NOVARTIS

Senior Expert Data Scientist (peptide design and protein/ligand co-folding)

Job ID
REQ-10060271

8月 19, 2025

Switzerland

摘要

This team within Discovery Sciences at Novartis Biomedical Research is at the forefront of integrating AI-powered tools into the drug discovery pipeline. Through collaboration in multidisciplinary and cross-functional teams, we are driving the adoption of these technologies to advance early-stage drug discovery, including the development of wet lab workflows informed by computational (in-silico) results– and vice versa.

If you thrive on turning scientific challenges into computational solutions that enhance data-driven drug discovery, we encourage you to apply today. As part of a global Data Science group, you will engage with experts in structural bioinformatics, computational biology, cheminformatics, and imaging.

This position offers a unique opportunity to apply cutting-edge structure-based AI approaches–such as protein-ligand co-folding and peptide design–to generate meaningful impact through collaborative wet and dry lab work.

About the Role

Role Responsibilities

- Apply AI technologies to drive progress in drug discovery projects with a focus on protein biology, including protein-ligand co-folding and peptide design.
- Collaborate with wet-lab specialists (structural biologists, biophysicists, protein chemists) to move structure-informed drug discovery forward using innovative, AI-enabled strategies.
- Develop and adapt structure-based computational methodologies tailored to project objectives.
- Integrate proprietary data from protein crystallography, biomolecular NMR, cryo-EM, biophysics, and screening into predictive AI models.
- Leverage internal and external protein data resources to create impact in drug discovery.

Candidate Profile

- PhD or equivalent experience in structural biology, bioinformatics, cheminformatics, molecular modeling, or a related scientific discipline.
- Must have direct experience with modern computational tools for protein and peptide design, as well as co-folding applications.
- Solid understanding of molecular recognition and protein-ligand binding energetics.
- Competence with machine learning frameworks such as PyTorch or TensorFlow.
- Proficiency in scripting languages (Python, R) and high-performance computing environments on Linux.
- Experience automating workflows and scripting for large-scale data processing.
- Ability to work effectively in fast-paced, innovative settings focused on solution-driven approaches.
- Strong communication skills, able to present complex findings clearly in both spoken and written formats.

Desirable Qualifications

- Understanding of drug discovery and structure-based drug design.
- Experience with advanced machine learning techniques.
- Familiarity with relational databases and SQL.
- Experience utilizing AWS resources.
- Background in protein and peptide design.
- Expertise in structural biophysics methods.
- Experience working at the wet-dry lab interface.

Novartis is committed to building an outstanding, inclusive work environment and diverse teams representative of the patients and communities we serve.

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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部门
Biomedical Research

Business Unit
Pharma Research

地点
Switzerland

站点
Basel (City)

Company / Legal Entity
C028 (FCRS = CH028) Novartis Pharma AG

Functional Area
Data and Digital

Job Type
Full time

Employment Type
Regular

Shift Work
No

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