

Senior Expert Science & Technology – Downstream Process Modelling

Job ID

REQ-10074628

Mar 26, 2026

LOC_CH

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.

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 and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

Role Requirements

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>

Benefits and Rewards: Learn about all the ways we'll help you thrive personally and professionally.

[Read our handbook \(PDF 30 MB\)](#)

Division

DIV_GD

Business Unit

Development

Location

LOC_CH

Site

Basel (City)

Company / Legal Entity

C028 (FCRS = CH028) Novartis Pharma AG

Functional Area

FCT_RD

Job Type

Full time

Employment Type

Regular

Shift Work

No

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