NOVARTIS

Principal Scientist II/Senior Principal Scientist, Modeling & Simulation (Dual Level Posting)

Job ID
REQ-10080248

6月 12, 2026

USA

摘要

#LI-Hybrid
Internal Title: Principal Scientist II or Senior Principal Scientist
Location: Cambridge, MA

Novartis is a leader in neuroscience and cardiovascular disease areas with a robust and diverse pipeline of innovative therapies. We are seeking a translational modeler eager to accelerate oligonucleotide therapeutics (xRNA”), including antibody-xRNA conjugates, from discovery through clinical translation. In this role, you will partner with multi-disciplinary discovery and preclinical teams to develop and apply model-informed approaches that shape program strategies. As part of a truly translational modeling team, you will also work closely with clinical pharmacology and pharmacometrics groups to support clinical programs, applying quantitative systems pharmacology (QSP) and mechanistic PBPK/PD approaches to inform key decisions from early dose optimization through life-cycle management.

This role reports to a Modeling and Simulation (M&S) team lead within the Pharmacokinetic Sciences

(PKS) M&S team.

About the Role

Key responsibilities:

- Act as the M&S representative on several programs. Develop and execute modeling strategies, contribute to project team discussions, and guide model-informed decisions from therapeutic design to first-in-human dose selection and beyond.
- Build and apply mechanistic models (PK/PD, QSP, and PBPK/PD) that link drug pharmacology, tissue biodistribution, mechanism(s) of action, and downstream effects.
- Integrate modeling into the design and interpretation of preclinical in vivo and in vitro studies to support candidate selection, optimization, and advancement towards the clinic.
- Collaboratively develop platform disease (QSP) and PBPK/PD models that extend across multiple projects and phases of discovery & development.
- Engage in strategic initiatives within M&S, such as creating platform-level translational modeling strategies to impact across projects and developing modeling workflows (e.g., agentic AI).
- Proactively seek opportunities to increase the understanding and adoption of translational modeling among internal partners and expand the impact and visibility of modeling through external collaborations.

Essential requirements

- Ph.D. in biology, bioengineering, pharmaceutical sciences, biophysics, or a related field and 3+ years of industry experience with progressively increasing levels of responsibility. Master ' s degree with 5+ years of industry experience and demonstrated impact will be considered.
- **General Modeling Skills:** Expert level proficiency in core modeling fundamentals is required, including scripting languages (e.g., MATLAB, R), construction of ordinary differential equation (ODE) models, parameter estimation, and data visualization.
- **Industry Modeling Skills:** Proficiency in pharmacokinetics and pharmacodynamics (PK/PD), quantitative systems pharmacology (QSP), and/or mechanistic physiologically based PK/PD (PBPK/PD) is required. Proficiency in pharmacometrics concepts (Population PK, exposure-response modeling) is preferred.

- **Domain Expertise:** Prior experience with the integration of computational modeling and biological concepts is required. Experience modeling in the neuroscience and/or cardiovascular disease areas is preferred but not strictly required. Experience with oligonucleotide therapeutics (siRNA, ASO, PMO, etc.) and/or related experience with antibody-drug conjugates (ADCs) is strongly preferred.

- **Collaboration and Communication:** Demonstrated ability to communicate modeling results to a multidisciplinary audience for collaborative work and/or to facilitate strategy and decision-making. Fluent in English (oral and written).

This is a hybrid role that requires a balance of in-person and virtual working, with an average of 12 days a month on site in Cambridge, MA.

Candidates with demonstrated impact as a modeler, preferably in the pharmaceutical/biotech industry, and with commensurate experience and proficiency may be considered for the Principal Scientist II (3+ years) or Senior Principal Scientist (5+ years) role.

This is a dual posting. The final level & title of the offer role would be determined by the hiring team based on the skills, experience & capabilities required to perform the role at the level the role has been offered

The salary for this position is expected to range between:

Principal Scientist II: $126,000 and $234,000 per year.
Senior Principal Scientist: $152,000 and $261,000 per year.

The final salary offered is determined based on factors like, but not limited to, relevant skills and experience, and upon joining Novartis will be reviewed periodically. Novartis may change the published salary range based on company and market factors. Your compensation will include a performance-based cash incentive and, depending on the level of the role, eligibility to be considered for annual equity awards.

US-based eligible employees will receive a comprehensive benefits package that includes health, life and disability benefits, a 401(k) with company contribution and match, and a variety of other benefits. In addition, employees are eligible for a generous time off package including vacation, personal days, holidays and other leaves. To learn more about the culture, rewards and benefits we offer our people click here

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)

EEO Statement:

The Novartis Group of Companies are Equal Opportunity Employers. We do not discriminate in recruitment, hiring, training, promotion or other employment practices for reasons of race, color, religion, sex, national origin, age, sexual orientation, gender identity or expression, marital or veteran status, disability, or any other legally protected status.

Accessibility & Reasonable Accommodations

The Novartis Group of Companies are committed to working with and providing reasonable accommodation to individuals with disabilities. If, because of a medical condition or disability, you need a reasonable accommodation for any part of the application process, or to perform the essential functions of a position, please send an e-mail to us.reasonableaccommodations@novartis.com or call +1(877)395-2339 and let us know the nature of your request and your contact information. Please include the job requisition number in your message.

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Research

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站点
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U175 (FCRS = US175) Novartis Institutes for BioMedical Research, Inc.

Functional Area
Research & Development

Job Type
Full time

Employment Type
Regular

Shift Work
No

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Principal Scientist II/Senior Principal Scientist, Modeling & Simulation (Dual Level Posting)

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