

Vanderbilt-wide Limited Submission Opportunity

NSF Research Traineeship (NRT) Program

Applications due May 21, 2024

Vanderbilt (VU + VUMC): This is a joint competition for VU and VUMC investigators. All investigators should follow these instructions.

Vanderbilt University may submit only **2 applications** (participating either as Lead or non-lead institution) for the [NSF Research Traineeship \(NRT\) Program](#), which supports the development and implementation of transformative models for STEM graduate education training. The NRT program seeks proposals that explore ways for graduate students in research-based master's and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The program is dedicated to effective training of STEM graduate students in high priority interdisciplinary or convergent research areas, through a comprehensive traineeship model that is innovative, evidence-based, and aligned with changing workforce and research needs.

The NRT Program accepts proposals in any interdisciplinary or convergent research theme of national importance, and encourages specific priority research areas that change periodically. All interdisciplinary or convergent research themes should align with NSF or other national STEM research priority areas and have high potential to develop novel, innovative practices in graduate education. Proposers should describe the importance of the NRT project's thematic focus to the nation and the particular need to train students for a variety of careers in that thematic area.

Proposals are encouraged in the research areas of [Artificial Intelligence](#) (AI), [Quantum Information Science and Engineering](#) (QISE) and the following six research areas of [NSF's 10 Big Ideas](#): **1**). Harnessing the Data Revolution (HDR), **2**). The Future of Work at the Human-Technology Frontier (HTF), **3**). Navigating the New Arctic (NNA), **4**). Windows on the Universe: The Era of Multi-Messenger Astrophysics (WOU), **5**). The Quantum Leap: Leading the Next Quantum Revolution (QL), and **6**). Understanding the Rules of Life: Predicting Phenotype (ROL).

The NRT program addresses both workforce development, emphasizing broad participation, and institutional capacity building needs in graduate education. Strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and academic partners are encouraged.

Applications should have 1) an interdisciplinary research theme, 2) strong training elements, 3) the integration of the research and training, 4) a clear need for the program, 5) the transformative potential of the research area, and 6) how the project will produce improvements in graduate education and the potential for impact in STEM workforce development.

Award Information

Vanderbilt University is eligible to apply only for Track 1 as a Lead. The maximum funding amount is \$3,000,000 over a 5 year period.

See [the solicitation](#) for more information.

Internal Application Requirements in InfoReady at this link:

<https://vanderbilt.infoready4.com/#competitionDetail/1936746>

1. Please upload a .pdf description of your project (2 pages max) that covers the following:
 - List of partner institutions and key researchers
 - Project Synopsis: a brief summary of the vision and goals of the proposed training program, including a brief description of research area and theme, the training plan, and the research-education integration.
 - Statement describing how the project will produce improvements in graduate education and the potential for impact in STEM workforce development
 - Summary budget and project duration (Maximum 5 years)
2. Biographical Sketch/CV
3. Letter of Support from Department Chair/Center Director

Any questions about this opportunity may be directed to LSO@vanderbilt.edu.