

# Data Science Innovation Postdoctoral Fellow: Cardiac AI

Job ID  
REQ-10014140  
Juli 08, 2024  
USA

## Zusammenfassung

We are thrilled to open applications for our Data Science Innovation Fellowship. This applied 3-year research program is set to change the way we approach drug discovery, offering fellows a unique chance to train in data science and AI for biomedical research. As a talented fellow, you will learn to apply your computational skills to make a difference for patients and reimagine medicine at Novartis.

## About the Role

Internal Job Title: Innovation Postdoctoral Fellow

Location: Cambridge, MA, onsite

### About the role:

We are thrilled to open applications for our **Data Science Innovation Fellowship**. This applied 3-year research program is set to change the way we approach drug discovery, offering fellows a unique chance to train in data science and AI for biomedical research. As a talented fellow, you will learn to apply your computational skills to make a difference for patients and reimagine medicine at Novartis.

Drug hunting is a team sport, and you will gain experience in DS&AI for drug discovery as part of a multi-disciplinary team in Biomedical Research. You will drive innovation by deploying cutting-edge data approaches in collaboration with a vibrant and diverse community of over 300 data scientists globally. The program provides a unique platform to work on real-world, biomedical data at scale, rarely accessible in academia. Under the guidance of experienced mentors, you'll embark on a journey of professional growth, benefiting from a tailored training program with built-in time for a mini-sabbatical in other areas of Novartis and for attending conferences/workshops.

Biomedical Research is the home of a vibrant postdoctoral community connected through science and events supporting the professional growth of our fellows, including monthly seminars and an annual Research Day Symposium. Seize this chance to be at the forefront of Data science and AI and shape the future of drug discovery!

Cardiovascular diseases are a strategic focus of Novartis. Cardiac activities can be monitored through physiological signals. The power of AI approaches allows us to explore the signal details and opens a new door to investigate cardiology. The project aims to develop a multimodal AI framework to analyze the physiological signals and to decipher underlying molecular mechanisms by exploring other data sources, such as omics, large databanks, real world evidence, and clinical information. You will have opportunity to engage

in a rotational program, spending time in different specialties to gain a broad understanding of cardiac AI.

Start date: Winter 2024

### **Key responsibilities:**

As a Data Science Innovation Fellow, you will:

- Collaborate with AI scientists, data architects, biologists and cardiologists on applications of AI to the cardiovascular domain.
- Engage with diverse stakeholders in non-clinical as well as clinical settings.
- Develop multimodal AI models to analyze physiological signals and human genomic data to identify digital and biological biomarkers.
- Leverage proprietary data to develop and refine AI algorithms.
- Keep ahead of the latest developments in the field and bring curious and critical thinking to the projects.

### **Role requirements:**

- PhD in AI/ML, computer science, mathematics, statistics, engineering or a related field with a strong focus on multimodal deep learning (PhD students in the last year of their thesis work, are eligible to apply).
- Proven experience in developing state-of-the-art deep learning algorithms.
- Strong programming experience in Python and proficiency in at least one main deep learning framework (e.g., PyTorch, TensorFlow, etc.).
- Familiarity with cloud/high-performance computing environments and version controlling.
- Strong publication record or other scientific achievements (i.e. awards, patents, grants).
- Ability to clearly communicate technical concepts to a variety of audiences, including scientists, engineers, and subject matter experts from other domains.
- Passion for research and boundless curiosity #DSIF

### **How to apply:**

Please submit your CV and cover letter by July 29th for consideration. Please ensure that your cover letter explains how this training program will contribute to achieving your career goals.

Why Novartis: Our purpose is to reimagine medicine to improve and extend people's lives and our vision is to become the most valued and trusted medicines company in the world. How can we achieve this? With our people. It is our associates that drive us each day to reach our ambitions. Be a part of this mission and join us! Learn more here: <https://www.novartis.com/about/strategy/people-and-culture>

You'll receive: You can find everything you need to know about our benefits and rewards in the Novartis Life Handbook: <https://www.novartis.com/careers/benefits-rewards>

Commitment to Diversity and Inclusion / EEO: The Novartis Group of Companies are Equal Opportunity Employers and take pride in maintaining a diverse environment. We do not discriminate in recruitment, hiring, training, promotion or other employment practices for reasons of race, color, religion, gender, national origin, age, sexual orientation, gender identity or expression, marital or veteran status, disability, or any other legally protected status. We are committed to building diverse teams, representative of the patients and communities we serve, and we strive to create an inclusive workplace that cultivates bold innovation through collaboration and empowers our people to unleash their full potential.

The pay rate for this position at commencement of employment is expected to be \$82,000 per year; however, base pay offered may vary depending on multiple individualized factors, including market location, job-related knowledge, skills, and experience. The total compensation package for this position may also include other elements, including a sign-on bonus, restricted stock units, and discretionary awards in addition to a full range of medical, financial, and/or other benefits (including 401(k) eligibility and various paid time off benefits, such as vacation, sick time, and parental leave), dependent on the position offered. Details of participation in these benefit plans will be provided if an employee receives an offer of employment. If hired, employee will be in an "at-will position" and the Company reserves the right to modify base salary (as well as any other discretionary payment or compensation program) at any time, including for reasons related to individual performance, Company or individual department/team performance, and market factors.

Join our Novartis Network: If this role is not suitable to your experience or career goals but you wish to stay connected to hear more about Novartis and our career opportunities, join the Novartis Network here:  
<https://talentnetwork.novartis.com/networ>

**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>

#### **EEO Statement:**

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#### **Accessibility & Reasonable Accommodations**

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](mailto: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.

Abteilung  
Biomedical Research  
Business Unit  
Pharma Research  
Ort  
USA

Website

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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