



CALL FOR PROPOSALS

Global Genome Initiative Peer-Review Awards Program

The Peer-Review Awards Program sponsored by the Global Genome Initiative (GGI) provides funding for projects that support expeditionary research, the collection of genomic quality archival biological tissues, and the development of genomic biodiversity science. The submission deadline for proposals this year is **December 1, 2019**. The Proposal Review Committee will consider requests for up to \$30,000 with clearly articulated budget justifications. **Considering the program's timeline for completion, only proposals that can be completed within one year of funding will be considered. This will be the final call for GGI peer review proposals.**

Note that the SI Barcode Network (SIBN) is also soliciting proposals with a focus on DNA barcoding of existing collections. GGI will consider projects with an incidental barcoding component, but larger barcoding projects should apply to SIBN. Please see the FY20 SIBN proposal call on the [GGI Resources webpage](#).

Note also that this GGI Peer-Review Award proposal call is separate and distinct from the GGI Rolling Awards Program. PIs may apply to both programs but should not submit overlapping or interdependent proposals.

Eligibility

All SI staff, affiliated agency staff, resident research associates, and fellows (fellows' advisors required as co-PI's), who are pursuing science-related scholarship or seek to build and improve genome-grade cryo-collections, are eligible to apply. NMNH staff must be included on the proposal as a PI or co-PI. Multiple proposals per PI will be accepted. Other Smithsonian personnel may be PI's and non-Smithsonian colleagues may be included as co-PI's.

Proposals

Requests for support will primarily be considered for fieldwork and/or target enrichment/bait capture approaches to phylogenomics. Barcoding will be considered to the extent that it adds non-barcoded families (especially) and genera to NCBI, but proposals for extensive barcoding should be directed to SIBN.

Activities to be funded must support the goals of GGI, including:

- (1) collecting **genomic quality** samples (i.e., likely to produce 50% of DNA fragments \geq 9KB) of phylogenetically important representatives of families and genera (sampling at genomic observatories, such as ForestGEO and TMON sites, or ex situ-conservation sites, such as zoos and botanic gardens, may be considered);
- (2) increasing the visibility and discoverability of SI's genome quality samples through public release on GGBN (http://www.ggbn.org/ggbn_portal/) and of their DNA sequences (including DNA barcodes) on GenBank;
- (3) testing new protocols or pipelines for large-scale genomic sampling at any SI lab or biorepository; and/or
- (4) innovative genomics research in the fields of phylogeny and/or broad comparative genomics.

Field work is expected to enhance the genomic collections of the Smithsonian. Proposals focused solely on collecting genomic samples will be considered. Applicants should make use of the [GGI Gap Analysis Calculator](#) when developing their proposals in order to identify if sampling and/or barcoding addresses familial or generic gaps in GGBN and/or GenBank, respectively. Genomic research is expected to address Smithsonian science priorities and to help advance sequencing technologies (e.g. improved genome assemblies, or cutting edge technologies such as Illumina, Pacific Biosciences, Dovetail Genomics, 10X Genomics, Oxford Nanopore Technologies, BioNano, New England Biolabs, etc.).

All projects must support the research activities of the PI and result in the timely publication of tissue and DNA samples on GGBN, release of genomic data on GenBank (See [Rapid Data Release policy](#)), and publication of new discoveries. Funds will support genomic research, genomic technical or bioinformatics support, travel, shipping, supplies, sequencing, and obtaining permits. Funding requests for salaries or stipends will not be considered.



Proposal Format

Applicants must fill out the GGI Awards Program Application form (available at <https://naturalhistory.si.edu/research/global-genome-initiative/resources>). In addition to the cover sheet and appendices, the main body of the application should be no more than five single-spaced pages and address the five evaluation criteria: Scientific Impact, Phylogenetic and /or Genomic Novelty (if appropriate), Technical Impact (if appropriate), Matching Funds, and Broader Social Impact.

The PI and all co-PIs must submit a two-page CV (NSF format). The past productivity of applicant(s), as per CV(s), will be considered when ranking proposals.

A short email is also requested from your supervisor indicating the PI's name, project title, and approval of the submission. If the project will result in the accession of new samples into an SI department, an approval email following the same criteria must be sent by the relevant SI department chair as well.

Applications that do not conform to these guidelines will be rejected.

Submission

All application materials should be emailed to GGI@si.edu no later than midnight on **December 1, 2019**.

Please consult the following checklist to ensure that your application package is complete.

<p>1. Application packet, attached as a single .pdf:</p> <ul style="list-style-type: none"> a. GGI Award Application Form, including: <ul style="list-style-type: none"> i. Cover sheet, with project abstract (100 words) ii. Main body of application (≤ 5 pages single spaced, addressing evaluation criteria) iii. Completed Appendices A through D b. CV for all PIs (2 pages each, NSF format) <p><i>Please name the .pdf using the following convention: Peer_FY19_[PI last name]_Proposal.pdf</i></p>
<p>2. Gap analysis results (from Appendix A), attached as an excel spreadsheet (.xlsx)</p> <p><i>Please rename the file using the following convention: Peer_FY19_[PI last name]_GapAnalysis.xlsx</i></p>
<p>3. Approval emails, sent separately</p> <ul style="list-style-type: none"> a. From your supervisor b. From SI Department chair (if depositing new collections)

Selection and Notification

All proposals will be evaluated by a committee composed of Smithsonian researchers appointed by GGI. Please contact Seán Brady (bradys@si.edu) with any questions regarding the scientific scope, ranking criteria, or clarifications for this proposal call.

After proposal evaluation, PIs of selected proposals should expect to meet with GGI committee members to discuss logistics and to answer questions. For proposals that involve the collection and deposition of biological material, final funding decisions may be contingent on demonstration of valid permitting or other authorizations. PIs will be notified of decisions no later than March 15.

EVALUATION CRITERIA

(1) Scientific Importance. GGI seeks to fund activities that will enhance current research activities or provide new research opportunities for Smithsonian scientists. The panel expects to see well-designed and



rigorous research projects or expeditions. Proposals will be evaluated on scientific merit and potential impact on the specific field of study, and should include the following information:

- a) What are the research question(s) addressed by the project?
- b) What are the specific outcomes, publications, or other products of this project?
- c) How will GGI support contribute toward obtaining these goals?
- d) If you received funding from the GGI awards program in the past, please provide an update on results.

(2) Genomic Novelty. GGI funds efforts that contribute toward developing a synoptic collection of genomic-grade material from all major branches of life. Please address the following criteria:

- a) How many families and/or genera will be targeted for collection?
- b) Do these families and/or genera occur on branches of the tree of life that are currently under-represented in biorepositories or GenBank by genomic-grade tissues and data? (the GGI gap analysis calculator can be used to help answer this question, see [GGI Gap Analysis Tool](#)).
- c) What collecting methods will be used and how will these methods result in high quality (*genome grade*) tissues and DNA extractions? If genome grade tissues are not feasible, explain why.
- d) How would the target taxa contribute to current genomic sequencing initiatives?

(3) Technical Impacts.

- a) What are the technical impacts of this project (e.g. how does this project help to advance sequencing technology)?
- b) Will this project extend target enrichment/bait capture techniques to novel taxonomic groups, or other comparative phylogenomic methodological innovation? Please explain how.

(4) Matching Resources.

- a) Are matching funds or other matching resources available for this project? If so, describe.

(5) Broader Social Impacts.

- a) What are the broader social impacts of this project (e.g. education or public outreach)?

(6) Timeline for completion.

- a) Will this project be completed within one year of funding? Please provide a detailed project timeline.

Additional information about GGI can be found at <https://naturalhistory.si.edu/research/global-genome-initiative>