

# Senior Expert Science & Technology – Downstream Process Modelling

Job ID  
REQ-10074628  
мар 26, 2026  
Швейцария

## Сводка

Location: Basel, Switzerland #onsite

### Role Purpose:

As a Senior Expert Science & Technology in Downstream Process Development, you will play a key role in advancing model-based development and decision making for biologics purification processes. You will develop, apply, and deploy mechanistic and hybrid models with a strong focus on chromatography, while also covering other downstream unit operations and their interconnection into integrated process flows.

This role combines deep scientific expertise, hands-on experimental work, and digital implementation. You will work closely with project teams, process development scientists, data scientists, and manufacturing stakeholders, and you will be an active member of a global modelling community shaping the future of downstream development at Novartis.

## About the Role

### In this role, you will:

- Develop and apply downstream process models for biologics, with a strong emphasis on chromatography (e.g. IEX, HIC, MMC, affinity) and their underlying physicochemical principles.
- Extend modelling approaches to other downstream unit operations (e.g. filtration, UF/DF, viral inactivation) and connect individual steps into integrated DSP models to support process understanding and optimization.
- Design, plan, and execute laboratory experiments to generate high-quality data for model development, calibration, and validation, working hands-on in the lab when required.
- Use modelling to support process design, scale-up, troubleshooting, robustness studies, and decision making across early and late development.
- Implement and deploy models using Python, including development of user-friendly tools or apps that enable broader adoption by project teams and stakeholders.
- Translate complex modelling results into clear, actionable insights for multidisciplinary audiences, including process scientists, project leaders, and management.
- Collaborate and communicate effectively with internal and external stakeholders, ensuring alignment between modelling activities, experimental work, and project objectives.
- Actively contribute to and help shape the global modelling community, sharing best practices, methodologies, and innovations across sites and functions.
- Contribute to scientific documentation, technical reports, and regulatory-relevant deliverables as required.

## What you will bring

### Education & experience

- MSc, PhD, or equivalent experience in Biotechnology, Chemical Engineering, Biochemistry, or a related field.
- Several years of experience in biologics downstream process development, with demonstrated focus on process modelling.
- Strong, hands-on expertise in chromatography, including mechanistic understanding of separation phenomena.

### Technical expertise

- Proven experience in downstream process modelling, ideally including chromatography modelling, parameter estimation, scale-down/scale-up concepts, and integration of multiple unit operations.
- Ability to design and run experiments to support model development and validation.
- Strong programming skills in Python, with experience in building reusable tools, workflows, or applications for broader user groups.
- Familiarity with data analysis, visualization, and model deployment concepts is a strong advantage.

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

### 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 [inclusion.switzerland@novartis.com](mailto:inclusion.switzerland@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?  
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C028 (FCRS = CH028) Novartis Pharma AG  
Functional Area  
Research & Development  
Job Type  
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Employment Type  
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Shift Work  
No

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