

# Expert Data Scientist (single-cell and integrative omics)

Job ID  
REQ-10019459  
Nov 22, 2024  
Svizzera

## Sommario

Location: Basel, Switzerland (Hybrid - Office) #LI-Hybrid

The mission of Novartis is to reimagine medicine, and our team exemplifies that mission by consistently pushing the boundaries of drug discovery technology and data science. We interface with biologists, geneticists, chemists, and computational experts daily, to execute complex collaborations and bring first-in-class and best-in-class drugs to patients with urgent unmet need. We thrive in the earliest phases of drug discovery, partnering with diverse disease areas to nominate the next generation of drug targets and modalities, as well as elucidate complex biological mechanisms and sites of action.

To extend our impact, we're seeking a creative, passionate, and tenacious scientist to join the data science team in Discovery Sciences (DSc) at Novartis Biomedical Research (BR). As an integral part of our team, you will leverage core expertise in computational biology to identify novel drug targets, build predictive models, formulate actionable hypotheses, and rapidly test your hypotheses via seamless collaboration with biology teams. If you are passionate about making a difference in the field of early drug discovery and want to join our dynamic and collaborative team, we encourage you to apply.

## About the Role

### Major accountabilities:

- Leverage single-cell and spatial transcriptomics data to nominate targets and elucidate therapeutic mechanisms, while elevating insights via large-scale meta-analysis and integration with multimodal data (genetics, proteomics, imaging).
- Enhance molecular disease understanding and hypothesis generation through the application of advanced network biology to integrate omics data into known and inferred networks, including intracellular regulation and cell-cell communication.
- Apply cutting edge deep learning techniques that take advantage of the increased data content from single-cell techniques, in pursuit of robust in silico perturbations, interpretable feature spaces, and generative modeling.
- Ideate and collaborate on experimental designs that would provide industry-leading information content, such as patient cell atlases, emergent molecular / proteomic techniques, and single-cell perturbation / protein profiles.

- Serve as a bridge between valuable data assets and project teams to enrich early preclinical hypothesis generation, in close collaboration with data scientists with complementary expertise (e.g., cheminformatics, imaging analysis, protein structural informatics).

#### **Role requirements:**

- Master's or PhD with a bioinformatics / computational biology focus; alternatively, a degree in a quantitative subject (e.g. computer science, data science, physics) in combination with demonstrable experience in life sciences / drug discovery.
- Experience in handling genome-scale data types. Strong preference for experience in single-cell or spatial transcriptomics.
- Demonstrated ability to integrate data across data modalities to answer scientific questions and formulate new biological hypotheses.
- Excellent scientific communication, including the ability to present complex data science concepts in digestible terms to diverse scientific audiences while leveraging innovative data visualization.
- Demonstrated ability to work as part of an interdisciplinary team (i.e., biologists, chemists, data scientists), with proactive and results-oriented communication skills. Dedication to promoting mutual respect, empathy, and positivity in diverse professional settings.
- Expertise working in Linux high performance computing and cloud environments.
- Expertise in Python / R scientific stacks, familiarity with best practices in computational reproducible research (version control, testing, documentation).
- Experience identifying, curating, and integrating data from internal and external sources including major public databases (e.g. NCBI, UniProt, and others).

*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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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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