

CALL FOR PROPOSALS

Global Genome Initiative Awards

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. Proposals for conventional genetic barcoding will also be considered and may be jointly funded by the SI Barcode Network activity (contact Niamh Redmond, redmondn@si.edu). The submission deadline for proposals this year is **December 15, 2016 at 11:59 pm**. The Proposal Review Committee will consider requests for up to \$30,000 with clearly articulated budget justifications. Note that this proposal call is separate and distinct from the GGI Rolling Awards Program.

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 and non-Smithsonian colleagues may be included as co-PI's.

Proposals: Requests for support will primarily be considered for fieldwork (requests for up to \$15,000 for fieldwork will be considered) and/or target enrichment/bait capture approaches to phylogenomics but the committee will also consider proposals for barcoding or broader exploratory genomics projects (requests for up to \$15,000 for barcoding, target enrichment/bait capture, and broader genomics projects will be considered).

Activities to be funded must support the goals of GGI and include:

- (1) collecting *genomic quality* samples (i.e., likely to produce 50% of DNA fragments ≥ 9 KB) 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, are encouraged);
- (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 also be considered. 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 timely release of genomic data on GenBank 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. Additional information about GGI can be found at <http://ggi.si.edu/>.

Proposal Format: Please provide a title and project summary (100 words). The body of the application should be no more than five single-spaced pages and address Scientific Impact, Phylogenetic and /or Genomic Novelty (if appropriate), Technical Impact (if appropriate), Matching Funds, and Broader Social Impact. Applicants should fill out the GGI Awards Cover Sheet (see <http://ggi.si.edu/resources>, Additional Resources, Award Programs), the Taxonomy Appendix A, and the Budget Appendix B. Fields that do not apply may be left blank. The PI and all co-PIs must submit

a two-page CV (NSF format). The past productivity of applicant(s), as indicated by the submitted CV(s), will also be considered when ranking proposals. Applications that do not conform to the guidelines will be rejected

Submission: Submit the proposal as a single PDF to GGI@si.edu. Documentation should be submitted in the following order: Cover sheet, the Taxonomy Appendix A, and the Budget Appendix B, proposal text, CVs. A short email is also requested from your supervisor indicating the PI's name, project title, and approval of the submission of the proposal and should be sent to GGI@si.edu. If the project will result in the accession of new samples into an SI department, approval must be given by the relevant SI department chair following the criteria listed above.

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.

RANKING 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 of this project?
- c) How will GGI support contribute toward obtaining these goals?
- d) What are the expected publications or other products resulting from this research?
- e) If you received funding from the GGI awards program in the past, please provide an update on results.

(2) Genomic Novelty. GGI seeks to provide funding for efforts that contribute toward developing a synoptic collection of genomic-grade material from all major branches of life. Please address the following criteria in your proposal:

- a) How many different 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 Biodiversity Data Tools at <http://ggi.si.edu/resources>).
- 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? If so, then please explain how?

(4) Matching Resources.

- a) Are matching funds or other matching resources available for this project? If so, what are they?

(5) Broader Social Impacts.

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