

FY22 Laboratory University Collaboration Initiative (LUCI)

Basic Research Office, USD (R&E)

I. Overview

The Laboratory University Collaboration Initiative (LUCI), sponsored by the Basic Research Office, Office of Under Secretary of Defense for Research and Engineering (USD R&E) (<http://basicresearch.defense.gov/>), is a program designed to support the DoD Laboratory researchers for their collaborations fostered between them and DoD funded university researchers on basic research projects in areas of critical interest to DoD.

White papers for the FY2022 Class of LUCI Fellows are being solicited from researchers in the DoD laboratories to conduct basic scientific research in collaboration with University researchers who participate in the Department-wide fundamental research programs, specifically: past and current Vannevar Bush Faculty Fellows (VBFF), and current and previous PIs and co-PIs of the Multidisciplinary University Research Initiatives (MURI) Program. For the latter, PIs and co-PIs are defined as investigators in charge of a significant portion of the research work, and listed in the original MURI proposal. Other University researchers, funded by other DoD programs, are not eligible. While collaborators from previous and inactive VBFF and MURI awards are allowed, it is recommended that attention be focused on more recent ones unless well justified in the white paper. It is anticipated that for a successful white paper, the Laboratory researchers will spend a significant amount of time to perform the proposed research in collaboration with the universities. Joint white papers written by two DoD Laboratories from the same or different Services are allowed and encouraged, but will not receive additional funding and will be evaluated with the same criteria. Similarly, a white paper may include more than one University PI that satisfies the criteria above (VBFF and MURI). In both cases, the number of laboratory PIs collaborators must be explained and justified in the white paper.

Each awarded project will be eligible for up to \$200,000/year for three years. Awarded funds may be used for a portion of the PI's salary, new post-doctoral researchers or other contractors, travel to collaborators' institutions, and supplies. Funds may also be used for part-time support of post-doctoral researchers and students at the collaborating University, but it is expected that most of the funds will be used within the DoD laboratory, and that the Government PI will commit sufficient time to the project. Government PIs are also encouraged to leverage the SMART Scholarship SEED Grant opportunity^[1] for Phase 2 SMART scholars, if circumstances allow, although no preference will be given to proposals that can successfully do so.

^[1] For more information, please contact smart@smartscholarship.org, or osd.mc-alex.ousd-atl.mbx.smart@mail.mil

II. Topics of Interest

The research topics of interest for the white-papers are described in broad terms in the Federal Opportunity Announcement (FOA) for the FY22 VBFF program, which can be found [here](#). They include:

1. Applied Mathematics and Computational Science
2. Networks and Artificial Intelligence
3. Cognitive Neuroscience
4. Fundamentals of Bioengineering
5. Quantum Information Science
6. Electronics, Photonics and Quantum Materials
7. Engineered Materials and Structures
8. Other Fields of Research, deemed of interest to the DoD.

These topics are broadly defined and are not to be construed as limitations to the range of ideas that can be proposed. The PI may also indicate in the white paper more than one topic, if necessary (a primary and a secondary). This will facilitate the submission and review of white papers which are multi-disciplinary.

III. Submission Process and Instructions

The application is made on-line, at: <https://dod-basicresearch.nvision.noblis.org/>. The *nVision* web-site provides a step-by-step process for submitting the application, including the identification of co-PIs and collaborators, uploading of the white paper, CV, and letters of support from the Laboratory management and the University collaborators. The white paper package to be uploaded must have the following documents:

1. A one-page cover sheet that identifies: 1) the submission title, organization(s), proposer's technical and administrative points of contact—including names, phone numbers, and e-mail addresses; 2) the University collaborators and their institutions, contact information, and the date and title of their most recent VBFF or MURI project.
2. A technical narrative section (5 page limit, single-sided, 11 point font minimum). The technical narrative must describe the following: a) the basic scientific or technical research to be performed; b) how this research will leverage the expertise of external collaborators to be beneficial to DoD missions; c) the technical approach. References are not required but may be included within the 5 page limit, and inserted as footnotes. Pictures and graphics, if included, must also be part of the narrative and its 5 page limit.
3. A budget section, limited to 1 page, which should provide an approximate annual budget and a high level breakdown for personnel, travel, materials and supplies etc.
4. PI's and co-PI's Curriculum Vitae (CV) (4 page limit, single-sided)

5. Letter of support from the PI's technical supervisor, as well as for any co-PI, explaining the potential impacts of the project to the organization, and endorsing the research and any proposed visit to university collaborators.
6. Letter(s) of support from the University collaborator(s). These should explain what the three-year collaboration entails, including a brief description of commitment to the collaboration.

If the package is missing any of the items above, the white paper will be considered ineligible and will not be reviewed.

The white paper and support documents must be combined into one (1) PDF file, and submitted via the *nVision* web-site: <https://dod-basicresearch.nvision.noblis.org/>. We encourage the applicants to read the additional material provided on the web-site, including the User Guide, and reach out to the provided contact information for help. We also point out that a submission is not final, and can always be edited until the deadline. Therefore, it is also encouraged to submit relatively early and check the submission package for additional verification of its accuracy and completeness. Since the package also includes letters of support from the collaborators, it is also highly recommended to manage this process and make sure they can be incorporated before the submission deadline.

IV. Proposal Guidelines and Selection Criteria

A Proposer Guide has been made available on the *nVision* site to explain the objectives of the program, the review process, and provide guidance on how to write a quality submission. The submission will be essentially evaluated according to the following criteria:

1. Scientific and technical merits of the proposed research
 - Does the white paper explain the state-of-the-art of the research?
 - Does the white paper provide convincing arguments that the proposed research is a significant advance over the state of the art?
 - Is this fundamental research?
 - Is the technical plan credible?
2. The relevance and impact to the DoD
 - Does the research indicate a potentially transformative impact on the DoD missions?
 - How will the expected outcome impact the DoD laboratory's R&D plans, activities, or personnel?
 - Is the Government PI well committed to the success of the research project?
3. The importance of the collaboration
 - How meaningful is the external collaboration to the success of the research?

- How will the interaction and exchange of ideas, skills and knowledge be accomplished?
4. The reasonableness of proposed budgets
- Is the proposed budget plan consistent with the research plan?
 - Is most of the funding supporting the laboratory?

After the white paper evaluation by panels of government subject-matter experts, selected applicants will be asked to prepare for a 30-minute interview, to be conducted via teleconference, for a second phase of selection. This will consist of a 20-minute presentation to an OSD evaluation committee, followed by 10 minutes for Q&A. Presentation material must be provided to the evaluation committee in advance of the interview. This phase provides an opportunity for the applicants to clarify any issue or question raised by the review panels during Phase I. The comments and evaluations by the panels will be made available to the PI as a summary feedback, in order to better prepare for the interview phase. The evaluation committee will then make recommendations to the Director for Basic Research at OSD, for a final decision.

V. Important Dates

Event	Date	Time
<i>nVision</i> site open for white papers and supporting documents submission	22 November 2021	
Final date/time for submission of white papers and supporting documents	1 April 2022	11:59 PM Eastern Daylight Time
Notification of white paper selections for interviews	10 June 2022*	
Interview period	1 - 5 August 2022*	
Notification of selections for award	12 August 2022*	
Start date of project	01 October 2022*	

***These dates are estimates as of the date of this announcement. Please be mindful of the limited scheduling opportunities for the interview phase and plan accordingly.**

Procedural questions regarding the submission process should be sent to the provided contact information on the *nVision* site. All technical and administrative correspondence, and questions regarding the program should be addressed to Dr. Jean-Luc Cambier, Basic Research Office, USD (R&E). E-mail: jeanluc.cambier.civ@mail.mil