



Center for Excellence in Research

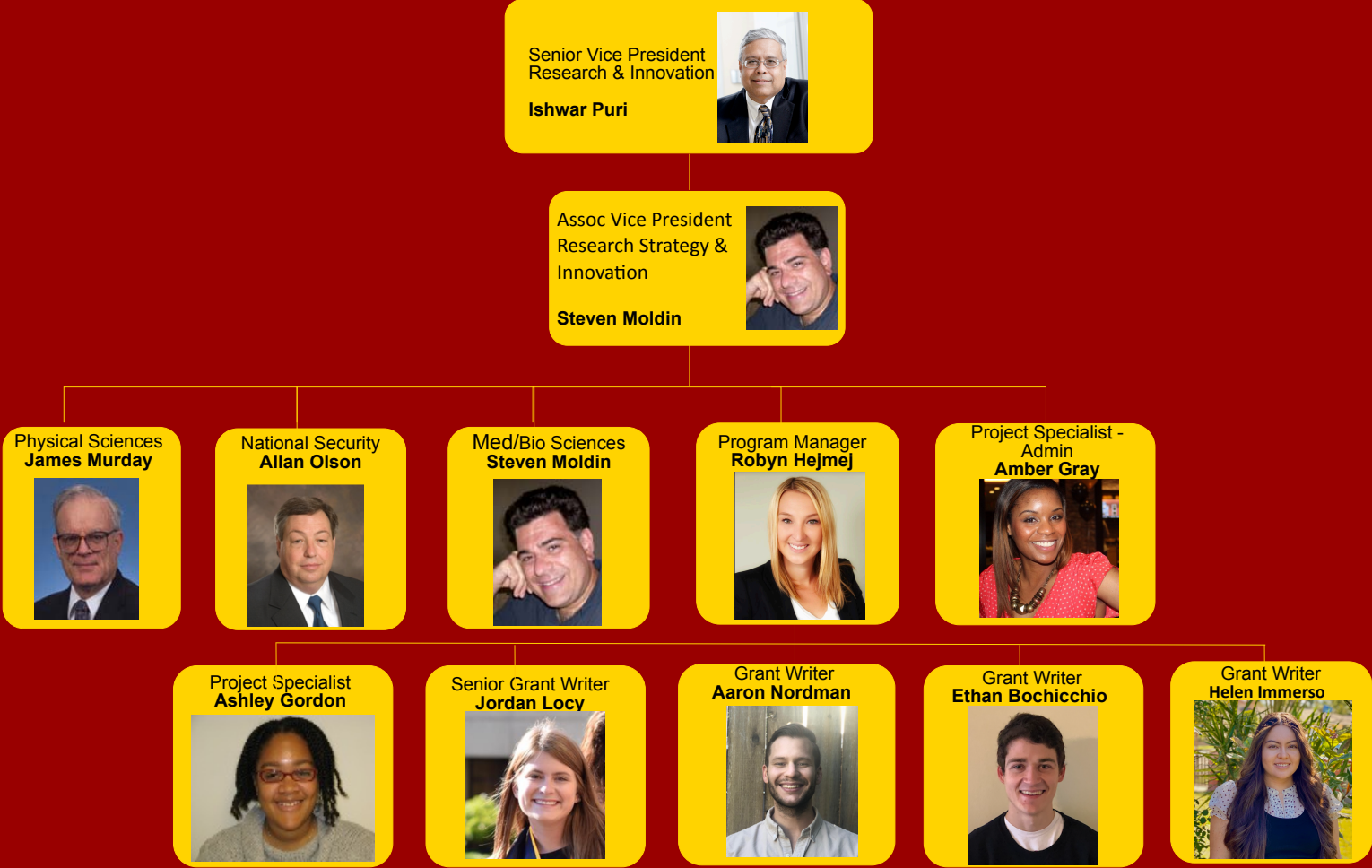
28 Feb 2024

Proposal Preparation for a Mission Agency Young Investigator/Early Career Opportunities Where to Look and How to Pitch

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40 years at NRL, ONR, DDRE - chem, phys, materials, electronics
18 years at USC

Also see <http://www.spo.berkeley.edu/fund/newfaculty.html>

Research Strategy & Development (RSD) Organization Chart



USC DC Research Advancement Office Services

Research Funding

Research initiative e-mail alerts

Collaborations across schools, other institutions

Federal funding agency advocacy

Representation at DC area events

Strategically targeted activities

Proposal preparation - editorial and scientific contributions

Repository with Mission Agency Program Summary (MAPS) resources

Federal Agency Funding Guides

Program/Program Officer database

Database with listings of prior early career/young faculty awardees

Constructive technical observations/suggestions on proposal drafts

Visibility/Prestige

(Inter)national conferences / workshops

Strategic partnerships

Advisory/planning committees

Faculty Development

Grant-preparation workshops

Arrange seminar/colloquia – staff from DC Office, federal funding agencies

Presentation Outline

How to identify pertinent Agency program officers and sell your ideas

Insights from Eli Levenson-Falk (AFOSR and ONR YIP awards)

Perspectives on various agency early career / young faculty programs

National Science Foundation (NSF)

National Institutes of Health (NIH)

1. Dept of Defense (DOD)
2. Department of Energy (DOE)
3. National Aeronautics and Space Agency (NASA)
4. Environmental Protection Agency (EPA)
5. Department of Justice (DOJ)

Other Pertinent Center of Excellence in Research (CER) Workshops

Dr. Paul Ronney

Writing Compelling NSF Proposals

Dr. Steven Moldin

How to Obtain NIH Funding

Ms. Bonnie Lund

Writing Winning Proposals; Revising Strategies for Proposal Success

Dr. James Murday

Developing a Successful Mission Agency Grant

Suggestions for Success

Have a multi-year plan for your Career - what would you like to be doing in 15 years.

Get to know the Agency Program Officer and his/her program interests - crucial in Mission Agencies

Know the Agency's review process

Participate on a proposal review panel (if available). No better way to appreciate what constitutes a credible proposal for that agency / program officer. As examples at NSF:

Are you interested in helping NSF review proposals? Many NSF programs search for volunteer reviewers. Some, like "Build and Broaden" and "Perception, Action and Cognition" invite you to fill out a survey to express your interest in volunteering. CIVIC has a sign up URL. For other programs, consult the program web page and email a program officer to see if they are recruiting reviewers.

Participate in Agency activities - workshops, annual program meetings,...

Meet with POs at Science/Engineering Professional Society Meetings

Utilize the USC Center for Research Excellence workshops on proposal development

Use your colleagues and the RSD staff to critique / guide your proposal

Program Officer (PO)

Program Officer – Program Officer – Program Officer

Know your program officer - RSD can provide data sheets with pertinent info

Program officers have variable latitude at project level (depending on agency)

(higher DOD - DOE - NASA - NIH - NSF lower)

Their reputation / professional advancement is tied in part to your success

Make contact with a Program Officer before submitting a white paper or proposal

- Be informed - read the descriptive paragraph on the website/announcement, the PO datasheet, and information on prior awards (sometimes available from DC office)
- Use email “elevator pitch” to open contact, gain attention - your unique idea and its potential impact (S&E and societal, i.e., who will care about your results)
- Be ready for a dialogue - not monologue - the goal is to align PO/PI perspectives
- Plumb his/her current interest – website paragraphs are likely dated. This can significantly enhance your prospects by tailoring your ideas to the PO’s interests
- If lukewarm/disinterested response, ask for suggestions on other POs who might be interested

Watch for new Program Officers - they will be interested in creating “their” program

Dr. Laura J. Kienker
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USC Unique Asset
Program Officer Data Sheet
Abbreviated Example

Project Officer Background:

Laura Kienker was a Research Biologist within the Counterterrorism and Forensic Science Research Unit of the FBI Laboratory, where she managed outsourced research projects pertaining to automating the forensic analysis of biological evidence. Prior to joining the FBI, Dr. Kienker directed a Sequencing and Microarray Core Facility for the Center for Immunology at the University of Texas Southwestern Medical Center in Dallas, where she was an Assistant Instructor in the Department of Internal Medicine.

Education

BA in Biology and Chemistry from Oberlin College
PhD in Immunology from the University of Pennsylvania

Program:

Stress Response

Discover the factors that predict differences in stress reactivity among individuals and subsequently explore the biological mechanisms of stress vulnerability and stress resilience for prevention and effective treatment of stress-related disorders.

Biomaterials and Bionanotechnology

The Office of Naval Research (ONR) Biomaterials and Bionanotechnology Program supports fundamental research that enables the generation of novel, Navy relevant, nano-scale materials and devices.

Illustrative Publications Reflecting Project Officer Research Interests:

Both V(D)J recombination and radio resistance require DNA-PK kinase activity, though minimal levels suffice for V(D)J recombination

Kienker LJ; Shin EK; Meek K

Nucleic Acids Research 28(14), 2752-2761 JUL 15 2000

What to Say - and Not Say - to Program Officers

“most scholars and researchers would rather
undergo a root canal without anesthesia
than call a program officer”

Shalts

1. Do your homework
2. Send short email first, summarizing issue(s)
 - Be as specific as possible
 - Concentrate on big picture, especially outcomes
 - Why should they be excited by your proposed work (and its outcomes)
Ask for PO to call you (with your available dates/times) or
to email you back with suggestions on when to contact him/her
3. When in doubt, ask

Shalt Nots

1. Do not call at the office “just to chat”
2. Do not cold call
3. **Do not pester - but be persistent**

Anecdotes on Competing for DOD YIP Funding

Thursday, April 29, 2010 Web posting

The problem is with getting your foot in the door. For NSF, you can submit an idea - your idea with whatever application you like. But for DoD, you need to bounce ideas off of the program manager to find what fits into their program. If you've got a great idea but it doesn't fit in with the goals of DoD, then it won't get funded. So in other words, **communicating with a program director prior to submission is critical.**

Now for the YIP. **I am exceedingly frustrated with the way program managers in DoD uniformly ignore young investigators** - even those inquiring about YIP. You can call, email, send in unsolicited white papers, and there is a brick wall of silence. It's not just me. Mr. JP has the brick wall. Colleagues get the brick wall. So then, I ask, who is getting these YIPs? I talked with one colleague who is a star, and he gets the brick wall from other military branches. With this particular YIP that he got, someone actually wrote back. Other advice is to arrange appointments with the PMs when you are in DC. That's a great idea, and I would love for that to happen. But my emails and calls saying, "Hey, I'm in your neck of the woods, let's talk," get ignored.

Comments contributed to the above posting:

1. I got the ARO young investigator. **Like you, most of the people I called or emailed ignored me.** I repeatedly called or emailed until I got one or two on the phone, but they were not terribly interested. Eventually, I found a program manager who I had met before at a conference. When I called him, he remembered seeing my talk, was very friendly, and was interested in my applying for the YIP. Don't worry, keep persisting. Use any connection you can find -- ask your postdoc advisor and grad school advisor who they are funded by and if they can send an email introducing you. For DARPA, I believe it is less dependent on the program manager as all applications are handled by one person, rather than different applications going to the PM closest to that field. PS: DARPA PM's are not supposed to talk to you about the YIP in particular. I got a very cold brush-off when I tried it. This is different from the usual modus operandi for seed grants and other DARPA funding. ONR, ARO and AFOSR PM's will in principle talk to you if you can get a hold of them.
2. To get any of the DOD young investigator awards, you must make a connection with the PM. They have to *want* to fund you as part of their program, as these awards are usually partly YIP funds partly PM's program's funds. You ought to go to Washington and talk to the PM in person, email white papers, etc., and cultivate a relationship, otherwise it's a no go. A good way is to be introduced to a PM by a senior well funded colleague. Then you start emailing the PM and try to deepen the relationship. It takes time but is worth it. **I don't think any of them are particularly easy to get a hold of, though, so don't take it personally if they don't answer email or voicemail.**

How to pitch an idea

Prepare three versions of your pitch: 5 seconds, 30 seconds, and 5 minutes.

The **5-sec version (AKA elevator pitch)** is a concise single-sentence formulation of your idea.

DISCOVERING DNA: I am working to explain how human cells reproduce.

INVENTING LIGHTBULBS: I am making light from electricity.

IMPROVING ANTILOCK BRAKE ALGORITHMS: I am making cars safer to drive.

The **30-sec version (AKA extended elevator pitch)** has the time to talk about how you will achieve what you described, or provide specifics for the most significant things people will want to know

The **5-min version** starts with your 5 sec pitch, then provides the next level of detail, and, finally, provides a point-by-point detailing of how you will achieve what you described in the first sentence.

Test the pitch Find smart, honest people who will give you feedback.

If given the opportunity
Presentation to a sponsor

- **Address the Heilmeier questions-but in the context of the Agency**
- Stay on time.
- Dress appropriately.
- Be well-rehearsed.
- Prepare to be interrupted and asked what you think may be obvious questions.
- Listen to the input from your audience, and do not argue with, or talk down to, any of the attendees.
- Keep control.
- **EXUDE POSITIVE ENERGY, ENTHUSIASM, AND VISION**

Successful proposals convince the sponsor that:

- The research is very important
- It is directly related to the sponsoring Agency mission, and to the sponsor's solicitation
- The proposal methodology is both feasible and appropriate
- The proposers will deliver valuable results
- It is well worth the investment



What Makes a Strong Proposal?

- New and original ideas (**what?**)
- Sound, succinct, detailed focused plan (**how?**)
- Preliminary data and/or feasibility calculations
- Relevant experience (**why me/us?**)
- Important & timely within field (**why now?**)
- Clarity concerning future direction (**so what?**)
- Well-articulated broader impacts specific to **this** project




The Heilmeyer Catechism

Questions New Program Pitches Must Answer



- **What are you trying to do? Articulate your objectives using absolutely no jargon**
 - Example: "take anthrax off the table as a threat to our forces"
 - What is the new military capability that Semantic Web Services could provide?
- **How is it done today, and what are the limits of current practice?**
 - Why is this specifically a technology problem?
- **What's new in your approach and why do you think it will be successful?**
 - All software is Turing-equivalent, so software methodology is usually not relevant
 - What is your argument/analysis that a 10x difference in a technology will result in a new capability?
- **Who cares? If you are successful, what difference will it make?**
 - Who is the customer for the new idea, and what evidence do you have that any transition will be successful?
- **What are the risks and the payoffs?**
- **How much will it cost? How long will it take?**
- **What are the midterm and final exams to check for success?**
 - Metrics and experimentation plans defined up front

DARPA Illustration for White Paper / Elevator Pitch Ingredients



Topic/project/effort description
Performer Name (Seedling, SBIR, Congressional, etc)

[PROJECT-NAME] ACHIEVEMENT

STATUS QUO

What is the state of the art and what are its limitations?
(DELETE THIS BOX OF TEXT AND INSERT DIAGRAM(S))

Primary answer here. Add more text as necessary.

- First bullet.
- Additional as necessary.

NEW INSIGHTS

What are the key new insights?
(REPLACETHIS BOX AND INSERT DIAGRAM(S))

First key insight. Add more text as necessary.
Second key insight. Add more text as necessary.

- Add other points as necessary.

MAIN ACHIEVEMENT:

- Placeholder explanatory text. Replace with text and diagrams as necessary.

HOW IT WORKS:

- Placeholder explanatory text paragraph. Replace with text and diagrams as necessary.

ASSUMPTIONS AND LIMITATIONS:

- Limitation or assumption.
- Another limitation or assumption.

QUANTITATIVE IMPACT

CHARACTERIZE THE QUANTITATIVE IMPACT
(DELETE THIS BOX OF TEXT AND INSERT TABLE, GRAPH, OR OTHER SUITABLE VISUALIZATION)

First item planned. Add more text as necessary.
Second item planned. Add more text as necessary.

- Add other points as necessary.

END-OF-PHASE GOAL

What are the end-of-phase goals?
(REPLACE WITH DIAGRAM/TEXT/THRESHOLD CRITERIA)

Primary answer here. Add more text as necessary.

- First key point.
- Additional as necessary.

Budget: FY?? - \$???,???

Transition Partners:

A Sentence Why It Is Important/Useful

H or A **PM Name/DOB**

Keys to a Compelling Proposal

adapted from

George Hazelrigg, NSF Program Officer

Paul Ronney, USC AME, Active Researcher and Reviewer

S. Joseph Levine, Michigan State, Emeritus Professor

Hazelrigg

Know the program you are engaging
Pay attention to program requirements
Know the review process

Frame your project around others work

Formulate an appropriate objective
State your research objective clearly
Develop a viable research plan

Know Yourself

Format and brevity are important
Grammar and spelling count

Proofread your proposal before it is sent
Submit on time and
confirm its correct transmission

Ronney

What has been done / its deficiencies

At least one really novel, clever idea

Don't say "just trust me"

Pose specific, testable hypotheses

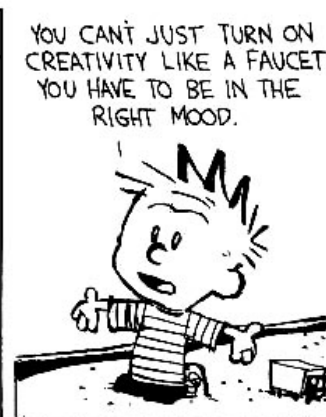
Avoid kitchen sink mentality - what is key

Where's the beef

Explain your end game - outcome(s)

Appropriate experience/resources - but
don't dwell on your past work

A picture is worth a thousand words



Levine

How extend prior work

Needs an original idea

Strong rationale

Focused Proposal

Problem must be important

Well defined outcomes

PI has pertinent experience

Clear Writing

Honing your Proposal Writing Skills

Adapted from
George Hazelrigg, NSF Engineering

- A. **A clear, crisp statement of your research objective will not only help you write a better research approach section in your proposal, it will, by itself, raise your rating. Put your research objective right up top in your proposal**

I know of only four ways to state a research objective.

1. "The research objective of this proposal is to test the hypothesis H."
2. "The research objective of this proposal is to measure parameter P with accuracy A."
3. "The research objective of this proposal is to prove the conjecture C."
4. "The research objective of this proposal is to apply method M from disciplinary area D to solve problem P in disciplinary area E." This research integrates knowledge from one disciplinary area into another. To do this often involves the resolution of inconsistencies across the disciplines.

The very statement of your research objective should lead you directly to your methodology. If it does not, you don't have a clear statement of research objective.

- B. **Typical problems with proposals** include:

5. **Failure to follow submission guidelines**-NSF, for example, will return without review proposals that do not follow guidelines published in their Grant Proposal Guide. If you're going to take a month or two of your life to write a proposal, I strongly advise that you take an hour to read the GPG. If you are submitting to another agency, read their proposal guidelines carefully.
6. **Use of small fonts and illegible materials**-It makes no sense whatever to submit a proposal in a format that cannot be read. As many as half the proposals received at NSF include totally illegible materials, particularly figures and tables, where fonts have been compressed to micron sized grey blobs. I strongly recommend only approved 12-point fonts and nothing smaller, including tables and figures. Smaller only aggravates the reviewers. Use smaller fonts only if you want a lower rating.
7. **Misspellings and poor grammar** are commonplace - I find that about one in thirty proposals (give or take) has a misspelling in the title. This is a degree of sloppiness that does not impress reviewers. Bad grammar simply makes the proposal difficult to read. NSF (and most other Federal agencies) do not use grammar as a review criterion, but I'm here to tell you that it counts. It really doesn't matter how good your idea is if the reviewers can't understand it.

These things are so obvious that you may be wondering why I bother to note them. Well, **I note them because upwards of two-thirds of the proposals I see have substantial problems in at least one of these three areas.**

Proposal Development NSF Vice Mission Agencies

NSF (excluding TIP)

- 1a. Interest in most S&E
most proposals will “fit somewhere”
- 1b. Knowledge inspired
more funding in science than in engineering
- 1c. Basic monies only
- 1d. Impact on S&E knowledge
addressing national/Intl priorities useful
2. **Additional requirements** for:
broadening participation, DEI
data management
outreach/education
wider-scale Impact, International
post doc nurturing
3. **Program officer triage for rule compliance**
4. Review by panel
except for EAGER, RAPID

Mission Agency - Basic Research

- Interest restricted to S&E pertinent to mission need
the proposal must interest the program officer
- Use inspired (agency mission)
likely more funding in engineering than in science
- Basic, but applied monies may be also available
(applied tends to have milestones and deadlines)
- Impact on S&E knowledge and
addressing agency mission priorities essential
- Perform the promised research**
DEI now included by many Federal Agencies
data management
- Program officer triage on basis of content / interest**
- Review by program officer with possible input from others

TIP
I/UCRC
GOALI
I-CORP
SBIR/STTR

Directorate for Technology, Innovation and Partnerships, includes
Industry University Cooperative Research Program
Grant Opportunities for Academic Liaison with Industry
Innovation Corp
Small Business Innovative Research / Small Business Technology Transfer

EAGER
RAPID

Early Concept Grants for Exploratory Research
Rapid Response Research Grants

Generic Advice about PO / PI Interaction

Program Officers

One of their functions is to represent YOUR work;
They may not have time to think deeply about the specific details of your concepts (because they are busy defending your resources)

Help them with their requests to you

Provide good slides, prompt reporting

Don't chew up their time with silly things

Everyone prefers to work with people they trust (& respect),
so keep up the good work, and the professional relationships

A Perspective from a successful USC Faculty

Dr. Eli Levenson-Falk

Assistant Professor of Physics and Astronomy & Electrical and Computer Engineering

2021 ONR YIP

2018 AFOSR YIP



Where to Look for YIP/Early Career Programs

National Science Foundation

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214

National Institutes of Health

<https://researchtraining.nih.gov/career/early-career>
<https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/ECR>

Department of Defense (DOD)

ONR YIP <https://www.nre.navy.mil/education-outreach/sponsored-research/yip>
AFOSR YIP <https://community.apan.org/wg/afosr/w/researchareas/12792/young-investigator-program-yip/>
ARO Early Career <https://cftste.experience.crmforce.mil/arlex/s/arlex-opportunities>
DARPA Young Faculty <https://www.darpa.mil/work-with-us/for-universities/young-faculty-award>
CDMRP Early Investigator

Department of Energy (DOE)

Early Career <https://science.osti.gov/early-career>

Nuclear Regulatory Commission (NRC)

Faculty Development Grant <https://www.nrc.gov/about-nrc/grants.html>

National Aeronautics and Space Administration (NASA)

SMD Early Career Opportunities
AD Nancy Roman Fellowship
<https://science.nasa.gov/researchers/sara/fellowship-programs/nancy-grace-roman-technology-fellowships-astrophysics-early-career-researchers>
Space Technology Research Grants Program, Early Career Faculty
https://www.nasa.gov/directorates/spacetech/strg/archives_stro.html

Environmental Protection Agency (EPA)

<https://www.epa.gov/research-grants/research-funding-opportunities>

Department of Education (ED)

Early Career Development and Mentoring https://ies.ed.gov/funding/ncser_rfas/ncser_training.asp

Department of Justice - National Institute of Justice

Young Investigator/Early Career included in many solicitations

Where to Look for YIP/Early Career Programs

NSF and NIH

National Science Foundation (NSF) - Paul Ronney CER presentation for NSF

- CAREER <https://beta.nsf.gov/funding/opportunities/faculty-early-career-development-program-career>
- Engineering CAREER Proposal Workshop
<https://beta.nsf.gov/events/2023-nsf-engineering-career-proposal-workshop>
- CISE CAREER Workshop <https://www.nsf.gov/cise/workshops/career/>
- CBET Mock Panel <https://www.nsf.gov/eng/cbet/multimedia/webinar.jsp>
- Chem Division Early Career Investigator Workshop
<https://www.nsfcareerworkshop.com/>
- MPS Ascend Faculty Catalyst Awards
<https://new.nsf.gov/funding/opportunities/mathematical-physical-sciences-ascending-faculty>

National Inst of Health (NIH) - Steve Moldin CER presentation for NIH

- New and Early Stage Investigator http://grants.nih.gov/grants/new_investigators/index.htm
- Career Development Award <https://researchtraining.nih.gov/career/early-career>
- Director Early Independence Award <https://commonfund.nih.gov/earlyindependence>

Presidential Early Career Award Science and Engineering (PECASE)

http://en.wikipedia.org/wiki/Presidential_Early_Career_Award_for_Scientists_and_Engineers

Who:

- Nominations **only by participating Federal Agencies** including:
Dept of Agriculture, Dept of Commerce, Dept of Defense, Dept of Education, Dept of Energy, Dept of Health and Human Services / National Inst of Health, Dept of Interior, Dept of Veterans Affairs, Environmental Protection Agency, National Aeronautics and Space Agency, and National Science Foundation
- Nominees must hold tenure-track positions at U.S. Univ. or College or at Agency intramural laboratories
- Must be U.S. citizen, national or permanent resident
- Some agencies require less than 5 years from highest degree
- Typically each agency nominates candidates from its own young investigator/early career awardees and/or from its intramural laboratories

What:

White House award to recognize some of the finest scientists and engineers who, while early in their research careers, show exceptional potential for leadership at the frontiers of scientific knowledge during the twenty-first century.

How Much: ~\$200K/yr for five years (cost borne by nominating agency)

When: Submitted in October by Agencies
Last awards were in 2019

USC Awardees:

2012	Mo El-Naggar	AFOSR	
2009	Andrea Armani	ONR	
	Michelle Povinelli	ARO	
2007	Li Zhang	NIH	
2004	Elaine Chew	NSF	
2003	Cyrus Shahabi	NSF	23

Guide to **Defense/Security** Funding - Index to MAPS Charts

Chart #s	Topic
1 - 2	Contents
3 - 22	Overview Perspectives, including suggestions on working with DOD Program Officers
23 - 38	By Academic Disciplines
39 - 45	Air Force Office of Scientific Research (AFOSR)
46 - 54	Army Research Office (ARO)
55	Army Corp of Engineers
56 - 59	Army Medical Research and Materials Command (AMRMC)
60	Army Research Institute for Behavioral and Social Science (ARI)
61 - 74	Office of Naval Research (ONR)
75 - 76	Naval Post-Graduate School (NPSG)
77 - 109	Defense Advanced Research Projects Agency (DARPA)
110 - 113	Defense Threat Reduction Agency (DTRA)
114	High Performance Computing
115	MINERVA (social science)
116 - 119	University Research Initiative (URI, including MURI, DURIP, NDSEG)
120 - 122	Defense Medical Research and Development Program (DMRDP)
123 - 130	Congressionally Directed Medical Research Program (CDMRP)
131	US Department of Veterans Affairs
132	University Affiliated Research Centers
133 - 139	Young Investigator / Early Career
140 - 141	Vannevar Bush Faculty Fellow (was NSSEFF)
142	DOD I-Corps
143	Defense Sciences Study Group (DSSG)
144	STEM Education - SMART

DOD Young Investigator/Young Faculty Programs

Who: Outstanding new faculty members at institutions of higher education, to support their defense related research, and to encourage their teaching and research careers

Army, Air Force (AF), Navy must be US citizen / permanent resident

Army/AF/Navy - received PhD or equivalent degree within a specified timeframe (~5-8 years)

DARPA – tenure track assistant/associate professors/tenured faculty within 3 yrs of tenure date

Army, Navy require tenure track positions; DARPA tenure track or equivalent at non-profits

What: **Topics must conform with program officer interests / DARPA announces specific topics**

How Much:

Army - not to exceed \$120K/yr for three years

Air Force - \$150K/yr for three years

Navy - up to \$170K/yr for three years, possibility of additional support for capital equipment or collaborative research with a Navy laboratory

DARPA - up to \$250K/yr for up to two years (with possible \$500K for third year)

When: “Anytime” for Army

2 May 2023 for the Air Force FY24 competition (AFOSR BAA 2023-0011)

1 Jul 2022 for Naval FY23 competition (ONR N00014-23-S-F007)

30 Nov 2022 for the DARPA FY23 competition (DARPA RA-23-01)

Where: See BAAs on websites (identified in subsequent charts)

Listing of prior Army, AF, Navy, DARPA awardee information available from DC Office for FY07-FY24

ONR/AFOSR YIP Selection Process

Financial incentive to PO

AFOSR	full funding by Institutional account
ONR	half funding by institutional account
ARO	no funding by institutional account

PO prioritizes proposals submitted to him/her

That data is submitted up the organization chain of command

Each level winnows:

- to select those with the more promising impact,
- to reflect the organization priorities, and
- to balance awards throughout the organization

Army Early Career Award

Who: This targeted opportunity is open to U.S. citizens, U.S. Nationals, or Lawful Permanent Residents of the U.S. who have held a tenure-track position at a U.S. institution of higher education for fewer than five years at the time of application. Faculty at an institution of higher education which does not designate a faculty appointment as "tenure track" are eligible if that fact is so indicated in the proposal, and the supporting letter from the institute states that the faculty member submitting the proposal will be considered for a permanent appointment.

What: Attract to Army research outstanding young university faculty members, to support their research, and to encourage their teaching and research careers.

Strongly encourage informal discussions with the cognizant Army Research Office (ARO) technical program manager before submission of a formal proposal.

A supporting letter from the applicant's Department Chairperson, Dean, or other official who speaks for the university regarding support for and commitment to the applicant. Strong university support for the applicant is essential. This support can include the applicant's 9-month academic salary, release time from administrative responsibilities, the purchase of equipment, support for the applicant's graduate students, waiver of indirect costs, departmental cost sharing, start-up funding, and so on.

How Much: YIP awards not to exceed \$120K per year for three years

When: Proposals may be submitted at any time.

Where: DEVCOM Army Research Laboratory Broad Agency Announcement for foundational research

Army no longer announcing YIPs publicly

USC Awardees			
2018	Han Wang		EE
2012	Fei Sha		CS
2009	Michelle Povinelli		EE

AF Young Investigator Award (YIP)

Who: The individual award will be made to a U.S. institution of higher education, industrial laboratory, or non-profit research organization where the principal investigator is employed on a full-time basis and holds a regular position.

The principal investigator must be a U.S. citizen, national, or permanent resident who has received a Ph.D. or equivalent degrees in the last seven years (on or after 1 Apr 2015 for the FY23 competition).

What: foster creative basic research in science and engineering, enhance early career development of outstanding young investigators, and increase opportunities for the young investigators to recognize Air Force mission and the related challenges in science and engineering.

Proposals addressing the research areas of interest for the Air Force Research Laboratory will be considered. The basic research areas of current interest are available on-line at the AFOSR web site: <https://www.afrl.af.mil/AFOSR/>

How Much: The estimated value of each award is approximately \$150K per year for three years.

When: proposal due 14 Aug 2023 for FY24 competition

Where: Air Force Fiscal Year 2024 YIP AFRL-AFOSR-BAA-2023-0011 (released May 2023)

FY 2024 48 awards out of 159 proposals
FY 2023 58 awards out of 175 proposals
FY 2022 36 awards out of 175 proposals
FY 2021 36 awards out of 215 proposals
FY 2020 40 awards out of 220 proposals
FY 2019 31 awards out of 290 proposals
FY 2018 45 awards out of 280 proposals
FY 2017 58 awards out of 230 proposals
FY 2016 56 awards out of 265 proposals
FY 2015 57 awards out of 200+ proposals

USC Awardees

2024	Andres Gomez Escobar	ISE
2022	Maisam Razaviyayn	ISE
2020	Constantine Sideris	EE
2019	Eli Levenson-Falk	Phy
2018	Qiming Wang	CEE
	Mahdi Soltanolkotabi	EE
2017	Mitul Luhar	AME
2016	Rehan Kapadia	EE
2014	John Carlsson	ISE
2013	Jahan Dawlaty	Chem

Naval Young Investigator Program (YIP)

<https://www.onr.navy.mil/en/Education-Outreach/Sponsored-Research/YIP>

Who: Principal Investigator of a proposal must be a U.S. citizen, national, or permanent resident (on the date proposals are due), in their first or second full-time tenure-track or tenure-track-equivalent academic appointment and for FY2023 have begun their first appointment on or after 01 Jan 2015

What: The objectives of this program are to attract outstanding faculty members of Institutions of Higher Education to the Department of the Navy's research program, to support their research, and to encourage their teaching and research careers.

Applications should contact a Program Officer, who is the point-of-contact for a specific technical area, to discuss their research ideas. Brief informal pre-proposals may be submitted to facilitate these discussions. Application will likely need a long CV with all evidence of leadership as opposed to the typical short biosketch, i.e. organizing conferences, other grants, etc... Also letters of support from dean and chair.

How Much: Proposals may request up to \$170K per year for up to three (3) years. These funds may be budgeted against any reasonable costs related to the conduct of the proposed research, for example, salary for the Young Investigator, graduate student support, supplies, and operating expenses.

When: proposal due 7 Jul 2023 for the FY24 competition (Solicitation released 29 Mar 2023)

Where: Fiscal Year 2024 ONR Young Investigator Program, N00014-23-S-F004

	<u>USC Awardees</u>		
FY24 - 29 awards out of 220 proposals	2024	Hangbo Zhao	AME
FY23 - 25 awards out of 170 proposals	2023	Constantine Sideris	ECE
FY22 - 32 awards out of 220 proposals	2021	Rehan Kapadia	ECE
FY21 - 37 awards out of 260 proposals		Eli Levenson-Falk	Physics
FY20 - 26 awards out of 280 proposals		Qiming Wang	CEE
FY18 - 31 awards out of 340 proposals	2019	Maryam Shanechi	ECE
FY17 - 33 awards out of 360 proposals	2018	Hao Li	Computer Sci
FY16 - 47 awards out of 260 proposals			
FY15 - 36 awards out of 383 proposals			

Defense Advanced Projects Agency (DARPA) Young Faculty Award

<https://www.darpa.mil/work-with-us/for-universities/young-faculty-award>

Who: Participation is limited to untenured Assistant or Associate Professors within 3 years of appointment to a tenure-track position at a U.S. institution of higher learning. Or Tenured faculty within 3 years of tenure date. Or an equivalent at a non-profit research institution within 12 years of the receipt of their Ph.D. DARPA is particularly interested in identifying outstanding researchers who have previously *not been performers on DARPA programs, but the program is open to all qualified applicants with innovative research ideas*. There is no prohibition against a non-U.S. citizen/a Permanent Resident/or a Green Card/etc. from submitting a proposal for consideration; nor is it a requirement of the RA that the submitter be eligible to obtain a U.S. security clearance.

What: The YFA program will provide high-impact funding to those faculty early in their careers in order to develop their research ideas in the context of Defense needs. **The announcement contains detailed descriptions of the specific interest areas to be addressed.** Proposed research should focus on innovations that will enable revolutionary advances; high-risk/high-payoff ideas are strongly encouraged. Proposers should familiarize themselves with and address the Heilmeyer Catechism.

Topic POCs are unable to accommodate any meetings/calls; you may send questions to YFA2024@darpa.mil

How much: Two years of funding at \$250K each year. Of an entire YFA class, a few of the most promising recipients may be selected for a third year supported by \$500K each in funding.

When: Exec Summaries due 13 Dec 2023; Proposals due 22 Feb 2024 for the FY24 competition (Solicitation released Nov 2023)

Where: Research Announcement Young Faculty Award, DARPA-RA-24-01

FY23 30 awards
FY22 27 awards
FY21 32 awards
FY20 30 awards
FY19 31 awards
FY18 35 awards

USC Awardees

2020	Quntao Zhuang	ECE
2020	Pierluigi Nuzzo	ECE
2017	Paul Bogdan	EE
2016	Emilio Ferrara	ISI/CSE
	James Boedicker	PHY

Congressionally Directed Research Medical Programs (CDMRP)

Career Development Awards

Historical Record for Career Development Awards:

Peer Reviewed Cancer (PRCRP)	2017 - 2012
Defense Medical (DMRDP)	2017 - 2016
Lung Cancer (LCRP)	2016 - 2015
Peer Reviewed Orthopedic (PRORP)	2010
Ovarian Cancer (OCRP)	2009, 2008
Prostate Cancer (PCRP)	2009, 2008
Neurofibritosis (NFRP)	2002
Breast Cancer (BCRP)	2001, 2000

Career Development Award - an example - Peer Reviewed Cancer Research Program (PRCRP)

Principal Investigator: Independent investigator at the level of Assistant Professor or equivalent at the time of the award

- Research with emphasis in discovery must be in one or more of the FY12 PRCRP Topic Areas
- Supports investigator in the early stages of their career (within 5 years for first faculty appointment)
- Preliminary data not required
- Clinical trials will not be supported
- Maximum funding for the entire period of performance is \$240,000 for direct costs (plus indirect costs)
- Maximum period of performance is 2 years

Congressionally Directed Research Medical Programs (CDMRP)

New Investigator Award - Early Career

Historical Record for New Investigator Awards - Early Career:

Gulf War Illness (GWIRP)

2016 - 2006

New Investigator Award - Early Career - an example - Gulf War Illness Research Program

Principal Investigator:

Transitioning Postdoctoral Fellow: Senior postdoctoral fellows who have completed at least 3 years of postdoctoral training.

Early-Career Investigator: Independent investigators within 5 years since their last training position.

New GWI Researcher: Established independent investigators who have received less than \$300,000 in federally funded, non-mentored GWI research funding.)

New Investigator Award applications must include preliminary data is not required

- Maximum funding for the entire period of performance is \$500,000 for direct costs (plus indirect costs)
- Maximum period of performance is 3 years

Defense Sciences Study Group (DSSG)

DARPA/IDA <https://dssg.ida.org/>

Who:

- Faculty member in science, engineering, or related discipline, preferably within 15 years of PhD
- Outstanding academic accomplishments and likely future leader
- Must be a U.S. citizen able to acquire a security clearance

What: The Defense Science Study Group (DSSG) seeks to develop and maintain strong links between the national security community and emerging leaders in the fields of science and technology. The DSSG identifies the nation's most outstanding scientists and engineers early in their careers, educates them on national security issues, and fosters their long-term interest and involvement in the national security community. Over the course of the two-year program (approximately 20 days/year), those invited to participate focus on defense policy, related research and development, and the systems, missions, and operations of the armed forces. Over the course of 8 sessions, spread out over the two years, members interact with top-level officials from the Defense Department, as well as senior officials of other government organizations such as the Department of Energy, various intelligence agencies, and Congress. The program has also produced over 200 national defense-related research projects. The DSSG is sponsored by DARPA and administered by the Institute for Defense Analysis (IDA).

How Much: covers expenses

When: Nominations for DSSG 2026-2027 will be accepted through Dec 2024.

Where: Forward your resume or CV and a letter of recommendation from your Provost, Dean or Defense Science Study Group Member, Mentor, Alumni or Advisor, through the following mail or email address:

Institute for Defense Analyses
ATTN: DSSG Nominations
4850 Mark Center Drive
Alexandria, VA 22311-1882
Email: dssg@ida.org

USC Awardees:

2018-19 Michelle Povinelli	EE
2010-11 John Heidemann	ISI

Guide to **Dept of Energy** Funding - Index to MAPS Charts

Chart #s	Topic
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5 - 24	Basic Research - Office of Science (SC)
5 - 10	SC Overview
11 - 12	Advanced Computing for Scientific Research
13 - 16	Basic Energy Sciences
17 - 18	Biological and Environmental Research
19 - 20	Fusion Energy Science
21 - 22	High Energy Physics
23 - 24	Nuclear Physics
25 - 38	Applied Research - Office of Energy
26 - 28	Electricity
29 - 33	Energy Efficiency and Renewable Energy
34 - 36	Fossil
37 - 38	Nuclear
39 - 43	ARPA-E
44 - 46	National Nuclear Security Administration (NNSA)

DOE Office of Science
Early Career Research Program

<https://science.osti.gov/early-career>

Who:

- Principal Investigators are within 10 years of receiving a Ph.D. from year of solicitation, and are either untenured assistant on the tenure track, or untenured associate professors on the tenure track at a U.S. academic institution.
- No limit on U.S. citizenship
- A PI may not participate in more than three Office of Science Early Career Program competitions

What: The purpose of this program is to support the development of individual research programs of outstanding scientists early in their careers and to stimulate research careers in the areas supported by the DOE Office of Science. Letters of recommendation are not allowed. A department chair letter is not required and should not be included.

The Early Career Research Program supports efforts in the following program areas: Advanced Scientific Computing Research (ASCR); Biological and Environmental Research (BER); Basic Energy Sciences (BES), Fusion Energy Sciences (FES); High Energy Physics (HEP), and Nuclear Physics (NP). Details in the program announcement. **The specific topics are not identical to the DOE generic research announcement.**

How Much: The average award size is \$875K for five years for universities. The university award is intended to pay up to three months' summer salary for the Principal Investigator (PI) to supplement the normal, academic-year salary.

When: Preapplication (white paper, required) 30 Jan 2024 for FY2024 competition

Where: DE-FOA-0003176 for most recent announcement for FY2024

		<u>USC Awardees</u>	
FY 2023	93 (60 Univ)	2023	Kandis Abdul-Aziz CEE
FY 2022	83 (56 Univ)	approximately 600 proposals	
FY 2021	83 (51 Univ)		
FY 2020	76 (50 Univ)		
FY 2019	73 (46 Univ)		
FY 2018	84 (54 Univ)		

Guide to **NASA** Research: Index to MAPS Funding Charts

Chart #s	Topic
2 - 3	NASA Overview
4 - 15	Science Mission Directorate
7 - 14	Divisions, including ROSES Research Announcement
15	Salmon Research Announcement
16 - 20	Aeronautics Research Mission Directorate
21 - 23	Human Exploration and Operations Systems Mission Directorate
24 - 27	Space Technology Mission Directorate
28	Office of the Chief Technologist
29	NASA Centers

NASA Science Mission Directorate
Earth Sciences Division
Early Career Investigator

Who: Tenure or non-tenure track University position; U.S. citizen or have lawful status of permanent residency (i.e., holder of a U.S. Permanent Resident Card, also referred to as the Green Card). He/she must be a recent Ph.D. recipient, defined as having graduated on or after January 1 of the year that is no more than six years before the issuance date of the ROSES NRA.

What: The Early Career Investigator Program in Earth science is designed to support outstanding scientific research and career development of scientists and engineers at the early stage of their professional careers. The program welcomes innovative research initiatives and seeks to cultivate diverse scientific leadership in Earth system science.

The Earth Science Division (ESD) places particular emphasis on the investigators' ability to promote and increase the use of space-based remote sensing, the integration of space-based remote sensing data with other datasets (e.g., surface, air) and into models, and the delivery of actionable Earth science — making Earth science data more usable and impactful for the benefit of humanity.

How Much: Awards range between \$80-\$90K per year for a period of up to three years.

When: Competed in three year cycle - last solicited in ROSES - 2023

Where: NRA: Research Opportunities in Space and Earth Sciences (ROSES) - 2024 NNH24ZDA001N
Topic A39

NASA Science Mission Directorate

Heliophysics Division

Early Career Investigator Program

Who: Tenure track or non-tenure track position; less than 10 years beyond the receipt of PhD

What: The Heliophysics Division wants to identify early career researchers who have the potential to develop new scientific ideas and effectively pursue and promote them and lead the community in new directions. To achieve that goal, (both Step-1 and Step-2) proposals to this program element include an extra component not described in Table 1 of ROSES or the Guidebook: a statement of the potential of the PI for scientific leadership. Scientific leadership includes both direct research contributions and service to the Heliophysics community.

How Much: average award \$125-175K/yr for up to 4 years

When: NOI 18 Sep 2024 Proposal 3 Dec 2024

Where: NRA: Research Opportunities in Space and Earth Sciences (ROSES) - 2024 NNH24ZDA001N Topic B14

NASA Science Mission Directorate
Planetary Science Division
Early Career Fellowship Program

Who: The Early Career Fellowship (ECF) program was established to support the development of individual research programs of outstanding scientists early in their careers and to stimulate research careers in the areas supported by the Planetary Sciences Division. PhD within 10 calendar years of the proposal submission.

What: The proposal must contain information about the eligible parent ROSES award that is the basis of the ECA proposal.

How Much: one time, \$200K

When: 5 Dec 2024

Where: NRA: Research Opportunities in Space and Earth Sciences (ROSES) - 2024 NNH24ZDA001N Topic C18

NASA Science Mission Directorate
Astrophysics Division

Nancy Roman Grace Technology Fellowships for Early Career Researchers

Who: Outstanding early career researchers, including postdoctoral researchers, nontenured faculty members, term civil servants, and employees who intend to develop careers involving innovation and technology development for space astrophysics. PhD year no more than 8 years before issuance date of ROSES NRA. Be a US citizen or permanent resident.

What: This program consists of two components with two different submission procedures. The first component is the one-page application from an early career individual to be named a Roman Technology Fellow (RTF). The second component is the subsequent submission of a proposal for up to \$300K in Fellowship Funds by a previously selected RTF once that individual obtains a permanent or permanent-track position, in order to start a laboratory or develop a research group at the Fellow's institution

How Much: up to \$300K

When: see ROSES solicitation

Where: NRA: Research Opportunities in Space and Earth Sciences (ROSES) - 2024 NNH24ZDA001N Topic D8

NASA STMD

Space Technology Research Opportunities for Early Career Faculty (STRO-ECF)

<https://www.nasa.gov/early-career-faculty-ecf/>

Who: The PI must be an untenured Assistant Professor on the tenure track at the sponsoring U.S. university at the time of award. The PI must be a U.S. citizen or have lawful status of permanent residency (i.e., holder of a U.S. Permanent Resident Card, also referred to as a Green Card)

What: Areas closely aligned with NASA's Space Technology Roadmaps. These priorities include extending and sustaining human activities beyond low Earth orbit, exploring the evolution of the solar system and potential for life elsewhere, and expanding our understanding of Earth and the universe. TRL1-2 at beginning of effort. Prior awardees available at https://www.nasa.gov/directorates/spacetech/strg/archives_stro.html

How Much: \$200K per year for up to three years

When: The ECF Appendix is expected to be released at least biannually and will feature specific topics.

Where: Solicitation 80HQTR23NOA01-23ECF-B1 (FY2023) All proposals must be submitted electronically through NSPIRES or through Grants.gov (www.grants.gov).

Environmental Protection Agency Early Career Awards

<https://www.epa.gov/research-grants/research-funding-opportunities>

Who: PIs with outstanding promise at the Assistant Professor or equivalent level. Principal investigators from applicant institutions applying for the early career portion of the Request for Applications (RFA) must meet the following additional eligibility requirements:

1. Hold a doctoral degree in a field related to the research being solicited by the closing date of the RFA;
2. Be untenured at the closing date of the RFA;
3. By the award date, be employed in a tenure-track position (or tenure-track-equivalent position) as an assistant professor (or equivalent title) at an institution in the U.S., its territories, or possessions.

What: EPA supports leading edge extramural research in exposure, effects, risk assessment, and risk management through competitions for STAR grants and fellowships. Specific topics for early career awards are announced, with recent examples:

- EPA-G2022-STAR-F2 Early Career - Drivers and Environmental Impacts of Energy Transitions in Underserved Communities

How Much: Up to a total of \$320K for early career awards, including direct and indirect costs, with a maximum duration of three years.

When: See the specific RFA - **this opportunity has not been in recent announcements**

Where: <https://www.epa.gov/research-grants>

DOJ NIJ
New Investigator / Early Career
included as part of many solicitations

What: NIJ is interested in supporting researchers who are early in their careers and new to NIJ's research grant portfolios, specifically non-tenured assistant professors, or equivalent full-time staff scientist positions in a research institution, who propose research on topics relevant to NIJ's Office of Research and Evaluation (ORE) and/or Office of Science and Technology (OST). To that end, NIJ may, in appropriate circumstances, give special consideration in award decisions to applications proposing such researchers as principal investigators (PIs).

To qualify, the proposed PI must at the time of application submission:

- Hold a non-tenured assistant professor appointment at an accredited institution of higher education in the United States or an equivalent full-time staff scientist position at a research institution; and
- Have completed a terminal degree or post-graduate clinical training within the ten (10) years prior to the solicitation, and
- Have never previously received NIJ funding as a PI on a research project with the exception of Graduate Research Fellows or Data Resources Program grantees.

Office of Research Strategy and Development

Assets Available for Assistance

Guides to FY2024 Federal Agency Research Funding

Ask for those Guides you think will be pertinent to your research interests

DOD - Defense	Air Force, Army, Army Res. Inst., Navy, DARPA, CDBP, USACE, NPS, USAFA, USMA, CDMRP
DOE - Energy	Office of Science, EERE, FECM, NE, OE, NNSA, ARPA-E
DOJ - Justice	NIJ, BJA, BJS, OJJDP, OVC, NIC
DOT - Transportation	OST-R, FHWA, FAA, NHTSA, FTA, FRA
DHS - Security	Science and Technology Directorate
ED - Education	IES, OSERS, OESE, OPE
EPA - Environment	ORD
HHS - Health	ACL, ACR, CDC, AHRQ, FDA, HRSA, CMS, BARDA, ARPA-H
NASA - Space	SMD, ARMD, SOMD, ESDMD, STMD
NIST - Standards	
NOAA - Ocean/Atmos	OAR, NOS, NMFS, NESDIS, NWS, OMAO
USDA - Agriculture	NIFA, ARS, FS

Timely Access to new Opportunities

DC Office of Research Strategy and Development

E-mail Alerts

Grants.gov

http://www.grants.gov/applicants/email_subscription.jsp

SAM.gov

<https://sam.gov/>

Environmental Protection Agency (EPA)

<http://epa.gov/ncer/listserv/>

NASA's Office of Space Science Research Announcements

<https://science.nasa.gov/about-us/email-updates>

NIH Guide to Grants and Contracts

<http://grants1.nih.gov/grants/guide/listserv.htm>

National Science Foundation (NSF)

<https://public.govdelivery.com/accounts/USNSF/subscriber/new?qsp=823>

National Institute for Standards and Technology (NIST)

<https://service.govdelivery.com/accounts/USNIST/subscriber/new>

ED Institute for Educational Sciences

<http://ies.ed.gov/newsflash/>

National Institute of Justice (NIJ)

<http://nij.gov/funding/Pages/welcome.aspx>

Grant Forward

<https://www.grantforward.com>

Grant Forward, by Cazoodle, is a database of grants where users can search for funding opportunities (federal-, state-, foundation- and institution-sponsored research) across all fields, including the sciences, humanities, and arts. Free (i.e., prepaid) to all USC employees. Creating an account is a simple two-step process – just follow the instructions on the *New User Quick Guide*

Funding Opportunity Search

- Search for funding opportunities spread across 39 subject areas and 2009 categories
- Large Database of Sponsors comprising Foundation, Federal and Institutions
- Set up alerts and get opportunities delivered straight to your inbox

Researcher Profiles

- Infers researcher's interests from publication pages and other sources to identify funding opportunities that match
- Each funding opportunity is matched to researchers based on research interests and career stage

Agency Sites Providing Information on Previously Funded Awards

CDC	http://wwwn.cdc.gov/fundingprofiles/fundingprofilesria/
DOD	https://dodgrantawards.dtic.mil/grants/
DOE SC	https://pamspublic.science.energy.gov/WebPAMSEExternal/interface/awards/AwardSearchExternal.aspx
ED IES	http://ies.ed.gov/funding/grantsearch/index.asp
EPA	http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/recipients.welcome/displayOption/grants
NIH	http://report.nih.gov/
NIJ	http://nij.gov/funding/awards/Pages/welcome.aspx
NIST	the various program websites generally have a list of prior awardees for that program
NSF	http://www.nsf.gov/awardsearch/
NEA	http://arts.gov/grants/recent-grants
NEH	the various program websites have a list of prior awardees for that program
NRC	http://www.nrc.gov/about-nrc/grants/awards/index.html

Website Providing Searchable Information on Federal Grants/Contracts

<http://usaspending.gov/>

(but does not identify the funding agency program officer or the institutional awardee PI)

Resources for Proposal Writing

(available from Res Adv or at shown URL)

NSF CAREER

CAREER Proposal Writing

CAREER Proposal Writing Tips

Writing a Successful CAREER Proposal

Hazelrigg, NSF

Pei

Vigeant, Univ Hartford

Other

USC Research Advancement

<https://research.usc.edu/training/>

A Tips for Authoring Grant Proposals

Hill, Univ Wisc-Madison

Tips on Writing a Competitive Grant Proposal

Clary, Western SARE

Writing a good grant Proposal

Jones, Microsoft

Guide for Writing a Funding Proposal

Levine, Mich State Univ.

Obtaining Federal Funding

Wardle, NSF

NSF Guide for Proposal Writing

NSF 04-016

The R&D Proposal

Yoder, Office of Naval Research

Demystifying DoD Research Funding

Palmer, Army Research Office

NASA Writing Research Proposals

Hertz, NASA Headquarters

NIH Writing your application

http://grants.nih.gov/grants/writing_application.htm

EPA Writing a Competitive Proposal

<https://www.epa.gov/ports-initiative/tips-successful-grant-application>

USC Center for Excellence in Research Workshops

Developing Funded Research Proposals

Randy Hall

Writing Compelling NSF Proposals

Paul Ronney

Developing NIH Grant Applications

Steve Moldin

Obtaining DOD Medical Research Funding

Carl Castro

Writing Persuasive Proposals

Bonnie Lund

Postdoctoral Fellowships

Selected Opportunities - some continuing, others ephemeral

Science.gov
Grant Forward

<http://www.science.gov/internships/graduate.html>
<https://www.grantforward.com/index>

DOD/EPA/FHWA/NIST laboratories

NRC Research Associateship Program

<http://sites.nationalacademies.org/pga/rap/>
<http://nrc58.nas.edu/RAPLab10/Opportunity/Programs.aspx>

ASEE
ORAU

<http://www.asee.org/fellowship-programs/post-doctoral>
<http://www.orau.org/arlpstdocfellowship/>

Intel Community

Postdoctoral Fellows Res Program

<http://www.icpostdoc.org/>

NASA

<http://nasa.orau.org/postdoc/>

New (Early Career) Investigator Program in Earth Science - ROSES 2015 A-35

Fellowships for Early Career Researchers - ROSES 2015 C-16

Nancy Grace Roman Technology Fellowships in Astrophysics for Early Career Researchers - ROSES 2015 D-9

National Space Biomedical Research Institute Fellowships - <http://www.nsbri.org/firstaward/>

NSF

http://www.nsf.gov/funding/education.jsp?fund_type=3

Arctic Research Opportunities

Atmospheric and Geospace Sciences Postdoctoral Research Fellowships

Centers of Research Excellence in S&T (CREST) and HBCU Research Infrastructure for S&E (RISE)

Documenting Endangered Species

GeoPrisms Program

International Research Fellowship Program

Law and Social Sciences

Mathematical Sciences Postdoctoral Research Fellowships

NSF Astronomy and Astrophysics Postdoctoral Fellowships

NSF Earth Sciences Postdoctoral Fellowships

NSF Fellowships for Transformative Computational Science using CyberInfrastructure

Pan-American Advanced Studies Institutes Program

Postdoctoral Research Fellowships in Biology

SBE Postdoctoral Research Fellowships

ASEE/NSF Corporate Postdoctoral Fellowship for Engineers

USDA NIFA

AFRI Education and Literacy Initiative

<http://nifa.usda.gov/program/afri-education-and-literacy-initiative>

USC DC Research Advancement Office

Services

Research Funding

- Research initiative alerts
- Collaborations across schools, other institutions
- Federal funding agency advocacy / connections / intel
- Surrogate representation at DC area events
- Strategically targeted activities
- Proposal preparation - biosketch, letters of support, editorial, budget, and scientific
- Mission Agency Program Summary (MAPS) resources
- Program/Program Officer database
- Observations/Suggestions on proposal drafts

Visibility/Prestige

- (Inter)national conferences / workshops
- Strategic partnerships
- Advisory/planning committees

Faculty Development

- Grant-writing courses
- Talks – staff from DC Office, federal funding agencies
- Faculty recruitment

Proposal: Budget/Presentation

Robyn Gill - manager	rob yngil@usc.edu
Ashley Gordon - specialist	ashleygo@usc.edu
Aaron Nordman - writer	anordman@usc.edu
Ethan Bochicchio - writer	ebochicc@usc.edu
Jordan Locy - Senior writer	locy@usc.edu

Technical

Steve Moldin - biology, medical, bit of everything	moldin@usc.edu
Jim Murday - physical sciences/engineering	murday@usc.edu
Al Olson - cyber and intelligence	alolson@usc.edu