

Discovery Postdoctoral Fellow, Biophysical Native Mass Spectrometry

Job ID
REQ-10054027
Jun 04, 2025
USA

Summary

As part of the Discovery Fellowship track of the Novartis Postdoctoral Fellowship Program, you will join our vibrant, dedicated postdoctoral community for events, including the monthly postdoc seminars and other scheduled events for postdocs. Fellows are surrounded by a supportive, collaborative community of postdocs and scientists, who would contribute to the acceleration of your scientific growth, along with building your professional skillset, e.g. you will have the opportunity to do a Postdoc Practicum in another laboratory or in a business function of Novartis. This applied research program is up to 3 years in length, with the option of applying for an extension of up to 1 year (pending review by the Head of Biomedical Education & Innovation and the postdoc supervisor).

About the Role

Internal Job Title: Discovery Postdoctoral Fellow

Position Location: Cambridge MA, onsite #LI Onsite

About the Role:

We are thrilled to open applications for our Discovery Fellowship track of the Novartis Postdoctoral Fellowship Program.

Come join Novartis Biomedical Research as a Discovery Postdoctoral Fellow and help to expand our biophysical characterization capabilities of proteins, protein-protein, and protein ligand interactions using native ion mobility spectrometry-mass spectrometry (IMS-nMS).

You will be part of our Global Discovery Chemistry and Discovery Science research teams in Cambridge, MA. The role presents unique opportunities to work collaboratively across scientific and organizational boundaries to develop novel technologies and targeted IMS-nMS assays focused on understanding conformational changes/stability, reactivities and thermodynamic properties for native and non-native structures of proteins, and protein-ligand systems. The ideal candidate will be an ambitious researcher eager to expand their knowledge and skills while pushing the boundaries of both soluble and membrane protein nMS technologies.

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Discovery Postdoctoral Fellows have a unique opportunity to conduct innovative, interdisciplinary research and are expected to publish their results in leading journals. We collaborate across scientific and organizational boundaries, with a focus on powerful new technologies that have the potential to help produce therapeutic breakthroughs for patients.

Through the Novartis Postdoctoral Fellowship Program, you will build your competency as a drug hunter, and as a scientific leader in the field. You will join a professional network that will support your growth as a research scientist, and you will have the opportunity to tackle disease and make an impact, by reimagining medicine together.

Start date: September 2025

Key responsibilities:

As a Discovery Postdoctoral Fellow, you will:

- Innovate novel IMS-nMS assays to probe protein-protein and protein-ligand interactions, such as allostery and cryptic pocket formation
- Develop a robust nMS membrane protein assay for characterizing protein-ligand interactions.
- Develop sensitive IMS-nMS biophysical characterization tools coupled with precise temperature control using variable-temperature ESI to assess protein/protein-ligand stability and thermodynamic properties.
- Communicating project progress proactively and transparently.
- Present work at both internal and external seminars/conferences.
- Work independently as well as collaboratively with interdisciplinary teams with diverse backgrounds and expertise within the Global Discovery Chemistry (GDC) and Discovery Sciences (DSc) departments.

Role Requirements:

- PhD in Analytical Chemistry, or other similar fields. Must have specialized in mass spectrometry.
- Note that PhD students in the last year of their thesis work are eligible to apply. Applicants are only eligible to apply up to 2 years from the date of receiving their PhD (i.e. PhD degrees must have been awarded May 2023 or later).
- Highly skilled with intact native MS membrane protein preparation and characterization.
- Proficiency with ion mobility spectrometry (IMS) – mass spectrometry to measure conformational changes in proteins.
- Experience with thermodynamic biophysical characterization of proteins, protein-ligand, and protein-protein interactions such as ITC, DSF, and SPR. Not a must, but experience with variable temperature ESI is highly desired.
- Strong publication record or other scientific achievements (i.e. awards, patents, grants)
- Excellent analytical, communication, presentation and organizational skills
- Passion for fundamental exploratory research and boundless curiosity

How to apply

Please submit your CV and cover letter by July 5th 2025 for consideration. Please make sure to discuss in the cover letter how this training program will help you fulfill your career goals.

The starting salary for this position is \$87,000 per year.

US-based eligible employees will receive a comprehensive benefits package that includes health, life and disability benefits, a 401(k) with company contribution and match, and a variety of other benefits. In addition, employees are eligible for a generous time off package including vacation, personal days, holidays and other leaves. #PDX

Why Novartis: Helping people with disease and their families takes more than innovative science. It takes a community of smart, passionate people like you. Collaborating, supporting and inspiring each other. Combining to achieve breakthroughs that change patients' lives. Ready to create a brighter future together? <https://www.novartis.com/about/strategy/people-and-culture>

Join our Novartis Network: Not the right Novartis role for you? Sign up to our talent community to stay connected and learn about suitable career opportunities as soon as they come up: <https://talentnetwork.novartis.com/network>

Benefits and Rewards: Read our handbook to learn about all the ways we'll help you thrive personally and professionally: <https://www.novartis.com/careers/benefits-rewards>

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Division

Biomedical Research

Business Unit

Universal Hierarchy Node

Location

USA

State

Massachusetts

Site

Cambridge (USA)

Company / Legal Entity

U175 (FCRS = US175) Novartis Institutes for BioMedical Research, Inc.

Functional Area

Research & Development

Job Type

Full time

Employment Type

Regular

Shift Work

No

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