

Global Genome Initiative 2017 Rolling Awards Program

Call for Proposals

The Global Genome Initiative (GGI) Rolling Awards Program provides funding for projects that support GGI goals of expeditionary research and development of genomic biodiversity science at the SI. Requests up to \$30,000 with clear budget justifications will be considered. Smaller proposals to enhance field work and/or acquire genomic collections are especially encouraged. Proposals with a DNA barcoding component may be jointly considered and/or funded by the SI Barcode Network.

Proposals will be accepted on a rolling basis until funds for FY17 are no longer available. Proposals must be submitted at least two months prior to the project start date. Note that this proposal call is separate and distinct from the GGI Peer-Review 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 as the Principle Investigator (PI). Multiple proposals per PI will be considered. Other Smithsonian personnel and non-Smithsonian colleagues may be included as co-PIs.

Proposals: Requests for support will be considered for field work, genomic research, and/or barcoding projects. 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, 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) DNA barcoding gene regions from taxa in an attempt to "illuminate" as many lineages for which little or no high quality/BARCODE flagged taxonomically specific genetic data exists ("dark" taxa) in GenBank. More information on the BARCODE Data Standard is found [here](#); and/or
- (4) promoting new technologies to solve de-novo sequencing problems, applying new technologies across the tree of life, and promoting better understanding of genomically "dark" taxa.

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

All projects must support the research activities of the PI, and result in timely publication of tissue and DNA samples on GGBN, public release of genomic data on GenBank in a timely fashion (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 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: Applicants must fill out the [GGI Rolling Awards Program Application Form](#). The PI and all co-PIs should also submit a two-page CV (NSF format). The past productivity of applicant(s), as indicated by the submitted CV(s), will be considered when evaluating 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: Application Form, CVs. A short email (sent to GGI@si.edu) is also requested from your supervisor indicating the PI's name, project title, and approval of the submission of the proposal. 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: Proposal requests above \$10,000 will be peer-reviewed by researchers selected by the GGI Operations Team. Proposal requests for \$10,000 or below will be evaluated by the GGI Director and GGI Research Working Group Chair and may also be sent out for peer-review. Proposals with a DNA barcoding component may be jointly considered and/or funded by the SI Barcode Network.

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. The evaluation and selection process may require several months after submission of the proposal, so please plan accordingly, especially concerning time-sensitive projects involving seasonality or other logistics. Please contact Seán Brady (bradys@si.edu) for questions regarding scientific scope and evaluation criteria.

EVALUATION CRITERIA

(1) Scientific Importance. GGI seeks to fund activities that will enhance current research activities or provide new research opportunities for Smithsonian scientists. Research-based 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 will be the specific outcomes, publications or other products of this project?
- c) How will GGI support contribute toward obtaining these goals?
- d) Please provide an update on results from any prior GGI awards.

(2) Genomic Novelty. GGI funds efforts that contribute towards 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) Are these families and/or genera currently underrepresented in biorepositories or GenBank by genomic-grade tissues and data?
- 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)?

(4) Matching Resources.

- a) What matching funds or other matching resources available for this project?

(5) Broader Social Impacts.

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

The Global Genome Initiative is a component of the [Smithsonian Institute for Biodiversity Genomics](#)