

Associate Director, Translational Modeling & Simulation

Job ID

REQ-10085390

Aug 07, 2026

LOC_US

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 tofor new platformsthat impact across projects and developing new and 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.
- A modeler at the Associate Director level will have additional mentorship and strategic responsibilities within M&S and will engage in wider platforms and initiatives across Novartis.

Essential requirements

- Ph.D. in biology, bioengineering, pharmaceutical sciences, biophysics, or a related field and 7+ years of industry experience with progressively increasing levels of responsibility.
- 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: Expert level 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. Role-specific experience in the highlighted disease areas (neuroscience, cardiovascular, metabolism) and drug modalities (oligonucleotides, ADCs) is preferred but not required.
- 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.

The salary for this position is expected to range between: \$152,600 and \$283,400 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](#).

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_RE

Business Unit

Research

Location

LOC_US

Site

Cambridge (USA)

Company / Legal Entity

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

Functional Area

FCT_RD

Job Type

Full time

Employment Type

Regular

Shift Work

No

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