

AS&E YOUNG INVESTIGATOR OPPORTUNITIES 2019-2020

These programs are intended for late postdoctoral investigators and new faculty, usually those at or below the rank of Assistant Professor. Consult each program's web page for more detailed information and current deadlines.

*Additional foundation, non-federal funding sortable by young investigator status can be found at:
<http://www.rochester.edu/fellowships/>

NATIONAL SCIENCE FOUNDATION

Faculty Early Career Development (CAREER) Program

URL: <https://www.nsf.gov/pubs/2017/nsf17537/nsf17537.pdf>

FAQS: <https://www.nsf.gov/pubs/2017/nsf17050/nsf17050.pdf>

Most recent webinar (May 9, 2019): https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214

Deadlines: 2019 NSF CAREER

July 17, 2019 - BIO, CISE, EHR

July 18, 2019 - ENG

July 19, 2019 - GEO, MPS, SBE

Eligibility: A Principal Investigator (PI) may submit only one CAREER proposal per annual competition. In addition, a PI may not participate in more than three CAREER competitions. Proposals that are not reviewed (i.e., are withdrawn before review or are returned without review) do not count toward the three-competition limit. Eligibility for Funding (must meet all the following requirements):

- Hold a doctoral degree by the deadline date in a field supported by NSF;
- Be untenured until October 1 following the deadline; and
- Have not previously received a CAREER award (prior or concurrent Federal support for other types of awards or for non-duplicative research does not preclude eligibility);

AND by October 1st following the deadline for submission of CAREER proposals:

Be employed in a tenure-track (or tenure-track-equivalent) position as an assistant professor (or equivalent title) at an accredited institution located in the U.S., its territories, or possessions, or the Commonwealth of Puerto Rico that awards degrees in a field supported by NSF; **OR** be employed in a tenure-track position (or tenure-track-equivalent position) as an assistant professor (or equivalent title) at an organization located in the U.S., its territories or possessions, or the Commonwealth of Puerto Rico, that is a non-profit, non-degree-granting organization such as a museum, observatory, or research lab.

Funding: minimum CAREER award size is \$400,000 for a five-year period for all directorates with the exception for Directorate for Biological Sciences (BIO), the Directorate for Engineering (ENG), or the Office of Polar Programs (OPP) are expected to total a minimum of \$500,000 for the 5-year duration.

Synopsis: This program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards for faculty members beginning their independent careers. The intent of the program is to provide stable support at a sufficient level and duration to enable awardees to develop careers as outstanding researchers and educators who effectively integrate teaching, learning and discovery. NSF encourages submission of CAREER proposals from eligible junior faculty at all CAREER-eligible organizations, especially women, members of underrepresented minority groups, and persons with disabilities.

Computer & Information Science & Engineering (CISE) Research Initiation Initiative (CRII) 19-579

URL: <https://www.nsf.gov/pubs/2019/nsf19579/nsf19579.pdf>

Deadline: August 14, 2019

Eligibility: (Webinar to be held June 12, 2019, go to https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504952 to view when posted)

ALL of the following criteria must be met at the time of submission. The PI should:

- Hold a primary appointment in a *computer science, information science, or electrical or computing engineering department, or in a related field of computational science* (where the PI would normally submit proposals to CISE programs); and
- Be untenured; and be in the first three years of a tenure-track or research science or education position (or equivalent).
- Only official leaves of absence (for illness, family, etc.) may be subtracted from the total time in the position, as certified by the PI's department chair/head in the required letter of support, to be included in the Supplementary Documents section of the proposal.
- In addition, at the time of the award, the PI may not have received any other grants in the PI role from any institution or agency (see solicitation for exceptions). Serving as co-PI, Senior Personnel, Post-doctoral Fellow, or other Fellow does not count against this eligibility rule.

Funding: Up to \$175,000 for up to 24 months. No summer salary, course buyouts, or academic year salary costs are allowed. Most of the funds should go to student(s).

Synopsis: With the goal of encouraging research independence immediately upon obtaining one's first academic position after receipt of the PhD, the Directorate for Computer and Information Science and Engineering (CISE) will award grants to initiate the course of one's independent research. Understanding the critical role of establishing that independence early in one's career, it is expected that funds will be used to support untenured faculty or research scientists (or equivalent) in their first two years in an academic position after the PhD. It is expected that these funds will allow the new CISE Research Initiation Initiative PI to support one or more graduate students for up to two years.

2019 Alan T. Waterman Award

URL: <http://www.nsf.gov/od/waterman/waterman.jsp>

Deadline: Nominations for the 2020 award will open in August 2020. October 20, 2019, anticipated deadline. Two awards made nationally in 2019.

Eligibility: Candidates must be US citizens or permanent residents, 40 years of age or younger **OR** not more than ten years beyond receipt of their Ph.D. degree by December 31 of the year in which they are nominated.

Funding: \$1,000,000 over a five-year period.

Synopsis: Eligible faculty are typically recommended by their department chair. Nomination packages consist of a nomination and four letters of reference submitted via FastLane. This award recognizes outstanding young researchers in any field of science or engineering supported by the NSF. In addition to a medal, the awardee receives a grant of \$1,000,000 over a five-year period for scientific research or advanced study. Criteria include originality, innovation, and significant impact on the field for independent research. The names of four references are required for each nomination. The references cannot come from the nominee's home institution. References must be requested by the nominator and submitted by the established FastLane deadline.

DEPARTMENT OF ENERGY

Early Career Research Program (DE-FOA-0002019), issued in early January

URL: <http://science.energy.gov/early-career/>

Deadline: February 6, 2019 - Pre-applications/pre-proposals (required); April 29, 2019 - Selected full applications

Eligibility: Principal Investigator must be an untenured Assistant Professor on the tenure track or an untenured Associate Professor on the tenure track at a U.S. academic institution as of the deadline for the application. PI means the scientist or other individual designated by the recipient institution to direct the project. PI must be employed in the eligible position as of the closing date for this FOA. No more than ten (10) years can have passed between the year the PI's Ph.D. was awarded and the year that the FOA was issued. **There is NOT a U.S. citizenship requirement for the Principal Investigator or any project participants (a change in 2019).**

Funding: Typical award size will be \$750,000 over five years.

Synopsis: The funding opportunity for researchers in universities and DOE national laboratories. The Early Career Research Program, now in its fifth year, supports the development of individual research programs of outstanding scientists early in their careers and stimulates research careers in the disciplines supported by the DOE Office of Science. Early Career Research Program opportunities exist in the following SC research programs: I. Advanced Scientific Computing Research (ASCR); II. Biological and Environmental Research (BER); III. Basic Energy Sciences (BES), IV. Fusion Energy Sciences (FES); V. High Energy Physics (HEP), and VI. Nuclear Physics (NP). Specific topics and program managers are listed. In 2018, 84 early career awards were made.

DEPARTMENT OF DEFENSE

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

Young Faculty Award (YFA)

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

CFDA: DARPA-RA-18-02

Deadline: (posted August 9 in 2018): Executive Summary September 10, 2018 (strongly encouraged) October 2, 2018; Full Proposal November 13, 2018,

Eligibility: Participation in the YFA program is limited to any current tenure-track Assistant or Associate Professors and to tenured Assistant or Associate Professors within three (3) years of their tenure appointment at a U.S. institution of higher education or equivalent at a U.S. non-profit science and technology research institutions. Proposals may not be from foreign organizations.

Funding: Each award will include a 24-month base period (a maximum of \$500,000) and a 12-month option period (a maximum of \$500,000).

Synopsis: The YFA program provides funding, mentoring, and industry and DoD contacts to awardees early in their careers so they may develop their research ideas in the context of DoD needs. Solicits groundbreaking single-investigator proposals from junior faculty for research and development in the areas

of Physical Sciences, Engineering, Mathematics, Medicine, Biology, Information and Social Sciences of interest to DARPA's Defense Sciences Office (DSO), and Microsystems Technology Office (MTO). In 2018, 35 awards were made nationally.

OFFICE OF NAVAL RESEARCH

FY2019 Office of Naval Research Young Investigator Program

URL: <http://www.onr.navy.mil/science-technology/directorates/office-research-discovery-invention/sponsored-research/yip.aspx>

CFDA: 12.300, Solicitation: N00014-18-S-F009

Deadline: **August 31, 2018**

Description: ONR's Young Investigator Program (YIP) seeks to identify and support academic scientists and engineers who are in their first or second full-time tenure-track or tenure-track-equivalent academic appointment and for FY2014, have begun their first appointment on or after November 1, 2008, and who show exceptional promise for doing creative research. The objectives of this program are to attract outstanding faculty members of Institutions of Higher Education (hereafter also called "universities") to the Department of the Navy's research program, to support their research, and to encourage their teaching and research careers. This program aligns to Science and Technology (S&T) Department section of ONR's website at www.onr.navy.mil, topics of which are of interest to ONR Program Officers and Division Directors.

Eligibility (changes made in 2018): The PI must be a U.S. citizen, national or permanent resident (on the date proposals are due), holding a first or second full-time tenure-track or tenure-track-equivalent faculty position at that university, and has received his/her doctorate or equivalent degree on or after 01 January 2011. The term "national" of the United States includes a native resident of a possession of the United States, such as American Samoa.

Funding: up to \$500,000 for 24-months with an option for up to \$250,000 for an additional 12-months.

Synopsis: The objectives of this program are to attract outstanding faculty members of Institutions of Higher Education (hereafter also called "universities") to the Department of the Navy's research program, to support their research, and to encourage their teaching and research careers. Tie to Science and Technology (S&T) Department section of ONR's website at www.onr.navy.mil, which are of interest to ONR Program Officers and Division Directors will be considered. DOD will accept any proposals that address research areas outlined in ONR's broad research portfolio that are of interest to ONR program managers. A complete list of topics of interest to each of ONR's six departments – Expeditionary Maneuver Warfare and Combating Terrorism (Code 30); Command, Control Communications, Computers, Intelligence, Surveillance, and Reconnaissance (Code 31); Ocean Battlespace Sensing (Code 32); Sea Warfare and Weapons (Code 33); Warfighter Performance (Code 34); and Naval Air Warfare and Weapons (Code 35) – is available on ONR's science and technology homepage located at <http://www.onr.navy.mil/Science-Technology/Departments.aspx>. Information on ONR's research focus areas can be found at <http://www.onr.navy.mil/Science-Technology/Departments.aspx>. A list of ONR Program Managers is available at <https://www.onr.navy.mil/our-research/our-program-managers>. The ONR Young Investigator Program is highly competitive with typically less than 10 percent of applicants receiving awards. In 2018 more than 340 proposals were submitted resulting in 32 awards. A proposal not selected for the Young Investigator Program may still be considered for an ONR grant award.

ARMY RESEARCH OFFICE

Young Investigator Program (YIP)

URL: [https://www.arl.army.mil/www/pages/8/W911NF-17-S-0002-ARO-Core-BAA-Amendment-04-\(Final\).pdf](https://www.arl.army.mil/www/pages/8/W911NF-17-S-0002-ARO-Core-BAA-Amendment-04-(Final).pdf)

Open BAA: W911NF-17-S-0002-04

Deadline: Proposals may be submitted at any time. Falls under the core ARL BAA for Basic and Applied Scientific Research for Fiscal Years 2017 through 2022

Eligibility: Open to U.S. citizens, nationals, and resident aliens holding tenure-track positions at U.S. universities and colleges, who have held their graduate degrees (Ph.D. or equivalent) for fewer than five years at the time of application. Faculty at an institution of higher education which does not designate any faculty appointments as "tenure track" are eligible if that is so indicated in the proposal, and the supporting letter from the university states that the faculty member submitting the proposal will be considered for a permanent appointment.

Funding: Awards will not exceed \$120,000 per year for three years.

Synopsis: Proposals are invited for research in areas described in the BAA ARO Research Areas. As is the case for all other research programs, informal discussions with the cognizant ARO Technical Point of Contact (TPOC/ Program Manager) identified in the ARO Research Areas of this BAA is strongly recommended before submission of a formal proposal. An award in each topic area is not guaranteed.

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

Air Force Fiscal Year 2020 Young Investigator Research Program (YIP)

URL: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=313523>

CFDA: FOA-AFRL-AFOSR-2019-0003

Deadline: June 3, 2019

Eligibility: awards 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. Researchers working at the Federally Funded Research and Development Centers and Government Laboratories will not be considered for the YIP competition. Principal Investigator is a U.S. citizen, national, or permanent resident by October 1, 2019; employed on a fulltime basis and holds a permanent position. Received a Ph.D. or equivalent degrees by April 1, 2012 or later.

Funding: up to \$150K p/year for three years, for a total of \$450K. Anticipate <40 awards total.

Synopsis: FY 2020 Air Force Young Investigator Research Program (YIP) intends to support young in career scientists and engineers who have *received Ph.D. or equivalent degrees by April 1, 2012* or later showing exceptional ability and promise for conducting basic research. The program objective is to foster creative basic research in science and engineering; enhance early career development of outstanding young investigators; and increase opportunities for the young investigator to recognize the Air Force mission and related challenges in science and engineering. AFOSR's four research areas are Engineering and Complex Systems; Information and Information Networks; Physical Sciences; and Chemistry and Biological Sciences.

Defense Technical Reduction Agency – no current program

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

NASA New Investigator Program in Earth Science

URL: <https://nspires.nasaprs.com/external/solicitations/summary.do?sollid={ABB576B8-F844-25E0-AD23-9E94AAC04AE1}&path=&method=init>

CFDA: Solicitation: NNH18ZDA001N-NIP

Deadline: **NOTE New (early Career) Investigator Program in Earth Science: not solicited in ROSES-2019 NIP is scheduled to next solicit proposals in ROSES-2020.**

Eligibility: A NIP proposal PI must be a U.S. citizen or have lawful status of permanent residency. 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 five years before the issuance date of this ROSES NASA Research Announcement (NRA). Be in tenure- or non-tenure-track positions in either teaching or research or both, as long as the employing institution assumes the responsibility of submitting the proposal with the individual as the proposed PI.

Funding: The anticipated average award is \$80-90K per year for a period of up to three years, subject to satisfactory progress and availability of funds.

Synopsis: The New (Early Career) Investigator Program (NIP) in Earth Science is designed to encourage the integration of Earth system research and education/outreach by scientists and engineers at the early stage of their professional careers. The program encourages scientists and engineers at academic and/or research institutions to develop a broader sense of responsibility for effectively contributing to the improvement of science education and public science literacy; it provides an opportunity for the investigators to develop partnerships and/or enhance their skills, knowledge, and ability to communicate the excitement, challenge, methods, and results of their work to teachers, students, and the public. Check the description of the Focus Areas and related high priority research topics

NATIONAL INSTITUTE OF HEALTH

NIH POLICY ON ESI and NEW FACULTY

URL: http://grants.nih.gov/grants/new_investigators/investigator_policies_faqs.htm

Last Revised: **November 29, 2018**

Eligibility: In general, a Program Director/Principal Investigator (PD/PI) is considered a New Investigator if he/she has not previously competed successfully as PD/PI for a substantial NIH independent research award. In order to address both the duration of training and to protect the flux of new investigators, the NIH announced a new policy in fiscal year 2009 involving the identification of Early Stage Investigators.

Early Stage Investigator (ESI), is a Program Director / Principal Investigator (PD/PI) who has completed their terminal research degree or end of post-graduate clinical training, whichever date is later, within the past 10 years and who has not previously competed successfully as PD/PI for a substantial NIH independent research award. A list of NIH grants that a PD/PI can hold and still be considered an ESI can be found at <https://grants.nih.gov/policy/early-investigators/list-smaller-grants>. ESIs are encouraged to

enter the date of their terminal research degree or the end date of their post-graduate clinical training in their eRA Commons profile to ensure their correct identification.

In order to encourage a reduction in the period of training leading to independence, the NIH Institutes and Centers monitor their New Investigator pool to make sure that approximately half have ESI status. Applications from ESIs, like those from all New Investigators, are given special consideration during peer review and at the time of funding. Peer reviewers are instructed to focus more on the proposed approach than on the record of accomplishment, and to expect less preliminary information than might be provided by an established investigator.

Deadlines: Varies, typically three deadlines each year, follow the parent solicitation schedule below: <http://grants.nih.gov/grants/funding/submissionschedule.htm>

The NIH [New and Early Stage Investigator](#) page includes:

- [Policy Summary](#)
- [Background](#)
- [Determination of Investigator Status](#)
- [Extension of ESI or EEI Status](#)
- [Special Programs](#)
- [History of Related NIH Policies](#)
- [Related Data](#)

US DEPARTMENT OF AGRICULTURE

Agriculture and Food Research Initiative (AFRI) - Competitive Grants Program – Foundational Program

URL: <https://www.nifa.usda.gov/program/agriculture-and-food-research-initiative-afri>

CFDA: 10.310 (each of priority areas has own RFA)

Deadline: Varies by research area

Eligibility: An individual who is beginning his/her career, does not have an extensive scientific publication record, and has less than five years postgraduate, career-track experience is encouraged to submit an application for a New Investigator Grant for research, education, and/or extension activities. The new investigator may not have received competitively awarded Federal research funds with the exception of pre- or postdoctoral grants or USDA NRI or AFRI Seed Grants. The work proposed for New Investigator Grants must address a specific Program Area Priority described under Program Area Descriptions and the application must be submitted directly to that Program Area by the designated deadline date.

Synopsis: The National Institute of Food and Agriculture's flagship competitive grants program, the Agriculture and Food Research Initiative (AFRI) solicits applications from scientists each year. The application process offers funding for single-function and integrated agricultural research, education, and extension efforts that address key problems of local, regional, national, and global importance in sustaining conventional and organic food and agriculture systems. In Fiscal Year (FY) 2020, anticipate there will be three Requests for Applications (RFAs): Foundational and Applied Science; Sustainable Agricultural Systems; and Education and Workforce Development. Prospective applicants are encouraged to review each RFA to explore all the opportunities available to them. Potential applicants should refer to the AFRI RFAs after they are posted and the RFA resources page for information needed to submit an application to the appropriate program.

GOOGLE

Faculty Research Awards (not exclusive to young faculty but have been successful)

URL: <https://ai.google/research/outreach/faculty-research-awards/>

Deadlines: Applications for 2019 will be available in late summer 2019.

Eligibility: Google accept applications from permanent faculty at universities. Funding is focused on supporting PhD students, so we do allow applications from faculty at research institutions that award research degrees to PhD students.

Funding: \$150,000 in eligible expenses, but actual award amounts are frequently less than the full amount requested (PI salaries and indirect costs are not allowed).

Synopsis: One-year awards structured as unrestricted gifts to universities to support the work of excellent full-time faculty members at top universities around the world. The intent of the Google Research Awards is to support cutting-edge research in Computer Science, Engineering, and related fields tied to categories.

ALFRED P. SLOAN FOUNDATION

Alfred P. Sloan Foundation – 2020 Sloan Research Fellowship

URL: <http://www.sloan.org/sloan-research-fellowships/>

There is a limit to the number of nominations per department - no more than three candidates may be nominated from any one department in a given competition.

*Applicant must work in concert with Advancement Office in these applications, Emily (Kellas) Goodenough, Assistant Director of Foundation Relations ekellas@ur.rochester.edu for analysis of the foundation's interests and priorities and for assistance with the application.

Deadline: September 16, 2019 (11:59pm EDT) – Application due to sponsor.

Eligibility: Candidates must hold a tenure track (or equivalent) position at a university, or other degree-granting institution in the United States or Canada. Candidates must hold a Ph.D. (or equivalent) in one of desired fields. With their most recent Ph.D. (or equivalent) awarded less than six years prior to their nomination.

Funding: \$75,000 over 2 years

Synopsis: Candidates must be nominated by a department head or other senior researcher, and are selected by independent panels of noted scholars in each field. New this year, the foundation no longer requires nominees to be within six years of their Ph.D. date, as long as a candidate has received a Ph.D. and is in a tenure-track position with a teaching requirement s/he is eligible for the fellowship. Please note that although the cut-off date is no longer a requirement, the fellowship remains an award for those in the early stages of their careers. The Sloan Research Fellowship provides flexible funding for research needs. The one-step application does involve obtaining a number of letters of support but the research statement is quite simple. **The foundation considers the first 3 years in an investigator's first tenure-track position as the "early stage" of a career. Top funded research fellowship fields are Chemistry (23 awardees each yr.) and Physics (23 awardees each yr.).** Nominations of women and underrepresented minorities are encouraged. Package includes: A letter from a department head or other senior researcher officially nominating the candidate, candidate's curriculum vitae, two representative articles by the candidate; a brief (one-page) statement by the candidate describing his or her significant scientific work

and immediate research plans, and three letters from other researchers (preferably not all from the same institution).

PACKARD FOUNDATION

Packard Fellowships for Science and Engineering (2019)

URL: <http://www.packard.org/what-we-fund/conservation-and-science/science/packard-fellowships-for-science-and-engineering/>

Follows Limited Submission/Internal Selection: as UR can only nominate two faculty members for consideration. The UR President nominates two early-career professors each from their institution. *Applicant must work in concert with Foundation Relations Advancement Office in these applications.

Internal Deadline: October 26, 2018 (Chosen Internal Nominee(s) Notified by: November 16, 2018); Sponsor Deadline: March 15, 2019

Funding: \$875,000 (over 5 years)

Eligibility: Candidates must be eligible to serve as principal investigators engaged in research in the natural and physical sciences or engineering. Must be within the first three years of their faculty careers that is, whose initial faculty appointments began no earlier than May 31, 2016, and no later than May 31, 2019. (*A majority of awardees are in the 2nd or 3rd year of their faculty careers).

Synopsis: The Packard Fellowships for Science and Engineering program invests in future leaders who have the freedom to take risks, explore new frontiers in their fields of study, and follow uncharted paths that may lead to groundbreaking discoveries. Recipients take a creative approach to their research, dare to think big, and follow new ideas wherever they lead. The Foundation emphasizes support for innovative individual research that involves the Fellows, their students, and junior colleagues, rather than extensions or components of large-scale, ongoing research. Disciplines that will be considered include physics, chemistry, mathematics, biology, astronomy, computer science, earth science, ocean science, and all branches of engineering. (*Top five funded disciplines since 2012: 1. Biological Sciences, 2. Physics, 3. Chemistry, 4. Astronomy/Astrophysics/Cosmology, 5. Geosciences). In the Last 10 years @ UR: Vasilii Petrenko – 2013; Earth & Environmental Sciences and Daven Presgraves – 2008; Biology have received awards. Online applications include four letters of recommendation to include the department chair and three people outside the nominee's university.

See also <http://www.spo.berkeley.edu/fund/newfaculty.html>