



## **Funding Update: Large Federal Funding Opportunities**

*Lewis-Burke Associates, LLC – October 14, 2019*

This document provides information on the status and timing of flagship funding opportunities across federal agencies. For agencies that do not have signature, cross-cutting opportunities, such as the National Institutes of Health (NIH), details are provided for large center and center-like awards. Please contact Lewis-Burke for further information on the opportunities below, additional opportunities in relevant fields, and to discuss strategies to pursue these opportunities.

### **Contents**

National Science Foundation (NSF) .....	2
Department of Energy (DOE) .....	5
Department of Defense (DOD) .....	7
National Institutes of Health (NIH) .....	11
National Aeronautics and Space Administration (NASA) .....	13
Department of Homeland Security (DHS).....	16
Department of Transportation (DOT) .....	17
National Oceanic and Atmospheric Administration (NOAA) .....	18
Department of Education (ED).....	18
National Endowment for the Humanities (NEH) .....	19

## National Science Foundation (NSF)

Type	Information on Future Solicitations	Additional Information
<p><b>Engineering Research Centers (ERC)</b> The last solicitation was released in October 2018 for awards made in summer 2020.</p>	<p>Letter of Intent were due Nov 30, 2018; preliminary proposals were due Jan 16, 2019 (NSF received around 175); full proposals (by invitation only) due July 12, 2019. NSF has also introduced ERC planning grants, which are not aligned with specific full ERC solicitations. Total funding is around \$20 million for a five-year award. NSF plans to award 4 new ERCs. <b>We expect the next ERC solicitation to be released late in 2020.</b></p>	<p>More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505599">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505599</a>.</p>
<p><b>Science and Technology Centers (STC)</b> The latest solicitation was released in March 2019 for awards to be announced in February 2021.</p>	<p>Preliminary proposals are due June 25, 2019, with full proposals, by invitation only, due January 27, 2020. Total funding is around \$20 million for a five-year award. NSF plans to award up to 5 new STCs. <b>We expect the next STC solicitation to be released early 2021.</b></p>	<p>More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5541">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5541</a>.</p>
<p><b>Materials Research Science &amp; Engineering Centers (MRSEC)</b> The latest solicitation was released in November 2018 for awards to start in September 2020.</p>	<p><b>MRSEC competitions are traditionally held every three years. Preliminary proposals (required) were due June 24, 2019 and Full Proposals (by invitation only) are due November 26, 2019. The next competition is expected to be released early in 2022.</b> Individual awards are \$2.2 million - \$4 million per year for up to six years. NSF intends to make 8-10 awards in the current competition.</p>	<p>More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5295">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5295</a>.</p>
<p><b>Expeditions in Computing (Expeditions)</b> The latest multi-year solicitation was released in December 2017.</p>	<p>For the current competition, preliminary proposals are due <b>April 22, 2020</b>, and full proposals due January 2021 (and annually thereafter). Funding is up to \$2 million per year for five years. NSF plans to make 2-4 awards in each competition.</p>	<p>More information available at <a href="http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503169">http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503169</a>.</p>
<p><b>Center for Chemical Innovation (CCI)</b> The current solicitation was announced in April 2019 for Phase I preliminary and full</p>	<p>This solicitation is <b>traditionally released annually</b>. Phase I awards are up to \$1.8 million per year for three years; phase II awards are up to \$4 million per year for five years.</p>	<p>More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13635">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13635</a>.</p>

proposals and Phase II new and renewal.		
<b>Major Research Instrumentation Program (MRI)</b>	This solicitation is <b>released annually</b> with next proposals due in January 2020. Track 1 supports proposals \$100K - \$1M; track 2 supports proposals \$1M to \$4M.	More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5260">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5260</a> .
<b>Mid-scale Research Infrastructure-1 (Mid-scale RI-1)</b> The first solicitation released in November 2018. Preliminary proposals due February 2019, full proposals by invitation only due May 20, 2019.	For implementation projects at \$6M-\$20M or design projects \$600K-\$6M. For the first competition, NSF has up to \$60M available to support 3-10 awards. NSF expects this solicitation to be released every two years i.e. the <b>next competition expected to be released late 2020</b> .	More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505602">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505602</a> .
<b>Mid-scale Research Infrastructure-2 (Mid-scale RI-2)</b> The first solicitation released in December 2018. Lol due February 2019, preliminary proposals due March 2019, full proposals by invitation only due August 2, 2019.	For individual implementation awards at \$20M-\$70M. For the first competition, NSF has up to \$150M available to support 4-6 awards. NSF expects this solicitation to be released every two years i.e. the <b>next competition expected to be released late 2020</b> .	More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505550">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505550</a> .
<b>Physics Frontiers Centers (PFC)</b> Latest solicitation released April 2019; preliminary proposals due August 1, 2019, full proposals by invitation only, due January 30, 2020.	Solicitation traditionally released every three years, so the <b>next solicitation is expected to be released early 2022</b> . PFCs range from \$1M to \$5M per year for five years. NSF expects to make 3-5 new awards to start around August 1, 2020.	More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5305">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5305</a> .
<b>Big Ideas: Harnessing the Data Revolution (HDR): Institutes for Data-Intensive Research in Science and Engineering - Frameworks (I-DIRSE-FW)</b> Initial solicitation released February 2019; full proposal deadline, May 7, 2019.	NSF has up to \$21M funding to support 8-10 2-year conceptualization phase awards. <b>NSF plans to develop HDR Institutes in the 2021 timeframe</b> .	More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505631">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505631</a> .
<b>Big Idea: Quantum Leap Challenge Institutes (QLCI)</b> Initial solicitation released Feb 2019 – Lols due June 3, 2019, preliminary proposals due Aug 1, 2019; full proposals by	Round 2 Lols (required) are <b>due Aug 3, 2020</b> , preliminary proposals due Sep 1, 2020; full proposals by invitation only are due Feb 1, 2021. CIs will be awarded at up to \$5M per year for 5 years. NSF has \$94M available to support Round 1 awards.	More information available at <a href="https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505634">https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505634</a> .

<p>invitation only, due Jan 2, 2020. (Conceptualization grants due June 3, 2019.)</p>		
<p><b>Big Ideas: Convergence Accelerators (C-Accel)</b> DCL released March 2019 for pilot projects focused on three tracks around the Big Ideas: Future of Work at the Human Technology Frontier (FW-HTF) and Harnessing the Data Revolution (HDR). Full proposals are due June 3, 2019.</p>	<p>On May 6, 2019, NSF released DCL for future topics for C-Accel. Responses are due June 24, 2019, along with ideas for conference proposals to help define future topic areas. <b>We expect this to be an annual solicitation.</b></p>	<p>More information available at <a href="https://www.nsf.gov/pubs/2019/nsf19050/nsf19050.jsp?org=NSF">https://www.nsf.gov/pubs/2019/nsf19050/nsf19050.jsp?org=NSF</a>.</p>
<p><b>Coasts and People (CoPe)</b> DCL released April 2019 to support Research Coordination Networks; EAGER awards, Conferences, and INTERN awards – all with mechanism specific deadlines.</p>	<p>CoPe is expected to last for 3-5 years. The primary CoPe solicitation is expected to be released in <b>FY 2020</b>. The FY 2019 DCL will be used to determine the scope of future solicitations.</p>	<p>More information available at <a href="https://www.nsf.gov/pubs/2019/nsf19059/nsf19059.jsp">https://www.nsf.gov/pubs/2019/nsf19059/nsf19059.jsp</a>.</p>
<p><b>Integration Institutes for Cross-cutting Biology</b> to address biological questions that span “multiple levels of organization in living systems and require expertise from diverse biological subdisciplines.”</p>	<p>NSF is currently facilitating a series of Town Hall and Workshop meetings with the BIO community to inform future potential Integration Institutes.</p>	<p>NSF DCL for Integration Institutes RFI available at <a href="https://www.nsf.gov/pubs/2019/nsf19027/nsf19027.jsp">https://www.nsf.gov/pubs/2019/nsf19027/nsf19027.jsp</a>. More information on the BIO Town Halls is available at <a href="https://oadblog.nsfbio.com/2019/08/13/integrating-biology/">https://oadblog.nsfbio.com/2019/08/13/integrating-biology/</a>.</p>
<p><b>Artificial Intelligence Institutes</b> new center-scale solicitation to support application-driven and fundamental AI research. NSF plans to make between one to six Institute awards and up to eight Planning Grants. Institutes will be funded up to \$20 million for five-year Institutes. Planning Grants will be funded up to \$500,000 for</p>	<p>The solicitation was released in October 2019. While this solicitation focuses on six themes for the Institutes track, future solicitations may include additional themes, open tracks, or both.</p>	<p>More information available at <a href="https://www.nsf.gov/pubs/2020/nsf20503/nsf20503.htm">https://www.nsf.gov/pubs/2020/nsf20503/nsf20503.htm</a>.</p>

up to two years. Full proposals are due January 28, 2020; planning proposals are due January 30, 2020.		
--	--	--

## Department of Energy (DOE)

Type	Information on Future Solicitations	Additional Information
<p><b>Energy Frontier Research Centers (EFRCs)</b> In FY 2020, DOE plans to issue a \$40 million (subject to final congressional appropriations) funding opportunity announcement for the next round of EFRCs.</p>	<p>DOE is trying to move to a two-year competition cycle for EFRCs, rather than one major competition once every four years. \$10 million will be set aside for science topics relevant to DOE's environmental management mission, in which the four EFRCs will be re-competed, and the other \$30 million will fund between six and 15 new EFRCs in quantum information science, the energy-water nexus, and microelectronics. The awards will range from \$2 million to \$4 million a year over four years.</p>	<p>More information available at <a href="https://science.osti.gov/bes/efrc/">https://science.osti.gov/bes/efrc/</a>.</p>
<p><b>National Quantum Science Centers</b> In FY 2020, DOE plans to compete up to five national quantum science and technology centers.</p>	<p>On May 20, DOE released a Notice of Intent to compete five quantum information science centers in FY 2020 consistent with the National Quantum Initiative Act of 2018. The five center topics include quantum communications, materials and chemistry for QIS systems and applications, qubit devices and sensors, quantum emulation and computing, and quantum foundries. Each center would be a consortium of national laboratories, universities and industry. Each center would be funded up to \$25 million a year over five years with the option of a second five-year renewal.</p>	<p>More information available at <a href="https://www.energy.gov/articles/department-energy-announces-plans-quantum-information-science-centers">https://www.energy.gov/articles/department-energy-announces-plans-quantum-information-science-centers</a>.</p>
<p><b>Computational Materials Science Centers</b> In FY 2020, DOE plans to issue a \$13 million funding opportunity announcement to compete up to three computational materials</p>	<p>DOE currently supports five centers but three are up for re-competition. These centers are focused on developing open source, validated, community codes and databases for predictive design of functional materials. The focus in FY 2020 will be on quantum information science,</p>	<p>More information available at <a href="https://science.osti.gov/bes/Funding-Opportunities/Closed-FOAs/Computational">https://science.osti.gov/bes/Funding-Opportunities/Closed-FOAs/Computational</a></p>

science centers. The centers are funded at \$4 million annually over four years.	next-generation microelectronics, future energy technologies as well as the incorporation of data analytics and machine learning for data-driven science.	<a href="#">-Materials-Sciences-Awards-2016-FOA.</a>
<b>Solar Fuels Research Centers</b> In FY 2020, DOE plans to issue a \$20 million funding opportunity announcement for multi-investigator, cross-disciplinary solar fuels research centers.	Over the last 10 years, DOE has funded a Fuels from Sunlight Energy Innovation Hub. The Hub award is coming to an end and DOE would like to expand research activities in this area. The focus will be on solar fuels generation with a particular emphasis on photo-electrocatalysis for CO <sub>2</sub> . The focus will remain on the use of only sunlight, carbon dioxide, and water as inputs for fuel production; however, DOE would also like to explore new insights from studies of photo driven conversion of molecules other than CO <sub>2</sub> to fuels.	More information on the current Fuels from Sunlight Hub is available at <a href="https://solarfuelshub.org/">https://solarfuelshub.org/</a> and at <a href="https://science.osti.gov/bes/Research/DOE-Energy-Innovation-Hubs">https://science.osti.gov/bes/Research/DOE-Energy-Innovation-Hubs</a> .
<b>ARPA-E</b> The average ARPA-E program award is \$3 million over three years.	In FY 2020, ARPA-E plans to release solicitations in the following topic areas: flexible carbon capture, carbon-optimized bioconversion, electric motors for aviation, waste to energy, advanced fusion reactor concepts, and energy-smart farms.	More information available at <a href="https://arpa-e.energy.gov/">https://arpa-e.energy.gov/</a> .
<b>Bioenergy Research Centers (BRCs)</b> DOE currently funds four BRCs, with the last competition being held in FY 2016. BRCs have been funded at roughly \$25 million per award annually over five years.	The funding period is five years, so another solicitation is not expected until FY 2021.	More information available at <a href="https://genomicscience.energy.gov/centers/">https://genomicscience.energy.gov/centers/</a> .
<b>Nonproliferation University Consortia</b> DOE currently funds three consortia. The consortia have been funded at \$5 million each annually over five years.	The National Nuclear Security Administration (NNSA) recently competed and made awards for two consortia in 2019. DOE plans to re-compete the UC-Berkeley led consortia focused on nuclear science and engineering in FY 2020.	More information on the UC-Berkeley led consortia can be found at <a href="https://nssc.berkeley.edu/">https://nssc.berkeley.edu/</a> .
<b>Energy-Water Desalination Hub</b> DOE selected its next Energy-Water Desalination Hub on September 23. The Hub will be	The Hub, which will be run by the National Alliance for Water Innovation, will focus on “energy-efficient and cost-competitive desalination technologies, including manufacturing challenges.”	More information available at <a href="https://www.energy.gov/articles/department-energy-selects-national-alliance-">https://www.energy.gov/articles/department-energy-selects-national-alliance-</a>

funded at \$20 million annually over five years.		<a href="#">water-innovation-lead-energy-water-desalination.</a>
<p><b>Cybersecurity Institute for Energy-Efficient Manufacturing</b></p> <p>DOE is currently competing a new Clean Energy Manufacturing Innovation Institute focused on early-stage research advancing cybersecurity in energy efficient manufacturing.</p>	<p>This new Manufacturing USA institute will be funded at \$70 million over five years and join the 14 other DOD-, DOE-, and NIST-funded institutes in advancing domestic manufacturing capabilities. Concept papers for the Institute were due on May 15 and full applications were due August 20, 2019.</p>	<p>More information available at <a href="https://www.energy.gov/articles/doe-announces-70-million-cybersecurity-institute-energy-efficient-manufacturing">https://www.energy.gov/articles/doe-announces-70-million-cybersecurity-institute-energy-efficient-manufacturing</a>.</p>

## Department of Defense (DOD)

Type	Information on Future Solicitations	Additional Information
<p><b>Defense Threat Reduction Agency (DTRA) University Research Alliance (URA)</b></p> <p>DTRA funds basic to advanced research to counter and mitigate threats from weapons of mass destruction.</p>	<p>DTRA is transitioning from its traditional model of awarding multiple small grants to one of a few large-scale, multi-year, multi-performer cooperative agreements (URAs) in key areas of interest. DTRA is currently focused on three topics for the URA program and released separate BAAs for each topic:</p> <ul style="list-style-type: none"> <li>• Adaptive Signature Discovery (ASD) University Research Alliance</li> <li>• Materials Science in Extreme Environments (MSEE) University Research Alliance</li> <li>• Interaction of Ionizing Radiation with Matter (IIRM) University Research Alliance</li> </ul> <p>Depending on the URA program, grants range from \$5-7 million for three to five years. The deadline for letters of intent for all three BAAs was <b>June 21, 2019</b>. The Phase I pre-proposal deadline for all three BAAs was <b>July 17, 2019</b>.</p>	<p>The full ASD URA BAA is available at <a href="http://www.grants.gov">www.grants.gov</a> under number “HDTRA1-19-S-0002-ASD-URA.”</p> <p>The full MSEE URA BAA is available at <a href="http://www.grants.gov">www.grants.gov</a> under number “HDTRA1-19-S-0003-MSEE-URA.”</p> <p>The full IIRM URA BAA is available at <a href="http://www.grants.gov">www.grants.gov</a> under number “HDTRA1-19-S-0004-IIRM-URA.”</p>
<p><b>Defense Established Programs to Stimulate Competitive Research (DEPSCoR)</b></p>	<p>The FY 2019 solicitation was posted on <b>July 16, 2019</b>. Funding totaled approximately \$3.6 million. Each awardee will receive \$200,000 per year for three years. White papers are required and due on <b>October 25, 2019 by 11:59 PM EST</b>.</p>	<p>More information and a map of DEPSCoR eligible states available at <a href="https://basicresearch.defense.gov/Pilots/DEPS">https://basicresearch.defense.gov/Pilots/DEPS</a></p>



<p>The DEPSCoR program is intended to expand research opportunities in states that traditionally receive the least funding in federal support for university research.</p>	<p>Applicants must be from a DEPSCoR eligible state. There are two types of funding competitions:</p> <ul style="list-style-type: none"> <li>• The DEPSCoR competition intends to encourage collaborations on basic research projects of interest to the Department. The program is structured to form a 2-person team between 1) an investigator with prior funding from the DoD (within the past seven years) and 2) a researcher who has not previously received funding from the DoD.</li> <li>• Augment existing programs at ARO, ONR, and AFOSR; specifically, the programs with augmented funds are 1) Young Investigator Program (YIP) and 2) Defense University Research Instrumentation Program (DURIP).</li> </ul>	<p><a href="#">CoR-Defense-Established-Program-to-Stimulate-Competitive-Research/</a>.</p>
<p><b>Defense University Research Instrumentation Program (DURIP)</b> DOD’s DURIP program provides support for major research equipment procurement in foundational science and engineering relating to DOD priorities. The program is administered by the Army Research Office, Office of Naval Research, and Air Force Office of Scientific Research.</p>	<p>The last DURIP solicitation was due on <b>Friday May 17, 2019</b>. White papers were mandatory and were due on <b>March 28, 2019</b>.</p> <p>In FY 2019, there were 185 awards to university researchers totaling \$56 million. Awards were capped at \$1.5 million.</p>	<p>More information available at <a href="https://www.onr.navy.mil/Science-Technology/Directorates/office-research-discovery-invention/Sponsored-Research/University-Research-Initiatives/DURIP.aspx">https://www.onr.navy.mil/Science-Technology/Directorates/office-research-discovery-invention/Sponsored-Research/University-Research-Initiatives/DURIP.aspx</a>.</p>
<p><b>Air Force Centers of Excellence (COEs)</b> While not a regularly released solicitation, the Air Force utilizes COEs to pursue topics of significant benefit to their mission. There were two COE competitions in 2018, one regarding high critical</p>	<p>There are no publicly forecasted or open COE opportunities. Previous funding has been for around \$1 million per year for five years.</p> <p>Note: Program officers at AFOSR are willing to meet to discuss topic ideas.</p>	<p>More information on Air Force Research Laboratory’s University Relations is available at <a href="https://teamafrl.afciviliancareers.com/about-us.php">https://teamafrl.afciviliancareers.com/about-us.php</a>.</p>



<p>electric field materials and the other for autonomy in contested environments.</p>		
<p><b>Multidisciplinary University Research Initiatives (MURI) Program</b> While not an award for a large center, DOD’s MURI program provides \$1.25 to \$1.5 million over a three-year award period to research topics of interest to the Services. Research topics vary by year and are submitted by the Services’ research offices.</p>	<p>The MURI program utilizes annual broad agency announcements (BAA), and the FY 2020 MURI BAA was released on <b>March 1, 2019</b>. White papers were due on <b>June 3, 2019</b>.</p> <p>The full FY 2020 MURI solicitation issued by each military Service is available at <a href="http://www.grants.gov">www.grants.gov</a> by searching “N00014-19-S-F005” (Navy), “W911NF-19-S-0008” (Army), and “# FOA-AFRL-AFOSR-2019-0002” (Air Force).</p>	<p>More information available at <a href="https://www.onr.navy.mil/Science-Technology/Directorates/office-research-discovery-invention/Sponsored-Research/University-Research-Initiatives/MURI.aspx">https://www.onr.navy.mil/Science-Technology/Directorates/office-research-discovery-invention/Sponsored-Research/University-Research-Initiatives/MURI.aspx</a>.</p>
<p><b>Vannevar Bush Faculty Fellowship (VBFF) program</b> 5-year fellowship with up to \$3M for research with potentially extraordinary outcomes; will fund transformative, high-risk basic research in scientific areas of critical importance to DOD.</p>	<p>The last solicitation was released on <b>June 18, 2019</b>, which is the traditional timeline for the program. White papers were due on <b>August 16, 2019</b>. Maximum awards are \$3 million for five years. In FY 2019, 10 awards were made.</p>	<p>More information available at <a href="http://basicresearch.defense.gov/vannevar-bush/">http://basicresearch.defense.gov/vannevar-bush/</a>.</p>
<p><b>Defense Enterprise Science Initiative (DESI) Concept</b> Focuses on use-inspired basic research with industry participants. Leverages industry IR&amp;D, and other activities at DOD Laboratories; supports STEM efforts. DESI is the only basic research effort that requires a concurrent industry IR&amp;D or DoD lab 6.2+ program.</p>	<p>DESI topics included in the FY 2018 pilot BAA include: Power Beaming; Highly-Maneuverable Autonomous UAV; Soft Active Composites with Intrinsic Sensing, Actuation, and Control; Metamaterial-based Antennas; and other. Proposals were due <b>February 28, 2018</b>. Total funding is \$1.5 million over two years. This program is subject to available funding and was not solicited so far in 2019.</p>	<p>More information available at <a href="http://basicresearch.defense.gov/">http://basicresearch.defense.gov/</a>.</p>
<p><b>Army Research Laboratory (ARL) Collaborative Technology and Research Alliances (CTA/CRA)</b> ARL releases these solicitations on an ad hoc</p>	<p>2020 – Artificial Intelligence Innovation Institute (A2I2) seeks :</p> <ul style="list-style-type: none"> <li>• Addressing the Lack of Relevant &amp; Processable Data</li> <li>• Developing Fundamental AI Engineering Principles</li> </ul>	<p>More information available at <a href="https://www.arl.army.mil/www/default.cfm?page=93">https://www.arl.army.mil/www/default.cfm?page=93</a>.</p>

<p>basis to address specific technology needs.</p>	<ul style="list-style-type: none"> <li>• Harnessing the Distributed Research</li> <li>• Adopt &amp; Adapt to Develop Agile AI Technology</li> </ul>	
<p><b>Manufacturing Engineering Education Program (MEEP)</b>  DOD supports industry-relevant, manufacturing-focused, engineering training at a variety of U.S. institutions; the program does not support manufacturing research.</p>	<p>In FY 2019, ONR intends to award up to eight awards with an estimated total value of \$40 million subject to the availability of funds, with individual awards not exceeding \$5,000,000 for a period of up to three years. White papers were due on March 28, 2019 and applications were due on June 20, 2019.</p>	<p>More information can be found at <a href="https://www.onr.navy.mil/en/About-ONR">https://www.onr.navy.mil/en/About-ONR</a>.</p> <p>The 2018 MEEP awardees can be found at <a href="https://www.defense.gov/Newsroom/Releases/Release/Article/1675281/defense-department-selects-awardees-in-the-manufacturing-engineering-education/">https://www.defense.gov/Newsroom/Releases/Release/Article/1675281/defense-department-selects-awardees-in-the-manufacturing-engineering-education/</a>.</p>
<p><b>DOD Synthetic Biology Manufacturing Innovation Institute</b>  DOD announced on September 30, 2019 a request for information (RFI) seeking feedback for a new Manufacturing Innovation Institute (MII) for synthetic biology (SynBio) focused on non-biomedical applications.</p>	<p>The goal of the RFI is to understand how the institute can best utilize the public-private partnership model and understand the technology scope for both defense and commercial products. There will be two stakeholder workshops on October 23, 2019 in Boston, MA and October 25, 2019 in San Jose, CA. Industry and academia are invited to provide perspectives and comments at these events. RFI responses are due <b>Nov. 8, 2019 at 3:00PM local time.</b></p> <p>Note: MIIs are typically established as public-private partnerships with government, industry, and academia through five-year cooperative agreements with DOD providing funding in the range of \$70 to \$80 million over the duration of the institute.</p>	<p>Registration for the workshops can be found at <a href="https://synbio.anser.org/">https://synbio.anser.org/</a>.</p> <p>The full RFI is available <a href="http://www.fbo.gov">www.fbo.gov</a> under pre-solicitation "FA8650-19-S-5028."</p>

## National Institutes of Health (NIH)

Unlike the other agencies included in this document, NIH does not have agency-wide flagship mechanisms. Rather, large center awards are driven through programmatic priorities within each institute or center. Examples of NIH center-type awards are presented below.

Type	Information on Future Solicitations	Additional Information
<p><b>Clinical and Translational Science Award (CTSA) (U54)</b>            These large awards from the National Center for Advancing Translational Sciences (NCATS) support participation in the CTSA program, which supports translational and clinical research and fosters innovation in research methods, training, and career development.</p>	<p>The current solicitation was posted in September 2018 and expires in August 2021. Applications receipt dates are December 16, 2019, April 15, 2020, August 17, 2020, December 15, 2020, April 15, 2021, and August 15, 2021. Project period limited to five years.</p>	<p>More information available at <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-18-940.html">https://grants.nih.gov/grants/guide/pa-files/PAR-18-940.html</a>.</p>
<p><b>Collaborative Program Grant for Multidisciplinary Teams (RM1)</b>            This program aims to support highly integrated research teams (3-6 investigators) examining challenging research questions that are aligned with the National Institute of General Medical Sciences (NIGMS) mission. Proposed research should be deeply synergistic and use a team science approach.</p>	<p>This program replaces almost all program project award programs at the NIGMS. The current solicitation expires in September 2020. Applications are due January 25, 2020 and May 25, 2020.</p> <p>Applicants may propose research budgets of up to \$1.5 million annually. NIGMS anticipates supporting no more than 4-6 awards per fiscal year with awards ranging between \$700,000-900,000 in direct costs.</p>	<p>More information is available at <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-17-340.html">https://grants.nih.gov/grants/guide/pa-files/PAR-17-340.html</a>.</p>
<p><b>Countermeasures Against Chemical Threats (CounterACT) Research Centers of Excellence (U54)</b>            These centers support research and development of new and improved therapeutics for accidental or intentional exposure to chemical threats with the</p>	<p>This program, supported by the National Institute of Neurological Disorders and Stroke (NINDS), National Eye Institute (NEI), National Institute of Environmental Health Sciences (NIEHS), National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), and National Institute on Drug Abuse (NIDA), is a trans-NIH initiative in translational research that collaborates with other HHS programs focused on identifying new medical</p>	<p>More information available at <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-18-657.html">https://grants.nih.gov/grants/guide/pa-files/PAR-18-657.html</a> and <a href="https://www.ninds.nih.gov/Current-Research/Trans-Agency-">https://www.ninds.nih.gov/Current-Research/Trans-Agency-</a></p>

<p>objective of reducing mortality and morbidity.</p>	<p>countermeasures. A new solicitation was issued in February 2018 with future applications due September 9, 2020. Letters of Intent are due 30 days prior to the application due date.</p> <p>Application budgets may not exceed \$2.5 million in direct costs per year, and the project period may not exceed five years.</p>	<p><a href="#">Activities/CounterA CT.</a></p>
<p><b>Centers of Excellence in Genomic Science (RM1)</b> This program supports multi-investigator, interdisciplinary teams to develop transformative genomic approaches that address problems in biomedicine. Proposed research should be high-risk, high-reward.</p>	<p>This program is supported by the National Human Genome Research Institute (NHGRI) and National Institute of Mental Health (NIMH). The current solicitation expires on May 21, 2021. Applications are due May 18, 2020 and May 20, 2021. Letters of Intent are due 60 days prior to the application due date.</p> <p>Proposed budgets may be up to \$1.75 million annually; five-year project period. The maximum period of support is 10 years.</p>	<p>More information available at <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-19-204.html">https://grants.nih.gov/grants/guide/pa-files/PAR-19-204.html</a>.</p>
<p><b>Specialized Programs of Research Excellence (SPOREs) in Human Cancers (P50)</b> These awards support state-of-the-art investigator-initiated translational research that will contribute to improved prevention, early detection, diagnosis, and treatment of an organ-specific cancer or a related group of cancers.</p>	<p>Posted in October 2017, the current SPORE FOA expires January 2021 and is supported by National Cancer Institute (NCI) and National Institute of Dental and Craniofacial Research (NIDCR). This is the signature award of the NCI Translational Research Program, and an institution can have more than one SPORE in a specific cancer. Applicants may request a maximum of \$1.4 million in direct costs per year, and the max budget period is five years.</p>	<p>More information available at <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-18-313.html">https://grants.nih.gov/grants/guide/pa-files/PAR-18-313.html</a>.</p>
<p><b>Silvio O. Conte Centers for Basic Neuroscience or Translational Mental Health Research (P50)</b> This National Institute of Mental Health (NIMH) program supports funding for teams of researchers employing integrative and creative experimental approaches to address high-risk, high-reward questions</p>	<p>While the current solicitation has expired, the NIMH Advisory Council approved the renewal of this program at its May 2019 meeting.</p> <p>Award budgets are limited to \$2 million annually and the project period is limited to 5 years.</p>	<p>More information is available at <a href="https://grants.nih.gov/grants/guide/pa-files/par-18-737.html">https://grants.nih.gov/grants/guide/pa-files/par-18-737.html</a> and <a href="https://www.nimh.nih.gov/funding/grant-writing-and-application-process/concept-clearances/2019/re">https://www.nimh.nih.gov/funding/grant-writing-and-application-process/concept-clearances/2019/re</a></p>

<p>in fundamental or translational neuroscience research.</p>		<p><a href="http://newal-of-the-silvio-o-conte-centers-for-basic-neuroscience-or-translational-mental-health-research.shtml">newal-of-the-silvio-o-conte-centers-for-basic-neuroscience-or-translational-mental-health-research.shtml</a>.</p>
<p><b>NIDA Research Center of Excellence (P50)</b>          These awards provide support for research centers that conduct drug abuse and addiction research in any area of NIDA’s mission. Research should be multidisciplinary and thematically integrated. In addition, these Centers must provide educational and outreach activities to educational organizations, policy makers, and the general public.</p>	<p>Posted in April 2019, the current NIDA Center of Excellence FOA expires in January 2022. This is NIDA’s signature award for drug abuse and addiction research.</p> <p>Proposed budgets cannot exceed \$10 million for the entire 5-year project period. Applications are due September 25, 2020 and September 25, 2021. Letters of intent are due 30 days prior to the application due date.</p>	<p>More information available at <a href="https://grants.nih.gov/grant">https://grants.nih.gov/grant</a>  <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-19-259.html/guide/pa-files/PAR-19-259.html">https://grants.nih.gov/grants/guide/pa-files/PAR-19-259.html/guide/pa-files/PAR-19-259.html</a>.</p>
<p><b>National Institute on Deafness and Other Communication Disorders (NIDCD) Clinical Research Center Grant (P50)</b>          This program supports Centers designed to advance the diagnosis, prevention, and treatment of human communication disorders. Proposed research should involve an interdisciplinary team working on an integrated scientific theme aligned with the NIDCD mission.</p>	<p>The current solicitation expires in October 2021. Applications are due February 6, 2020; June 8, 2020; October 6, 2020; February 8, 2021; June 6, 2021; October 6, 2021. Letters of Intent are due 30 days prior to full application submission.</p> <p>Project budgets are limited to \$1.5 million in annual direct costs; the maximum award period is 5 years.</p>	<p>For more information <a href="https://grants.nih.gov/grants/guide/pa-files/PAR-19-137.html">https://grants.nih.gov/grants/guide/pa-files/PAR-19-137.html</a>.</p>

### National Aeronautics and Space Administration (NASA)

Type	Information on Future Solicitations	Additional Information
<p><b>Space Technology Research Institutes (STRI)</b></p>	<p>STMD implemented a second STRI competition in FY 2018 which resulted in two new institutes. There are now four STRIs each funded at</p>	<p>More information available at <a href="https://www.nasa.gov">https://www.nasa.gov</a></p>

<p>NASA established STRIs as catalysts for deepening its connections to universities and enhancing their ability to advance basic research and technology development in areas relevant to its mission needs.</p>	<p>roughly \$3 million annually for a five-year performance period. The next solicitation is expected to be released in the third quarter of FY 2020.</p>	<p><a href="https://www.nasa.gov/directorates/spacetech/strg/stri">ov/directorates/spacetech/strg/stri</a>.</p>
<p><b>Space Technology Research, Development, and Infusion-2020 (SpaceTech-REDDI-2020)</b> SpaceTech-REDDI-2020 is STMD’s blanket funding opportunity which aims to “identify the best ideas and talents from all sectors of the aerospace enterprise to solve future technology needs while maximizing the value of the nation’s investment.”</p>	<p>This solicitation is effective from October 1, 2019 to September 30, 2020 and is released annually. It contains several topic areas of which details are released throughout the first few months of FY 2020. A full chart of topic area release dates can be found on page 5 of the solicitation.</p>	<p>More information can be found at <a href="https://nspires.nasa.gov/prs.com/external/solicitations/summary/init.do?solId=%7b8710EA44-0AF9-04CC-3709-F27FFA3BD200%7d&amp;path=open">https://nspires.nasa.gov/prs.com/external/solicitations/summary/init.do?solId=%7b8710EA44-0AF9-04CC-3709-F27FFA3BD200%7d&amp;path=open</a>.</p>
<p><b>University Leadership Initiative (ULI)</b> Established in 2015, ULI supports universities or university-led teams conducting research to address specific topics relevant to the mission of the Aeronautics Research Mission Directorate (ARMD) while contributing to the long-term health and diversity of the aeronautical workforce.</p>	<p>NASA issued a solicitation for the third ULI competition in May 2019 and Step-A proposals were due August 27, 2019. So far, these solicitations have been released on a two-year cadence, indicating that the next solicitation could be in FY 2021. Each ULI is funded at \$1-2 million annually for a four-year performance period.</p>	<p>More information available at <a href="https://nari.arc.nasa.gov/uli">https://nari.arc.nasa.gov/uli</a>.</p>
<p><b>DRIVE Science Centers</b> These centers are intended to address grand challenge research questions in solar and space physics through the cross-disciplinary application of theoretical and computational</p>	<p>The first Phase I solicitation was released in early 2019 and Step 2 proposals were due June 20, 2019. NASA expects to issue roughly six Phase I awards, each funded at no more than \$650,000 annually for two years. The next competition is expected in FY 2021.</p>	<p>More information available at <a href="https://nspires.nasa.gov/prs.com/external/solicitations/summary/init.do?solId={1FE15C46-31FA-783D-4ED2-">https://nspires.nasa.gov/prs.com/external/solicitations/summary/init.do?solId={1FE15C46-31FA-783D-4ED2-</a></p>

modeling and simulation tools.		<a href="#">F77BC1A233C9}&amp;path=open.</a>
<p><b>Explorer Missions</b> Explorer Missions are cost-capped, competitively selected, PI-led missions managed by the Astrophysics Division and the Heliophysics Division within the NASA Science Mission Directorate. Explorers are accompanied by Missions of Opportunity (MOs), which offer researchers the opportunity to propose smaller instruments or studies that complement the larger Explorer mission.</p>	<p>NASA is implementing a two-year cadence of Explorer Announcements of Opportunity (AOs). The Heliophysics Division has issued an updated AO for a Medium-Class Explorer (MIDEX) in July 2019. According to the draft, the cost cap for this mission is \$250 million and responses were due September 30, 2019. The Astrophysics Division issued an AO for a Small Explorer (SMEX) in April 2019 and proposals were due August 1, 2019. SMEX funding is \$165 million. Each of these AOs will be accompanied by an MO.</p>	<p>More information on Astrophysics Explorers is available at <a href="https://science.nasa.gov/astrophysics/programs/astrophysics-explorers">https://science.nasa.gov/astrophysics/programs/astrophysics-explorers</a>.</p> <p>More information on Heliophysics Explorers is available at <a href="https://ehpd.gsfc.nasa.gov/">https://ehpd.gsfc.nasa.gov/</a>.</p> <p>The SMEX AO can be found at <a href="https://nspires.nasa.gov/prs.com/external/solicitations/summary.do?solId={CEAB8C17-F3D4-D86E-2E8D-9AECC0B27534}&amp;path=&amp;method=init">https://nspires.nasa.gov/prs.com/external/solicitations/summary.do?solId={CEAB8C17-F3D4-D86E-2E8D-9AECC0B27534}&amp;path=&amp;method=init</a>.</p>
<p><b>Discovery Missions</b> Discovery missions are PI-driven, competitively selected missions, though they are managed by the Planetary Science Division.</p>	<p>The most recent AO for Discovery was issued in April 2019. Total funding is capped at \$500 million. The next Discovery AO is currently planned for FY 2023.</p>	<p>More information available at <a href="https://science.nasa.gov/solar-system/programs/discovery">https://science.nasa.gov/solar-system/programs/discovery</a>.</p>
<p><b>New Frontiers</b> Also residing within the Planetary Science Division, New Frontiers missions are larger, competitively selected missions.</p>	<p>The next New Frontiers AO is expected in the third quarter of FY 2022. Total funding is capped at \$1 billion.</p>	<p>More information available at <a href="https://science.nasa.gov/solar-system/programs/new-frontiers">https://science.nasa.gov/solar-system/programs/new-frontiers</a>.</p>
<p><b>Venture Class</b> The Earth Science Division's Earth Venture (EV) missions are cost-capped, competitively selected, PI-</p>	<p>Earth Venture Mission-3 will likely be released in early FY 2020. The next Earth Venture Instrument AO is expected in the third quarter of FY 2020. The next Earth Venture Suborbital AO is expected in the fourth quarter of FY 2021.</p>	<p>More information available at <a href="https://eospsa.gsfc.nasa.gov/mission-category/13">https://eospsa.gsfc.nasa.gov/mission-category/13</a>.</p>



<p>led missions that offer researchers the opportunity to propose orbital or suborbital missions, and instrumentation.</p>	<p>Award size varies depending on the mission category:</p> <ul style="list-style-type: none"> <li>• Earth Venture Missions (EVMs) are capped at \$166 million per award.</li> <li>• Earth Venture Instruments (EVIs) are capped at \$108 million per award.</li> <li>• Earth Venture Suborbital (EVS) missions are capped at \$30 million per award.</li> <li>• Earth Venture Continuity (EVC), a newer component of the program that supports on-orbit demonstrations of new measurement approaches, is capped at \$150 million.</li> </ul>	
--	---	--

### Department of Homeland Security (DHS)

Type	Information on Future Solicitations	Additional Information
<p><b>University Centers of Excellence (COEs)</b> The COE program is DHS’s flagship research account for universities and its awards are highly-competitive. COE research addresses broad areas of importance for DHS. Funding is provided over 10 years.</p>	<p>DHS continues to propose funding cuts for the COE program, which have been restored by Congress.</p> <p>The last competition was in July 2019, which will award \$35 million in funding to establish a Terrorism Prevention and Counterterrorism Research (TPCR) Center of Excellence, meant to support DHS counterterrorism efforts while training the “next generation of cybersecurity experts.” U.S. colleges and universities were eligible to apply for a 10-year cooperative agreement. Responses were due September 13, 2019.</p> <p>Topics of future COEs are unknown at this time, but could include foci of expiring COEs, which include arctic/maritime security; coastal resilience; or explosives.</p>	<p>More information available at <a href="http://www.dhs.gov/homeland-security-centers-excellence">http://www.dhs.gov/homeland-security-centers-excellence</a>.</p>
<p><b>Executive Leadership</b> DHS has recently released large-scale funding opportunities to support the professional development of agency personnel. Competitions are infrequent</p>	<p><i>Last competitions:</i> Responses to a request for proposals (RFP) to establish an Executive Master of Business Administration (EMBA) in security technology transition were due on August 9, 2019. An award was anticipated to be announced in September 2019 but is still forthcoming.</p>	<p>Institutions interested in competing for these awards should monitor FedBizOpps for periodic solicitations at <a href="https://www.fbo.gov">https://www.fbo.gov</a></p>

and have quick turn-around times.	A funding opportunity for Customs and Border Protection (CBP) Leadership Training Services that was due October 10, 2019.	<a href="#">v/?s=main&amp;mode=list&amp;tab=list.</a>
-----------------------------------	---	---

## Department of Transportation (DOT)

Type	Information on Future Solicitations	Additional Information
<p><b>University Transportation Centers</b> Last solicitation was posted September 2018.</p>	<p>Future competitions would likely occur in FY 2021, depending on the reauthorization of the <i>Fixing America's Surface Transportation Act</i> (FAST Act), which will expire at the end of FY 2020. The award size for National, Regional, and Tier 1 Centers typically ranges from \$1.5 to \$3.2 million annually.</p> <p>UTCs have historically been funded by special mechanisms separate from the annual appropriations process. However, Congress created two additional National UTCs as part of the FY 2018 omnibus and were awarded earlier this year. Similarly, the FY 2020 House Transportation, Housing, and Urban Development appropriations bill provided \$15 million for between two and four new Tier 1 UTCs. Universities can expect a competition announcement for these new Tier 1s to follow within four months to a year once a compromise FY 2020 agreement is signed into law.</p>	<p>More information available at <a href="https://www.transportation.gov/utc">https://www.transportation.gov/utc</a>.</p>
<p><b>Federal Aviation Administration Centers of Excellence</b> Last new Center opportunity, on Technical Training and Human Performance, was issued August 2016.</p>	<p>FAA often recompetes centers that have seen their ten-year funding expire with new universities receiving awards. Recently expired COEs include centers in materials (2015), intermodal transport environment (2014), and aviation emissions (2014). COE Research Grants require matching funds as mandated by Congress.</p>	<p>More information available at <a href="https://www.faa.gov/about/office_org/headquarters_offices/management/coe/">https://www.faa.gov/about/office_org/headquarters_offices/management/coe/</a>.</p>

## National Oceanic and Atmospheric Administration (NOAA)

Type	Information on Future Solicitations	Additional Information
<p><b>Cooperative Institutes (CIs)</b> The most recent competition established a new center focused on Ocean Exploration: URI, URI, USM, and WHOI.</p>	<p>NOAA currently operates 16 CIs that are recompeted every five-year cycle, with an option for one automatic renewal, which corresponds to each center. This is an extremely political award and requires support from the Hill and the NOAA Science Advisory Board. NOAA also releases an annual BAA for CIs that is open year-round. CIs are for \$5 to \$20 million annually over five years, although the recent Ocean Exploration CI award was \$94 million over 5-years.</p>	<p>More information available at <a href="https://ci.noaa.gov/">https://ci.noaa.gov/</a>.</p>
<p><b>National Coastal Resilience Fund Program</b> formerly the Regional Coastal Resilience grants, this program is now administered by the National Fish and Wildlife Foundation (NFWF).</p>	<p>Annual solicitation released in the spring. A total of \$29 million in funding was available for the FY 2019 cycle for individual awards ranging up to \$3 million each.</p>	<p>More information available at <a href="https://www.nfwf.org/coastalresilience/Pages/2019rfp.aspx">https://www.nfwf.org/coastalresilience/Pages/2019rfp.aspx</a>.</p>

## Department of Education (ED)

Type	Information on Future Solicitations	Additional Information
<p><b>Education Research and Development Centers</b> The most recent competition was held in September 2019.</p>	<p>The ED Institute of Education Sciences (IES) National Center for Education Research (NCER) competes these national, center-level competitions on an irregular basis. The R&amp;D Centers program aims to provide national leadership in a focused area of research and advance evidence-based practice and policy. Recent competitions have ranged from \$5 million to \$10 million, five-year awards.</p>	<p>More information available at <a href="https://ies.ed.gov/ncer/projects/program.asp?ProgID=13">https://ies.ed.gov/ncer/projects/program.asp?ProgID=13</a>.</p>
<p><b>Special Education Research and Development Centers</b> This competition was last held in 2011.</p>	<p>Similar to the NCER National R&amp;D Centers, this competition runs on an irregular basis, but supports special education research centers, which aim to provide national leadership in specific research topics. Awards are generally for five years and ranging \$1 to \$2 million.</p>	<p>More information available at <a href="https://ies.ed.gov/ncser/RandD/">https://ies.ed.gov/ncser/RandD/</a>.</p>

<p><b>Comprehensive Centers</b> The most recent competition was held in spring 2019.</p>	<p>ED’s Office of School Support and Rural Programs runs this competition. Generally, ED funds one National Center, targeted at universally applicable capacity-building services and network support, and several regional centers that aim to “provide capacity-building services to State educational agencies (SEAs), regional educational agencies (REAs), local educational agencies (LEAs), and schools that improve educational outcomes for all students, close achievement gaps, and improve the quality of instruction.” Awards are generally up to five years ranging from approximately \$1 million to \$6 million.</p>	<p>More information available at <a href="https://www2.ed.gov/programs/newccp/index.html">https://www2.ed.gov/programs/newccp/index.html</a>.</p>
<p><b>Regional Educational Laboratories (RELs)</b> The competitions are region specific and were last held in 2016.</p>	<p>The Institute of Education Sciences (IES) contracts with organizations, including higher education institutions, to bridge the gap between applied education research and practitioners through research dissemination, training, and technical support. This is not a grant program, but a multi-year contract, which previously ranged from \$20-\$30 million.</p>	<p>More information available at <a href="https://ies.ed.gov/ncee/edlabs/">https://ies.ed.gov/ncee/edlabs/</a>.</p>

**National Endowment for the Humanities (NEH)**

<b>Type</b>	<b>Information on Future Solicitations</b>	<b>Additional Information</b>
<p><b>Infrastructure and Capacity Building Challenge Grants</b> Supports infrastructure development and capacity building. Next deadline for applications is anticipated to be April 3, 2020.</p>	<p>Revised in 2018, this annual competition supports capital expenditures, construction, renovation, equipment purchases, and investment funds, through awards up to \$750,000. Matching funds are required.</p>	<p>More information available at <a href="https://www.neh.gov/grants/preservation/infrastructure-and-capacity-building-challenge-grants">https://www.neh.gov/grants/preservation/infrastructure-and-capacity-building-challenge-grants</a>.</p>