

Global Head of Modeling and Simulation, Pharmacokinetics Sciences

Job ID
REQ-10060029

8月 21, 2025

USA

摘要

#LI-Hybrid

This role can be based in Cambridge, MA USA or Basel, Switzerland.

The Global Head of Modeling and Simulation (M&S) is a strategic scientific leader responsible for shaping and executing the global modeling and simulation strategy across all therapeutic areas—from early research to development. This role leads a high-performing team of expert modelers in the Pharmacokinetics (PK) Science department, driving productivity and decision-making in drug discovery and development. Works closely with key departments within Research (including Preclinical Safety, Data and Digital, Pharmacology, Chemistry, and Biologics) and beyond (including Advanced Quantitative Sciences, Technical Research Development to ensure quantitative integration of disease, target, and compound knowledge—enhancing internal decision-making, contributing to submissions to health authorities, and increasing the probability of success for development candidates.

About the Role

Key Responsibilities:

- Lead the M&S organization with responsibility for the management, allocation, and development of all M&S associates and resources and attracting and retaining top talent. Develop and champion a strategic vision to best implement and integrate the four M&S sub teams across data science, translational modeling and quantitative systems pharmacology (QSP), PBPK, and non-clinical statistics.
- Direct, supervise, and manage portfolio of M&S contributions to integrate relevant drug discovery and development, technical, and target / compound / disease area knowledge in the planning and execution of robust development programs and disease area strategies.
- In the Discovery & Preclinical Phases, M&S: M&S function to provide comprehensive support from early discovery to first-in-human clinical entry. Develops systems pharmacology platforms to guide early drug design for optimal therapeutic outcomes. Models biological targets and pathways to assess biomarkers, efficacy, and toxicity. Expands Artificial Intelligence approaches to optimize drug design across multiple therapeutic modalities and across therapy areas. Deploys statistical approaches to maximize impact of preclinical studies.
- In Clinical Ensure strong PBPK contributions to generate mechanistic insights on drug disposition and evaluate the impact of intrinsic and extrinsic factors on drug exposure. Expand PBPK applications beyond small molecules to support broader translational insights. Integrates preclinical and clinical biomarker and competitor data to develop mechanistic models to support FIH dose decisions. Expands the use of mechanistic models in clinical development to inform trial design and regulatory submissions through collaboration with the data and AI and pharmacometrics groups. Supports regulatory documentation and strategy.
- Drive the data strategy covering access, use, and storage of data used by and produced by M&S
- Anticipate organizational needs for M&S and strategic support based on in-depth understanding of the relevant issues and the drug development process. Identify opportunities and advocate and drive integration and implementation of innovation across the drug discovery and development continuum, such as next-generation M&S capabilities for new therapeutic modalities and emerging technologies such as digital twins & artificial intelligence. Lead infrastructure / process / scientific consulting improvement initiatives.
- Develop next generation M&S capabilities to serve new therapeutic modalities and emerging technologies such as digital twins and Artificial Intelligence.
- Provide on-boarding, training, mentoring and career development of staff, and oversee constructive and continuous performance evaluation.
- Member of the PK Sciences Leadership Team, contribute to overarching disciplinary and departmental strategy for PKS research and development across all Therapeutic Areas.

Essential Requirements:

Education:

- Ph.D in pharmacology, biology, engineering, mathematics, statistics, computational science, or a field with significant modeling-related content (or equivalent Ph.D/MD)

Skills:

- Broad, integrative experience and a driven approach to the use of modeling and simulation in drug research and development.
- Expert knowledge of drug discovery, drug development, and HA guidelines relevant to pre-clinical and clinical drug development. Substantial track record of identifying and leading contributions to policies that shape best practice in M&S.
- Internal and external strong and established track record of establishing M&S excellence.
- Excellent critical thinking and problem-solving skills. Strong record in leading global scientific improvement/change initiatives.
- Significant experience in coaching, development, and influencing scientists and physicians.
- Outstanding verbal and written communications and presentation skills and the ability to effectively represent M&S issues to a wide range of target audiences.
- Proven track record in working across a matrix organization and demonstrated expert skills in building partnerships, negotiating agreements; excels at collaboration

The salary for this position is expected to range between \$261,100 and \$484,900 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.

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>

Join our Novartis Network: Not the right Novartis role for you? Sign up to our talent community to stay connected and learn about suitable career opportunities as soon as they come up: <https://talentnetwork.novartis.com/network>

Benefits and Rewards: Read our handbook to learn about all the ways we'll help you thrive personally and professionally: <https://www.novartis.com/careers/benefits-rewards>

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.

部门

Biomedical Research

Business Unit

Universal Hierarchy Node

地点
USA

状态
Massachusetts

站点
Cambridge (USA)

Company / Legal Entity
U175 (FCRS = US175) Novartis Institutes for BioMedical Research, Inc.

Alternative Location 1
Basel (City), Switzerland

Functional Area
Research & Development

Job Type
Full time

Employment Type
Regular

Shift Work
No

[Apply to Job](#)



Job ID
REQ-10060029

Global Head of Modeling and Simulation, Pharmacokinetics Sciences

[Apply to Job](#)

Source URL:

<https://www.novartis.com.cn/careers/career-search/job/details/req-10060029-global-head-modeling-and-simulation-pharmacokinetics-sciences>

List of links present in page

1. <https://www.novartis.com/about/strategy/people-and-culture>
2. <https://talentnetwork.novartis.com/network>
3. <https://www.novartis.com/careers/benefits-rewards>
4. <mailto:us.reasonableaccommodations@novartis.com>
5. <https://novartis.wd3.myworkdayjobs.com/en-US/NovartisCareers/job/Cambridge-USA/Global-Head-of-Modeling-and-Simulation--Pharmacokinetics-SciencesREQ-10060029-1>
6. <https://novartis.wd3.myworkdayjobs.com/en-US/NovartisCareers/job/Cambridge-USA/Global-Head-of-Modeling-and-Simulation--Pharmacokinetics-SciencesREQ-10060029-1>