Jeffress Trust Awards Program in Interdisciplinary Research

A program of the
Thomas F. and Kate Miller Jeffress Memorial Trust
with support from the
Hazel Thorpe Carman and George Gay Carman Trust
Bank of America, N.A., Trustee

BANK OF AMERICA

One-year $100,000 awards to promote scientific discovery through interdisciplinary collaboration and integration of innovative computational and quantitative strategies

Application Guidelines

Award Period: June 30, 2021 – June 29, 2022

Award Amount: One-year Award of $100,000 for researchers working in Virginia. Applications geared towards improving the health of Virginia residents will be prioritized.

Online Application Deadline: Tuesday, March 30, 2021 at 12:00 PM, Eastern Time

Program Mission and Overview

The Thomas F. and Kate Miller Jeffress Memorial Trust was founded in 1981 by Robert M. Jeffress in memory of his parents and is guided by its mission, to benefit the people of Virginia and their research in chemical, medical or other scientific fields.

Since its founding, the Jeffress Memorial Trust has been a steadfast benefactor in support of scientists and research of the highest quality across the state of Virginia. The Jeffress Trust Awards Program in Interdisciplinary Research historically aimed to catalyze the future of scientific research in Virginia by promoting the expansion of emerging computational and quantitative strategies that are accelerating discovery across scientific fields in Virginia. Previous grant cycles have supported pioneering mathematical modeling/simulations and analytics capable of mining ever-growing data sets and have led to significant advances in bioinformatics, astrophysics, mathematical biology, drug development and material science.

To further the mission of the Jeffress Trust to benefit the people of Virginia, the research scope for the 2021 cycle, is expanded to encompass research that seeks to improve health for Virginia residents (see below for more details). The Jeffress Trust is extending a call for proposals with a population health focus. Applicants who intend to address the social determinants of health and/or health inequities as levers for improving health challenges faced by residents of Virginia, are encouraged to apply.
The Hazel Thorpe Carman and George Gay Carman Trust funds research focusing on either blood disorders or mental health. The Carman Trust may provide an additional award to support a project that align with these topics submitted through the Jeffress Awards Program.

As steward of the Jeffress Memorial Trust, Bank of America, N.A., works with the Scientific Review Committee selected by The Medical Foundation at Health Resources in Action, to determine the most qualified candidates for funding.

Eligibility Requirements

Applicant Eligibility

Eligible Principal Investigators are full-time faculty at a nonprofit academic or research institution in Virginia and are within seven years of their first faculty appointment as of the Funding Start Date. Eligible candidates will have received this appointment on or between July 1, 2014 and June 30, 2021. United States citizenship is not required.

2021 Important Change: Faculty from medical schools and schools of Osteopathic Medicine may apply as Principal Investigators or as Co-Investigators. This is a change from eligibility requirements in previous grant cycles that prohibited these faculty from serving as Principal Investigators.

Research Project Criteria

The Jeffress Trust awards support high impact, original projects that integrate computational and quantitative scientific methodologies across a broad range of scientific and engineering disciplines. While state-of-the-art computational methodologies and/or mathematical...
modeling must be employed, they are not required to be novel. However, high-impact, original and creative applications are highly encouraged.

2021 Important Change: The scope of eligible research areas has been expanded. Eligible research areas include astronomy, biosciences, chemistry, computer sciences, engineering, environmental sciences, material science, mathematics, physics, medical related research, projects focused on psychology, behavioral sciences, sociology, population health, epidemiology, health outcomes research, and public health.

**Undergraduate Student Participation**
The Jeffress Memorial Trust is dedicated towards inspiring young creative minds that will contribute to the future scientific research workforce in Virginia. As with previous grant cycles, a portion of the Award must support undergraduate student research.

In addition, all applications must speak to their commitment to diversifying the STEM workforce within their training plan. This is a new requirement for the 2021 cycle. The National Academies of Science, Engineering, and Medicine notes that engaging undergraduate students and a diverse STEM workforce is a direct lever for ensuring America’s economic growth, national security, and global prosperity.

“Based on these findings, the committee suggests that the most efficient way to advance the STEM workforce is to capitalize on the nation’s changing demographics, and invest, support, and expand efforts to bolster success in STEM education and workforce training among the plurality of college-age students of color.” – National Academies of Science, Engineering, and Medicine 2019. Minority Serving Institutions: America’s Underutilized Resource for Strengthening the STEM Workforce. Washington, DC: The National Academies Press

Justified graduate student support may be considered on a case by case basis.

**Institutional Nomination**
To balance funding opportunities for nonprofit academic or research institutions across Virginia, institutional nomination is required.

- 5 applications may be nominated per institution, inclusive of all schools and colleges therein;
- 2 additional applications will be accepted from any University for which there is an associated Medical School.

**Letter of Recommendation and Commitment from Department Chair**
- Describe the applicant’s qualifications to carry out the proposed project and how the Award will enhance the applicant’s research
- Describe the long-term institutional commitment to both the applicant and his/her research. The letter should describe the alignment of the project with the overall Institution’s commitment and strategic plan towards improving diversity and inclusion.
• Confirm that the applicant is within seven years of their first faculty appointment and confirm any gaps in work history noted in the applicant’s biosketch. If an Applicant has been on medical or family leave, or if research was interrupted for other documented reasons, the period of absence will not count towards the seven-year eligibility window. Address any gaps in work history in the personal statement of the biosketch. The Department Chair’s letter must confirm both the duration of the leave of absence and Applicant eligibility.

**Guidance for Letter of Recommendation and Commitment from Department Chair**

We are all working to reduce bias, and letters are sometimes biased in ways that systematically disadvantage people based on race and/or gender. As letters are being prepared, we have provided a table that provides suggestions for letter writing to help avoid bias as modeled after the University of Arizona’s guidance on this topic.

<table>
<thead>
<tr>
<th>Mention research &amp; publications</th>
<th>Letters of reference for men are more likely to mention publications and to have multiple references to research. Put these critical accomplishments in every letter.</th>
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<tr>
<td>Don’t stop too soon</td>
<td>On average, letters for women are shorter and more likely to make a minimal assurance (‘she can do the job’) rather than a ringing endorsement (‘she is the best for the job’).</td>
</tr>
<tr>
<td>We all share bias</td>
<td>Unconscious gender bias isn’t exclusively a male problem. Research shows that women are as susceptible to these common pitfalls as men.</td>
</tr>
<tr>
<td>Keep it professional</td>
<td>Avoid gratuitous references to personal life and make sure you use formal titles and surnames for both men and women.</td>
</tr>
<tr>
<td>Stay away from stereotypes</td>
<td>Do not invoke negative stereotypes even indirectly (‘she is not emotional’). Be careful evoking even positive gender stereotypes (‘caring’, ‘compassionate’, ‘helpful’), as even these can potentially hurt a candidate.</td>
</tr>
<tr>
<td>Be careful raising doubt</td>
<td>Honest letters are crucial, but negative or irrelevant comments, such as ‘challenging personality’ or ‘I have confidence that she will become better than average’ are twice as common in letters for female applicants. Don’t add doubt unless it is strictly necessary.</td>
</tr>
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**Project Key Personnel**

**Principal Investigator (PI):** One principal investigator (Applicant) must be identified as the lead or administrative PI of the award, who will be responsible for all grant reporting and fiscal management. The lead or administrative PI will be the main contact for budget and reporting management.

**Co-Investigators:** Co-Investigators must provide a major intellectual contribution to the project and hold their primary appointment within a Virginia institution. Co-Investigators may share Award funding.
Collaboration (if applicable): A collaborator generally contributes minimally to the scientific development of the project. However, they may contribute significantly to the project through their technical expertise or services, equipment or reagent use. Collaborators do not share Award funding and may be situated outside of the state of Virginia. Collaborators should include a brief letter (up to one page) describing the relevant expertise that s/he is bringing to the project. It is important to note, these are not letters of recommendation. Biosketches of collaborators may be provided.

Biosketch(es): Applicant and Co-Investigator(s) (if applicable) must provide biosketches. The most current NSF or the current NIH biosketch must be used. However, the biosketch format must follow either the NSF or NIH guidelines. In the case of the NSF format, please append an additional page that includes a Personal Statement (up to 400 words) that describes the investigator’s experience and qualifications relevant to their role on the Jeffress project. Within this section, if applicable, briefly describe gaps in work history such as family care responsibilities, illness, disability, and active duty military service.

Award Selection Criteria
The Scientific Review Committee uses the following criteria to evaluate applications.

- Project’s scientific merit, impact and innovation exploiting computational and quantitative strategies
- Qualifications of applicant and Co-investigators (if applicable) to carry out the proposed research
- Statement of benefit to the people of Virginia is clear and impactful
- Research objectives, methodology, data collection and data analyses that are feasible and appropriate to meet the project’s goals
- Inclusion and presentation of supportive mathematical models in quantitative strategies and use of computational modelling in proposal
- Evaluation of detailed plans for Undergraduate Student Research opportunities in the proposed project and commitment to diversifying STEM workforce.
- Strength of Letters of Support

Notification to Applicants
The online grant system will notify applicants once the upload is received. Notification of Award funding will occur in June 2021.

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<tr>
<td># of Submissions</td>
<td>45</td>
<td>53</td>
<td>48</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td># of Award Recipients</td>
<td>14</td>
<td>20</td>
<td>11</td>
<td>15</td>
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1 Carman
Acknowledgement of Support
The Award Recipient and Institution are encouraged to announce receipt of this Award entitled, The Jeffress Trust Award in Interdisciplinary Research and credit financial support to the Thomas F. and Kate Miller Jeffress Memorial Trust or the Hazel Thorpe Carman and George Gay Carman Trust, if applicable.

Publications
Publications or presentations resulting from research supported by this Award must also acknowledge support from the Thomas F. and Kate Miller Jeffress Memorial Trust or the Hazel Thorpe Carman and George Gay Carman Trust, if applicable.

Terms of the Award
Please download “Terms of the Award” from www.hria.org/tmf/Jeffress for information regarding use of the grant funds, payment schedule, reporting schedule, and other Awardee and Institutional requirements.

Frequently Asked Questions may be found at www.hria.org/tmf/Jeffress
Program Staff: 617-279-2240
Jeanne Brown, Director, Grantmaking, jbrown@hria.org x709 or 617-279-2255 DD
Felicia Chen, Grants Coordinator, fchen@hria.org 617-279-2229 DD
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Allison Rosenthal, Grants Coordinator, arosenthal@hria.org 617-292-5063 DD

The Medical Foundation at Health Resources in Action
Jeffress/Carman Trust Awards Program in Interdisciplinary Research
2 Boylston Street, 4th Floor
Boston, MA 02116
617.279.2240
Jeanne Brown x709
617-279-2255 DD
jbrown@hria.org
Application Instructions

DEADLINE
Tuesday, March 30, 2021 (12:00 PM) Online Submission

Before beginning the online submission, download and save the “Application Forms” which can be found at https://www.hria.org/tmf/jeffress

Login: Account provides access to Save, Submit or Share your application


Return to a saved application: https://www.GrantRequest.com/SID_738?SA=AM

Sharing/Transferring your application with your Institutional Contacts for Certification

Sharing/Transferring your application with your Institutional Representative(s) for Certification:

- The Applicant is considered the “Owner” of this request. The Applicant/Owner is required to secure sign off from their Institutional Representatives, such as OSP and Finance, by “transferring ownership” temporarily to complete the Institutional Representative Information
- Transfer takes place on the applicant’s account page: https://www.GrantRequest.com/SID_738?SA=AM
- All contacts must have an Account to share applications
- New users will Create an Account with their own email and password
- Use the transfer icon under the Action heading to transfer ownership
- The Institutional Representative will transfer ownership back to the Applicant for submission of the application

The following sections are required for the online submission:

☐ Institution’s Tax ID Number
☐ Eligibility Quiz
☐ Applicant Data: Institution, Contact, and Educational background information. Provide the PI’s ORCID identification number, if available. Applicant’s initials to certify the accuracy of submitted information.
☐ Key Personnel: Co-I (s) name and institutional affiliation should be supplied in the Key Personnel fields, if applicable.

☐ Research Project: Project Title, Keywords, Project Summary, Non-Technical Summary and Overview, Impact Statement, and Experimental System(s), Key Tools and Techniques to be Utilized. Carman funder focus designation (if applicable)

☐ Institutional Contact Information: Complete Institutional Contact fields. Certification by the Institutional Representative on the application will acknowledge understanding of the terms of the Program, and that the proposal has been reviewed and has been approved for submission to the Program.

☐ Uploaded attachments: All items with the exception Excel budget forms must be combined into a single PDF for upload to the Online Application. On the final PDF, make sure all pages are numbered sequentially starting with the Application Face Sheet as page #1.

☐ Budget Forms D & E (Excel) must be uploaded as a separate attachment.

☐ Templates are provided for Application Face sheet, Table of Contents, Project Summary, Student Research Plan Form S (Word), Budget Form D and Other Support Form E (Excel) on the program webpage: www.hria.org/tmf/Jeffress

Two Uploads - please name the files:
LastName, FirstName.pdf - Complete Proposal Items listed below 1-7
LastName, FirstName_Budget.xlsx – Budget Item 8

1. Application Face Sheet: The Face Sheet is the first page of the application and all information must be typed. The Application Face Sheet is page #1.

2. Table of Contents: Follow the Table of Contents and number ALL pages, including the recommendation and collaboration letters.

3. Research Project Summary and Performance Sites: Complete this form according to the instructions at the top of that page. This summary will be posted on our website if the project is funded (maximum of 300 words).

4. Biosketches: Applicant Biosketch and Co-Investigator(s) (if applicable) must provide biosketches.

5. Letter of Recommendation and Commitment from Department Chair (person noted on the Application.)

6. Letters of Collaboration (if applicable)

7. Research Proposal (10-page maximum): Use Ariel 11 as the typeface and font size with a minimum of single spacing within paragraphs, double spacing between paragraphs, and
one-inch margins on all four sides. Figures, legends and tables may use a smaller font size. Include all figures, graphs, tables and images (exclusive of bibliography) of references related to the project in a maximum of 10 pages. The Applicant’s full name should appear at the top of each page.

- **Research Proposal** sections include:
  - **Background and Significance**
  - **Specific Aims**
  - **Preliminary Studies/Preliminary Data (if available)**
  - **Research Design and Methods; Inclusion and presentation of supportive mathematical models in quantitative strategies is highly encouraged**
  - **Role of Undergraduate Student Form S participation on the project and if applicable**
    - Justify Graduate Student support
  - **Potential Limitations and/or Pitfalls**
  - **Detailed Project Timeline**
  - **Future Directions and Impact of the Research**
  - **Literature Cited**

8. **Form D Budget, Summary & Justification** (Excel): Complete this form for the one-year project. Personnel include co-investigators, collaborator(s) and undergraduate student(s). A proportion of the budget is required to fund undergraduate student research support. The Principal Investigator of the project is responsible for administration and reporting of all sub-contracts and the distribution of funds for student expenses. Justify all proposed expenses. Funds from the Jeffress Award cannot be used for indirect costs. Examples of allowable expenses include student stipend, student room and board, tuition of justified Graduate Student expense. Additionally, computer time, supercomputing fees and open access fees are allowable expenses.

**Form E (Other Support)**
- PI/Applicant should list all active and pending support, addressing potential overlap for each at the level of the specific aims with the submission.
- Other Support includes all financial resources, whether Federal, non-Federal, commercial or institutional, available in direct support of an individual's research endeavors, including but not limited to research grants, cooperative agreements, contracts, and/or institutional awards. Training awards, prizes, or gifts do not need to be included.
- Effort devoted to projects must be measured using person months. Indicate calendar, academic, and/or summer months associated with each project.
- If applicable, please also provide grant overlap for co-investigator’s/key personnel.