Request For Proposals: Therapeutic window of frataxin

FARA is announcing a request for proposals aimed at supporting therapeutic development in FA, by providing key preclinical data to support the development of benchmarks to improve the likelihood of success of frataxin delivery or upregulation.

Many therapeutic interventions in FA are aimed at elevating the levels of frataxin protein with small molecules or delivering frataxin to the affected tissues by means of gene, protein replacement or stem cell therapy. However, there are critical pre-clinical studies that must be done to ensure that these interventions are successful.

Applications focused on addressing one or more of the following outstanding questions will be considered:

1. What are the levels of frataxin that are needed to restore function in cells and tissues supportive of therapeutic benefit? This will include determining the effect of different frataxin levels in vitro and in vivo, both at the cellular (using single cell analyses) and at the tissue and organ level, on established FA phenotypes. How do changes in phenotype upon frataxin increase/delivery translate to a therapeutic benefit? Can a correlation between frataxin levels and therapeutic benefit be established in relevant tissues?
2. What is the percent of cells that need to be targeted in a tissue to achieve a clinical benefit and what is the effect of frataxin increase/delivery in a subset of cells within a tissue? This will involve establishing a correlation between the percent of cells that are targeted and the therapeutic effect, for relevant tissues.
3. What is the contribution of non cell-autonomous effects on therapeutic benefit for relevant tissues?
4. What are the temporal aspects of frataxin increase/delivery? This will involve identifying the effects of frataxin level restoration on established phenotypes at different stages of disease manifestation and progression.

Proposed studies must use appropriate cellular (2D and 3D) and mouse models that recapitulate the human disease. Clear phenotypes due to loss of frataxin in cell culture, gene expression signatures and behavioral and histopathological phenotypes in FA animal models need to be defined. Carefully designed frataxin delivery systems and /or other methods to modulate frataxin expression, and standardized frataxin measurement methods must be established.

Eligibility

Those eligible to submit proposals include investigators from public and private nonprofit universities, colleges, hospitals, laboratories, government agencies, biotechnology/pharmaceutical companies, other for-profit entities; irrespective of the country of origin. Investigators at all academic levels (or equivalent) may be named as the PI on the application.

Letter of Intent Submission Deadline

9/01/2020

Application Submission:

Please submit your Letter of Intent (LOI) here (https://webportalapp.com/sp/login/fara_grants). See https://www.curefa.org/grant-apply for detailed instructions regarding the information that needs to be included in the LOI and page limits. CVs/biosketches for the Principal Investigator and all other key personnel must be submitted.

All submitted LOIs will be review by FARA's Scientific Review Committee and selected applicants will be invited to submit a full application.

Budget

The LOI should include an estimate of the budget with justification. The anticipated direct costs budgeted must not exceed $150,000/year for a maximum of 2 years. FARA does not fund indirect costs.

Please contact grants@curefa.org or liz.soragni@curefa.org for questions or assistance with the application.