



Office of Science Graduate Student Research (SCGSR) Program

2021 SCGSR Research Proposal Guidelines

A required application element includes development and submission of a SCGSR research proposal describing the scope of research that the graduate student (the applicant) is proposing to conduct at a DOE laboratory/facility in collaboration with a scientist at the host DOE laboratory/facility. This proposal must be co-developed by the applicant and the DOE research scientist, in consultation with the applicant's thesis project advisor. The proposed research to be carried out at the DOE host laboratory/facility must be approved by the primary thesis advisor and must be an integral part of the applicant's overall doctoral thesis project. Advisor approval is made through Letter of Support by the thesis advisor's, which is required as part of the graduate student's application.

Proposal Format and Required Elements:

The SCGSR research proposal can only be submitted as a normal Adobe Acrobat PDF document (with a name of the form "yourfilename.pdf") via an upload to the SCGSR online application system. The required page format comprises margins of one inch around the text (top, bottom, left, right) with the text being in a 12-point, single-spaced (12 point), Times, Times Roman or appropriate symbol font (for math script).

The length of the SCGSR research proposal document is limited to a total of three pages.

General information associated with the applicant's SCGSR research proposal, such as the proposal abstract, proposed SCGSR research project period, proposed host DOE laboratory/facility, and name and contact information of the collaborating DOE laboratory scientist, is requested separately in the "Research Proposal Information" section of the SCGSR online application and should not be repeated in the SCGSR research proposal document. The information submitted in the "Research Proposal Information" section of the application does not count toward the three-page limit on the research proposal document.

An applicant's research proposal must address the stated aims in at least one of the [SCGSR Priority Research Areas](#) specified for the ongoing application cycle. Applicants are encouraged to read the program information on how SCGSR applications will be [evaluated](#), including the Merit Review Criteria that applications will be reviewed against, to help guide the content of their SCGSR research proposal.

In order to ensure that the SCGSR research proposal is clearly identified, please include, within the top and bottom 1-inch margins, header and footer information as follows:

- Header-left: Proposal title;
- Footer-left: Applicant first and last name;
- Footer-right: Page numbers.

No more than a total of three pages can be used to appropriately address the following proposal elements:



Guidance on Required Elements:

a. Proposal Title

The first line of the SCGSR research proposal should include the proposal title. The title should be identical to the title you submitted under “Title of SCGSR proposed research project” in the “Research Proposal Information” section of the SCGSR application.

b. Body

The body of the proposal should address the following topics:

Background: Define the context for the proposed SCGSR research project to be conducted at a DOE laboratory/facility by relating it to your doctoral thesis project approved by your thesis advisor and relating it to other relevant work. Set the stage to answer the questions: “What is innovative in the SCGSR research proposal?” and “How does it contribute to my overall doctoral thesis project?”

This section should provide brief information on the following:

- A concise description of the scope of research you are proposing to conduct at the DOE laboratory/facility;
- Specifically indicate one or more areas where there are gaps in the current state of our knowledge and how your proposed SCGSR research will address at least one of these areas;
- Describe any of your prior work, including preliminary research results, that are related to, or may have led to, your proposed SCGSR research project;
- Identify connections of the proposed SCGSR research to the research activities of the collaborating DOE laboratory scientist and/or relevant facilities or capabilities that will be accessed at the host laboratory/facility, and how this laboratory/facility and/or relevant facility or capability uniquely enable the proposed activities; and
- Cite one to three references of key publications by others that describe the state-of-the-art in the area of science proposed.

Successful proposals will be those that communicate effectively the innovation, timeliness, and excitement of the ideas for the proposed research.

Research objectives and goals: Concisely define goals and objectives for your proposed SCGSR research, including key deliverables you expect to accomplish, and describe how accomplishment of the research goals would impact and help advance your doctoral thesis project.

R&D approach, and expected scientific and technical results: The detailed science of the proposed research project should be laid out. Give the rationale for the approach, describe the design of your activities and the methods you will use, and outline the expected results. Also describe specific scientific accomplishments you expect over the duration of the proposed project period, as well as how the research expertise, facilities or capabilities at the host DOE laboratory/facility will be utilized to achieve these accomplishments.



c. Other notes

Project descriptions may contain embedded figures, but the entire proposal should be legible when printed in black and white (that is, color figures that are not clear in black and white should be avoided) and the inclusion of figures must not result in exceeding the page limit.

Proposal Submission

- Proposals must be submitted by uploading the PDF file into the SCGSR online application system.
- If a PDF file contains more than three pages, all additional pages will not be included as part of the application.
- It is the responsibility of the applicant to coordinate with their collaborating DOE laboratory scientist and primary graduate thesis advisor in the development of the proposal, and to ensure that both individuals have approved the final PDF file being uploaded. The collaborating DOE laboratory scientist and primary graduate thesis advisor will receive an email notification when the proposal has been uploaded.
- Collaborating DOE Laboratory Scientists may be from any of the participating DOE national laboratories/facilities listed at the SCGSR program website.