

# Data Science Innovation Fellow - Renal Translational Research

Job ID  
REQ-10012381  
Jun 25, 2024  
Switzerland

## Summary

You are encouraged to apply for our Data Science Innovation Fellowship, which is a three-year post-doctoral research program to augment the way we approach drug discovery. The fellow will have the unique opportunity to train in data science and AI for biomedical research. As a fellow, you will apply your computational skills to make a difference for patients and reimagine medicine at Novartis. Drug hunting is a team sport, and you will participate on a multi-disciplinary team in Biomedical Research. You will drive innovation by deploying innovative data approaches in collaboration with a vibrant community of over 300 data scientists globally. The program provides a unique platform to access real-world, biomedical data at scale, rarely available in academia. Working with experienced mentors, you'll embark on a journey of professional growth, benefiting from a tailored training program with options 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! Your project will evolve practices in disease target identification and drug discovery through strengthening our ability to translate mechanistic insights gained from preclinical models to human kidney diseases. Developing a more sophisticated understanding of drug-kidney interactions is a crucial step towards creating successful drugs. To this end, you will use your quantitative background and leverage large-scale data to derive mechanistic insights from preclinical models relevant to human kidney biology and pathophysiology. Start date: Winter 2024

## About the Role

### Key responsibilities

As a Data Science Innovation Fellow, you will:

- Advance methods and practices in spatial transcriptomics, including integrated histology image and transcriptomics analysis at scale.
- Explore novel multimodal and transfer learning analysis approaches towards advances in translatable kidney function assessment.
- Leverage a knowledgebase of hundreds of rodent studies to characterize the range of notable observations made on preclinical and patient kidney data.
- Uncover and seize opportunities for drug development by identifying relationships in large-scale datasets that can guide preclinical safety evaluations and novel target hypotheses.
- Collaborate closely with colleagues in toxicology, pathology, early discovery, and data sciences.
- Foster the role of data science and AI in drug discovery by implementing best practices and making data

more accessible.

- Communicate research results to both internal and external audiences, such as scientific conferences and publications.

### **Role requirements:**

- PhD in a quantitative field (data science, machine learning, computer science, statistics) or life sciences, preferably with multidisciplinary background (chemoinformatics, bioinformatics, biomedical engineering, AI/ML in drug discovery or life sciences). PhD students in the last year of their thesis work, are eligible to apply.
- Solid understanding of statistics, machine learning and deep learning; Demonstrated knowledge of data visualization and exploratory analysis.
- Knowledge of Python and/or R, as well as machine learning/deep learning libraries. Experience with generative algorithms and explainable AI is a plus.
- Experience with reproducible data science tools and practices.
- Strong publication record or other scientific achievements (i.e. awards, patents, grants, public code repository)
- Highly effective analytical, communication, presentation, and organizational skills
- Passion for research and boundless curiosity. Team player. Strives for continuous learning (scientific and technical).

#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 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

### **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>

Biomedical Research  
Business Unit  
Pharma Research  
Location  
Switzerland  
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Basel (City)  
Company / Legal Entity  
C028 (FCRS = CH028) Novartis Pharma AG  
Job Type  
Full time  
Employment Type  
Early Talent (Fixed Term)  
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No  
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