THE KLARMAN FAMILY FOUNDATION

Eating Disorders Research Grants Program

2020 Request for Applications
Deadline: December 9, 2019

The Klarman Family Foundation is delighted to announce the 2020 Grant Cycle for our Eating Disorders Research Grants Program.

Scientific focus:

Our fundamental mission is to understand the biology underlying the psychiatric disease anorexia nervosa, with the goal of accelerating progress towards prevention and treatment. We are seeking proposals to conduct **research that directly investigates the underlying biology of anorexia nervosa, and the questions of how and why it develops and persists**.

Funding priorities and guidance to applicants:

We seek to fund well-controlled, sufficiently powered studies asking important questions about the interface between behavior/cognition and neurobiology. We encourage approaches that incorporate neurobiology with an up-to-date understanding of the symptoms and dysfunction associated with anorexia nervosa psychopathology.

Moving from genes to mechanism

We encourage research to strengthen the connections between the epidemiology, genetic epidemiology, and molecular biology of this disease, and to identify the mechanisms through which genetic, environmental, and lifestyle factors lead to disease. An **anorexia nervosa genome-wide association study** was published in Nature Genetics in July of 2019, involving approximately 17,000 AN cases in total and including nearly 13,000 cases from the Anorexia Nervosa Genetics Initiative (ANGI), an initiative of The Klarman Family Foundation. We encourage applications to build on these GWAS results.

Human studies

Proposals for human studies must be grounded in the basic biology and neuroscience of anorexia nervosa.

A major challenge in studies involving human subjects is **power and sample size**. For this reason, we encourage researchers involved in human imaging studies to consider ways of increasing sample size by making their studies more interoperable or combinable with other studies. While identification of disease biomarkers is a high priority research area, such proposals could also be strengthened by considering how to coordinate these to increase power, and by developing a strong, rational study design and standardizing data collection.

Another challenge in human studies is the difficulty of establishing causality of observed changes, and selecting a relevant **control group where confounding will not limit comparison**. Studies involving human subjects often also suffer from insufficient characterization of patient type (in both preliminary data presented and proposed studies).

While we welcome proposals using noninvasive methods such as fMRI to study the biology of anorexia nervosa, behavioral tasks used in fMRI studies should be **well linked to the pathology of the disease**. We encourage researchers who are new to the field to consider such issues carefully and to discuss the options with established clinical researchers in this or similar fields.

Animal model studies

Relevance and importance to the mission of this grants program is an essential prerequisite to a favorable review. The primary reason that animal model studies have been turned down for funding in previous rounds is the Scientific Review Committee's opinion that relevance to the human disease anorexia nervosa was not adequately demonstrated. For this reason, we advise researchers who wish to propose research using animal models to consult with clinical experts at an early stage of project planning.

The lack of a robust standard animal model for this disease has been identified as a significant bottleneck to research progress. **We welcome applications to develop new or improved animal models** that mimic several of the relevant elements of the human psychiatric disease anorexia nervosa. In previous funding rounds, reasons for turning down proposals for new animal models were related to the lack of strong rationale and preliminary data. Behavioral resemblance to the human disorder on its own is not generally considered to have strong etiological validity as the basis for an animal model. We encourage applicants to **use what has been learned about the mechanism of disease in humans (e.g. a known risk gene or epidemiological factor) to develop animal models that have the molecular and cellular abnormalities found in human anorexia nervosa**, using genetic modification, observation of species-specific behavior, environmental perturbation, or some combination of these.

Collaborative projects

We encourage **applications that bridge the gap between human and animal research, and collaborative applications focused on a central hypothesis where success depends on close collaboration between two or more labs.** Investigators jointly leading collaborative projects may apply as multi-PIs. These proposals must involve meaningful collaboration between participants to perform research in a synergistic manner. **Any application involving multi-PIs must be discussed with and approved by KFF staff before submission.**

Resource sharing

The **development of scientific resources** is one of our strategic priorities. We expect KFF funded investigators to freely share renewable reagents and data developed using KFF funds with other qualified investigators. The quality of the resource sharing plan will be considered during the grant review process. While we understand that the need to share data must be balanced with the need to protect investigators' intellectual contributions, we expect KFF funded researchers to develop resource sharing plans at the vanguard of current best practice for resource sharing in their field.

Ineligible research topics

While we appreciate the value of the following topics, research into obesity, normal feeding behavior and/or negative energy balance, sickness-induced anorexia, PANS/PANDAS, other types of anorexia distinct from the psychiatric disease anorexia nervosa, behavioral therapy, the medical complications of eating disorders, and clinical trials are currently outside the scope of our program.

Review criteria

Criteria for review include relevance, importance, experimental design, and qualifications of the applicant. In order to provide more insight on our review process, we have included a summary of the most common reasons for low scores during previous rounds of grant review in our **Frequently Asked Questions** document. Please note that relevance to the biology underlying anorexia nervosa is a prerequisite for consideration. If applications are not relevant, they are not scored on other criteria.

Eligible investigators:

Applicants must hold a faculty appointment at a nonprofit academic, medical or research institution in the United States, Canada, or Israel.

We have always been enthusiastic about **attracting researchers with a strong track record in another field who can bring a new approach to eating disorders research**. Bringing in investigators from other fields, such as those studying the neuro-circuitry of complex, motivated behavior (e.g. fear conditioning, reward behavior, and addiction research), remains a priority for us. While this program is not specifically aimed at early career faculty, applicant track record will be evaluated according to career stage and experience. We encourage researchers who are new to the field to consult with clinical experts in order to ensure a deep understanding of the behaviors associated with this disease before designing a research study.

Grant categories:

1-year pilot studies of up to $150,000 USD, inclusive of up to 10% indirect costs
1-3 year research projects of up to $250,000 USD per year, inclusive of up to 10% indirect costs

Given the variety of scientific approaches and types of research that could address our mission, we expect that proposals will be of varying duration and cost. We acknowledge that not all types of research require the same amount of time and budget, and the value of each proposal will be assessed relative to its potential impact. We encourage applicants to carefully consider the needs of their project, and to request only the amount of time and budget that is essential to the proposed research. Applicants are strongly discouraged from adding components to try to fit the maximum budget or duration allowed, as doing so typically decreases chances of success due to lack of focus and/or inclusion of weaker aims.

We will also consider how an applicant's specific aims overlap with those of their other current or pending grants.

Application deadline: December 9, 2019
Decisions by: May 2020
Funding Start Dates: July 1-October 1, 2020

Application materials available online at
https://klarmanfoundation.org/eating-disorders-research