

Discovery Postdoctoral Fellow, Brain infective pathogens

Job ID

REQ-10054133

Jun 05, 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 postdoc events. 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: Emeryville CA, onsite #LI Onsite

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 join our dynamic Global Health research team in Emeryville, California, investigating infectious diseases that breach the blood-brain barrier (BBB) and lead to severe neurological outcomes. This position is part of a cross-functional initiative to understand and overcome the biological barriers that limit therapeutic access to the central nervous system (CNS) during infection.

We are seeking a highly motivated Postdoctoral Fellow to use state-of-the-art in vitro models—such as human BBB assembloids and microfluidic platforms—to study pathogen transcytosis, host-pathogen interactions, and drug permeability. A central focus of the role includes target deconvolution to uncover the molecular mechanisms behind compound activity, toxicity, and BBB penetration.

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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, focusing 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:

- Work independently as well as with interdisciplinary teams
- Design and develop in vitro models of the blood-brain barrier (BBB) to assess how pathogens and therapeutic molecules enter the brain.
- Investigate the mechanisms of action (MoA) of anti-infective agents active against pathogens that invade the CNS, and possible resistant mechanisms.
- Explore the impact of inflammation and infection on BBB integrity and therapeutic delivery.
- Validate model performance by comparing in vitro outcomes with in vivo data on pathogen spread and drug efficacy.
- Integrate cross-functional insights to inform lead optimization and therapeutic strategy.
- Disseminate research through high-impact presentations, internal reports, and peer-reviewed publications.

Role Requirements:

- PhD in Neuroscience, Pharmacology, Infectious Diseases, Microbiology, Cellular Biology, or a related field.
- 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).
- Experience in blood-brain barrier models, microfluidics, organoids, or assembloid systems.
- Familiarity with MoA elucidation and target identification using proteomics or CRISPR screening techniques.
- 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>

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Business Unit
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