

## Utah Genome Project: Functional Analysis Pilot Grant Program

### Request for Proposals

**Submission deadline: Friday, January 19**

The Utah Genome Project will be funding 3-5 short-term **Functional Analysis Pilot Grants** in 2018, approximately **\$20,000** each, to support the generation of preliminary data for extramural grant applications focused on translating genome sequencing results, in which candidate human disease-causing variants have been isolated, into **functional studies assessing the impact of these variants** at levels from gene function to organismal health. Examples include, but are not limited to:

- Establishing a biochemical or cell-based assay to determine the functional impact of variants of unknown significance (VUS) in one or more known tumor suppressor genes.
- Generating a knock-in mouse model to reproduce a likely pathogenic allele in the mouse genome and determine its effect on development or disease.
- Creating *Drosophila*, *C. elegans* or zebrafish genetic models of specific pathogenic alleles, for use in genetic interaction or small molecule screens.

The UGP and the Model Organism Advisory Board (MOAB) recognize that creating such models and establishing their feasibility can be a prerequisite for obtaining NIH funding. It is our goal to accelerate not only successful extramural grant applications, but also to enhance the functional and translational significance of UGP discoveries.

#### Eligibility and Proposal Preferences:

- Collaborative proposals are encouraged, in which case a Principal Investigator and Co-Investigator(s) must be designated.
- Principal Investigators must be at least 0.75 FTE tenure- or career-track faculty at the University of Utah. Co-Investigators may be from inside or outside the institution.
- Only one research proposal per Principal Investigator will be reviewed. (There is no limit to Co-Investigators.)
- Priority will be given to Principal Investigators seeking to extend findings obtained with past or current UGP support.
- Preference will be given to proposals of high scientific merit that are likely to obtain future extramural support, but are not currently supported by extramural grants.

#### Timeline and Budget:

- Deadline for submission is **January 19, 2018**
- Decisions will be made late January, 2018
- Funding to start **February 1, 2018**
- Project end date will be **June 30, 2018**, although it is possible that minor extensions will be possible.
- Pilot grant funds may be used for salaries and benefits of non-faculty project personnel, supplies, miscellaneous expenses, and services. Services may include animal housing costs, use of on-campus core facilities such as the Transgenic Mouse and Mutation Generation and Detection cores, as well as model organism development by outside commercial vendors with relevant expertise. If outside vendors are to be used, please include a brief letter from the vendor outlining their expertise and supporting the proposed budget.

- Pilot grant funds may not be used for faculty salaries, conference travel or office equipment.
- Overall budget should be no more than **\$20,000**; budgets may be adjusted up or down according to the number of proposals selected for funding.

The expected **deliverables** for this initial round of funding would be demonstration that a relevant model has been generated, the definition of which could include a series of CRISPR-edited human cell lines, a genetically modified zebrafish or mouse, or validation of a high-throughput screening approach. The key metric for a successful outcome is that the investigator will have, in hand, a tool with which to interrogate their variants of interest in a relevant assay. It is expected that this will support extramural grant applications to be submitted in FY2019.

#### **Application Instructions:**

Please submit a **single PDF** containing proposal and all supporting documents, by **January 12, 2018**. Font and spacing should be NIH compliant. *All applications must include each item in the following order:*

1. Cover page. PI (department, title and contact information), co-investigators (department, title and contact information), project title, IACUC approval numbers if relevant.
2. Lay abstract that will be available to UGP stakeholders (**1 paragraph**)
3. Specific aims of the research proposal (**1/2 page**)
4. Detailed proposal. (Up to **2 pages**, including figures). Please address significance, innovation, approach, timeline, relevance to Utah Genome Project priorities and plan for external funding.
5. References
6. Budget justification (**1 page**)
7. Budget – use template provided (**1 page**)
8. NIH biographical sketch for investigators (current and pending support; **5 pages**)
9. Letters of support (if applicable).

#### **Evaluation and Funding of Proposals:**

Proposals will be reviewed by the Model Organism Advisory Board, with funding decisions subject to approval by the UGP Scientific Advisory Board. If animal research is involved, one copy of the IRB or IACUC approval will be required prior to release of funds.

#### **Final Report:**

Funded proposals must provide a final report at the end of the funding period, of no more than one page in length, describing the results and deliverables of the research, and plans to secure additional funding.

***Please submit applications as a single PDF document titled with “PI name\_FunctionalPilot2018” to Breanna Caruso, breanna.caruso@hsc.utah.edu***

***Questions? Please contact: Charles Murtaugh, murtaugh@genetics.utah.edu***