Opportunity Title: NIH NICEATM Postdoctoral Opportunity in AI-Driven Chemical Data Integration and Predictive Toxicology for New Approach Methodologies (NAMs)
Opportunity Reference Code: NIH-DPCPSI-ORIVA-NICEATM-2026

Organization National Institutes of Health (NIH)

Reference Code NIH-DPCPSI-ORIVA-NICEATM-2026

How to Apply Click on *Apply* below to start your application. An initial review of applications will occur on **July 1, 2026**. Thereafter, applications will be reviewed on a rolling-basis throughout the 2026 calendar year, and selections made as projects for participation become available.

Description This postdoctoral research opportunity is currently available within the National Institutes of Health (NIH), National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM). This opportunity will focus on building next-generation Artificial Intelligence and machine learning approaches for predictive toxicology by integrating chemical, toxicological, and biological data into FAIR, interoperable pipelines within the NIH Integrated Chemical Environment (NICE). The participant will explore resources such as NICE, ToxCast/Tox21, and PubChem to help develop Quantitative Structure-Activity Relationship (QSAR), read-across, and predictive models with relevance to New Approach Methodologies. Emphasis will be placed on interpretability, uncertainty characterization, reproducibility, and transparent model development for regulatory science. The project offers a highly collaborative environment spanning computational toxicology, cheminformatics, and data science, with opportunities to translate innovative methods into accessible decision-support tools used by researchers and regulatory partners.

What will I be doing?

The participant will learn how to curate, integrate, and evaluate heterogeneous chemical and toxicological datasets using FAIR data principles and reproducible computational workflows. Through mentored research, the participant will gain hands-on experience developing and benchmarking QSAR, read-across, graph neural networks, and transformer-based models for regulatory-relevant toxicity endpoints. The participant will also learn how to apply explainable AI methods, uncertainty analysis, and domain-of-applicability concepts to help improve confidence, transparency, and performance for use of model predictions. Additional learning will include interdisciplinary collaboration, scientific writing and communication, open-science software development and documentation, and translation of advanced computational approaches into practical decision-support tools for NAM-based research and regulatory applications.

Why should I apply?

As a participant in a STEM research participation program, you will learn about different NIH support mechanisms and different collaborative research programs involving NIH, how to use various NIH databases and modalities for data analysis, how to identify metrics and key indicators needed to evaluate any program, how to compare success between different types of collaborative research programs, and how to make recommendations for future programs based on the available data.

Where will I be located?

Fellows are expected to be fully engaged in-person at the Keystone Office Park in

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Morrisville, NC.

What financial provisions will I receive?

The selected candidates will receive a monthly stipend to help offset living and other expenses during this appointment. Stipend rates are determined by NIH officials and are based on the candidate's academic and professional background. In addition, NIH may provide a health insurance supplement to cover the monthly premium costs if you elect the ORAU/ORISE health insurance plan, as necessary.

What is the length of the appointment?

The appointment will initially be for one year but may be renewed upon recommendation of NIH and is contingent on the availability of funds, for a total of up to 5 years.

When are selections made?

An initial review of applications will occur on **July 1, 2026**. Thereafter, applications will be reviewed on a rolling-basis throughout the 2026 calendar year, and selections made as projects for participation become available.

What is the Nature of the Appointment?

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and the National Institutes of Health (NIH). Participants do not become employees of NIH, DOE, ORISE, nor ORAU, and there are no employment-related benefits.

Qualifications

The qualified candidate must be 18 years or older at the time of application and should have received a doctoral degree in one of the relevant fields. The degree must have been received within the last five years of the appointment start date. Current graduate students who are nearing degree completion may apply but must have completed their degrees by the start of the fellowship.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the Guidelines for Non-U.S. Citizens Details page for information about the valid immigration statuses that are acceptable for program participation.

A completed application consists of:

- A complete Zintellect profile.
- A program specific application submitted in Zintellect.
- Transcript(s) – Submit a copy of your most recent official transcript. For this opportunity, an unofficial transcript or copy of the student academic record printed by the applicant or by academic advisors from internal institution systems may be submitted to complete the application requirement, if you do not have a copy of your official transcript at the time of application. The transcript or academic record must include the name of the academic institution, name of the student, courses completed/in progress, grades and degree expected/awarded. A copy of your official transcript and/or letter showing proof of your degree may be required prior

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to starting the appointment. All transcripts must be in English or include an official English translation.

- A current resume/CV, including academic history, employment history, relevant experiences, and publication list.
- One Recommendation - Applicants are required to provide contact information for at least one recommendation in order to submit the application. Recommendations should be from professionals who can speak to your abilities and potential for success, as well as your scientific capabilities and personal characteristics. Recommendation requests must be sent through the Zintellect application system. Recommenders will be asked to complete a recommendation in Zintellect. Recommendations submitted via email will not be accepted. Recommendations must be submitted before your application can be reviewed.

All documents submitted must be in English or include an official English translation. All social security numbers, student identification numbers, and/or dates of birth should be removed (blanked out or blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, contact us at NIHprograms@orau.org. Please include the reference code NIH-DPCPSI-ORIVA-NICEATM-2026 for this opportunity in your email.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Stipend $88,000.00 Yearly

Point of Contact Daphne

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (3 👁)
  - **Communications and Graphics Design** (1 👁)
  - **Computer, Information, and Data Sciences** (4 👁)
  - **Life Health and Medical Sciences** (5 👁)
  - **Mathematics and Statistics** (3 👁)
- **Age:** Must be 18 years of age

Affirmation I affirm that I have received my doctoral degree within the last five years or am currently enrolled in a PhD program. If currently enrolled, I understand that my degree must be received before the appointment start date.