

COLLABORATORY ON RESEARCH DEFINITIONS FOR RESERVE AND RESILIENCE

CALL FOR PILOT PROJECT PROPOSALS

<https://reserveandresilience.com/call-for-pilot-projects>

The Collaboratory on Research Definitions for Reserve and Resilience is seeking applications for studies that will help clarify the operational definitions for concepts used in research. The Executive Committee has settled on working definitions for the concepts of brain maintenance and cognitive reserve.¹ These are available on the Collaboratory website: <https://reserveandresilience.com/>

We are releasing this call for pilot projects to encourage investigators to develop experimental approaches towards operationalizing and testing the proposed definitions for brain maintenance and cognitive reserve. For example, you might want to dissociate two different operational definitions for a single concept, or explore how two concepts can be differentially defined. If you are interested in testing other definitions, or another concept like brain reserve, resistance, resilience, etc., you are welcome to incorporate that concept as long as you focus on how you would differentiate it from the concepts that we have already defined, and you provide a clear working definition of your proposed concept.

Awardees will be invited to the upcoming online Second Annual Workshop on Reserve and Resilience to present their study design.

¹ Note that we plan to develop and seek consensus on definitions of further relevant concepts in the future. However, the present call for pilot studies is focused on these two.

We invite two types of proposals:

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Studies that use existing data sets (human or nonhuman) to test the operational definitions of these concepts or related ones; or studies that compare existing data from human with nonhuman animal studies in order to explore whether the same operational definitions, neural or cognitive constructs can be investigated across species;

Studies using existing data sets:

Proposed projects should utilize one or more existing data sets. These can be from human or nonhuman animal studies. Longitudinal studies might be optimal for analyses but are not required. Similarly, studies with functional or neural network level data might be useful. Based on the data sharing policies in each data set, proposed analyses might either be done by the applicant on provided data, or by the data collection site, guided by specifications of the applicant.

The data sets to be used by the applicant must be specified. We have prepared some guides for existing larger data sets whose investigators are willing to share or help analyze data, but others can be used as well.

[Click here to access the available human cohorts](#)

[Click here to access the available animal cohorts](#)

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New human or nonhuman studies that collect specific data that can address issues relevant to this call for proposals.

New human or nonhuman studies:

We invite studies that will provide clarity on the defined concepts or help differentiate them from other suggested concepts, and can be completed within the budget and timeframe of this pilot program. This may include proposal for nested studies or additional data collection or analyses in the framework of existing data sets – thus effectively leveraging existing data sets and adding value to them.

Review Criteria

Proposals will be judged on the following criteria:

1. A clearly articulated conceptual background defining the construct(s) to be examined or compared – including clear description of how the proposal addresses the proposed definitions for brain maintenance and cognitive reserve.
2. Unambiguous operational definitions of all constructs that will be addressed.
3. Clear hypotheses with predictions based on (1) and (2). Applications where the analyses are geared towards results that will help us better operationally define or contrast concepts will be preferred.
4. Prespecified analysis to test the primary hypothesis (see reproducibility below).
5. Clear specification of the data set(s) or animal model to be used. Access to the data/model must be demonstrated, along with articulation of the specific variables to be measured.

Reproducibility

To facilitate the reproducibility of results, we require investigators to be as open and transparent as possible. We will require detailed pre-registration/ posting of analytic plans. We encourage posting of fully annotated analytic code for the relevant statistical program, either before or after the analysis is complete. Exploratory analyses are also encouraged, but these should be labelled and discussed as such, and differentiated from pre-registered, confirmatory analyses, in the eventual write-up. Finally, to guard against publication bias, we encourage the use of pre-prints, in order that all results (positive, negative, or null) are communicated to the scientific community rapidly and regardless of their level of “interest” at specific journals.

Eligibility

There is no eligibility restriction but postdoctoral fellows and early career investigators are particularly encouraged to apply.

Funding

- We anticipate funding at least 10 studies, depending on the funding level of the grants awarded.
- Studies must be designed to be completed within one year.
- Funding will be provided to the applicant. If the analysis is done by the data collection site, funding can be provided for this as well. Funding will range between \$10,000 and \$30,000, depending on personnel needs, and whether the study uses existing data or requires collection of new data.
- For US institutions, indirect costs can be awarded at the rate of the investigator’s institution. For non-US institutions, the indirect rate is 8%.

Application

- The entire proposal should be submitted through the online platform accessible from <https://reserveandresilience.com/proposals> as a single PDF file labelled "Collaboratory_Pilot_InvestigatorLastName".
- Questions about the proposals should be addressed to Kulbir Kaur at kk3347@cumc.columbia.edu
- Use at least 11-point font size and 0.5 inch margins in all directions. Use standard forms as directed.

Page 1

Use the [PHS 398 face page](#).

Pages 2-4

Section I: Brief abstract ending with clearly and succinctly stated hypothesis.

Section II: Specific aims of the proposed research project, describing how the outcomes will further the stated goals of this call for pilot projects.

Section III: Methods. Clearly describe the research design and operational definitions. Specify the data sets to be used or the data to be collected and provide details of proposed analyses

Section IV: Timetable

References do not count in the page limit.

Appendices

- Proposed budget. Use the [PHS 398 budget form](#) and the [PHS 398 checklist](#)
- Provide a standard [NIH biosketch](#) for the principal investigator, and mentor if applicable.
- For postdoctoral fellows, please include a one-page letter of support from the mentor that includes a brief description of the mentoring plan

Proposal Review and Notification of Grant Awards:

Proposals must be [submitted online](#) and received by **June 15 19, 2020**; late submissions will not be considered.

Awardees will be notified by July 15, 2020.

For any questions on your proposal, please email Dr. Kulbir Kaur at kk3347@cumc.columbia.edu.

Technical questions relating to the submission of the proposal should be directed to the secretariat@reserveandresilience.com