Translational Artificial Intelligence Fellowship

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Type: Full-Time
Salary: $93,933 per year
Posted: 3 days ago
Category: Computer Science
Military

School: Wyss Institute for Biologically Inspired Engineering

Department/Area: Wyss Institute - Harvard Medical School

Position Description

About the Wyss:
The Wyss Institute's mission is to transform healthcare and the environment by emulating the way nature builds. We harness the imagination of academia and the focus of industry to translate ground-breaking technologies into commercial products that solve big problems. We support research that universities, companies, and venture capital firms don't fund because they view it as too risky. We prefer to use the word "challenging," and we love challenges. For more information, **discover our technologies**, **catch up on our recent news**, or **watch our latest videos**.

About this Role:

The Wyss Institute invites applications for Wyss Translational Artificial Intelligence Fellowships (TAIF) in Biologically Inspired Engineering. **In this role, Fellows will be supporting the mission of the Wyss Translational AI Catalyst to foster a collaborative community of innovators dedicated to the intersection of Artificial Intelligence (AI), biology, and healthcare.**

This Fellowship is designed for researchers with deep expertise in AI/ML who are motivated to move beyond benchmark-driven modeling and into biologically grounded, experimentally validated, and translationally impactful work. Fellows will operate at the intersection of AI, rich multi-omics data, and human-relevant disease models, working closely with experimental scientists, clinicians, and industry partners to accelerate discovery and enable real world application. Fellows will gain hands-on exposure to translational science, drug discovery, and technology development, with opportunities to contribute to intellectual property, partnerships, and new venture creation.

The Translational Artificial Intelligence Fellows will be working across the Institute and co-mentored by members of the Institute Faculty and Translational AI Team. Fellows are selected on the basis of their academic achievement and/or postdoctoral experience in AI/ML field. These Fellowships are intended for scientists of great promise with outstanding technical expertise who have completed their doctoral degree within the last two years.

The Institute will provide the TAIF with an annual stipend of $93,933. The TAIF will also be able to access all of the Platforms, facilities, equipment and staff of the Institute at no cost for their Institute-related research and development activities. Fellowships are awarded annually for up to 3 years.

Although Translational Artificial Intelligence Fellows will be granted more independence than traditional postdoctoral positions, each Fellow is mentored by an Institute Core Faculty and a member of the Translational AI Team. This mentorship structure is designed to support both scientific independence and translational success.

Mentors are expected to:

- Integrate the Fellow into active research and development efforts at the Wyss Institute, including Enabling Technology Platforms and application-focused translational projects.
- Provide guidance across key dimensions of career development, including research in science and engineering, technology development, intellectual property and translational strategy, written and oral communications, and preparation of competitive grant proposals for government agencies and industrial sponsors.
- Ensure full institutional integration, including inclusion on academic departmental rosters, access to appropriate facilities and platforms, and completion of required safety and compliance training at the Institute and affiliated academic departments.

What you'll do:

- **Designing, developing, and deploying modern AI/ML models**-including deep learning, foundation models, multimodal architectures, and generative approaches-to analyze complex biological and biomedical datasets generated at the Wyss Institute and with external partners.
- **Integrating and modeling multi-omics data**, such as proteomics, metabolomics, lipidomics, transcriptomics, spatial biology, and associated metadata, often across time, dose, or perturbation conditions, to enable phenotype-driven prediction and insight.
- **Developing AI models to address translational questions**, including but not limited to drug efficacy and safety prediction, mechanism-of-action inference, biomarker discovery, causal or network-based modeling of biological systems, and drug repurposing or design.

- **Working in close, iterative collaboration with experimental scientists**, clinicians, and platform teams to refine hypotheses, guide experimental design, and validate AI predictions using human-relevant disease models (e.g., Organ Chips, organoids, or patient-derived samples).
- **Engaging with the broader Wyss Translational AI ecosystem**, including participation in and leadership of seminars, working groups, and collaborative initiatives that connect AI researchers, biologists, engineers, and clinicians.
- **Contributing to technology translation and entrepreneurship**, including interactions with industry partners, participation in translational strategy discussions, and potential involvement in intellectual property development, startup formation, or partnered research programs

Additional Information:

- We encourage candidates to apply **by February 20, 2026**
- Duration: This is a Fellowship for up to 3 years from the date of hire, reviewed and renewed annually.

Salary and Benefits:

- This position is salaried and eligible for Harvard University's subsidized, comprehensive medical, dental, vision, and other benefits. Most of the benefit plans require a contribution from participants for coverage. More information on benefits and benefits costs is available here: **Employee Benefits**.
- With this appointment, you are represented by the Harvard Academic Workers (HAW) - UAW for purposes of collective bargaining and matters affecting your compensation and working conditions.
- Access to Harvard's libraries and research core facilities, as well as support from the Wyss's in-house Clinical & Translational Research Core and **Machine Shop.**
- Robust administrative and operational support for office and lab needs.
- Availability of flexible work arrangements for some administrative positions dependent on Institute needs.
- Newly constructed office and laboratory space in Boston's Fenway District. Our space has multiple amenities which include: roof top terrace, fitness center, locker room, bike storage, and close proximity to numerous restaurants and cultural attractions.

Why You'll Like Working With Us:

At the Wyss Institute, you're a member of a supportive, dynamic community that is united by its shared goal of changing the world through groundbreaking technology development and commercialization. We encourage your professional growth and development through mentorship and tuition reimbursement to support continued learning, and more. Our facility is located in a new, state-of-the-art life sciences building in the lively Fenway neighborhood, where you have access to multiple amenities including a roof top terrace with stunning views

of Boston and proximity to numerous restaurants and cultural attractions. We value an inclusive and diverse workforce, and believe that our differences enrich the work environment for all.

Basic Qualifications

What You'll Need:

- PhD in computer science, artificial intelligence, machine learning, computational biology, biomedical engineering, or a closely related quantitative field.
- Strong foundation in modern machine learning and deep learning methods, including architectures such as Transformers, RNNs, and CNNs, and related models used for sequence, image, graph, or multimodal data.
- Demonstrated experience developing, training, and evaluating AI/ML models in research or applied settings, with a record of technical rigor and innovation.
- Experience with Large Language Models (LLMs) or foundation models, including prompt engineering, embeddings, retrieval-augmented generation (RAG), agent or tool-based workflows, or application-level architectures.
- Ability to work collaboratively across disciplines and communicate technical concepts clearly to non-AI experts.
- Publication record or equivalent evidence of impact in AI/ML research or applied machine learning.

Final approval for Translational Artificial Intelligence Fellowships will be determined by the Chief Operating Officer/Technology Development Director in discussion with the Operating Committee.

Additional Qualifications

Desirable Skills:

- Ability to work well independently and to collaborate with a multidisciplinary group is essential.
- Good written and oral communication skills are essential.
- Highly motivated, detail-oriented, organized, and able to take initiative.

Special Instructions

Applications Should Contain:

1. Recent complete CV.
2. Cover letter describing research interests and goals.
3. Full list of scientific publications.

4. Three letters of recommendation from the doctoral advisor of the candidate, or from other scientists or engineers who mentored, supervised or collaborated with the candidate in a research setting. Note: One of these letters may come from a Wyss faculty member who will serve as the faculty mentor. Link to our faculty **here**.

Contact Information

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Salary Range

Starting Salary of $93,933.

Keywords

Wyss Institute, Artificial Intelligence, AI, Translational
We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.