

# Data Science Innovation Fellow

Job ID  
REQ-10012275  
Jul 09, 2024  
Switzerland

## Summary

Data Science Innovation Fellow Computed Aided Drug Design

## About the Role

### 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!

As a key member of an interdisciplinary team with expertise in data science, AI/ML methodology, computer-aided drug discovery, cheminformatics and medicinal chemistry as well as pharmacokinetics, you will leverage state-of-the-art AI methodology and unique internal datasets to investigate multi-objective optimization in combination with generative models to accelerate drug discovery efforts.

Start date: Autumn 2024

## Key responsibilities

As a Data Science Innovation Fellow, you will:

- Leverage proprietary data sets to evaluate and refine modern optimization algorithms in the context of generative chemistry.
- Apply a deep understanding of foundation models, including pre-trained and large language models, to

leverage multi-objective optimization in generative AI applications.

- Collaborate with cross-functional teams in drug discovery projects; design and conduct in silico experiments to inform wet lab experiments and integrate generated data to optimize prediction models.
- Explore the application of latest optimization, predictive and generative AI models to drug discovery and present your findings to the scientific community at conferences and in publications.
- Be part of a unique organization and work with an interdisciplinary team of highly accomplished scientists to push the frontiers of AI in drug discovery.

### **Role requirements:**

- PhD in computational chemistry, cheminformatics, computer science, mathematics, statistics or equivalent with a strong focus on machine-learning (PhD students in the last year of their thesis work, are eligible to apply).
- Experience in applying computational methods to drug discovery or small molecule design.
- Proficiency in Python and deep learning frameworks (e.g. Pytorch, Tensorflow, Keras), solid knowledge of statistics, machine learning and deep learning algorithms.
- Strong publication record or other scientific achievements (i.e. awards, patents, grants).
- Excellent analytical, communication, presentation and organizational skills.
- Passion for research and boundless curiosity.

#DSIF

### **How to apply**

Please submit your CV and cover letter by **July 29** for consideration. Please make sure to discuss in the cover letter how this training program will help you fulfill your career goals.

### **Why Novartis:**

Our purpose is to re-imagine 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

### **Accessibility and accommodation**

Novartis is committed to working with and providing reasonable accommodation to all individuals. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the recruitment process, or in order to receive more detailed information about the essential functions of a position, please send an e-mail to [diversity.inclusion\\_ch@novartis.com](mailto:diversity.inclusion_ch@novartis.com) and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

**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>

Division

Biomedical Research

Business Unit  
Pharma Research  
Location  
Switzerland  
Site  
Basel (City)  
Company / Legal Entity  
C028 (FCRS = CH028) Novartis Pharma AG  
Job Type  
Full time  
Employment Type  
Early Talent (Fixed Term)  
Shift Work  
No  
[Apply to Job](#)  
Job ID  
REQ-10012275

## Data Science Innovation Fellow

[Apply to Job](#)

---

**Source URL:** <https://www.adacap.com/careers/career-search/job/details/req-10012275-data-science-innovation-fellow>

### List of links present in page

1. <https://www.novartis.com/about/strategy/people-and-culture>
2. <https://talentnetwork.novartis.com/network>
3. [https://novartis.wd3.myworkdayjobs.com/en-US/Novartis\\_Careers/job/Basel-City/Data-Science-Innovation-Fellow\\_REQ-10012275](https://novartis.wd3.myworkdayjobs.com/en-US/Novartis_Careers/job/Basel-City/Data-Science-Innovation-Fellow_REQ-10012275)
4. [https://novartis.wd3.myworkdayjobs.com/en-US/Novartis\\_Careers/job/Basel-City/Data-Science-Innovation-Fellow\\_REQ-10012275](https://novartis.wd3.myworkdayjobs.com/en-US/Novartis_Careers/job/Basel-City/Data-Science-Innovation-Fellow_REQ-10012275)