

DOE Office of Science Graduate Student Research (SCGSR) Program

The SCGSR Program provides supplemental awards to outstanding graduate students to spend 3 to 12 months conducting part of their doctoral thesis/dissertation research at a host DOE national laboratory/facility in collaboration with a DOE laboratory scientist.

- Graduate students must apply online through the online application system.
- The application requires a research proposal and letters of support from both the graduate student's thesis advisor and the collaborating DOE laboratory scientist.
- Student's research and proposed SCGSR project must be aligned with one of the identified SCGSR priority research areas defined by the SC Program Offices and specified in the solicitation.
- Applications proposing to use an SC user facility must apply for user facility time separately.

Award Benefits:

- A monthly stipend of up to \$3,000/month for general living expenses
- Reimbursement of inbound/outbound traveling expenses to/from the host DOE laboratory/facility of up to \$2,000

(Award payments are provided directly to the student)

Eligibility:

- U.S. Citizen or Lawful Permanent Resident
- Qualified graduate program & Ph.D. Candidacy
- Graduate research aligned with an SCGSR priority research area
- Establishment of a collaborating DOE laboratory scientist at the time of application

2020 Solicitation 1 – Application Due May 20, 2020, 5::00 PM ET

Full details, requirements, FAQs, and link to application at: <https://science.osti.gov/wdts/scgsr/>

Key Dates for 2019 - 2020

At the submission deadline (shown in red), the online application system will close after which no additional materials will be accepted.

The online application system closes at 5:00 PM Eastern Time.

	2019 Solicitation 2 (Most Recent)	2020 Solicitation 1 (Ongoing)	2020 Solicitation 2*** (Upcoming)
On-line Application Opens	August 22, 2019	February 13, 2020	August 2020
Applications Due (including all letters of support)	November 14, 2019 5:00 PM ET	May 20, 2020 5:00 PM ET	November 2020
Offer Notification Period <i>Begins on or around</i>	April/May 2020	August/September 2020	April/May 2021
<i>Earliest*</i> Start Date for Proposed Project Periods	June 15, 2020	November 9, 2020	June 14, 2021
<i>Latest**</i> Start Date for Proposed Project Periods	October 5, 2020	March 1, 2021	October 4, 2021

**Proposed project periods may not begin before this date, and may be 3 to 12 consecutive months in duration.*

*** Proposed project period must begin no later than this date, and may be 3 to 12 consecutive months in duration.*

**** All Dates are tentative.*

SCGSR Program: Priority Research Areas for 2020 Solicitation 1

Convergence Research Topical Areas

- (a) Microelectronics (ASCR, BES, HEP)
- (b) Data Science (ASCR, BES, BER, FES, HEP, NP)
- (c) Fundamental Symmetries (BES, HEP, NP)
- (d) Accelerator Science (ASCR, BES, BER, FES, HEP, NP)

Advanced Scientific Computing Research (ASCR)

- (a) Applied Mathematics
- (b) Computer Science

Basic Energy Sciences (BES)

- (a) Accelerator and Detector R&D
- (b) Nuclear Chemistry and Radiochemical Separations
- (c) Neutron Scattering Research and Instrumentation
- (d) Materials Science and Chemistry for Microelectronics
- (e) Fundamental Electrochemistry for Chemical and Materials Sciences
- (f) Crystal Growth
- (g) Ultrafast Materials and Chemical Sciences
- (h) Electron and Scanning Probe Microscopy Research and Instrumentation
- (i) Basic Geosciences
- (j) Gas Phase Chemical Physics
- (k) Radiation Effects in Materials
- (l) Catalysis Science with NMR Spectroscopy, Neutron Scattering, and X-ray Absorption Spectroscopy Techniques
- (m) Highly Ionizing Radiation in Chemistry
- (n) Energy Transfers in Large Proteins and Protein Complexes
- (o) Quantum Information Science for Experimental Condensed Matter Physics
- (p) Quantum Information Science for Theoretical Condensed Matter Physics
- (q) Data Science for AI Applications to Chemical, Geological, Biochemical, and Materials Sciences

Biological and Environmental Research (BER)

- (a) Computational Biology and Bioinformatics
- (b) Biomolecular Characterization and Imaging Science
- (c) Plant Science for Sustainable Bioenergy
- (d) Soil Microbiology
- (e) Environmental Systems Science
- (f) Atmospheric System Research
- (g) Earth System Modeling

Fusion Energy Sciences (FES)

- (a) Burning Plasma Science & Enabling Technologies
- (b) Discovery Plasma Science

High Energy Physics (HEP)

- (a) Theoretical and Computational Research in High Energy Physics
- (b) Advanced Accelerator and Detector Technology Research and Development in High Energy Physics
- (c) Experimental Research in High Energy Physics

Nuclear Physics (NP)

- (a) Medium Energy Nuclear Physics
- (b) Heavy Ion Nuclear Physics
- (c) Low Energy Nuclear Physics
- (d) Nuclear Theory
- (e) Nuclear Data and Nuclear Theory Computing
- (f) Isotope Development and Production for Research and Applications
- (g) Accelerator Research and Development for Current and Future Nuclear Physics Facilities



New Category - Convergence Research Topical Areas

- Forward looking, reflecting SC emerging areas and strategic priorities, and trans-disciplinary research germane to SC and integral to the DOE laboratory complex are of interest.
- By nature, convergence research topics bring together people from different academic disciplines and/or different sub-areas represented in the Office of Science, and are formed for achievements possible only through such integration.
- The convergence research topical areas represent cross-cutting research themes and shared interests across Office of Science's research program offices.
 - Applications submitted in this category must address research topic(s) of interest to at least two of the participating SC programs.
 - If applicants are not certain if they should submit an application to a convergence area or a non-convergence area under a single program office, it is recommended to submit it to the convergence area first.



Merit Review Criteria

1. Scientific and/or Technical Merit of the Proposed Research*

- a. Is the proposed research well-conceived, and does it demonstrate a clear understanding of the scientific and technical challenges involved?
- b. Is the proposed method and approach for the proposed research appropriate?
- c. Is the applicant (graduate student) sufficiently well prepared to conduct the proposed research?
- d. Are the DOE laboratory resources adequate? If applicable, has the necessary access to a scientific user facility been secured by the DOE laboratory collaborating scientist?

2. Relevance of the Proposed Research* to Graduate Thesis Research and Training

- a. Does the proposed research have the potential to make a significant contribution to the applicant's (graduate student's) thesis research project?
- b. Will the proposed research enhance the applicant's graduate training and research skills?

* Research proposed is explicitly the scope of the research proposed to be conducted by the applicant (graduate student) at the DOE Laboratory/Facility.



Application Requirements

All applications to the SCGSR program must be completed through the online application system. Only complete applications submitted by the deadline will be considered.

A Complete SCGSR Application includes:

- All required fields of the Online Application System, *including*:
 - Contact information of the graduate applicant, primary graduate thesis advisor, and collaborating DOE laboratory scientist
 - Academic information, including undergraduate and graduate study
 - Professional information, including scientific publications and awards, research experiences, etc.
 - Alignment of proposed research to one of the SCGSR Priority Research Areas
<https://science.osti.gov/wdts/scgsr/how-to-apply/priority-sc-research-areas/>
- A **SCGSR Research Proposal** (*3-page maximum including references, full guidance provided online*).
<https://science.osti.gov/wdts/scgsr/how-to-apply/research-proposal-guidelines/>
- Official graduate transcripts and proof of Ph.D. Candidacy.
<https://science.osti.gov/wdts/scgsr/how-to-apply/graduate-transcripts/>
- Two Letters of Support, one by primary graduate thesis advisor, and the other by collaborating DOE laboratory scientist. <https://science.osti.gov/wdts/scgsr/how-to-apply/Letters-of-Support/>