support for Brazilian science

call for proposals no.3/2019

proposal selection process
proposals outside the scope of the call

PHASE 1
Elimination
Executed by:
Serrapilheira executive team
and panel chairs

PHASE 2
Qualification
Executed by:
evaluation panels and
Serrapilheira executive team

Applications
Analysis of the scientific
production selected by the
researcher + cv

Projects
Analysis of the
extended anonymous
project summary

20
chemistry
20
computer sciences
20
geosciences
20
mathematics
20
physics
60
life sciences

PHASE 3
Selection
Executed by:
evaluation panels

160 proposals

10
chemistry
10
computer sciences
10
geosciences
10
mathematics
10
physics
30
life sciences

PHASE 4
Final validation
Executed by:
Executive team in consultation
with panel chairs

80 proposals

24 proposals

approved in the various fields
based on rankings and in
consultation with panel chairs

up to

after one year

3 proposals

chosen for a three-year period
with possibility of renewal
proposal selection process
a single proposal trajectory

PHASE 1
Elimination
Executed by:
Serrapilheira executive team
and panel chairs

Proposal
not approved

PHASE 2
Qualification
Executed by:
evaluation panels and
Serrapilheira executive team

Proposal qualified

Applicant
Analysis of the scientific production selected by the researcher + cv

Project
Analysis of the extended anonymous project summary

Reviewer A
Reviewer B
Reviewer C
Reviewer D
proposals are scored

not approved

PHASE 3
Selection
Executed by:
evaluation panels

Proposal selected

specialists from the evaluation panels conduct a detailed review of the proposal.
Collaborative decision

not approved

PHASE 4
Final validation
Executed by:
Executive team in consultation with panel chairs

Proposal final validation

not approved

Proposal approved
Criteria

Young scientists*

1. with the potential to develop, or who have already developed, outstanding research

2. and are posing big questions in their fields

These young scientists should demonstrate that they are already developing first-rate, methodologically rigorous science. At the same time, they must pose a major question as the basis for a creative, daring, audacious project – one which can involve a degree of risk.

Serrapilheira will not provide funding for projects that are a clear continuation of prior work with foreseeable results. Proposals must be innovative.

*Applicants must have received their PhD between January 1st, 2012 and December 31st, 2017. This requirement may be adjusted by up to two years for women with children. Thus, a woman with one child should have received her PhD after January 1, 2011. Women with two or more children should have received their PhDs after January 1, 2010. Applicants must be conducting scientific research and hold a permanent position as professors or researchers at a university, institute, or other entity in Brazil, be it public or private.
Breakdown

1. Elimination Phase

- Proposals that fall outside the scope of the call will be removed from consideration. This includes those that do not correspond to the list of fields we support (i.e. natural sciences, mathematics, and computer sciences). In this phase, the Serrapilheira executive team and panel chairs will only examine the extended anonymous summary as well as the answers to the following questions:

  i. What is the fundamental question raised by the project?

  ii. What is the project’s testable hypothesis? If the project is exploratory, what is the reason to explore this area?

  iii. How will the results of the project advance fundamental understanding in the area?

  iv. Why is this project important and timely?

- Any candidate who has not been the lead author at least one published scientific paper, regardless of its impact, will also be eliminated. Lead authors are defined as those who made the greatest contribution to the article, not necessarily the lab leader or the leader of the research group.

Executed by: Serrapilheira executive team and panel chairs
2. Qualification Phase

- The remaining **applicants** and **projects** from the previous phase will be evaluated. In this phase, panel members will examine two batches of documents:

  i. the scientific production selected by the researcher and their CV **(assessment of the candidate)**

  ii. the extended anonymous project summary and, once again, the answers to the following questions: a) What is the fundamental question raised by the project?; b) What is the project’s hypothesis?; c) How will the project advance fundamental understanding in the area?; d) Why is this project important and timely? **(assessment of the scientific impact of the project)**

- Each batch of documents will be evaluated in parallel by at least one panel member from the relevant field. The panel members tasked with assessing the candidate will be different from the panel members who will assess the project.

- We should note that project evaluation in this stage will be **anonymous (blind review)**.

- The panel members must score proposals from 0 to 10 in each of the criteria listed below, 0 being the weakest and 10 the strongest.

- The executive team will calculate the average of all scores. In this phase, up to 20 projects from each field will move on to the selection phase. In principle, the selection will be determined by the highest scores awarded during the qualification phase. However, the panel can collectively select proposals that it judges competitive even if their scores are not within the top 20.
Criteria

a. Applicants: The quality and rigor of the research developed so far will be evaluated based on the scientific publications selected by each researcher and their CV. The panels will analyze applicants' descriptions of their most important publications and will also have access to those articles in full.

i. relevance: how significant is the science behind the articles?

ii. originality: how original is the science behind the articles?

iii. scientific contribution: has the applicant’s academic work contributed to advances in his/her field?

iv. methodological rigor: how rigorous is the methodology used in the scientific production selected by the researcher?

v. structure and presentation: how well-structured and well-written is the explanation presented by the researcher?

b. Projects: The originality of the project will be evaluated by the specialists on the evaluation panels, who will examine the extended anonymous project summaries as well as the answers to the four questions described on page 6.

i. impact: how broad of an impact will this work have in its field, and how far will it go toward advancing science in general?

ii. originality: how original is the question, especially in terms of not simply continuing existing lines of research?

iii. feasibility: how feasible is the research plan for the proposed project?

iv. structure and presentation: how well-structured and well-written is the proposal?

Executed by: evaluation panel and Serrapilheira executive team
3. Selection Phase

- The goal of the selection phase is to rank the best proposals out of the up to 20 identified in the qualification phase for each area. During this stage, the members of the evaluation panel will have access to all materials submitted by the applicant, including the full project description. The panel conducts a detailed analysis and, if needed, ad hoc reviewers will be consulted. The evaluation criteria for this selection process are listed below.

- At the end of the process, the evaluation panel submits to the executive team a final list of up to 10 ranked proposals, selected in a collaborative process. Ties are allowed.

- Applications that make it through to the final stage of detailed analysis will receive the relevant panel’s evaluations. Each of the finalists will receive a panel summary. This should be a summary review of the panel discussions. Reviews are not required for proposals that are not recommended.

Criteria:

a. does the project take on relevant challenges and/or tackle a big question? Is the project creative, daring, and audacious?

b. scientific approach: is the proposed research methodology in line with the project’s objectives? Are the proposed deadlines and requested resources sensible and justified?

c. lead researcher: does the researcher demonstrate the ability to conduct cutting-edge research? Is the researcher creative and able to develop independent ideas? Does the researcher publish high-quality, methodologically rigorous articles?

d. risk: how technically difficult or risky is the proposed project?

e. grade: from 0 to 10 (0 meaning that the project is not recommended, 10 being a strong recommendation), including justification.

Executed by: evaluation panels
4. Final Validation

Based on the recommendations of the panels, the executive team consolidates and approves the final list of up to 24 proposals across all areas.

It must be stated that some proposals on the list may not be selected for support and, in rare cases, proposals not on the list may be selected instead. Should this happen, the executive team will submit its choice to the president of the board of directors and justify the decision to the panel chairs via email.

The executive team is free to support any project received through this call for proposals using its discretionary budget.

The final list of proposals to be supported will be submitted to the president of the board of directors for approval.

Executed by: Executive team in consultation with panel chairs.

Final considerations

The following will be used as a tiebreaker

Support will be allocated preferentially to scientists who lack independent resources to carry out their research. Preference will also be given to proposals submitted by underrepresented groups in terms of gender and ethnicity.

About the number of reviewers

The number of eligible proposals will determine the number of panel members who will work with Serrapilheira. We emphasize that each candidate/project will be evaluated by at least two panel members during the qualification stage.

Sharing of evaluations

Applications that make it through to the final stage of the selection phase will receive one review written by the corresponding evaluation panel.

Warning for evaluators about implicit bias

We remind all panel members to become aware of unconscious biases and take this into account during the proposal evaluation process.

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