

Overview of the Michelson Prize and Grants Program – *Gilbreath*

By offering the \$25 million Michelson Prize in Reproductive Biology, the Found Animals Foundation encourages researchers from a variety of fields to take on the challenge of non-surgical sterilization for dogs and cats. By incentivizing scientists who may have been unaware of the issue of pet overpopulation to get involved, Found Animals hopes an innovative solution will come to light quickly.

The Foundation recognizes that the research required to develop and test pharmaceuticals takes time and money, and many interested parties may not have access to the resources needed to initiate and maintain this research. For that reason, Found Animals is also offering the companion Michelson Grants in Reproductive Biology, providing up to \$50 million in grant funding for promising research in pursuit of non-surgical sterilization technology.

As a nonprofit foundation, Found Animals' goal is to see that a successful product is marketed widely at a reasonable price that allows the product to meet its full potential in reducing pet overpopulation. Target segments include shelters, very low income pet owners, feral and free-roaming populations, and developing nations. Found Animals is willing to fund and manage activities required to take a promising product through the regulatory approval process and to ensure manufacturing and distribution.

Animal welfare guidelines for Michelson Grants in Reproductive Biology – *Johnston*

Found Animals Foundation seeks to end shelter euthanasia of healthy pets by funding research to develop a safe, effective and practical single-dose sterilant for cats and dogs. Funded research using animals must comply with animal welfare guidelines described at www.foundanimals.org/index.php/About-Michelson/guidelines.html, and summarized below. Michelson Grants will withdraw grant funding if investigators do not comply with these guidelines.

- Use of animals must be humane and consistent with Institutional Animal Care and Use Committee (IACUC) regulations; draft IACUC proposals are required as part of the grant application process, as is compliance with the National Research Council's Guide for the Care and Use of Laboratory Animals.
- Animal care staff must have appropriate qualifications in animal care and use, and experience in conducting relevant procedures.
- IACUC approval, or equivalent institutional review, is required for all laboratory and clinical research prior to receipt of funding, even if approval is not a requirement of the investigator(s)' institution.
- IACUC approval for original collection of archived samples must be available.
- Informed owner consent must be obtained for clinical trials.
- Found Animals will perform unannounced site visits for verification of compliance with animal welfare guidelines.
- Proposals must contain statistical evidence that the number of research animals proposed for use is not excessive, and yet is statistically adequate to achieve the proposed results.
- Living conditions of research animals must be appropriate for their species and comply with the Guide for Care and Use of Laboratory Animals.
- Research animals must have compassionate care, comfort, and protection from abuse and unnecessary pain.
- Research animals must be appropriately socialized for their species, and have environmental enrichment appropriate for their species.
- When possible, animals will be made available for adoption at the end of the study; the Foundation may assist investigators in finding adoptive homes.
- Terminal endpoints may be acceptable using research animals, if essential information can be obtained in no other way.

Projects and concepts funded to date – Johnston

The Michelson Grants in Reproductive Biology program was announced in 2008, and started accepting letters of intent in 2009, with availability of \$50 million in competitive funding for research leading to development of a nonsurgical pet sterilant. Ninety-five letters of intent and 25 full proposals were received and reviewed during 2009. Members of the core Scientific Advisory Board were recruited, trained and convened for proposal review sessions in July and October. Another 16 scientists from the U.S., Canada and Australia agreed to serve as ad hoc reviewers in their individual areas of expertise.

One proposal was approved by the Foundation prior to convening of the Scientific Advisory Board, and five proposals were recommended for full or partial funding by the board from the next 20 proposals submitted. The six proposals recommended for approval and/or funded in 2009 include research in the general areas of:

- Silencing of genes coding for proteins that are essential in the reproductive cascade (1)
- Immunocontraception against gonadotropic releasing hormone (2)
- Targeted delivery of cytotoxins to pituitary or gonadal cells (3)

If funded as anticipated, subject to conditions of grant negotiation and successful progress, the five grants will result in total disbursement of approximately \$2.5 million over two to four years.

Grant application process for Michelson Prize and Grants in Reproductive Biology – Palfrey

Investigators wishing to be considered for Michelson Grants should submit a brief letter of intent containing the proposed approach for developing a single-dose non-surgical sterilant, the rationale for proposing this approach, and an overview of required research. Found Animals Foundation accepts letters of intent on a rolling basis. The Director of Scientific Research and representatives of the Scientific Advisory Board review the letters of intent to determine which applicants will be invited to submit full grant proposals. If a letter of intent is approved, the applicant is provided with proposal and animal welfare guidelines and asked to submit by a specific deadline. If a letter of intent is denied, the applicant is contacted by the Program Manager and receives feedback for possible resubmission.

There are three deadlines for grant proposal submission per year. Full proposals are reviewed by the Director of Scientific Research and members of the Scientific Advisory Board on several criteria, including scientific merit, innovation, welfare of research animals involved, and biostatistics. The Scientific Advisory Board then meets to determine a recommendation for approval of funding. Final decisions regarding grant funding are at the sole discretion of the Foundation.

If approved for a Michelson Grant, the applicant begins the negotiation process for execution of the grant agreement. Approved grantees must provide the Foundation with progress reports on a quarterly basis. Grant recipients will be eligible to make Michelson Prize claims in the event that their research generates a product or technology that meets all of the Prize criteria.