

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

2022 Solicitation 1 – Application Due May 4, 2022, 5:00 PM ET

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



U.S. DEPARTMENT OF
ENERGY

Office of
Science

Program Contact : sc.scgsr@science.doe.gov

Key Dates for 2020 - 2023

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.

	2021 Solicitation 2 (Most Recent)	2022 Solicitation 1 (Ongoing)	2022 Solicitation 2*** (Upcoming)
On-line Application Opens	August 19, 2021	February 9, 2022	August 2022
Applications Due (including all letters of support)	November 10, 2021 5:00PM ET	May 4, 2022 5:00PM ET	November 2022
Offer Notification Period <i>Begins on or around</i>	April/May 2022	September 2022	April/May 2023
<i>Earliest*</i> Start Date for Proposed Project Periods	June 13, 2022	November 14, 2022	June 12, 2023
<i>Latest**</i> Start Date for Proposed Project Periods	October 3, 2022	March 6, 2023	October 2, 2023

**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 2022 Solicitation 1

<https://science.osti.gov/wdts/scgsr/how-to-apply/priority-sc-research-areas/>

Convergence Research Topical Areas

- (a) Microelectronics (ASCR, BES, HEP, NP)
- (b) Data Science (ASCR, BES, BER, FES, HEP, NP)
- (c) Conservation Laws and Symmetries (HEP, NP)
- (d) Accelerator Science (ASCR, BES, BER, FES, HEP, NP, DOE IP, ARDAP)

Advanced Scientific Computing Research (ASCR)

- (a) Applied Mathematics
- (b) Computer Science
- (c) Computational Partnerships
- (d) Advanced Computing Technologies

Basic Energy Sciences (BES)

- (a) Accelerator and Detector R&D
- (b) Basic Geosciences
- (c) Basic Science for Advanced Manufacturing
- (d) Basic Science for Clean Energy and Decarbonization
- (e) Chemical and Materials Science for Quantum Information Science (QIS)
- (f) Data and Computational Sciences for Materials and Chemical Sciences
- (g) Fundamental Electrochemistry for Chemical and Materials Sciences
- (h) Gas Phase Chemical Physics
- (i) Instruments R&D for Neutron and X-ray Facilities
- (j) Instruments and Techniques R&D for Electron and Scanning Probe Microscopy
- (k) Materials Sciences and Chemistry for Microelectronics
- (l) Nuclear Chemistry and Radiochemical Separations
- (m) Radiation Effects in Materials and Chemistry

Biological and Environmental Research (BER)

- (a) Computational Biology and Bioinformatics
- (b) Biomolecular Characterization and Imaging Science
- (c) Plant Science for Sustainable Bioenergy
- (d) Environmental Microbiology
- (e) Environmental System Science
- (f) Atmospheric System Research
- (g) Earth System Model Development
- (h) Regional and Global Model and Analysis

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 Advanced 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) Fundamental Symmetries
- (d) Nuclear Structure and Nuclear Astrophysics
- (e) Nuclear Theory
- (f) Nuclear Data and Nuclear Theory Computing
- (g) Accelerator Research and Development for Current and Future Nuclear Physics Facilities
- (h) Quantum Information Science for Experimental and Computational Nuclear Physics
- (i) Artificial Intelligence and Machine Learning for Nuclear Physics
- (j) Advanced Detector Technology Research and Development in Nuclear Physics

Isotope R&D and Production (DOE IP)

- (a) Isotope Production Research
- (b) Isotope Processing and Purification
- (c) Nuclear Chemistry and Radiochemical Separations
- (d) Biological Tracers and Imaging
- (e) Isotope Enrichment Technology

Accelerator R&D and Production (ARDAP)

- (a) Accelerator Technology Research
- (b) Accelerator Technology Development



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/>

