

Data Science Innovation Fellow - Histopathology Foundation Models

Job ID

REQ-10013211

Jun 26, 2024

Switzerland

Summary

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! Over the period of three years, you will conceptualize and develop general-purpose Histopathology Foundation Models by leveraging thousands of whole-slide histopathology images from our internal data archives. You will be deeply embedded in our Computational Pathology and Artificial Intelligence & Computational Science teams and will work on large-scale representation learning approaches to build models that will lay the foundation of AI-enhanced pathology-based applications within Novartis. Start date: Autumn 2024

About the Role

Key responsibilities

As a Data Science Innovation Fellow, you will:

- Implement the state-of-the-art and design custom self- and weakly-supervised algorithms to build Foundation Models for histopathology data.
- Work as a team member on AI research projects independently, focusing on large-scale imaging data and practicing scientifically rigorous and reproducible methodology.
- Collaborate with other AI specialists, data architects, software engineers and pathologists within Biomedical Research on applications in the histopathology domain.
- Engage with diverse stakeholders in non-clinical as well as clinical settings.
- Build a bridge between academia and industry partners.
- Keep ahead of the latest developments in the field and bring curious and critical thinking to the team.

Role requirements:

- PhD in Computer Science, Machine Learning, or a related field with a focus on image and vision applications (PhD students in the last year of their thesis work, are eligible to apply).
- Strong programming experience in python and proficiency in at least one main deep learning framework (PyTorch/TensorFlow/JAX).
- Proven experience in implementing state-of-the-art machine/deep learning algorithms.
- Scientific publications in AI/ML conferences and/or in journals with a focus on computational biology/medicine.
- Ability to clearly communicate technical concepts to a variety of audiences, including scientists, engineers, and subject matter experts from other domains.
- Familiarity with working on high-performance computing systems and/or cloud computing environments and version controlling is nice to have.

#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 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
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