

**Tenure-Track Faculty Positions in Artificial Intelligence
and Machine Learning for Drug Discovery
University of Michigan, Ann Arbor**

Direct Link: <https://www.AcademicKeys.com/r?job=268818>

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Posted Dec. 1, 2025, set to expire Feb. 11, 2026

Job Title	Tenure-Track Faculty Positions in Artificial Intelligence and Machine Learning for Drug Discovery
Department	College of Pharmacy, Life Sciences Institute, and Medical School
Institution	University of Michigan, Ann Arbor Ann Arbor, Michigan
Date Posted	Dec. 1, 2025
Application Deadline	Dec. 1, 2025
Position Start Date	TBD
Job Categories	Assistant Professor Associate Professor
Academic Field(s)	Medical Informatics & Clinical Epidemiology Biomedical Engineering/Biomedical Sciences
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Apply By Email	
Job Description	

College of Pharmacy, Life Sciences Institute, and Medical School, University of Michigan, Ann Arbor, Michigan

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The University of Michigan (U-M) invites applications for three tenure-track faculty positions in the area of Artificial Intelligence (AI) and Machine Learning (ML) in Drug Discovery. This is a unique cluster hire initiative spanning the College of Pharmacy, Life Sciences Institute (LSI), and Medical School. We welcome applications from both early and mid-career candidates with strong records of research excellence in AI/ML-driven approaches to drug discovery.

Successful candidates will be appointed within the unit most appropriate to their expertise while fostering interdisciplinary collaborations across the university.

Strategic Impact and Vision

This cluster hire aligns with U-M's Vision 2034, emphasizing:

- **Research Innovation:** Advancing AI/ML methodologies for drug discovery and improving therapeutic success rates.
- **Interdisciplinary Collaboration:** Strengthening connections between computational and experimental drug development experts.
- **Economic and Societal Impact:** Translating discoveries into startup ventures and industry partnerships to drive drug commercialization.
- **Education and Workforce Development:** Training the next generation of scientists in AI/ML-enabled drug development.

About the Positions

Drug development faces significant challenges, including high costs, long timelines, and a 90% failure rate in clinical trials. AI and ML have the potential to enhance drug discovery by improving the identification of disease and drug targets, accelerating the identification of drug candidates, optimizing the design of therapeutics, and guiding predictions of clinical outcomes. The goal of this cluster hire is to advance U-M's leadership in drug discovery by integrating cutting-edge AI and ML methodologies into the drug discovery process, enhancing efficiency, reducing failure rates, and supporting therapeutic innovation.

Resources and Collaborative Environment

U-M provides an exceptionally collaborative and resource-rich environment for AI/ML and drug discovery research, including:

- **Michigan Drug Discovery (MDD):** A hub for academic-industry partnerships, drug screening,

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medicinal chemistry, and translational research.

- **Broad Campus Collaboration:** A Highly collaborative network with faculty from departments like the Department of Pharmacology, Computational medicine and bioinformatics, Michigan Institute for Data Sciences, LSA, and College of engineering.
- **Core Facilities:** High-throughput screening, medicinal chemistry, structural biology, cryo-electron microscopy, pharmacokinetics, bioinformatics, and AI-driven data analytics.
- **Innovation and Commercialization Support:** Access to incubator space, business mentoring, venture funding, and technology licensing through Innovation Partnerships.
- **AI & Digital Health Innovation:** A Presidential initiative providing deidentified multimodal health data, genetic data, data storage and processing, and research implementation services.
- **e-HAIL Initiative:** A collaboration between Michigan Medicine and the College of Engineering, advancing AI in healthcare and biomedical research.
- **Newly Established U-M and Los Alamos National Laboratory Partnership:** A strategic collaboration providing additional computational and experimental resources.

Responsibilities

- Develop and sustain an externally funded research program in AI/ML-driven drug discovery.
- Publish high-impact research in leading scientific journals.
- Teach and mentor students and trainees across all learning and development stages.
- Collaborate with faculty across U-M to drive AI/ML applications in drug development.
- Engage with industry and government agencies to secure funding and foster translational research efforts.
- Contribute to the development of a new AI/ML-driven drug discovery center, integrating efforts across the College of Pharmacy, LSI, and Medical School, and other units in the University of Michigan.
- Contribute to the service missions of the department, university, and profession.

Requirements

- D., M.D., or equivalent degree in pharmaceutical sciences, medicinal chemistry, pharmacology, computational biology, biomedical informatics, chemical engineering, bioinformatics, computer science, or a related field.
- Demonstrated excellence in research with a strong record of peer-reviewed publications and competitive funding, or the potential for building an independent externally-funded program
- Expertise in applying AI/ML methodologies to drug discovery, pharmacology, chemistry, bioinformatics, or computational biology.
- A commitment to teaching, mentoring, and training students and postdoctoral fellows in AI/ML-

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driven drug discovery.

- Interest in interdisciplinary collaboration and contributing to drug discovery and therapeutic innovation.

Application Process

All application materials should be submitted through the Interfolio Portal:

<https://apply.interfolio.com/174339>

Review of applications will begin immediately and continue on a rolling basis until the position is filled.

To apply, please submit the following materials:

- Cover letter specifying the preferred tenure home unit (College of Pharmacy or Medical School) and how their expertise aligns with the AI/ML drug discovery focus areas.
- Curriculum vitae.
- Statement of research interests and vision (2–3 pages).
- Statement of teaching philosophy and mentoring approach (1–2 pages).
- Names and contact information for three references.

For informal inquiries, please contact the search committee chair, Dr. Duxin Sun (duxins@umich.edu)

EEO/AA Policy

Equal Opportunity Statement

The College of Pharmacy and the University of Michigan seek to recruit and retain a diverse workforce as a reflection of our commitment to serve our diverse constituents, and to maintain the excellence of the Department, College, and University. The University of Michigan is supportive of the needs of dual career couples, and is an equal opportunity employer that complies with all applicable federal and state laws regarding nondiscrimination. It is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, national origin, age, marital status, sex, sexual orientation, gender identity, gender expression, disability, religion, height, weight, or veteran status in employment, educational programs and activities, and admissions.

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Contact Information

Please reference Academickeys in your cover letter when
applying for or inquiring about this job announcement.

Contact Professor Duxin Sun, Search Committee Chair
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Medical School
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