

Discovery Postdoctoral Fellow, On-Cell NMR and HDX-MS for Drug Discovery

Job ID
REQ-10056040
Jun 29, 2025
USA

Summary

Design, implement and advance scientific experiments to support drug discovery efforts against cellular surface receptor targets.

Set-up an experimental pipeline to study protein-ligand interaction on living cells, using NMR and HDX-MS as main tools, on clinically relevant model systems. NMR and HDX-MS will be used to characterize the interaction from the ligand and protein sides respectively.

Validate the approach with orthogonal methods and in-vitro data from purified protein target.

Shape your postdoc project by exploring and committing to various key scientific questions to advance the field.

Work independently as well as with interdisciplinary teams. Interact with field experts at the interface of biophysics, biology and chemistry.

Build your competency and skills as a drug hunter in the pharmaceutical industry.

Disseminate research through high-impact presentations, internal reports, and peer-reviewed publications.

About the Role

Internal Job Title: Discovery Postdoctoral Fellow

Position Location: onsite, Emeryville, California

#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 develop on-cell NMR and MS methods for drug discovery. This research aims to uncover new therapeutic agents targeting cellular receptors, with a focus on radioligand therapies (RLT), therapeutic siRNA, and antibody-drug conjugates (ADCs) modalities.

You will be part of our Structural BioAnalytics team in Emeryville, CA, and will collaborate with researchers across the organization in Global Discovery Chemistry, Discovery Science and relevant disease areas departments. Your co-mentors, BioNMR and HDX-MS specialists, will help you develop a research program to establish this workflow together with biologists and disease area specialists.

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).

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.

Estimated start date: September 2025

Key responsibilities:

As a Discovery Postdoctoral Fellow, you will:

- Design, implement and advance scientific experiments to support drug discovery efforts against cellular surface receptor targets
- Set-up an experimental pipeline to study protein-ligand interaction on living cells, using NMR and HDX-MS as main tools, on clinically relevant model systems. NMR and HDX-MS will be used to characterize the interaction from the ligand and protein sides respectively
- Validate the approach with orthogonal methods and in-vitro data from purified protein target
- Shape your postdoc project by exploring and committing to various key scientific questions to advance the field
- Work independently as well as with interdisciplinary teams. Interact with field experts at the interface of biophysics, biology and chemistry
- Build your competency and skills as a drug hunter in the pharmaceutical industry
- Disseminate research through high-impact presentations, internal reports, and peer-reviewed publications

Role Requirements:

- PhD in Structural Biology, or related field, with extensive experience in BioNMR
- 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).
- Expertise in utilizing NMR techniques for drug discovery, including Ligand Observed (LO-NMR) and Protein Observed (PO-NMR) methods

- Experience with in/on cell NMR and/or cell culture techniques is a plus
- Experience with HDX-MS is a plus
- Strong publication record or other scientific achievements (i.e. awards, patents, grants)
- Excellent analytical, communication, presentation and organizational skills
- Passion for fundamental exploratory research, boundless curiosity and desire to learn and develop new methods

How to apply:

Please submit your CV and cover letter by August 1st 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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The Novartis Group of Companies are committed to working with and providing reasonable accommodation to individuals with disabilities. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the application process, or to perform the essential functions of a position, please send an e-mail to us.reasonableaccommodations@novartis.com or call +1(877)395-2339 and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

Division

Biomedical Research

Business Unit

Universal Hierarchy Node

Location

USA
State
California
Site
Emeryville
Company / Legal Entity
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Functional Area
Research & Development
Job Type
Full time
Employment Type
Regular
Shift Work
No
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