

Opportunity Title: NIAID Emerging Leaders in Data Science Fellowship

Opportunity Reference Code: NIAID-17-01

Organization National Institutes of Health (NIH)

Reference Code NIAID-17-01

How to Apply **A complete application consists of:**

- A cover letter
- A current resume/ CV
- Transcripts – click here for detailed information about acceptable transcripts (<https://orise.orau.gov/sepreview/transcripts.html>)
- Three written references - uploaded with application
- Response to four questions below - uploaded with application

Questions for applicants to respond to (200 words or less for each response):

1) What interested you the most about this fellowship opportunity?

2) What are the three most important attributes or skills that you believe you would bring to advance the data science needs and mission of NIAID?

3) In what areas are you interested in expanding your skills or knowledge?

a. Where do you go first to find information to help you improve your performance for skills you have already learned?

b. Please indicate the scientific and administrative areas where you are interested in gaining more knowledge or experience.

4) The fellowship opportunity will involve administering and managing projects related to data science. Please describe an experience where you needed to manage a project, the outcome, and what you learned from the experience.

Application Deadline Extended to October 15, 2017

Application Deadline 10/16/2017 12:00:00 AM Eastern Time Zone

Description **Background:**

The National Institute of Allergy and Infectious Diseases is one of 27 Institutes and Centers making up the National Institutes of Health and has a core mission of supporting research to understand, treat, and prevent infectious, immunologic, and allergic diseases. NIAID has made a significant investment in funding basic and clinical research projects that are generating large, diverse and complex data sets including genomics/omics data, clinical data, immune phenotyping assay data, imaging and other data sets and the infectious diseases and immune mediated diseases communities have become a data-intense enterprise. Transforming this data into knowledge to understand the pathogenesis, transmission, evolution of the pathogen, pathogen-host

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interactions and the host response to infection and immune mediated diseases and development of new and improved diagnostics, therapeutics, and vaccines is of the highest priority for NIAID.

Over the last 10 years, NIAID has invested in bioinformatics and data science for data generated by NIAID intramural and extramural communities and has expanded its activities in data management systems, bioinformatics resource centers and data repositories that have provided the broad scientific community with user friendly interfaces for public access to data and analytic tools. These bioinformatics resources have been highly successful and have partnered with appropriate scientific communities to begin to provide data platforms for specific data sets being generated. As these NIAID generated data sets expand in diversity, complexity, and volume, NIAID is facing unmet needs and challenges in data science.

Building an improved big data ready environment for data management at NIAID that allows the maximum use and reuse of data (of value) generated by NIAID funded extramural and intramural projects is critically needed and of high priority for NIAID. To begin to address these challenges and opportunities in data science, NIAID has established an Office of Data Science and Emerging Technologies that will lead the coordination, planning and executing of bioinformatics and related technologies activities across NIAID to enhance NIAID's capabilities to accelerate basic and applied research to better understand, treat and prevent infectious, immunological and allergic diseases. A principal initiative of this office is to establish the NIAID Emerging Leaders in Data Science Fellowship program to develop a cadre of individuals with both skills and keen interest in applying bioinformatics skills to infectious, immunological and allergic diseases.

Description of program:


As an ORISE Research Participant in the NIAID Emerging Leaders in Data Science Fellowship Program in the OSMO Office of Data Science and Emerging Technologies, the participant will receive training and hands-on-experience in applying and managing big data, bioinformatics strategies and computational platforms and tool development to study infectious, immunological, and allergic diseases in both extramural and intramural divisions at NIAID and will receive training in the intersection and management of big data and disease-oriented data-intensive research efforts. Appointments will be for one year with the option of a second year. The program is rotational, and NIAID actively encourages fellows to partake in a variety of developmental assignments during their fellowship to broaden their perspectives on the mission of NIAID and the NIH, strengthen managerial and technical competencies, acquire a broad understanding of data needs at NIAID from a variety of views, and further develop their leadership abilities. In addition to a stipend, Research Participants will be provided with a travel and training allowance and health benefits. Stipend rates are determined by NIAID, and are based on the applicant's academic and professional background.

The participant will not enter into an employee/employer relationship with ORISE, ORAU, NIH, NIAID, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications Requirements:

Participants must be a U.S. Citizen and must have obtained within the past 5 years or currently be enrolled in a Bachelor's, Master's or Doctorate degree seeking program from an accredited university in Bioinformatics, Data Science, Computational Biology, Computer Science, Epidemiology, Mathematics, Engineering or a related field.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Any degree .
- **Discipline(s):**
 - **Computer Sciences** (17 )

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- **Engineering** (23 )
- **Life Health and Medical Sciences** (3 )
- **Mathematics and Statistics** (11 )