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Overview of Federal Funding Opportunities and Fellowships That Support Early Career Faculty

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Overview

This report contains an overview of federal government funding opportunities and fellowship programs that provide support for early career researchers working at universities or other non-government institutions. Some programs provide support for early career faculty, as well as postdoctoral researchers and new investigators.

The federal government programs described in this compendium of federal early career faculty opportunities are organized by the agency that runs the program. For each opportunity, there is provided a program summary, eligibility requirements, approximate size and type of award, annual due dates, and other special factors. The program websites are provided as a source for more detailed information.

Department of Defense

The Department of Defense (DOD) funds research that is relevant to its mission, primarily drawing from engineering, computer/information science, and physical sciences. However, DOD also provides some limited research and education opportunities in foreign languages, social sciences, and medical and life sciences.

Air Force Young Investigator Research Program (YIP)

Overview: The Air Force YIP supports scientists and engineers who have received Ph.D. or equivalent degrees within the last seven years and show exceptional ability and promise for conducting basic research. The objectives of this program are:

- 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.

Research proposals must address Research Interests of the Air Force Office of Scientific Research, FA9550-18-S-0003, found at https://www.grants.gov/web/grants/view-opportunity.html?oppId=305996.

Eligibility: Individual awards are made to U.S. institutions of higher education, industrial laboratories, or non-profit research organizations where the principal investigator (PI) is employed on a full-time basis and holds a regular position. YIP PIs must be a U.S. citizen, national, or permanent resident.

Award Information: Most YIP awards are funded up to $150,000 per year for three years, for a total of $450,000. “Exceptional proposals will be considered individually for higher funding levels and/or longer duration.” The YIP fact sheet can be found at *https://www.wpafb.af.mil/Welcome/Fact-Sheets/Display/Article/842100/afosr-funding-opportunities-special-programs/#anchor2*.

Due Date: AFOSR solicits YIP proposals through a solicitation that is typically released in April, with proposal deadlines in June.

YIP Contact: Ellen M. Robinson; (703) 588-8527 ; Email: afosryip@us.af.mil

Office of Naval Research (ONR) Young Investigator Program (YIP)

Overview: "ONR's 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, who have received their doctorate or equivalent degree on or after 01 January 2011, and who show exceptional promise for doing creative research.

An individual wishing to apply for a Young Investigator award must submit a research proposal and at least one letter of support through the appropriate university officials. ONR makes awards to institutions, not individuals."

Applicants are strongly encouraged to contact the program officer who is the technical point of contact for their research area, in order to discuss their proposal. A list of program officers can be found at https://www.onr.navy.mil/our-research/our-program-managers.

Award Information: ONR, under the FY 2020 solicitation, funded proposals at a maximum of $510,000 over a three-year base period, with a possibility to request an additional $250,000 in funding for equipment, testing, ship time, and other similar research support functions. These funds may be budgeted against any reasonable costs related to conducting the proposed research, for example, salary for the investigator, graduate student support, supplies and applicable indirect cost."

Due Date: ONR's FY 2020 YIP solicitation was posted in June, with proposals due in August.

Further details can be found on the YIP webpage at *https://www.onr.navy.mil/en/Education-Outreach/Sponsored-Research/YIP*.

Contact: Dr. Reginald Williams, onryip@navy.mil

Army Research Office (ARO) Young Investigator Program (YIP)

Overview: The Army Research Office (ARO) includes a YIP as a subset of its ARO Broad Agency Announcement (BAA). The primary point of contact would be the relevant program manager for each issue area of interest. Specific requirements for YIP proposals can be found on pages 66 and 67. Interested applicants should contact the relevant program manager for their issue areas, which are listed in the BAA.

More information on the YIP award can be found in the full BAA, located at *https://www.arl.army.mil/wp-content/uploads/2019/12/arl-baa-ARO-BAA-Amendment-6.pdf#page=69*.

Award Information: ARO will fund awards at a maximum of $120,000 per year for three years.

Due Date: Proposals will be accepted on a rolling basis through March 31, 2022, unless announced otherwise.

Defense Advanced Research Projects Agency (DARPA) Young Faculty Award (YFA)

Overview: "The objective of the DARPA Young Faculty Award (YFA) program is to identify and engage rising stars in junior research positions, emphasizing those without prior DARPA funding, and expose them to DoD needs and DARPA's program development process.

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 national security needs. The long-term goal of the YFA program is to develop the next generation of academic scientists, engineers, and mathematicians who will focus a significant portion of their career on DoD and National Security issues."

More information about the YFA can be found at *https://www.darpa.mil/work-with-us/for-universities/young-faculty-award*.

Award Information: DARPA's FY 2019 solicitation funded awards at a maximum of $500,000 for a 24-month base period, with an option to extend funding for up to $500,000 over a 12-month period.

Due Date: The most recent DARPA YFA opportunity expired late last year. However, the next announcement will likely be posted to www.grants.gov and https://beta.sam.gov/ between July and August 2019. In FY 2019 solicitation, which was posted in August, Proposers were encouraged to submit an executive summary about a month after the posting date. Full proposals were due in November. Lewis-Burke's analysis of the most recent faculty fellowship can be found here.

Congressionally Directed Medical Research Program (CDMRP) New Investigator Awards

Overview: The Congressionally Directed Medical Research Program (CDMRP) New Investigator Awards support early career faculty research in specific program areas, including Autism, bone marrow failure, breast cancer, prostate cancer, and Neurofibromatosis. Certain programs within the CDMRP may offer New Investigator Awards as part of their call for funding opportunities.

Eligibility: Principal investigators must be employed on a full-time basis and hold a regular position at a university or institute of higher education, industrial laboratory, or nonprofit research organization, and they must have earned their Ph.D. or equivalent degree within the last five years. Principal investigators must also be U.S. citizens, nationals, or permanent residents.

Award size: Award size varies based on available funding and by program.

Due Date: Deadlines vary by program.

Source and Additional Information: http://cdmrp.army.mil/.

Department of Education

The Department of Education offers a number of discretionary grants in the areas of the enhancement of education policy, educational environments, and educator capabilities. Most research-related grants are delivered through the Institute of Education Sciences (IES). Information on current early-career opportunities is presented below. A full list of IES training programs is available at

https://ies.ed.gov/funding/overview.asp. However, it is uncertain which, if any, of these programs will be run going forward.

Statistical and Research Methodology in Education–Early Career

Overview: This program is a specific funding opportunity for early career researchers completing work that will lead to "projects of immediate practical use to applied researchers." It is expected that researchers "develop products (e.g., methods, software, guidelines, or other methodological resources) by their end that will improve the planning, conduct, and/or interpretation of applied education research."

Eligibility: Principal investigators must have received their doctoral degree on or after April 1, 2014. Additionally, the "research personnel on the grant must also include a more senior advisor to the PI or an advisory board, with the limitation that the PI's dissertation advisor cannot be the mentor or be a member of the advisory board. The Institute expects that the PI will be the lead author on publications pertinent to the primary research questions from Early Career grants."

Award Size: The maximum award is $225,000 per year, for two years.

Due Date: For the FY 2019 competition, letters of intent were due in June and the complete application in August.

Source and Additional Information: https://ies.ed.gov/ncer/projects/program.asp?ProgID=86.

Research Training Programs in Special Education- Early Career Development and Mentoring

Overview: "The Early Career Development and Mentoring (Early Career) topic supports grants that prepare researchers to conduct independent rigorous and relevant early intervention and special education research. The intent is to support researchers who are addressing issues that are important to infants, toddlers, children, and youth with or at risk for disabilities, their families, special education practitioners, and policymakers, and whose research contributes to the advancement of knowledge and theory in special education and early intervention."

Eligibility: Principal investigators must have completed a doctoral degree or postdoctoral program no earlier than April 1, 2016 and no later than the start of the award period. Additionally, "Applications under the Early Career program must meet the requirements set out under (1) Principal Investigator, (2) Mentors, (3) Focus on Children With or At Risk for Disabilities, and (4) Training Program Narrative and Supporting Appendices in order to be sent forward for scientific peer review.

Award Size: The maximum award is $500,000 per year, for four years.

Due Date: For the FY 2020 competition, letters of intent were due in July and the complete application in August.

Source and Additional Information: https://ies.ed.gov/funding/pdf/2020_84324B.pdf.

Research Training Programs in Special Education- Postdoctoral Research Training Program in Special Education and Early Intervention

Overview: "The Postdoctoral Research Training Program in Special Education and Early Intervention (Postdoctoral Training) topic supports programs that prepare education researchers to conduct high-quality, independent special education and early intervention research that advances knowledge within the field and addresses issues important to education policymakers and practitioners."

Eligibility: "The applicant must be an academic institution located in the United States and its territories that confers doctoral degrees in fields relevant to special education or early intervention."

Award Size: The maximum award is $ 766,000 per year, for five years.

Due Date: For the FY 2020 competition, letters of intent were due in July and the complete application in August.

Source and Additional Information: https://ies.ed.gov/funding/pdf/2020_84324B.pdf.

Department of Energy

The Department of Energy (DOE) funds research that is relevant to its mission of advancing the national, economic, and energy security of the U.S. DOE supports research in a broad range of basic and applied sciences. It is the principal federal funding agency of research programs in high-energy physics, nuclear physics, and fusion energy sciences. It also manages fundamental research programs in basic energy sciences, biological and environmental sciences, advanced and applied energy and computational science. DOE is also the federal government's largest single provider of funds for materials and chemical sciences. Other research areas include climate change, geophysics, genomics, life sciences, nanotechnology, fossil energy, and nuclear medicine.

Early Career Research Program

Overview: The Early Career Research Program 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. Opportunities exist 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).

Eligibility: The Principal Investigator must be an untenured Assistant Professor or an untenured Associate Professor on the tenure track at a U.S. academic institution as of the deadline for the application. No more than ten years can have passed between the year the Principal Investigator's Ph.D. was awarded and the year of the deadline for the application. There can be no co-Principal Investigators. There is no US citizenship requirement for the Principal Investigator or any project participants.

Award Size: In 2020, DOE anticipated making up to 65 awards with a minimum of $750,000 over five years. Applicants are encouraged to propose research expenditures as close to the funding minimum as possible.

Due Date: Mandatory pre-applications were due January 7, 2020. Only applicants notified by DOE to submit a formal application may submit full applications. Full applications from those encouraged to submit them are due March 26, 2020.

Source and Additional Information: *https://science.osti.gov/early-career.*

Department of Health and Human Services

National Institutes of Health

The primary mission of the National Institutes of Health (NIH) is to "seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability." You may refer to the listed program's corresponding link to see which of NIH's 27 Institutes and Centers (ICs), as well as which agencies within the Department of Health and Human Services (HHS), are collaborating on each program and to determine the areas of early career study that are relevant.

According to NIH, an Early Stage Investigator "has completed his or her 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 for a substantial NIH independent research award." Additionally, a new investigator is defined as "an investigator who has not previously received substantial, independent funding from NIH." Independent research denotes the ability to commit institutional facilities, space, and resources to conduct the research project; all of which are necessary to apply for R01 grants. NIH has signaled its ongoing commitment to early stage investigators through the launch of the Next Generation Researchers Initiative (NGRI); NIH awarded the highest number of early stage investigator grants in its history in FY 2019 – 1,287 total awards. At least one new program aimed at early stage investigators will debut in 2020.

Source and Additional Information: http://grants.nih.gov/grants/new_investigators/index.htm; and https://researchtraining.nih.gov/career/early-career.

NIH Mentored Research Scientist Development Award (Parent K01)

Overview: Although not strictly an "early career" award, the NIH Research Scientist Development awards "provide support and 'protected time' (three, four, or five years) for an intensive, supervised career development experience in the biomedical, behavioral, or clinical sciences leading to research independence. Although all of the participating NIH Institutes and Centers (ICs) use this support mechanism to support career development experiences that lead to research independence, some ICs use the K01 award for individuals who propose to train in a new field or for individuals who have had a hiatus in their research career because of illness or pressing family circumstances." Before submitting

the application, the applicant must identify a mentor who will supervise the research and career development.

Eligibility: To be eligible for this award, the recipient may not be a former PI for an NIH R01, P01, center grant, or other K-series award. Applicants must have a research or health-professional doctoral degree. At the time of award, the recipient must be a citizen or permanent U.S. resident.

Award Size: Awards support budgets composed of salary and other program-related expenses. Additionally, the facilities and administrative costs are reimbursed at eight percent of modified total direct costs. The project is limited to a maximum of five years.

Due Date: Applications are due in three annual cycles: February 12, June 12, and October 12.

Source and Additional information: *https://grants.nih.gov/grants/guide/pa-files/PA-19-126.html.*

NIH Independent Scientist Award (Parent K02)

Overview: The NIH Independent Scientist Award (K02) provides three to five years of salary support and 'protected time' for newly independent scientists, who can demonstrate the need for a period of intensive research focus as a means of enhancing their research careers. Each independent scientist career award program must be tailored to meet the individual needs of the candidate.

Eligibility: Candidates must have a doctoral degree and newly independent, peer-reviewed research support at the time the award is made. Some participating NIH ICs require the applicant to already have some form of NIH research support, while others accept applications from investigators who have support from other sources. By the time of award, applicants must be citizens, nationals, or permanent residents of the U.S. Those on temporary or student visas are not eligible.

Award Size: Awards support budgets composed of salary and other program-related expenses. Additionally, the facilities and administrative costs are reimbursed at eight percent of modified total direct costs.

Due Date: Applications are due in three annual cycles: February 12, June 12, and October 12.

Source and Additional Information: https://grants.nih.gov/grants/guide/pa-files/PA-19-132.html.

Career Transition Awards (K22)

Overview: "The goal of this program is to facilitate the transition of investigators to independent, productive research careers. One- or two-phase award; an initial period of mentored research (Phase I), followed by a period of independent research at an extramural institution (Phase II). One phase awards include only Phase II."

Unlike other awards listed here, K22 awards are solicited by individual NIH Centers and Institutes. As such, it is best to search for relevant Funding Opportunity Announcements on the Research Career Development Awards website to see if there are opportunities of interest. An example of one such program may be found below.

Source and Additional Information: https://researchtraining.nih.gov/programs/career-development/K22.

Example: National Institute of Allergy and Infectious Diseases (NIAID) Career Transition Award

Overview: The purpose of the NIAID Career Transition Award (CTA) program is to assist postdoctoral fellows' transition to positions of assistant professor or equivalent and initiate a successful biomedical career as an independent research scientist.

Eligibility: Candidates for this award must have a terminal research or clinical doctoral degree, and must be citizens, nationals, or permanent residents of the U.S. by the time of award. Individuals are eligible for a K22 award if they have been, or currently are, the PD/PI of an NIH R03 or R21 grant or an equivalent non-NIH award. Individuals are NOT eligible to apply if they have a pending application for any other PHS research career K development award (e.g., K01, K07, K08, K23, K25), an NIH institute specific K22, or a Pathway to Independence Award (K99/R00). Individuals are not eligible to apply if they have been or are currently a PD/PI on an NIH research grant (such as R01, R29, P01, or DP2) or a subproject leader on a Program Project (P01) or Center Grant (P50) or an equivalent NIH or non-NIH award. At the time of award, the candidate must have a "full-time" appointment at the applicant institution.

Award Size: This award is not to exceed two years. NIAID will contribute a total of up to $150,000 and $100,000 (Direct Costs) in the 1st and 2nd years of the Phase II award (Tenure-Track Faculty phase); respectively (to include up to $50,000 in salary support per year) toward the research development costs of the award recipient. Additionally, the facilities and administrative costs are reimbursed at eight percent of modified total direct costs.

Due Date: Applications are due in three annual cycles: February 12, June 12, and October 12.

Source and Additional Information: *https://grants.nih.gov/grants/guide/pa-files/PAR-19-371.html.*

NIH Pathway to Independence Award (Parent K99/R00)

Overview: "The purpose of the NIH Pathway to Independence Award (K99/R00) program is to increase and maintain a strong cohort of new and talented, NIH-supported, independent investigators. This program is designed to facilitate a timely transition of outstanding postdoctoral researchers from mentored, postdoctoral research positions to independent, tenure-track or equivalent faculty positions, and to provide independent NIH research support during the transition that will help these individuals launch competitive, independent research careers."

Eligibility: Candidates must have a clinical or research doctorate, have no more than four years of postdoctoral research training at the time of application, and must be in mentored, postdoctoral training positions to be eligible to apply to the K99/R00 program. Applicants can be citizens, nationals, or permanent residents of the U.S. For foreign applicants, the applicant's institution must determine and document in the application that the applicant's visa will allow him or her to remain in this country long enough to take appropriate advantage of the award.

Award Size: The K99/R00 award will provide up to 5 years of support in two phases. The initial (K99) phase will provide support for up to 2 years of mentored postdoctoral research training and career

development. The second (R00) phase will provide up to 3 years of independent research support, which is contingent on satisfactory progress during the K99 phase and an approved, independent, tenure-track (or equivalent) faculty position. Salary and research costs during the K99 phase may be requested to the level provided by the awarding Institute or Center. For the R00 phase, the total cost may not exceed $249,000 per year, and the indirect costs will be reimbursed at the extramural sponsoring institution's indirect cost rate.

Due Date: Applications are due in three annual cycles: February 12, June 12, and October 12.

Source and Additional Information: *https://grants.nih.gov/grants/guide/pa-files/PA-19-130.html.*

NIH Director's New Innovator Award Program (DP2)

Overview: Part of the High-Risk, High-Reward Research program, the award supports exceptionally creative early career investigators who propose innovative, high-impact projects in the biomedical, behavioral or social sciences within the NIH mission.

Eligibility: Candidates must have Early Stage Investigator status (completed doctoral degree or postgraduate clinical training within the last 10 years and never received an NIH R01 or equivalent award). Candidates must hold an independent research position at a U.S. institution. Investigators still undergoing training or mentoring (postdoctoral fellows) are not eligible to apply unless they have a written commitment of an independent faculty position from an institution. there are no citizenship or residency requirements, and foreign scientists are eligible if they from a U.S.-based institution.

Award Size: According to the most recent RFA, for fiscal year 2019, NIH committed approximately $80 million for approximately 33 awards. Awards are multi-year funded with all funds disbursed in the first year of the award. Awards will be up to $1,500,000 in direct costs (the equivalent of $300,000 in Direct Costs each year for five years) plus applicable Facilities and Administrative (F&A) costs to be determined at the time of award.

Due Date: Applications are typically due in August. Applications for the 2020 funding year were due August 26, 2019.

Source and Additional Information: *https://commonfund.nih.gov/newinnovator; and https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-19-006.html.*

NIH Director's Early Independence Awards (DP5)

Overview: Part of the High-Risk, High-Reward Research program, the award supports outstanding junior scientists with the intellect, scientific creativity, drive, and maturity bypass the traditional postdoctoral training period to launch independent research careers.

Eligibility: According to the most recent RFA, to be eligible, the investigator, at the time of application, must have received the most recent doctoral degree or completed clinical training within the previous fifteen months or expect to do so within the following twelve months. At the time of application, the applicant must not have served as a post-doctoral fellow following a previous doctoral degree for more

than one year. There is no U.S. citizenship requirement for PDs/PIs. For applications submitted on behalf of non-U.S. citizens with temporary U.S. visas, visa status must allow the PD/PI to conduct the proposed research at the applicant institution.

Award Size: Awards are up to $250,000 in direct costs each year for five years, plus applicable facilities and administrative costs that will be determined at the time of award. The maximum project period is five years.

Due Date: For the most recent funding cycle, applications were due September 13, 2019.

Source and Additional Information: *https://commonfund.nih.gov/earlyindependence; and https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-19-008.html.*

NIH Stephen Ira Katz Award – Coming Soon

At the December 2019 meeting of the Advisory Committee to the Director, NIH announced that a new award for early stage investigators, named in honor of former NIAMS Director Stephen Ira Katz, will be debuting in 2020. The awards will be investigator initiated R01s (defined as awards made to support a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing the investigator's specific interest and competencies). The awards will provide up to five years of funding (exact amount has yet to be announced). The awards are meant to support high-risk, high-reward research, and so no preliminary data will be allowed to be included in the application.

Agency for Healthcare Research and Quality

The mission of the Agency for Healthcare Research and Quality (AHRQ), within HHS, is to produce and disseminate evidence to ensure better quality, access, equity, and affordable health care. Through the National Research Service Award (NRSA) program, AHRQ supports research training for both predoctoral and postdoctoral scholars.

Of interest to "early career" faculty, the Individual Postdoctoral Fellowship (F32) aims to develop fellows, with research interests in areas aligned with AHRQ's mission, into independent investigators in health services research. Application due dates are April 8, August 8, and December 8, annually.

Source and Additional Information: https://www.ahrq.gov/funding/training-grants/nrsa.html.

Centers for Disease Control and Prevention

The mission of the Centers for Disease Control and Prevention (CDC), within HHS, is to protect and improve public health through information that enhances health decision-making and partnerships with state health departments and other organizations. The CDC focuses on developing and applying disease prevention and control policies, especially in infectious diseases, environmental health, occupational safety and health, health promotion, prevention and education activities.

Within CDC's Pathways for Students and Graduates initiative, the Service Fellowship for U.S. Citizens and Non-Citizens Program offers fellowship opportunities for scientists engaged in public health research, studies, training, or investigations. Fellowships are tiered based on education and experience. The

"Senior Service Fellow" classification, which is most appropriate for "early-career" faculty, requires post-doctoral experience in a scientific field related to the CDC's mission. Candidates interested in CDC's Service Fellowship should contact the specific CDC organization for more information on the program and the application process.

Source and Additional Information: https://www.cdc.gov/jobs/pathways.html#anchor_1521041880759.

Food and Drug Administration

The Food and Drug Administration (FDA), within the Department of Health and Human Services, is primarily responsible for the regulation and oversight of prescription and over-the-counter drugs, food safety, tobacco products, dietary supplements, vaccines, medical devices, and veterinary products, just to name a few.

In addition to the FDA's regulatory function to protect and promote public health, the agency also conducts research and development activities that support this regulatory role. The FDA's Fellowship, Internship, Graduate, and Faculty Programs give individuals opportunities to pursue careers in science, but specifically at the FDA. The Oak Ridge Institute for Science and Education (ORISE) Research Participation Program is an educational and training program aimed at providing recent graduates and university faculty opportunities to gain hands-on research experience at various FDA offices and centers. Applications are accepted year-round.

Source and Additional Information: *https://www.fda.gov/about-fda/jobs-and-training-fda/scientific-internships-fellowships-trainees-and-non-us-citizens.*

Department of Homeland Security

The Science and Technology (S&T) Directorate is the primary research and development arm of the Department of Homeland Security (DHS). The Directorate's primary hub for academic engagement is the Offices of University Program (OUP), which manages the DHS Centers of Excellence. S&T has placed some of their major early career support streams for emerging scientists on hiatus in recent years. While some DHS laboratories have offsite programs for visiting scholars, few active opportunities for early career researchers remain at the agency. The one program at OUP for which future early career faculty can apply that is still consistently awarded is only available to Minority Serving Institutions (MSIs), outlined below.

Summer Research Team Program for Minority Serving Institutions Program

Overview: The purpose of this program is to strengthen the scientific leadership at Minority Serving Institutions (MSIs) in DHS priority areas by providing faculty and student teams the opportunity to conduct research at university-based DHS Centers of Excellence (COEs).

According to the program website, this year's participating centers are: Arctic Domain Awareness Center (ADAC); Borders, Trade, and Immigration Institute (BTI); Center for Accelerating Operational Efficiency (CAOE); Center of Excellence for Cross Border Threat Screening and Supply Chain Defense (CBTS); Criminal Investigations and Network Analysis (CINA); Critical Infrastructure Resilience Institute (CIRI); Coastal Resilience Center (CRC); and the Maritime Security Center (MSC).

Eligibility: Teams will be made of one faculty member and two students who are U.S. citizens, have health insurance, and attend an eligible MSI.

Award Size: For the 10 week program, DHS will provide a housing allowance, stipends (faculty - $1,200 per week; graduate students - $700 per week; undergraduate students - $600 per week), a travel allowance, and the ability to apply for up to $50,000 in follow-on funding to continue research with the COE.

Due Date: Faculty applications were due January 9, student applications are due February 14, and full team applications are due February 21. Applications for the 2021 program are expected to be open in October.

Source and Additional Information: https://www.orau.gov/dhseducation/faculty/index.html.

Environmental Protection Agency

Science guides the regulatory decision-making of the Environmental Protection Agency (EPA). Utilizing intramural EPA laboratories as well as the extramural research community, the EPA Office of Research and Development (ORD) conducts research on topics such as air and water quality, ecosystem assessment and restoration, climate change, impacts to human health, and pollution prevention. EPA has limited extramural opportunities for university researchers given that EPA, like a number of other agencies, utilizes its own labs and federal experts. That said, opportunities exist to complement EPA research efforts.

EPA does offer early-career awards, but they generally are embedded within a regular solicitation. For example, EPA may release an extramural research solicitation through its Science to Achieve Results (STAR) grant program (which is its primary extramural grants program located within ORD; https://www.epa.gov/research-grants), and it may estimate making seven awards, five of which might be regular awards and two of which might be early-career awards.

In addition, ORD offers four-year postdoctoral research positions. Applicants can choose from a wide range of disciplinary focus areas and will be placed at different locations throughout the U.S. depending on their research area. Preferred candidates will have earned their Ph.D. less than five years prior to their application submission. Additional information on this program is available at https://cfpub.epa.gov/ordpd/.

National Aeronautics and Space Administration

The National Aeronautics and Space Administration (NASA) conducts space exploration work in five principal categories: Science, Aeronautics, Space Technology, Exploration, and Operations. The Science directorate explores the Earth, Sun, planets, and the Universe. The Aeronautics mission directorate designs and tests new flight technologies that bolster exploration and lead to improved flight capabilities on Earth. The Space Technology program invests in potentially game-changing technology with applications across NASA mission directorates. The Exploration and Operations directorates concentrate on the International Space Station and developing new methods for human exploration in space. In education, NASA activities include support for scientific training in fields relevant to NASA's mission as well as general outreach using space to inspire interest in technical issues and careers.

Space Technology Research Grants – Early Career Faculty

Overview: The Early Career Faculty (ECF) component of the Space Technology Research Grants program supports untenured faculty pursuing research related to the development of technologies to support the future space science and exploration needs of NASA. These technologies should be in the earliest stages of development and align with the NASA Space Technology Taxonomy Areas, including communication and navigation systems; human health, life support and habitation systems; human exploration destination systems; and materials, structures, mechanical systems, and manufacturing. Topics may change in future competitions.

Eligibility: Eligible applicants include accredited U.S. institutions of higher education. Awardees must be untenured assistant professors at the time of both the application and award and be U.S. citizens or permanent residents. Co-investigators are not permitted.

Award Size: Awards are typically $200,000 per year for up to three years. NASA made nine ECF awards in 2019.

Due Date: The next ECF solicitation is expected to be released between January and March 2020.

Sources and Additional Information:
https://www.nasa.gov/directorates/spacetech/strg/archives_stro.html.

New (Early Career) Investigator Program in Earth Science

Overview: The New Investigator Program in Earth Science supports early career faculty pursuing research related to topics supported by NASA's Earth Science Division in carbon cycle and ecosystems, climate variability and change, water and energy cycle, atmospheric composition, weather, and earth surface and interior. Proposals are also required to contain a significant outreach or education component.

Eligibility: Eligible applicants include accredited U.S. institutions of higher education as well as museums, observatories, and government or nonprofit research institutions that conduct earth science research. The principal investigator must be a recent Ph.D. recipient that cannot be more than five years beyond their receipt of a doctoral degree when the solicitation is released. Awardees must also be untenured at the time of the submission deadline. Applicants must be U.S. citizens or permanent residents. Co-investigators are not permitted.

Award Size: Awards are approximately $80,000- $90,000 per year for up to three years duration, with an estimated 12 proposals funded.

Due Date: Proposals are solicited approximately every three years, with the next solicitation expected in 2020.

Source and Additional Information:
https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7b755C6557-E60F-C8BA-37C9-5D4C22AEACFB%7d&path=&method=init

Planetary Science Early Career Award

Overview: The Planetary Science Early Career Award (ECA) supports the research and professional development of outstanding early career scientists and serves to stimulate research careers in areas supported by the Planetary Sciences Division. If selected and later promoted to a permanent position, researchers are eligible for funding through the *Early Career Fellowship Start-up Program for Named Fellows* to help with research as early-career, permanent, researchers.

Eligibility: Applicants for the ECA must already be the PI or co-I designated as the "Science PI" on an existing NASA "parent award" in a topic area outlined in the ECA solicitation, and have received their doctoral degree no earlier than ten years prior to the competition year. Applicants must be U.S. citizens or permanent residents.

Award Size: NASA typically provides five ECA awards annually, with each award worth $200,000 over a period of up to five years.

Due Date: Proposal due dates vary by research program associated with the Research Opportunities in Space and Earth Sciences (ROSES) program.

Sources and Additional Information:
https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7b027FE06A-BA15-79AF-1B2C-5FE2C2C34B4B%7d&path=&method=init

Nancy Grace Roman Technology Fellowships in Astrophysics for Early Career Researchers

Overview: The purpose of the Nancy Grace Roman Technology Fellowship (RTF) is to support early-career astrophysicists and the development of innovative technologies for space astrophysics. The program consists of two components: an application by an early career researcher to be named an RTF; an application, submitted by a named RTF, for fellowship funding upon the RTF's obtainment of a permanent or permanent-track position. The initial RTF application must be submitted as an addendum to a full proposal to the *Astrophysics Research and Analysis* program.

Eligibility: RTF applicants must be early career researchers who have received their doctoral degree no earlier than eight years prior to the competition year. Applicants must be U.S. citizens or permanent residents.

Award Size: NASA expects to select between one and three RTFs each year, with approximately $300,000 in subsequent fellowship funding to be provided over a performance period of three years.

Due Date: The next solicitation is expected to be released as part of the ROSES-20 solicitation, which is due out in February 2020.

Sources and Additional Information:
https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7bEF124A90-8390-C733-7341-0E1D544EAA16%7d&path=&method=init.

Heliophysics – Early Career Investigator Program

Overview: The Heliophysics Early Career Investigator Program (ECIP) supports outstanding early career scientists and forms a component of the Division-wide *Diversify, Realize, Integrate, Venture, Educate* (DRIVE) initiative. The program specifically encourages proposals for system science and interdisciplinary research. The first competition was run as a pilot program in 2018, with NASA envisioning a two-year cadence of solicitations.

Eligibility: ECIP applicants must hold tenure-track or non-tenure-track positions at a U.S. institution and have received their doctoral degree no earlier than ten years prior to the competition year.

Award Size: NASA expects to select between eight and twelve ECIP recipients, with $125,000-$175,000 funding to be provided over a performance period of five years.

Due Date: The next solicitation is expected to be released as part of the ROSES-20 solicitation, which is due out in February 2020.

Sources and Additional Information:
https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={EF5B02E4-7A52-46F6-8AB0-1B23A797162C}&path=closedPast

National Endowment for the Arts

The National Endowment for the Arts (NEA) is the federal agency that supports traditional art forms such as music, dance, and theater projects. The agency provides opportunities for the funding of art projects, enhanced access to the arts for underserved or underserved populations, research on the arts' societal and economic impacts, and transdisciplinary research on benefits of the arts.

Creative Writing Fellowships

Overview: This program provides grants to individuals, who are published creative writers and translators of exceptional talent in the areas of prose and poetry. This Program alternates annually between fellowships in prose and poetry. The FY 2021 competition will be in poetry.

Eligibility: Creative writers who published qualifying work between January 1, 2013, and March 11, 2020 are eligible to apply. Additional details on qualifying published work are available at https://www.arts.gov/grants-individuals/creative-writing-fellowships/applicant-eligibility. Only available to U.S. citizens or permanent residents.

Award Size: NEA Literature Fellowships award $25,000 grants, with an average success rate of less than three percent.

Due Date: Applications are due March 11, 2020 for projects beginning in 2021. The competition runs once a year.

Source and Additional Information: https://www.arts.gov/grants-individuals/creative-writing-fellowships.

National Endowment for the Humanities

The National Endowment for the Humanities (NEH) is the largest federal funding resource for research in the humanities. By providing funding to individual scholars and institutions, NEH strives to bolster humanities teaching and education, facilitate scholarship, and preserve educational and cultural resources.

Fellowships

Overview: The award funds individuals conducting research valuable to humanities scholars and/or general audiences. Projects generally result in peer-reviewed articles, monographs, books, digital materials, translations, editions, or other scholarly resources.

Eligibility: U.S. citizens residing inside or outside the U.S. are eligible. Foreign nationals are eligible if they have been residing in the U.S. or its jurisdictions for at least three years prior to the deadline.

Award Size: Awards support six to twelve months of full-time work issued in stipends of $5,000 per month. Historically, around 80 awards have been granted per year, on average, a funding ratio of seven percent.

Due Date: Applications are due by April 8, 2020 for projects beginning January 2021.

Source and Additional Information: https://www.neh.gov/grants/research/fellowships.

Fellowships for Advanced Social Science Research on Japan

Overview: This award provides support for research that contributes to "scholarly knowledge or to the general public's understanding of issues of concern to Japan and the United States. Appropriate disciplines for the research include anthropology, economics, geography, history, international relations, linguistics, political science, psychology, and sociology."

Eligibility: U.S. citizens residing inside or outside the U.S. are eligible. Foreign nationals are eligible if they have been residing in the U.S. or its jurisdictions for at least three years prior to the deadline.

Award Size: Awards support six to twelve months of full-time work issued in stipends of $5,000 per month. Historically, the program has awarded an average of two awards per year, funding nine percent of applications.

Due Date: In the next competition, applications will due by April 22, 2020, for projects beginning January 2021.

Source and Additional Information: https://www.neh.gov/grants/research/fellowships-advanced-social-science-research-japan

NEH-Mellon Fellowships for Digital Publication

Overview: This competition, funded jointly with the Andrew W. Mellon Foundation, supports scholars "pursuing interpretive research projects that require digital expression and digital publication…the project must be conceived as digital because the research topics being addressed and methods applied demand presentation beyond traditional print publication."

Eligibility: U.S. citizens residing inside or outside the U.S. are eligible. Foreign nationals are eligible if they have been residing in the U.S. or its jurisdictions for at least three years prior to the deadline.

Award Size: Awards support six to twelve months of full-time work issued in stipends of $5,000 per month. Historically, the program has awarded an average of 8 awards per year, funding eleven percent of applications.

Due Date: In the next competition, applications will due by April 8, 2020, for projects beginning January 2021.

Source and Additional Information: https://www.neh.gov/grants/research/neh-mellon-fellowships-digital-publication.

Summer Stipends

Overview: This program provides funding for individuals pursuing advanced humanities research of value to scholars and/or general audiences

Eligibility: Researchers, teachers, and writers are all eligible to apply regardless of institutional affiliation. "Applicants holding tenured or tenure-track positions at institutions of higher education" must be nominated by their institutions. U.S. citizens residing inside or outside the U.S. are eligible. Foreign nationals are eligible if they have been residing in the U.S. or its jurisdictions for at least three years prior to the deadline.

Award Size: Awards total $6,000 for two consecutive months of full-time work. Historically, there has been an average of 77 grants per year, funding nine percent of applications.

Due Date: Applications are due by September 23, 2020, for projects beginning May 2021.

Source and Additional Information: https://www.neh.gov/grants/research/summer-stipends.

National Science Foundation

The National Science Foundation (NSF) funds basic research in all areas of science and engineering. This includes research on social, behavioral, and economic sciences as well as science, technology, engineering, and mathematics (STEM) education.

Faculty Early Career Development Program (CAREER)

Overview: This prestigious NSF-wide program provides funding to pre-tenured faculty for integrated research and education activities. Awards provide funding for five years of support. The CAREER program aims to support faculty with the potential to be leaders in research and education.

Eligibility: Applicants must hold a doctoral degree in a field supported by NSF by the submission deadline. Applicants must be Assistant Professors (or equivalent) in a tenure-track position by October 1 of the application year at an institution based in the U.S. or its territories. Applicants cannot obtain tenure before October 1 of the application year or have had a previous CAREER award. There are no eligibility requirements related to citizenship.

Each year NSF selects nominees for the **Presidential Early Career Awards for Scientists and Engineers (PECASE)** from the most recent batch of CAREER awardees. Individuals cannot apply to the PECASE program. NSF nominates up to 20 individuals and the White House Office of Science and Technology Policy makes the final selection.

Award Size: Awards total at least $400,000 over five years and at least $500,000 over five years in the Directorate for Biological Sciences (BIO), the Directorate for Engineering (ENG) and the Office of Polar Programs (OPP).

Due Date: Proposals are due by July 27, 2020 and the fourth Monday of July, annually thereafter.

Source and Additional Information: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214.

Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII)

Overview: This program within the Directorate for Computer and Information Science and Engineering (CISE), was created to help researchers launch their research career. Thus, "It is expected that these funds will allow the new CRII PI to support one or more graduate students for up to two years."

Eligibility: Applicants must hold a doctoral degree, and a primary appointment in computer and/or information science and/or engineering, or in a related field. Additionally, applicants must be untenured, and in the first three years of a tenure-track or research science position, or equivalent. Applicants may not have received any grants as a PI from any federal government agency or department, including the CAREER program.

Award size: Awards total a maximum of $175,000 for up to two years. NSF expects to make between 55 and 60 awards each year.

Due Date: Proposals are due August 12, 2020.

Source and Additional Information: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504952.

U.S. Department of Agriculture

While the Department of Agriculture (USDA) offers limited opportunities for early career researchers, the National Institute of Food and Agriculture's (NIFA) Agriculture and Food Research Initiative (AFRI) offers a New Investigator Track in its Foundational and Applied Sciences (FAS) program. This track is a subset of the Food and Agricultural Science Enhancement (FASE) Grants and supports researchers with less than five years of post-graduate career- career track experience. Applicants may not have received

competitive federal funding previously as a program director or PI with the exception of pre- or postdoctoral grants or AFRI Seed Grants.

Food and Agricultural Science Enhancement (FASE) New Investigator Awards

Overview: This track is a subset of the Food and Agricultural Science Enhancement (FASE) Grants and supports researchers with less than five years of post-graduate career- career track experience.

Eligibility: Applicants may not have received competitive federal funding previously as a program director or PI with the exception of pre- or postdoctoral grants or AFRI Seed Grants.

Award size: Award sizes and durations vary by program area but can be up to $1 million and as long as five years. Interested researchers should review the program page for additional information as well as the full Request for Applications, which includes all due dates and funding levels.

Due Date: Application deadlines vary by topic area. Interested researchers should review the program page for additional information as well as the full Request for Applications, which includes all due dates and funding levels.

Sources and Additional Information: https://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-foundational-applied-science-program.

Foundation for Food and Agriculture Research (FFAR)

New Innovator in Food and Agriculture Research Award

Overview: This award offers support to new faculty members in the first three years of their careers to "promote career advancement of highly creative and promising new scientists who intend to make a long-term career commitment to research in food and agriculture."

Eligibility: Eligible researchers must be nominated by their institutions, and institutions are limited to one nominee.

Award size: The 2020 New Innovator Award features two notable changes from past competitions: elimination of the one-to-one match requirement, and an increase in award size. Beginning in 2020, FFAR will increase the New Innovator Award size to $450,000 (up from $300,000), to better support smaller institutions. FFAR intends to award between 10 and 12 awards.

Due Date: Nominations will be accepted through March 4, 2020, and nominees will receive invitations to submit proposals by March 25, 2020, with full applications, by accepted nominees, due on May 6, 2020.

Sources and Additional Information: https://foundationfar.org/wp-content/uploads/2020/01/2020-NIA-Call-for-Nominations.pdf and https://foundationfar.org/new-innovator-in-food-and-agriculture-research/.

Department of State

The U.S. Department of State offers a range of programs to support educational, cultural, and professional exchanges across the world. For example, the Fulbright program offers a range of opportunities for international exchange for various durations. Within the Fulbright program, the Postdoctoral and Early Career Awards offer a range of opportunities for early career faculty, typically within five years of their doctoral degree.

Fulbright U.S. Scholar Program

Overview: The Fulbright U.S. Scholar Program offers nearly 470 teaching, research, or combination teaching/research awards in over 125 countries.

Eligibility: Applicants must be U.S. citizens who have not resided abroad for five or more consecutive years in the six-year period preceding the date of application. Award specific requirements, such as which awards are open to early career candidates, are included in each award description.

Award size: Grant benefits vary by country and type of award.

Due date: The next competition for academic year 2021-2022 will be open in February 2020 and has an application deadline of September 15, 2020.

Sources and Additional Information: https://www.cies.org/program/fulbright-us-scholar-program#12.

Fulbright-Hays Program

Overview: The Fulbright-Hays Program awards grants to individual U.S. K-14 pre-teachers, teachers and administrators, pre-doctoral students and postdoctoral faculty, as well as to U.S. institutions and organizations. The Program supports research and training efforts overseas, which focus on non-Western foreign languages and area studies.

Eligibility: Eligibility varies based on type of Fulbright-Hays program award.

Award size: Grant benefits vary by country and type of award.

Due date: Due dates vary based on program award.

Sources and Additional Information: https://exchanges.state.gov/us/program/fulbright-hays-program.

Relevant Agencies Not Currently Offering Funding for Specific Early Career Opportunities

Department of Transportation

The Department of Transportation (DOT) oversees federal highway, air, rail, maritime, and other transportation administration activities and functions. The Research and Innovative Technology Administration (RITA) oversees and coordinates DOT's research and education programs. DOT distributes research funds to state and local transportation agencies as well as academic institutions. DOT does not currently offer support for early career faculty researchers.

Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development's (HUD) mission is to foster community development and affordable housing. While better known as the federal entity that provides funding for low-income or public housing, HUD also has limited resources to support research related to urban development, sustainability, housing, etc. While HUD has previously supported new investigators and postdoctoral programs, the agency does not fund any programs specifically for those researchers at this time.

Health Resources and Services Administration

The Health Resources and Services Administration (HRSA), within HHS, aims to improve access to health care services for underserved and vulnerable populations. HRSA's mission is to "improve health outcomes and address health disparities through access to quality services, a skilled health workforce, and innovative, high-value programs."

HRSA offers many scholarship, fellowship, and loan repayment opportunities for recent graduates, including the Faculty Loan Repayment Program for health professions graduates who agree to serve on the faculty of an accredited health profession college for two years (http://www.hrsa.gov/loanscholarships/repayment/Faculty/index.html); however, there are no research grants targeted to the early career researcher populations.

National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce (DOC), promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology. NIST is organized into four laboratories: Material Measurement, Physical Measurement, Engineering, and Information Technology. It also has a Center for Neutron Research and a Center for Nanoscale Science and Technology. While NIST does provide a small number of "academic programs," including postdoctoral associateships, graduate and undergraduate student fellowships, the agency does not provide fellowships for early career faculty researchers based at academic institutions.

National Oceanic and Atmospheric Administration

The mission of the National Oceanic and Atmospheric Administration (NOAA), a bureau of the Department of Commerce (DOC), is to understand and predict changes in Earth's environment and to conserve and manage

coastal and marine resources. NOAA is organized according to line offices, including the National Weather Service, the National Ocean Service, and Office of Oceanic and Atmospheric Research, among others. NOAA does not provide any funding for early career faculty researchers to work at universities or non-profit research institutions.

Substance Abuse and Mental Health Services Administration

The Substance Abuse and Mental Health Services Administration (SAMHSA), within HHS, is the implementation arm for social and behavioral intervention and prevention strategies in public health. While much of SAMHSA's discretionary funds go to state and local governments or to support the health workforce, opportunities to implement SAMHSA initiatives for which nonprofit entities (such as universities) are eligible and occasionally offered. There are no funding opportunities targeted specifically towards early career faculty researchers.

Department of Justice

The National Institute of Justice (NIJ) is the primary extramural scientific research arm at the Department of Justice (DOJ) and seeks to use science to improve the nation's ability to understand crime and promote justice. NIJ provides priority consideration to projects submitted by early career researchers for most of their research solicitations. The office also has the following two fellowship programs, both have not been competed in years, but could be reactivated should an Administration reprioritize the initiatives or at the direction of Congress:

- Visiting Fellows Program – This program seeks to connect policymakers, practitioners, and researchers to pursue the practical application of criminal justice research findings. This program was last competed in 2017.
- W.E.B. Du Bois Program – This program provides support for faculty at multiple career levels to advance the study of race and crime. This program was last competed in 2017.

United States Agency for International Development

The United States Agency for International Development (USAID) is a mission agency responsible for implementing America's global development agenda. While USAID offers numerous fellowship opportunities, all involve doing policy work at agency headquarters in Washington or in one of its missions in a developing country (https://www.usaid.gov/work-usaid/careers/fellows-program). Fellowship participants enhance their knowledge of government and global issues and obtain valuable professional experience that enriches their careers and the organizations to which they return. USAID does not maintain fellowship programs that support early career faculty to carry out research at their home institution.

U.S. Geological Survey

The U.S. Geological Survey (USGS) is the scientific research arm of the Department of the Interior (DOI). USGS's research portfolio is primarily intramural with limited extramural research opportunities for academic researchers and the private sector. USGS research is focused on supporting the mission of DOI and includes work in areas such as earthquake physics, water resources, climate change and adaption, mapping and geospatial collection, and minerals and energy resources. USGS currently does not offer funding for early career faculty researchers.