of your entire grant in a single, bite-sized piece

It forces you to distill all aspects down to their essences and to find a way of piecing things together that is economical, coherent, logical, and compelling [...] is totally unforgiving, revealing problems in the clarity of your thinking and presentation, weaknesses in the logic of your research, vagueness in your methods, and failures in the all-important 'so what?' realm. Given the luxury of length, additional verbiage has a way of camouflaging weaknesses (at least from the writer but not so often from the reviewer).

—Robert Levenson, UC-Berkeley

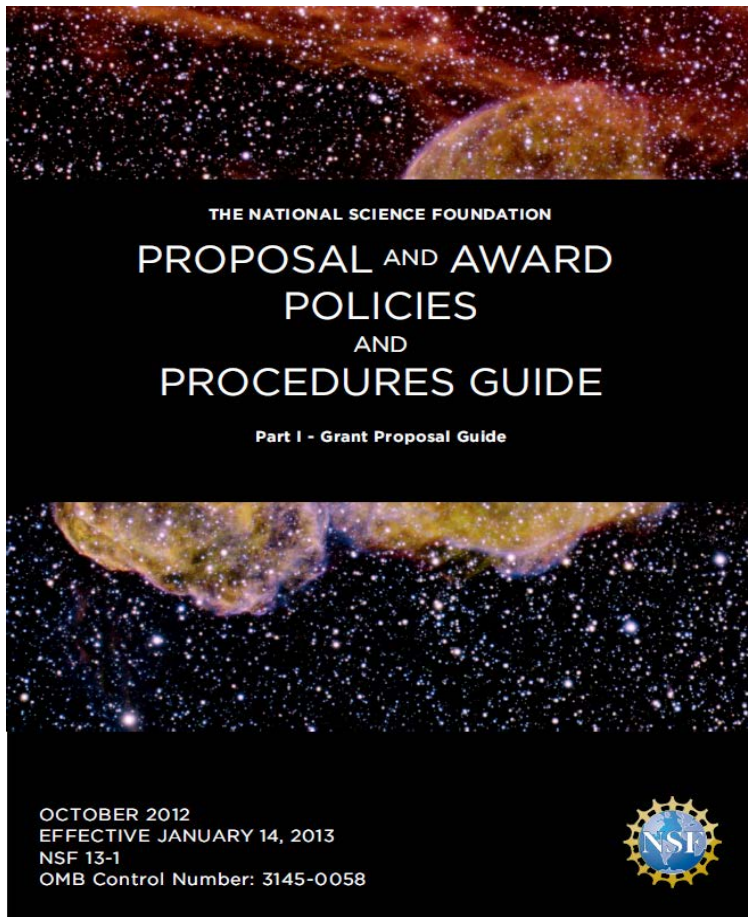
Key Strategies

Addressing common trouble spots

- tell a compelling story
 - **respond to solicitation**
 - answer “V
 - know you
 - conduct internal review
- 
- **follow all instructions!**
 - **outline before writing**

Respond to Solicitation

Follow all instructions! Know the agency guidelines as well as solicitation



Research on Education and Learning (REAL)

PROGRAM SOLICITATION

NSF 13-604

REPLACES DOCUMENT(S):

NSF 10-516, NSF 12-542, NSF 12-552



National Science Foundation

Directorate for Education & Human Resources
Research on Learning in Formal and Informal Settings

Letter of Intent Due Date(s) (*optional*) (due by 5 p.m. proposer's local time):

October 25, 2013

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

January 10, 2014

IMPORTANT INFORMATION AND REVISION NOTES

A revised version of the *NSF Proposal & Award Policies & Procedures Guide (PAPPG)*, [NSF 13-1](#), was issued on October 4, 2012 and is effective for proposals submitted, or due, on or after January 14, 2013. Please be advised that the guidelines contained in [NSF 13-1](#) apply to proposals submitted in response to this funding opportunity.

Please be aware that significant changes have been made to the PAPPG to implement revised merit review criteria based on the National Science Board (NSB) report, *National Science Foundation's Merit Review Criteria: Review and Revisions*. While the two merit review criteria remain unchanged (Intellectual Merit and Broader Impacts), guidance has been provided to clarify and improve the function of the criteria. Changes will affect the project summary and project description sections of proposals. Annual and final reports also will be affected.

A by-chapter summary of this and other significant changes is provided at the beginning of both the *Grant Proposal Guide* and the *Award & Administration Guide*.

Please note that this program solicitation may contain supplemental proposal preparation guidance and/or guidance that deviates from the guidelines established in the *Grant Proposal Guide*.

Revision Summary

This solicitation has been revised to incorporate into the Other Information section a newly issued publication jointly developed by the National Science Foundation and the Institute of Education Sciences in the U.S. Department of Education entitled, *Common Guidelines for Education Research and Development*. The *Guidelines* describe six types of research studies that can generate evidence about how to increase student learning. Research types include those that generate the most fundamental understandings related to education and learning; examinations of associations between variables; iterative design and testing of strategies or interventions; and assessments of the impact of a fully-developed intervention on an education outcome. For each research type, there is a description of the purpose and the expected empirical and/or theoretical justifications, types of project outcomes, and quality of evidence.

The *Guidelines* publication can be found on the NSF website with the number NSF 13-126 (<http://www.nsf.gov/pubs/2013/nsf13126/nsf13126.pdf>). A set of FAQs regarding the *Guidelines* are

Respond to Solicitation

Sleuth what was funded previously to identify trends

- What type of science and how does it compare to yours?
- What was team composition?
- What type of education integration?
- What type of institution?
- What type of budget?

Respond to Solicitation

Agency websites often show what was previously funded.

The screenshot shows the NSF website homepage. At the top left is the NSF logo with the tagline "National Science Foundation WHERE DISCOVERIES BEGIN". A search bar is located at the top right. Below the logo is a navigation menu with the following items: HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT NSF, and FASTLANE. The "FUNDING" menu is expanded, showing a list of links: Search Funding Opportunities, Browse Opportunities A-Z, Recent Opportunities, Due Dates, Preparing Proposals, Policies & Procedures, Merit Review, Interdisciplinary Research, Transformative Research, and About Funding. The main content area features a large banner image of a raccoon in a snowy forest. Overlaid on the banner is a dark box with the text "Community college students on STEM path" and a "FULL STORY" button. Below the banner is a horizontal navigation bar with three categories: "Advancing the Sciences", "Funding & Supporting", and "Inspiring & Educating", with a "HIDE" button on the right. Below this bar is a grid of six featured articles, each with a small image, a title, and a date:

- Small, fast, and crowded: Mammal traits amplify tick-borne illness** (September 18, 2014)
- Researchers develop unique waste cleanup for rural areas** (September 18, 2014)
- UChicago-Argonne National Lab team improves solar-cell efficiency** (September 18, 2014)
- UCI team is first to capture motion of single molecule in real time** (September 16, 2014)
- Corn spots: Study finds important genes in defense response** (September 12, 2014)
- NSF awards \$10.8 million in early concept grants for brain research** (August 18, 2014)

www.nsf.gov

Respond to Solicitation

Each program page has “what has been funded” and map of recent awards.

The screenshot shows the NSF website interface. At the top is the NSF logo and the tagline "WHERE DISCOVERIES BEGIN". A search bar and "QUICK LINKS" button are on the right. A navigation menu includes HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT NSF, and FASTLANE. The main content area is titled "Funding" and features a sidebar with links like "Find Funding", "A-Z Index of Funding Opportunities", and "Recent Funding Opportunities". The main content displays the title "Partnerships for Innovation: Accelerating Innovation Research- Technology Translation (PFI: AIR-TT)" and a "CONTACTS" table with one entry for Barbara H. Kenny. Below this are sections for "PROGRAM GUIDELINES", "DUE DATES", and "SYNOPSIS". A red arrow points to a link in the synopsis: "What Has Been Funded (Recent Awards Made Through This Program, with Abstracts)".

National Science Foundation
WHERE DISCOVERIES BEGIN

SEARCH

HOME FUNDING AWARDS DISCOVERIES NEWS PUBLICATIONS STATISTICS ABOUT NSF FASTLANE

Funding

Find Funding
A-Z Index of Funding Opportunities
Recent Funding Opportunities
Upcoming Due Dates
Advanced Funding Search
Interdisciplinary Research
How to Prepare Your Proposal
About Funding

Proposals and Awards
Proposal and Award Policies and Procedures Guide
Introduction
Proposal Preparation and Submission
Grant Proposal Guide
Grants.gov Application Guide
Award and Administration
Award and Administration Guide

Award Conditions
Other Types of Proposals
Merit Review
NSF Outreach
Policy Office

Related
GRANTS.GOV™

Industrial Innovation and Partnerships

Partnerships for Innovation: Accelerating Innovation Research- Technology Translation (PFI: AIR-TT)

CONTACTS

Name	Email	Phone	Room
Barbara H. Kenny	bkenny@nsf.gov	(703) 292-4667	

PROGRAM GUIDELINES
Solicitation [14-569](#)

DUE DATES

Full Proposal Deadline Date: October 2, 2014
Letter of Intent Deadline Date: March 13, 2015
Full Proposal Deadline Date: April 14, 2015

SYNOPSIS

The NSF Partnerships for Innovation (PFI) program within the Division of Industrial Innovation and Partnerships (IIP) is an umbrella for two complementary subprograms, Accelerating Innovation Research (AIR) and Building Innovation Capacity (BIC). Overall, the PFI program offers opportunities to connect new knowledge to societal benefit through translational research efforts and/or partnerships that encourage, enhance and accelerate innovation and entrepreneurship. The subject of this solicitation is PFI: AIR-Technology Translation (PFI: AIR-TT). The PFI: AIR-TT solicitation serves as an early opportunity to move previously NSF-funded research results with promising commercial potential along the path toward commercialization. Projects are supported to demonstrate proof-of-concept, prototype, or scale-up while engaging faculty and students in entrepreneurial/innovative thinking.

WEBINAR: A webinar will be held within 6 weeks of the release date of this solicitation to answer any questions about this solicitation. Details will be posted on the IIP website (<http://www.nsf.gov/eng/iip/pfi/air-tt.jsp>) as they become available.

[What Has Been Funded \(Recent Awards Made Through This Program, with Abstracts\)](#)

[Map of Recent Awards Made Through This Program](#)

[News](#)

Email Print Share

Feedback ↑ Top


[What Has Been Funded \(Recent Awards Made Through This Program, with Abstracts\)](#)

[Map of Recent Awards Made Through This Program](#)

[News](#)

Respond to Solicitation

NIH RePORTer <http://projectreporter.nih.gov/reporter.cfm>.



Research Portfolio Online Reporting Tools
(RePORT)

Search

HOME | ABOUT RePORT | FAQs | GLOSSARY | CONTACT US

QUICK LINKS RESEARCH ORGANIZATIONS WORKFORCE FUNDING REPORTS LINKS & DATA

Home > RePORTER > Query Form

MyRePORTER Login | Register System Health: GREEN

NIH RePORTER Version: 6.7.0

CHECK OUT FEDERAL RePORTER

About RePORTER DATA FAQ EXPORTER RePORTER Manual RSS of Newly Added Projects

QUERY BROWSE NIH MATCHMAKER BETA

SUBMIT QUERY CLEAR QUERY

Fiscal Year (FY): Active Projects SELECT
Current FY is 2014

RESEARCHER AND ORGANIZATION

Principal Investigator (PI) / Project Leader:
(Last Name, First Name) Use '%' for wildcard in PI names
[Enter several PI/Project Leader names OR PI Profile IDs](#)

Organization: LOOKUP
Please enter at least 3 characters to use Lookup.
 Contains Begins with Exact

Department: SELECT

Organization Type: SELECT

City: Use '%' for wildcard

State: SELECT

Country: SELECT

Congressional District: SELECT

DUNS Number:

TEXT SEARCH

Text Search (Logic):

And Or Advanced

Search in Projects Publications News

Limit Project search to Project Title Project Terms Project Abstracts

Limit Publication search to Start Year: 2013 End Year: 2014

PROJECT DETAILS

Project Number/ Application ID:
Format: 5R01CA012345-04/8515397
Use '%' for wildcard in project number, e.g. %R21%
[Enter multiple project numbers/application IDs](#)

OR

1 R01 CA 811099 01 A1S1

Program Officer (PO):
(Last Name, First Name) Use '%' for wildcard

Project Start Date: >=
Format: mm/dd/yyyy

Agency/Institute/Center: SELECT
 Admin Funding

NIH Spending Category: SELECT

Funding Mechanism: SELECT

Award Type: SELECT

Activity Code: SELECT

Study Section: SELECT
Standing CSR study sections only

Respond to Solicitation

NIH RePORTer <http://projectreporter.nih.gov/reporter.cfm>.

Search Results

[Back to Query Form](#) [Save Query](#) [Share Query](#)

Export All Projects GO

PROJECTS ? PUBLICATIONS PATENTS CLINICAL STUDIES DATA & VISUALIZE MAP LINKS NEWS & MORE													
There were 3230 results matching your search criteria.											Records per page 25	Show/Hide Search Criteria	
Click on the column header to sort the results											1 2 3 4 ... 128 129 130	Page 1 of 130 Next Last	
T: Application Type; Act: Activity Code; Project: Admin IC, Serial No.; Year: Support Year/Supplement/Amendment													
	T	Act	Project	Year	Sub #	Project Title	Contact PI/ Project Leader	Organization	FY	Admin IC	Funding IC	FY Total Cost by IC	Similar Projects
<input type="checkbox"/>	5	R01	MH094478	03		LEARNING, NEURAL SIGNALING OF CORTISOL, AND EARLY ADVERSITY IN DEPRESSION	ABERCROMBIE, HEATHER C	UNIVERSITY OF WISCONSIN-MADISON	2014	NIMH	NIMH	\$493,154	
<input type="checkbox"/>	5	P50	MH086404	05		DOPAMINE DYSFUNCTION IN SCHIZOPHRENIA	ABI-DARGHAM, ANISSA	NEW YORK STATE PSYCHIATRIC INSTITUTE	2014	NIMH	NIMH	\$1,805,264	
<input type="checkbox"/>	1	K01	MH102428	01A1		DECODING NEURAL SYSTEMS UNDERLYING AFFECTIVE PROSODY IN CHILDREN WITH AUTISM	ABRAMS, DANIEL ARTHUR	STANFORD UNIVERSITY	2014	NIMH	NIMH	\$176,164	
<input type="checkbox"/>	5	K25	NS058573	05		TIME-RESOLVED MR METHODS FOR ANALYSIS OF CONTRAST AND FLOW VELOCITY IN ANEURYSMS	ACEVEDO-BOLTON, GABRIEL ALEJANDRO	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	2012	NINDS	NINDS	\$150,101	
<input type="checkbox"/>	5	R01	CA171651	02		DEVELOPMENT OF GOGGLE SYSTEM FOR FLUORESCENCE IMAGE-GUIDED SURGERY	ACHILEFU, SAMUEL	WASHINGTON UNIVERSITY	2014	NCI	NCI	\$558,269	
<input type="checkbox"/>	5	R01	MH094743	04		MOTIVATED MEMORY AS THERAPEUTIC TARGET	ADCOCK, RACHEL ALISON	DUKE UNIVERSITY	2014	NIMH	NIMH	\$463,300	
<input type="checkbox"/>	5	P50	MH094258	03	5386	CONNECTIVITY OF THE SOCIAL DECISION-MAKING SYSTEM	ADOLPHS, RALPH	CALIFORNIA INSTITUTE OF TECHNOLOGY	2014	NIMH		\$370,781	
<input type="checkbox"/>	5	P50	MH094258	03		THE NEUROBIOLOGY OF SOCIAL DECISION-MAKING	ADOLPHS, RALPH	CALIFORNIA INSTITUTE OF TECHNOLOGY	2014	NIMH	NIMH	\$1,914,032	
<input type="checkbox"/>	5	K99	EY022924	02		THE CAUSAL ROLE OF INFERIOR TEMPORAL CORTEX IN OBJECT RECOGNITION	AFRAZ, SEYED REZA	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	2014	NEI	NEI	\$106,833	

Respond to Solicitation

Outline before you write. Be consistent with formatting.

Example of NSF-style proposal outline

1. RATIONALE [2.5 pages]

- Storyline
 - What is the problem?
 - What has been done already?
 - What is the gap that still remains?
 - What do you propose to do to address this gap?

Goals and Objectives

- List goals and objectives (per goal)

Team Partnership

- Team expertise
- Targeted teacher and/or community college faculty participants
- Institutional commitment

Broader Impacts

- curriculum accessed by underrepresented students through targeted teacher recruitment
- community-based research activities
- integrating research activities into computing-related courses in local high schools
- role models from HCBU partner on HUBzero webinars
- presentation to parent-teacher organizations to include assessment results from DLRC-collected metrics
- presentations at both technology education conferences as well as K-12 STEM learning

2. NATURE OF TEACHER ACTIVITIES [3.5 pages]

- Need clearly articulated research projects and activities
 - Map to goals/objectives
- Teachers must be involved in research project for at least 6 weeks
- Must have orientation session at beginning of the program for the teachers to acquaint them with laboratory methods, safety procedures, analytical methods, etc
- Address approach to research training being undertaken

Research Project

- Include overview statement of spectrum of research projects

Project 1

- Provide detailed descriptions of examples of research projects
 - Include who is doing what role
- Present plans that will ensure the development of RET participant-faculty interaction and communication
- How will you facilitate development of collegial relationships and interactions as teachers work closely in teams with university faculty and students?

Project 2

- Provide detailed descriptions of examples of research projects
 - Include who is doing what role
- Present plans that will ensure the development of RET participant-faculty interaction and communication
- How will you facilitate development of collegial relationships and interactions as teachers work closely in teams with university faculty and students?

Project Timetable

- Need Gantt-style chart such as this.
- Overview sentence

Program Initiatives	Year one	Year Two	Year Three	Year Four	Year Five
CICAWEST Administration					
Advisory Board Meeting					
D&I Team and COD meeting					
Mentoring Academy					
Training of coaches/chairs					
Mentoring pairs					
Departmental Transformation					
Diversity Forums					
Chairs Dept Heads @ PU					
All Three Institutions					
Transformational Team Visits					
NCWIT Visiting Committee					
Promotion and Tenure Review					
Building Networks					
Summit					
Invited Lectures					
Evaluation and Assessment					
STEM Climate Assessment					
Space Resource Inventory					
Coaching Measures					
Mentor/Mentee perc/self-adv/prod					
Attitudinal Surveys					
Deans and Heads					
Faculty					
Network Analysis					
External Project Analysis					
Dissemination					
Website					
CIC Women in Academia					
Summit Attendees Mailings					
Publications					
National Presentations					

3. RESEARCH ENVIRONMENT [2.5 pages]

- Describe the experience and record of involvement with K-12/community college education and research of the PI
- Describe faculty who may serve as research mentors. Consider table such as:

Mentor Name	Dept/School	Expertise

- Describe institution
 - Include emphasis on cross-disciplinary partnership and past record of success in cross-disciplinary collaborations


Key Strategies

Addressing common trouble spots

- tell a compelling story
 - respond to solicitation
 - answer “Why Purdue?”
 - know your audience
 - conduct a competitive analysis
- win differentiators of expertise, facilities, prior work, campus environment

Key Strategies

Addressing common trouble spots

- tell a compelling story
 - respond to sources
 - answer “Why?”
 - **know your reviewer**
 - conduct internal review
- 
- writing for expert and non-expert
 - busy, rushed

Know Your Audience

How is your reviewer reading your draft? How can you help?

- sleepless, busy, rushed
- stack of 25 proposals to review
- reading proposal on plane or late at night
- perhaps not an expert in your exact field

Know Your Reviewer

Mechanics matter. Sloppy writing = sloppy science

- Use formatting as a roadmap
- fix grammar and proof proposal
- get rid of passive voice whenever possible

Know Your Reviewer

Mechanics matter. Sloppy writing = sloppy science

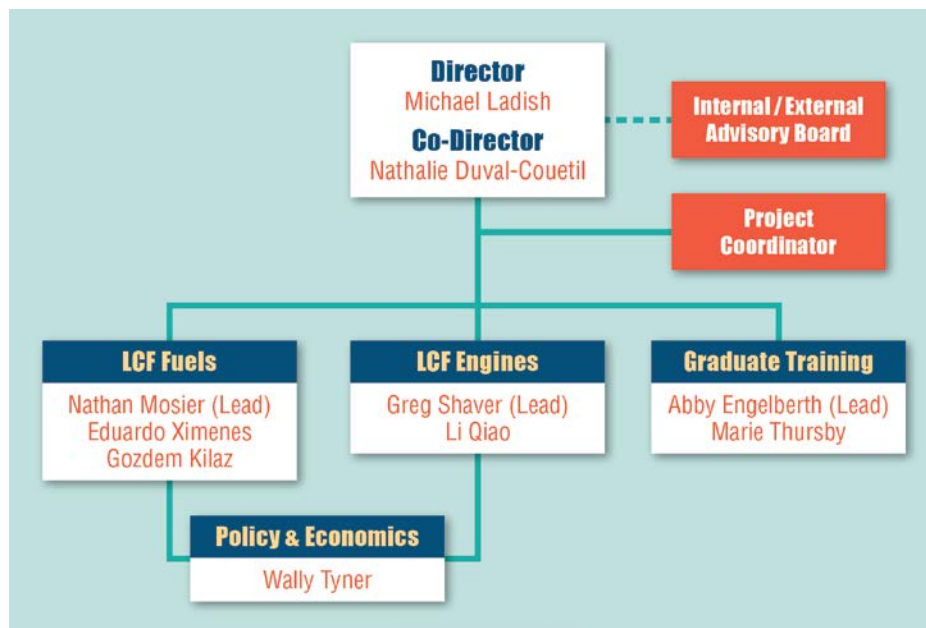
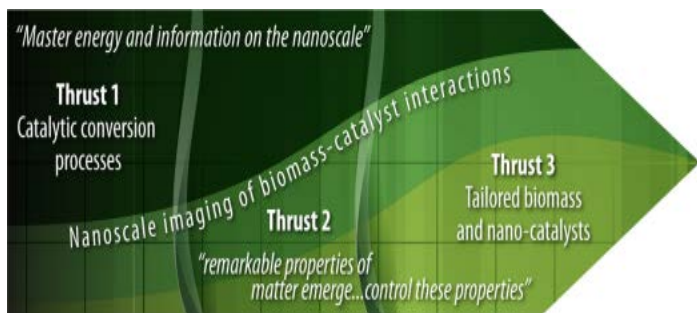
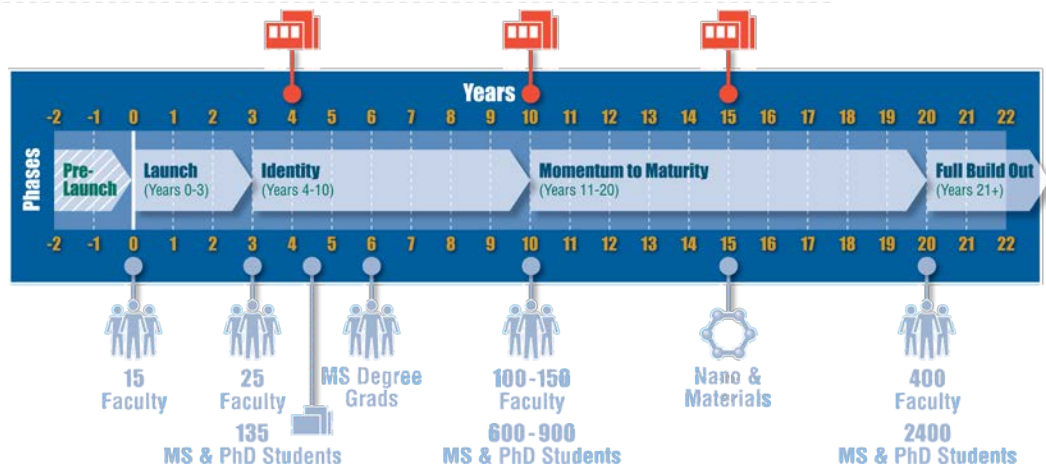
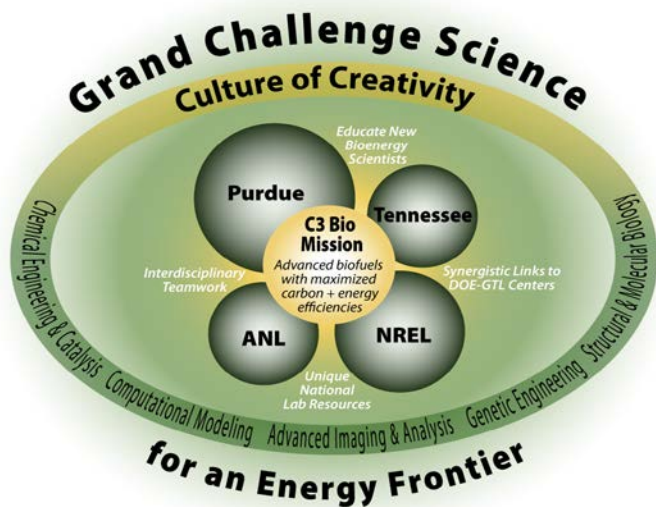
Elemental mapping of animal tissues has been investigated, and results have been documented.

changed to:

We investigated elemental mapping of animal tissues and documented results.

Know Your Reviewer

Use quality graphics and make them readable



Know Your Reviewer

Use visuals to summarize narrative when possible.

Program Initiatives	Year 1	Year 2	Year 3	Year 4	Year 5
Indiana administration					
Membership approved by Executive Council for working committees
Partner retreat
Create I-hub
Create Passport tracking
External Advisory Board meetings
Annual Alliance-wide conference
Goal 1: Alliance-wide practices					
Campus director monthly centralized training
Augmented training sets
Faculty/students training on I-hub
Cross-Alliance recruiting, including veterans
Goal 2: Effective community college partnership facilitating transfer to four-year STEM programs					
Co-mentored domestic research experience at partner campuses
Co-mentored international research experience
Industry guest speakers
Cross-Alliance teaching symposia and workshops with community college faculty
Goal 3: Aligning experiences with Tinto's principles of iteration					
Map activities and identify gaps
Pair scholars with mentors
Create individualized portfolios
Map incentives to Passport Badges
Cross-Alliance international research cohort
Disseminate model-based best practices
Goal 4: Research longitudinal model of Scholar development					
Compile a list of Scholar attributes
Test and validate Scholar attributes
Collect Scholar data
Analyze Scholar data and portfolios
Conduct interviews with Scholars
Evaluation and Assessment					
Formative site visits
Formative focus groups/interviews
Formative web-based surveys
Formative analysis and reporting
Summative data plan development
Summative quantitative data gathering
Summative analysis and final reporting

Key Strategies

Addressing common trouble spots

- tell a compelling story
- respond to solicitation
- answer “Why?”
- know your audience
 - planned from beginning
 - formal or informal
- conduct internal review

Internal Review

New eyes on your draft before submission

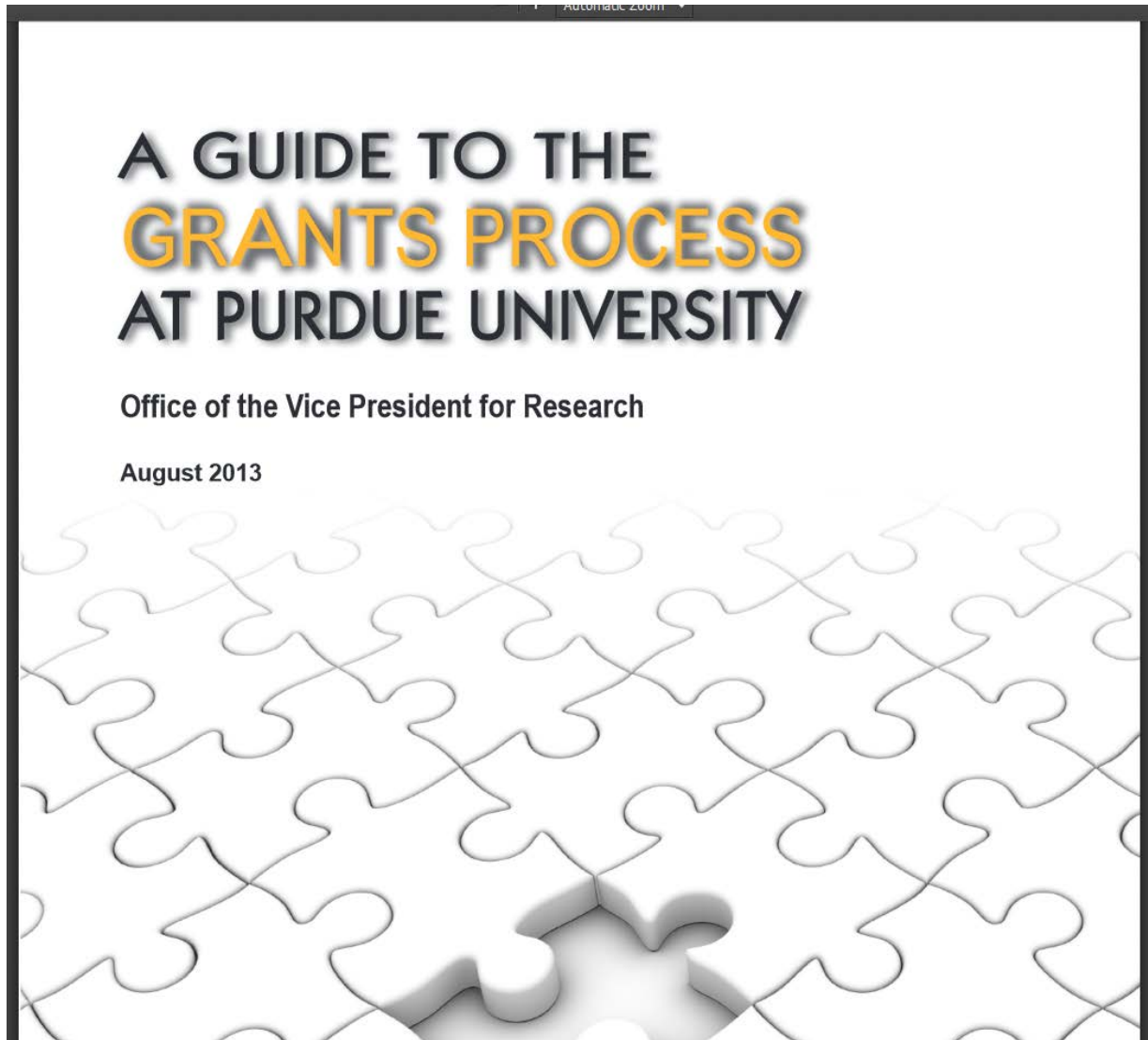
⊕ General 10-week project timeline:

	1	2	3	4	5	6	7	8	9	10
Analysis and Planning										
Distribute documents noted in RFP	■									
Identify previously successful proposals										
Identify PI	■									
Notify Pre-Award Center for assigned specialist										
Problem Overview	■	■	■							
<ul style="list-style-type: none"> • <i>What is the problem</i> • <i>What has already been done to address problem</i> • <i>What gaps remain</i> • <i>How we propose to address gaps</i> 										
Vision			■							
Goals			■							
Identify proposal win themes/discriminators			■							
Program Officer Input										
Contact PO	initial		■							
Team debrief on meeting			■							
Refine initial analysis/planning				■						
Proposed Outline										
Discuss/refine outline structure				■						
More detailed outline, if needed				■						
Identify graphics needed			■	■						
Partnerships										
Recruit collaborative partners		■	■							
Produce “talking points” brochure or website			■	■						
Recruit industry affiliates					■	■	■	■	■	
Recruit advisory board members						■	■	■	■	
Collect letters of commitment							■	■	■	■
Management and Personnel										
Identify basic management structure			■	■						
Collect biosketches				■	■	■	■	■	■	
Proposal Writing and Editing										
Assign writing			■							
Write section components				■	■					
Compile 1 st draft						■				
Project team 1 st edit							■			
Any outside review input/edit							■	■	■	■
Editing iterations								■	■	■
Write summary or abstract										■

Red Text: Important to have agreement (and explicit text for problem overview) prior to proposal writing

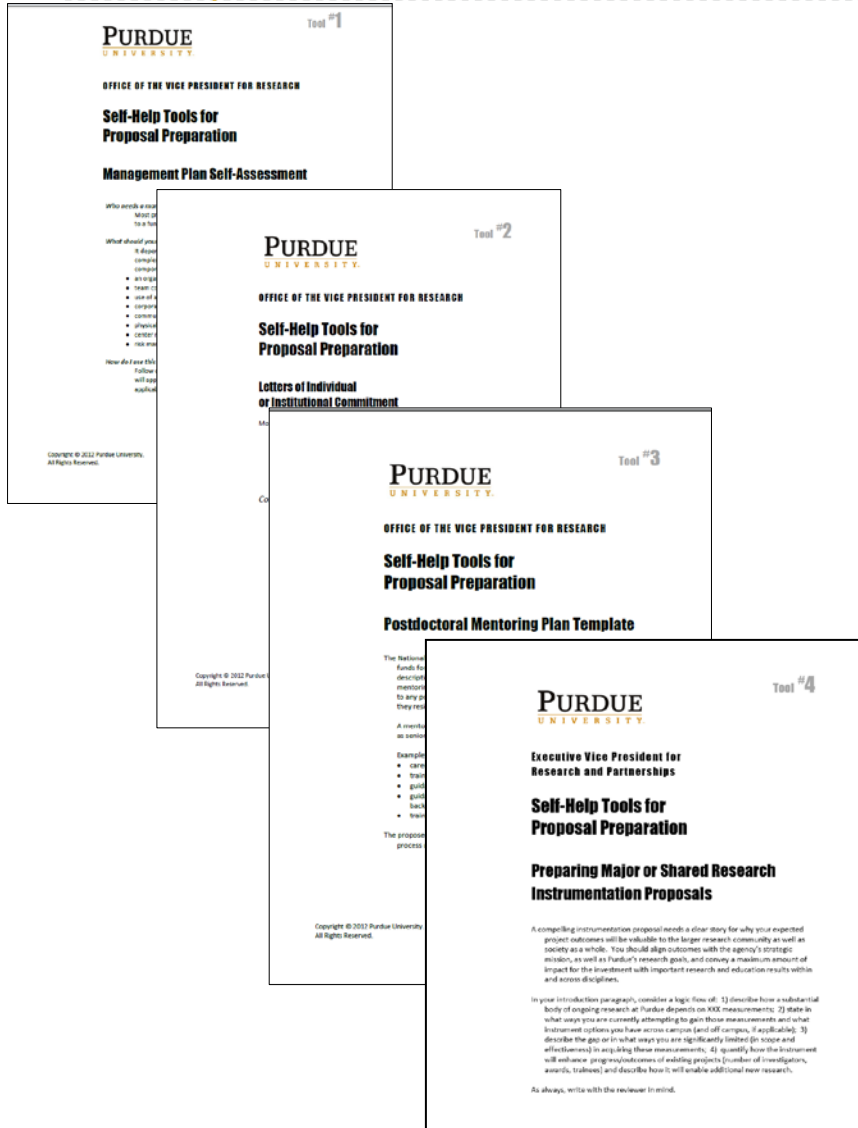
Key Online Resources

Who does what at Purdue to submit your proposal



Key Online Resources

Self-help tool series



- *Management Plan Self-Assessment*
- *Letters of Individual or Institutional Commitment*
- *Postdoctoral Mentoring Plan Template*
- *Tips for Major Research Instrumentation Proposals*

Key Online Resources

OVPR e-Pubs for searchable, citable, up-to-date institutional text

<http://docs.lib.purdue.edu/ovpr/>



The screenshot displays the Purdue University e-Pubs website. At the top, the Purdue University logo is on the left, and "e-Pubs" is prominently displayed in the center. Below the logo, navigation links for "Home", "About", "FAQ", and "My Account" are visible. The main content area features a search bar with the text "Enter search terms:" and a "Search" button. Below the search bar, there is a dropdown menu set to "in this collection" and a link for "Advanced Search". A notification option "Notify me via email or RSS" is also present. On the left side of the page, there are sections for "Links for Authors" (including "Submit Research", "Policies and Help Documentation", and "Author Addendum") and "Links" (including "Purdue Libraries" and "Purdue University Press Journals"). A "Browse" section lists "Collections", "Disciplines", and "Authors". At the bottom left, the Purdue University Libraries logo and the tagline "Access. Knowledge. Success." are displayed. The main content area on the right shows the breadcrumb "Home > OVPR" above a photograph of a fountain and a building. Below the image, the heading "OFFICE OF THE VICE PRESIDENT FOR RESEARCH" is followed by a paragraph describing the office's support for faculty research. A blue "Follow" button is located at the bottom right of this section. Below the main content, a box titled "Browse the Office of the Vice President for Research Collections:" contains two links: "University General Facility Descriptions" and "University Research Core Facility Descriptions".

Key Online Resources

OVPR e-Pubs for searchable, citable, up-to-date institutional text

The screenshot displays the Purdue University e-Pubs website. At the top, the Purdue University logo is on the left, and 'e-Pubs' is in large white text on a dark background. Below the header is a navigation menu with 'Home', 'About', 'FAQ', and 'My Account'. The main content area features a search bar with the text 'Enter search terms:' and a 'Search' button. Below the search bar is a dropdown menu labeled 'in this series' and a link for 'Advanced Search'. On the right side of the search area, there is a breadcrumb trail: 'Home > OVPR > GENDES > 2' and a 'Next >' link. A large photograph of a fountain and a building is shown. Below the photo is the title 'UNIVERSITY GENERAL FACILITY DESCRIPTIONS'. The main document title is 'Discovery Park General Facilities Description', with a 'Download' button to its right. The author information includes 'Candiss Vibbert, Purdue University' with a 'Follow' button, and 'Purdue University Office of the Vice President for Research'. Social media sharing icons for Facebook, Twitter, LinkedIn, Google+, Email, and Print are present. A 'Recommended Citation' section provides the full citation and URL: 'http://docs.lib.purdue.edu/genDES/2'. The 'Date of this Version' is listed as '2-21-2014'. On the left sidebar, there are sections for 'Links for Authors' (Policies and Help Documentation, Author Addendum), 'Links' (Purdue Libraries, Purdue University Press Journals), and 'Browse' (Collections, Disciplines, Authors). At the bottom of the sidebar is the Purdue University Libraries logo and the tagline 'Access. Knowledge. Success.'

Key Online Resources

OVPR e-Pubs for searchable, citable, up-to-date institutional text

Purdue University Purdue e-Pubs

University General Facility Descriptions

Office of the Vice President of Research

2-21-2014

Discovery Park General Facilities Description

Candiss Vibbert
Purdue University, vibbert@purdue.edu

Purdue University Office of the Vice President for Research

Follow this and additional works at: <http://docs.lib.purdue.edu/gendes>

Recommended Citation

Vibbert, Candiss and Purdue University Office of the Vice President for Research, "Discovery Park General Facilities Description (2014). *University General Facility Descriptions*. Paper 2.
<http://docs.lib.purdue.edu/gendes/2>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

Discovery Park General Facilities

INITIATED: 2001
TOTAL BUILDINGS, EQUIPMENT, ENDOWMENTS, AND RESEARCH EXPENDITURES AS OF DECEMBER 31, 2013: \$1.02 billion

Explore Purdue's unique interdisciplinary facilities, cutting-edge equipment and shared spaces for collaborative projects in areas such as life and health sciences; drug discovery and development; energy, climate change, water, the environment and food security; information technology, homeland security, and simulation of modeling new materials; nanotechnology, bionanotechnology and nanomedicine; and science, technology, engineering and mathematics (STEM) learning.

Facilities attract researchers and students from all 11 West Lafayette colleges, Purdue's regional campuses, Purdue Technology Centers throughout Indiana, Indiana University and the Indiana University School of Medicine, and countries such as South Korea, Australia, China, Russia, Uganda, Colombia, India and Azerbaijan.

Discovery Park sits on 40 acres bounded by State Street on the north, Nimitz Drive on the south, Airport Road on the west and South Martin Jischke Drive on the east. Its location fosters collaboration with researchers in the nearby Martin C. Jischke Hall of Biomedical Engineering, Ray W. Herrick Laboratories, and the Wayne T. and Mary T. Hockmeyer Hall. Additionally, the Drug Discovery Facility is located on the main campus, and the Discovery Park Partners Facility is approximately 1/4 mile west of campus.

The Lilly Endowment provided generous initial funding for the centers and programs in Discovery Park, recognizing the potential of Purdue's commitment to advancing its interdisciplinary research and translational capabilities to a new level of excellence and impact.

UNIQUE FEATURES: All facilities are shared. Highly collaborative, interdisciplinary projects are connected throughout Purdue and to Purdue Research Parks. Technology commercialization is facilitated through the Burton D. Morgan Center for Entrepreneurship, an ecosystem on campus conducive to invention and entrepreneurship from the newest undergraduate to the most senior researcher, and the University's strong partnership with the Purdue Research Park.

ECONOMIC IMPACT TO DATE

EXTERNAL SPONSORED RESEARCH: \$824.4 as of 2/1/2014
PRIVATE DONATIONS INVESTED: \$139 million
EQUIPMENT ADDED: \$34 million
LABORATORY SPACE ADDED: 147,502 sq ft.
OFFICE, MEETING SPACE ADDED: 107,299 sq ft.

Key Online Resources

Tools for understanding broader impacts

Funding Agency Requirements for Broader Impacts

While a variety of funding agencies require researchers to address **how proposed research will benefit the nation**, the National Science Foundation (NSF) has made broader impacts a significant emphasis. The *NSF Grant Proposal Guide* now requires the project summary, narrative, and the Prior NSF Support section to contain a discussion of the broader impacts accomplished:

- through the research itself,
- through the activities that are directly related to specific research projects,
- through complementary activities that are supported by the project.

The “societally relevant outcomes” valued by NSF include but are not limited to:

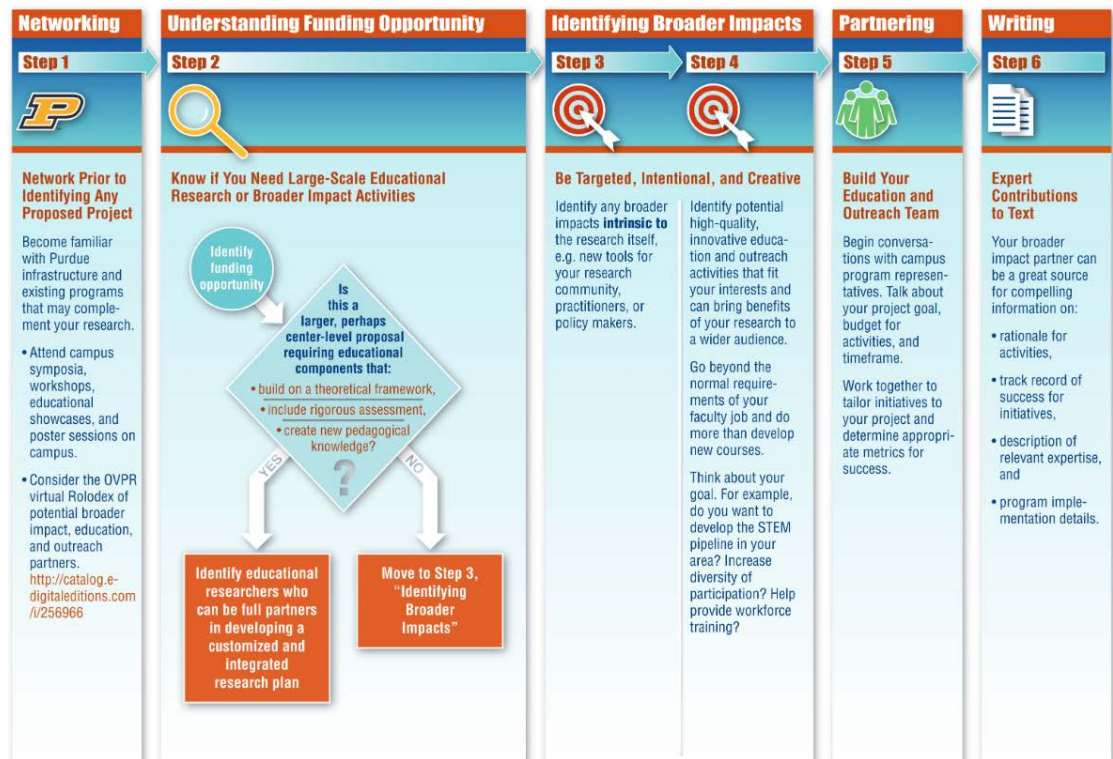
- full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM);
- improved STEM education and educator development at any level;
- increased public scientific literacy and public engagement with science and technology;
- improved well-being of individuals in society;

Two recommended reads from the Office of the Vice President for Research

- (1) *NSF Merit Review FAQs* from January 2013 http://www.nsf.gov/pubs/2013/merit_review_faqs/
- (2) *Centers for Ocean Sciences Education Excellence (COSEE)* http://www.cosee.net/files/coseenet/BI%20202_0%20FAQs

For tips on building broader impact activities into your proposal

Steps to Leveraging Campus Resources for Broader Impacts



Key Online Resources

Virtual Rolodex for broader impact partners at Purdue

<http://catalog.e-digital editions.com/i/256966>

Education and Outreach Partners at Purdue Index

CATALYST: Center for Advancing the Teaching and Learning of STEM	Purdue AgComm Traveling Exhibit
Center for Innovation through Visualization and Simulation (CIVS)	Purdue Agriculture PK-12 Council
Certificate in Entrepreneurship and Innovation Program	Purdue Alliance for Graduate Education
Computer Science K-12 Outreach	Purdue Extended Campus-Conference
Confucius Institute at Purdue (CIP)	Purdue Mathematics K-12 Outreach
Data Management Planning and Consulting	Purdue NExT
DiaGrid – a resource for research, education, training and outreach	Purdue Science K-12 Outreach
Discovery Learning Research Center	Purdue University Office of Marketing
Duke Energy Academy at Purdue (DEAP)	Purdue zipTrips
Engineering Projects in Community Service	Science Express
Entrepreneurial Leadership Academy	Studio at Purdue
Envision Center	Technical Assistance Program
Extended Campus-Distance/Online Learning	The Education Store for Purdue Extension
Fat Dogs and Coughing Horses	The Foundry
Gifted Education Resource Institute (GERI)	Veteran's Success Center
HUBzero – Platform for Scientific Collaboration	Women in Engineering Program
Indiana 4-H Youth Development Program	
Institute for Accessible Science (IAS)	
Institute for P-12 Engineering Research and Learning (INSPIRE)	
Life Science Education Signature Area	
Minority Engineering Program	

HUBzero – Platform for Scientific Collaboration

Contact Information

Michael McLennan
mmclenna@purdue.edu

Program Mission

To create web sites or “hubs” for scientific collaboration, research, and education that support science and engineering.
<http://hubzero.org/>

How Can We Partner on Your Proposal

Nearly 30 HUBzero “science gateway” web sites together have served more than 750,000 unique visitors during the past 12 months. HUBzero can partner with you to help researchers:

- generate graphical user interfaces with integrated visualization capabilities accessible on an ordinary browser
- create and publish datasets and interactive simulation tools
- develop and make accessible seminars, tutorials, teaching materials, and other supporting resources
- develop relational databases with tools for data mining

Questions?