Everything (except the science) You Need for Successful Proposals April 12, 2017

Faculty Research Development Office (FRDO)



A Unit of the UNM Office of Research



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PROPOSAL PLANNING & EDITING SUPPORT

The FRDO and the FRSO network provide a number of services highlighted below relative to proposal planning, editing, and preparation. If you would like to request this kind of support, please click the button below. The Office of the Vice President for Research also provides faculty on campus access to external review services provided by Hanover. More details concerning that resource are below.



Proposal Preparation and Editing Support

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SOLICITATION ANALYSIS 0



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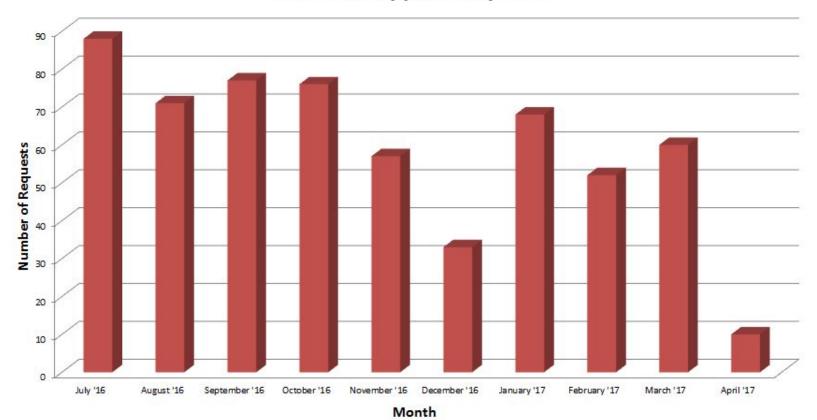
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View Full Department Faculty Research Support Contact List

FY 17 Requests Submitted to FRDO Network

Research Support Requests



Department Faculty Research Support

View Full Department Faculty Research Support Contact List

Find proposal support specific to your own department

Department Research Support Directory

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			Asc \$	10 Apply		Apply					
	Last Name	First Name	Department		Title		Email Address	Phone Number			
	Arkie	Tammy	Engineering - Mechanical Engin	eering Department	Fiscal Serv	vices Tech	tarkie@unm.edu	277-2761			
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AGENDA

Session	Participants
Introduction	Stephanie Tofighi
Education Plan	Amy Chen
Broader Impacts	Tim Schroeder
Data Management Plan	Karl Benedict & Jon Wheeler
Break	UNM Catering
Evaluation Plan Panel	Moderator – Beth Tigges Panelists – Tom Dauphinee, Elizabeth Yakes Jimenez, Ricardo Maestes, Kristen Denman
OSP Submission Process	Chris Saxton
Overview of Other Early Career Funding	Stephanie Tofighi

Steve Cabaniss

Chair of the Department of Chemistry and Chemical Biology



Yang Qin "Bottom-Up Approaches for Precisely Nanostructuring Hybrid Organic/Inorganic Multi-Component Composites"





Terefe Habteyes "Near-Field Imaging for Nanoscale Visualization of Exciton-Plasmon Energy Transfer"

CAREER Awards in **Chemistry and Chemical Biology**



Jose Manuel Cerrato Civil Engineering Sang Eon Han Chemical & Biological Engineering



Anna Skripka Mathematics & Statistics

CAREER- Chair's supporting letter

- **Introduction** Proposal title, employment status
- **Background** PhD & postdoc advisers and areas, awards, hiring
- **Research plans** 1-2 paragraphs on why they are significant
- **Role in Dept** Classroom teaching, advising, collaboration(s)
- Support Facilities available for research (UNM, elsewhere) Mentor(s)
- **Progress to date-** Research progress Teaching performance Outreach activities

CAREER Proposal Timeline

- Due DateNSF has your proposal
- **D 5 days** OSP should have your final proposal
- D 2 weeks
 Chair must have your draft proposal & cv
 Proof-reading of proposal by reader(s)
 D 3 weeks
 Chair would like your draft proposal and cv
- **D 5 weeks** Polished draft to readers
- **D 2 months** Inform your chair of required resources Rough draft to readers
- **D 6 months** Select readers to advise on proposal (Chair should know who they are)

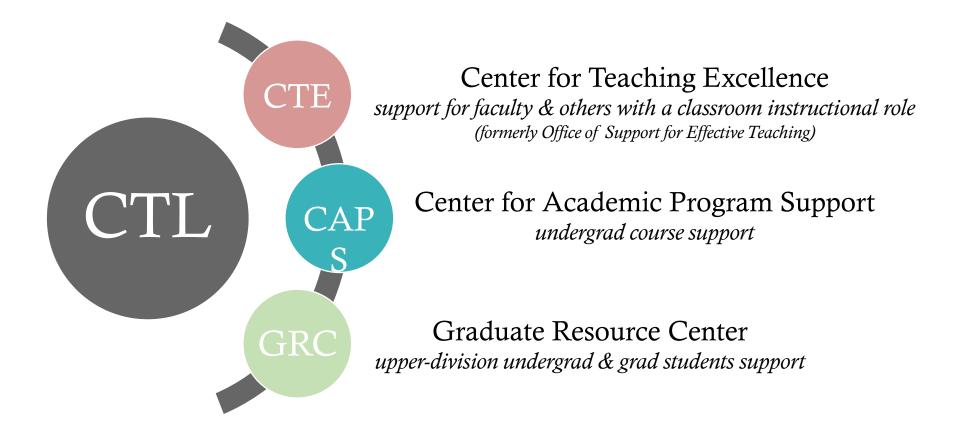
Proposal Support from CTE

Workshop: Everything (except the science) You Need for Successful Proposals FRDO & ADVANCE @ UNM April 12, 2017

Amy P. Chen, Ph.D

Associate Director Center for Teaching Excellence

UNM Center for Teaching & Learning (CTL)



CTE Core Functions & Initiatives



- Get set/Reset: *teaching tools, research support, faculty life*
- Success in the Classroom Conference
- Course Design Institute: backward design, active learning, formative & summative assessment, equity-minded teaching
- Workshops (now via remote conferencing!): metacognition, engagement/motivation, iClickers, ed policies, multiple choice tests, rubrics, discussion, scientific teaching, active learning, undergrad research in curriculum, inclusive classroom
- Teaching Fellows Program
- Graduate Teaching Academy
- Teaching Consultation: individual/departmental, peer observation

CTE Core Functions & Initiatives



With Faculty Senate Teaching Enhancement Committee:

- Teaching Awards
- Teaching Allocation Grant
- Learning Studio Classroom allocation

CTE – Others



- Grant proposals: we go after them ourselves and provide consultations to others on campus
- Course redesign/realignment efforts on campus
- High impact teaching practices
- Online/hybrid best practices
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Do you have teaching-related needs? Get in touch with us!

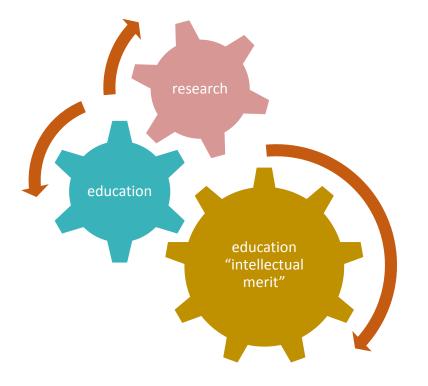
CTE Support for NSF Proposals

NSF Broader Impact Categories

- Advance discovery & understanding while promoting teaching, training, and learning ("teaching")
- Broaden participation of under-represented groups
- Enhance infrastructure for research & education
- Broaden dissemination to enhance scientific & technological understanding
- Benefits to society

CTE Support for NSF Proposals

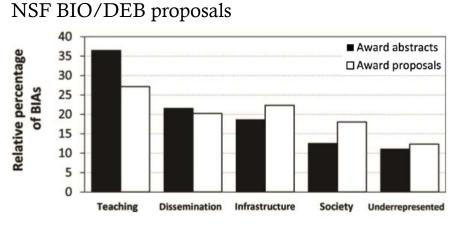
Successful NSF CAREER Education Component:



- built upon solid education "intellectual merit"
- demonstrate integration of research and education
- "outside of typical box" expected in your field

Excerpt from 2015, 2016 NSF CAREER Program Webinar

CTE can help!



Watts et al., BioScience (2015)

Iowa State University proposals

	Number of activities		Proposals with at least one activity	
Disseminating	167	36%	70	80%
Teaching	96	21%	64	74%
Training	94	21%	76	89%
Facilitating	51	11%	40	46%
Researching	50	11%	47	54%
Total	458		87	

Wiley, S. MS Thesis (2014)

NSF-wide

Table 1. Strategically selected key words representative of each BI criterion for use in the internal Research.gov search engine.

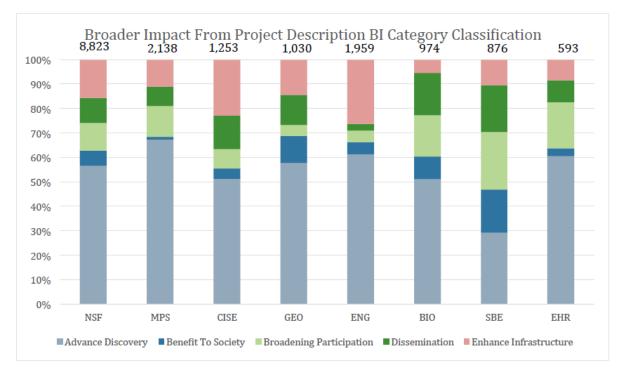
BI criteria	Search terms
Advance discovery and understanding while promoting teaching, training, and learning	"curriculum" OR "doctoral student*" OR "educational material*" OR "elementary school*" OR "GK-12" OR "GK12" OR "graduate student*" OR "high school*" OR "IGERT" OR "K-12" OR "K12" OR "K-16" OR "K16" OR "masters student*" OR "mentoring" OR "middle school*" OR "MS student*" OR "PhD student*" OR "post doc*" OR postdoc* OR "RET" OR "REU" OR "student assessment*" OR "student evaluation*" OR teacher* OR "undergraduate student*"
Broaden participation of underrepresented groups	"african american*" OR "AGEP" OR "alaska* native*" OR "blacks" OR "community college*" OR disabilit* OR female* OR "HBCU" OR hispanic* OR "HSI" OR latin* OR "LSAMP" OR minorit* OR "MSI" OR "native alaska*" OR "native american*" OR "native hawaiian*" OR "OEDG" OR "pacific islander*" OR "TCU" OR "two-year college*" OR "underrepresented group*" OR "women"
Enhance infrastructure for research and education	"collaboration" OR "education platform*" OR "equipment" OR "industry" OR "information tool*" OR "infrastructure" OR "instrumentation" OR "interdisciplinary" OR "international" OR "multidisciplinary" OR "multi-user facilit*" OR partnership* OR "partner institution*" OR "research center*" OR "research platform*"OR "technology" OR "technologies" OR "technology center*" OR "transdisciplinary"
Broad dissemination to enhance scientific and technological understanding	"blog" OR "blogs" OR "broader community" OR "broad audience*" OR "citizen science" OR database* OR "dissemination" OR "diverse media" OR "DLESE" OR "exhibits" OR "informal science education" OR "knowledge transfer" OR "libraries" OR "library" OR museum* OR "nature center*" OR "public accessibility" OR "public engagement" OR "public outreach" OR "radio show*" OR "science center*"
Benefits to society	"decision maker*" OR econom* OR "environmental management" OR "environmental policy" OR "federal agencies"~5 OR hazard* OR "local agencies"~5 OR "national interest" OR "policy analysis" OR "policy maker*" OR "policy tool*" OR "public health" OR "public participation" OR "public policy" OR "public safety" OR "public service" OR "public welfare" OR "risk assessment" OR "societal impact*" OR stakeholder* OR "state agencies"~5

Lawrence & Patino, EAR to the Ground NSF 16-013, (2015); ESWN

Table 2. Projects among Divisions within the Geosciences Directorate (GEO), and among Directorates, that mention in the project description at least one of the search-terms that describe each BI criterion. Numbers reported for each criterion are all percentages, reflecting the annual average (2007-2012) with standard deviation in parentheses. The top number is the % of awarded projects that mention the BI criteria, the middle number is the % of declined projects that mention the BI criteria, and the bottom number is the success rate (%) of projects that mention the BI criteria (i.e., the % that result in awards). * The EHR Directorate is unique in that the IM criteria use very similar terms to the BI criteria because its mission is directly concerned with education.

Bl criteria		Divi	sion		Directorate						
	EAR	AGS	OCE	PLR	BIO	CSE	ENG	GEO	MPS	SBE	EHR*
Advance discovery and	76 (2)	62 (3)	60 (3)	63 (6)	58 (4)	87 (4)	50 (3)	69 (2)	77 (5)	59 (3)	78 (1)
understanding while promoting											
teaching, training, and learning	31 (4)	42 (5)	33 (5)	39 (6)	22 (3)	24 (3)	19 (2)	34 (4)	30 (3)	23 (3)	21 (4)
Broaden participation of	41 (2)	27 (4)	31 (3)	39 (4)	50 (3)	66 (5)	41 (3)	37 (1)	52 (4)	59 (1)	71 (2)
underrepresented groups	55 (6)	40 (5)	51 (6)	52 (6)	77 (2)	71 (4)	68 (3)	51 (5)	61 (3)	69 (1)	86 (1)
	29 (5)	40 (9)	32 (6)	40 (7)	22 (2)	24 (3)	19 (2)	33 (5)	30 (3)	23 (4)	22 (4)
Enhance infrastructure for	77 (3)	65 (5)	64 (2)	70 (4)	56 (4)	95 (2)	62 (4)	72 (2)	73 (2)	75 (1)	78 (1)
research and education	93 (6)	82 (3)	89 (1)	93 (3)	88 (2)	96 (1)	96 (0)	89 (1)	86 (1)	85 (1)	97 (1)
	31 (4)	43(4)	36 (5)	40 (6)	22 (2)	25 (3)	20 (2)	35 (4)	30 (3)	23 (3)	21 (4)
Broad dissemination to enhance	56 (4)	42 (3)	46 (3)	56 (4)	49 (2)	76 (2)	39 (2)	52 (3)	46 (3)	60 (3)	74 (2)
scientific and technological	71 (7)	61 (5)	69 (4)	78 (3)	77 (3)	82 (2)	62 (2)	70 (4)	57 (3)	69 (2)	91 (2)
understanding	30 (4)	40 (6)	34 (5)	38 (8)	22 (2)	24 (3)	19 (2)	34 (4)	29 (3)	23 (3)	21 (4)
-	39 (2)	25 (2)	25 (2)	32 (5)	22 (2)	47 (5)	40 (3)	33 (2)	22 (2)	66 (2)	59 (3)
Benefits to society	51 (5)	36 (6)	37 (3)	38 (2)	35 (3)	50 (4)	59 (4)	44 (4)	29 (2)	75 (1)	73 (2)
	30 (4)	39 (6)	35 (5)	43 (8)	21 (3)	24 (3)	20 (2)	34 (4)	28 (3)	23 (3)	21 (4)
Average number of projects:	1444	705	1113	512	6552	5086	11233	3860	7906	4424	4458
(Standard deviation)	(236)	(95)	(93)	(58)	(891)	(418)	(1496)	(330)	(781)	(490)	(724)
Average success rate:	35	49	43	47	30	25	27	40	34	26	25
(Standard deviation):	(4)	(5)	(5)	(7)	(4)	(3)	(2)	(4)	(4)	(4)	(4)

Lawrence & Patino, EAR to the Ground NSF 16-013, (2015); ESWN



Suzi Lacono (Head, NSF OIA), 2016 Broader Impacts Summits

As an aside..

NSF COV comments:

"Relative weighting of IM & BI is not consistent across the section and variations in expectations of what constitute quality Bis are seen in individual reviews, panel summaries, and review analyses" [SEP] "The broader impact criterion appears to be used by reviewers more as a tie-breaker rather than a more substantial and equally weighted criterion" [CBET] "Most reviewers made an effort to report on both IM & BI. However, what constitutes BI & the relative weighting of these criteria in the review varies greatly" [PHY-A]

Recommended Actions:

- Give guidance to PDs, reviewers, and COV members
 - Describe the variability of the responses for their directorate or division
 - Add guidance for Pis for project reports regarding addressing BI
- Provide a template for review analysis
 - Assess BI in a separate section in the review analysis may facilitate more in-depth analysis

Suzi Lacono (Head, NSF OIA), 2016 Broader Impacts Summits

- CTE has (or can help you find) pedagogical resources that you need
- CTE offers/coordinate "seed grants" (competitive) for BI related to undergraduate teaching (TAG, Teaching Fellows Program)
- CTE can connect you with those working on, or interested in, similar things on/off campus

Watch for our announcements through **ALLFAC-L**, or, subscribe to **OSET-L** in list.unm.edu; e-mail us suggestions, questions, & inquiries: **cte@unm.edu**; **AmyPChen@unm.edu**

"...Broader Impact 2.0 is an opportunity for the scientific community to make its case to those who actually fund our research. The NSF is under increasing pressure to substantiate that its \$7 billion research portfolio serves the nation's needs and long-term interest. Pressing this argument is especially important, given the funding climate that the NSF - & the entire scientific & engineering community – is likely to face in the coming years." – Frodeman *et al.* 2013, BioSci Mag

Broader Impacts Resources

Examples of Broader Impacts

- Publications with undergraduate or minority student authors
- Community or workforce
 engagement
- K-12 education and outreach
- Undergraduate research
 experience
- Industry engagement
- Instances of improving societal well-being or public awareness
- Transformative discovery
- Data sharing



frdo.unm.edu/?q=unm_broader_impacts

Data Management Planning & Broader 🎵 Impacts

Jon Wheeler jwheel01@unm.edu | Karl Benedict kbene@unm.edu | rds@unm.edu



Data Management Plan

- **From the GPG:**
 - …increased public scientific literacy and public engagement with science and technology... (II.C.2.d.i)
 - The Data Management Plan will be reviewed as an integral part of the proposal, considered under Intellectual Merit or Broader Impacts or both, as appropriate for the scientific community of relevance (II.C.2.j).
- Public Engagement
 - Make data available in a timely manner, in diverse media and formats.
 - Present research in formats useful to the public, policy makers, non-scientists.

Broader Impact Statement

- Societal Benefits of Research
 - Development of an informed and scientifically literate public
 - Data driven policy decisions
 - **7** Documentation and characterization of research
- Educational & Outreach Activities that Benefit Society
 - Curriculum development and resources (learning objects)
 - **7** Integrate research with education activities
 - Workforce development

NSF EPSCoR as an Example of Planning for Maximum Broader Impacts

- **Data Management Training** for project participants
- Robust Documentation through submission, review and support for researchers
- Discovery and Access through value-added data management platform/portal (with integration with DataONE & Data.gov)
 - https://www.nmepscor.org/data_portal/browse-data
- Long-term discovery and access through UNM's Institutional Repository
 - http://digitalrepository.unm.edu/energizenm/

We're Here to Support You

- Data Management Plan Development
- IRB Protocol Data Security Plan Support
- Data management training & instruction
- Infrastructure support
- Data management, analysis, visualization, and preservation consultation

- http://libguides.unm.edu/data
- **Contact Us:**
 - Jon jwheel01@unm.edu
 - ↗ Karl kbene@unm.edu
- オ RDS@unm.edu



Thank you UNM OVPR for the coffee and cookies!

Evaluation Plan Panel

• Panelists

- Elizabeth Yakes Jimenez Research Associate Professor at Center for Education Policy Research (CEPR)
- Tom Dauphinee Associate Director of CEPR
- Ricardo Maestes Special Assistant to UNM VP for Research
- Kristine Denman Director of the New Mexico Statistical Analysis Center, Institute of Social Research (ISR)

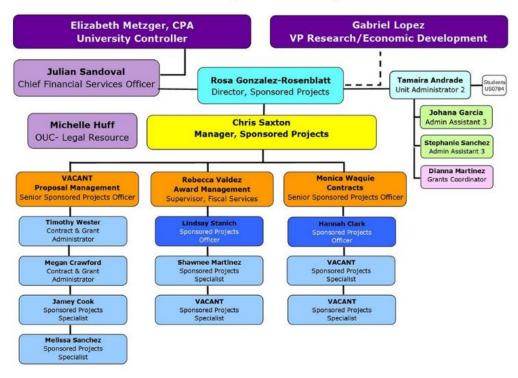
Moderator

 Beth Tigges – Associate Professor in Pediatrics, College of Nursing

University of New Mexico Office of Sponsored Projects

Chris Saxton, OSP Manager

OSP Organization Chart



Office of Sponsored Projects

OSP Org Chart

OSP Proposal Submission Process

PROPOSAL SUBMISSIONS

We make sure that the proposal is complete and aligned with the RFP, UNM policies and State and Federal regulations and laws.

Provide technical assistance on policies, procedures, laws and guidelines

Review/Approve budgets

Assist with responding to sponsor requests for additional information: JIT Information, revised budgets, etc.

WHAT ARE SOME OF THE THINGS WE REVIEW IN A PROPOSAL?

Budget accuracy and justification (Including Indirect Costs)

Conflict of Interest

Compliance

Subawards/Consultants

Intellectual Property

Limited Submissions

Principal Investigator Status

- 5 business days prior to sponsors' deadline
- PI submits draft of proposal and final non-technical documents to Cayuse SP for routing
- 5 business days prior to sponsor's deadline

2 business day

prior to sponsor's

deadline

Prior to Sponsor's

deadline

 PI releases Fastlane record or other sponsor's submission portal to OSP for review, edit, submit

 PI submits final drafts of technical documents to Cayuse SP and to sponsor's portal

• PI authorizes OSP to submit proposal to sponsor

AWARD SETUPS

The process of managing sponsored projects is a shared responsibility between the PI, the department, the Office of Sponsored Projects and Contracts & Grants Accounting. Each has unique areas of primary responsibility.

Incoming funding is reviewed for terms and conditions then processed with Contract and Grant Accounting to setup an index and other internal mechanisms.

WHAT ARE SOME OF THE THINGS WE REVIEW IN AN INCOMING AWARD?

Proposed Terms and Condition

Project Dates

Budget

Cost Share and Program Income

Billing, Invoicing and Payments

Carry Forward

CONTRACT NEGOTIATIONS

Negotiated to adhere to UNM policies and State and Federal regulations. Compliance involves everyone!

COMPLIANCE

Compliance is vast and multi faceted. Our aim is to make it an easy process for the PI's while still protecting our interests. We are the front line in protecting you by ensuring that your project is compliant with all internal and external requirements.

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PI Post-Award Responsibilities

THE EIGHT FUNDAMENTAL RESPONSIBILITIES OF THE PI DURING THE POST-AWARD PHASE INCLUDE:

- 1. Executing the project as outlined in the funded proposal, using sound management techniques
- 2. Authorizing only those expenditures that are reasonable and necessary to accomplish the project goals and are consistent with the sponsor's terms and conditions
- 3. Spending no more than the amount authorized by the sponsor for the budget period
- 4. Carrying out the project's financial plan as presented in the funded proposal, or make changes to the plan following a prescribed set of policies and procedures
- 5. Reporting project progress to the sponsor as outlined in the terms of the award
- 6. Reviewing expenditures in a timely fashion to assure their appropriateness and correctness
- Complying with all University policies and procedures related to project management and personnel practices
- 8. Complying with all applicable sponsor rules, regulations and/or terms and conditions of the award

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Early Career Funding Opportunities

Several federal and non-federal agencies offer research opportunities specifically for early career investigators including non-tenure track postdoctoral research scientists and pre-tenured academic faculty, as well as academic faculty within their first 5 or 10 years postdoctoral career depending on the program. Below, please find links to pages including specific awards solicitated from both federal and non-federal agencies.

Federal Agency Sponsors

- Department of Defense (includes all branches)
- Department of Energy
- Department of Justice
- National Aeronautics and Space Administration (NASA)
- National Institutes of Health
- National Science Foundation
- Other Federal Opportunities
- Non-Federal Agency Sponsors
 - American Parkinson Disease Association
 - American Psychological Foundation
 - Research Corporation for Science Advancement
 - Robert Wood Johnson Foundation
 - William T. Grant Foundation
 - Other Non-Federal Opportunities

http://frdo.unm.edu/?q=support_initiatives

What to do now...

- Contact your Program Manager
- Consider forming a peer review and/or finding a research mentor
- Plan your proposal time line
- Use UNM resources
 - http://frdo.unm.edu
 - <u>@UNMFRDO</u>



Try "Shut Up and Write"



- Quiet time scheduled at the ADVANCE work space in the Communications and Journalism Building
- Every other Friday starting 4/14 from 1:30-3:30
- Every other Tuesday starting 4/18 from 2:00-4:00