

Computer-Aided Drug Design AI Project Lead

Job ID
REQ-10032730
Mar 12, 2025
USA

Summary

We are seeking an exceptional computational scientist to join our Computer-Aided Drug Discovery (CADD) team in Cambridge. If you join us, you will collaborate with the industry's best chemists and biologists. You will wield a fantastic array of physics-based software tools to design drug molecules, and you will use our advanced machine learning tools to mine a vast data set collected by one of the world's most renowned pharmaceutical companies. Are you searching for daily challenges, purpose to your job, and outstanding mentorship from a group of scientists with diverse talents? Then join the Novartis Biomedical Research CADD team.

About the Role

Internal Job Title: Senior Expert I/Senior Expert II, Data Science

Position Location: Cambridge, MA, onsite

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Your responsibilities Include:

- Drive peptide discovery and design through collaborations with interdisciplinary project teams. Your primary role on the team will be the AI project lead, which involves developing digital workflows and using machine learning and artificial intelligence (AI) to build predictive PK/PD models and to mine public and internal data sets with the goal of exploring new chemical space. This collaboration requires in-depth knowledge of machine learning, structure-activity relationships (SAR), target biology, pharmacokinetics / pharmacodynamics (PK/PD), and synthetic feasibility.
- Stay abreast of scientific literature and collaborate with internal and external scientists to explore new technologies and develop new computational tools and techniques.
- Present and publish scientific work at internal meetings and external conferences.

Minimum Requirements:

- PhD in computational chemistry, physical chemistry, chemical engineering, biological engineering, computational biology, or a related field. Candidates with a laboratory-based background in chemistry or biology who have outstanding computational skills are also encouraged to apply.
- 3+ years of experience (depends on the position level) working with project teams in an industrial drug discovery environment.
- Track record of significant impact on drug discovery projects.
- Extensive experience with drug design tools and high-performance computing environments
- Strong publication history in peer-reviewed journals.

Skills and Abilities:

- Scientific rigor in molecular design and hypothesis generation.
- Team-oriented mindset with the potential to lead an interdisciplinary team.
- Excellent written and oral communication skills. Superb presentation skills are a plus.
- Proficiency in data visualization to effectively communicate insights.

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You'll receive: You can find everything you need to know about our benefits and rewards in the Novartis Life Handbook: <https://www.novartis.com/careers/benefits-rewards>

Novartis Compensation and Benefit Summary: The pay range for this position at commencement of employment is expected to be between \$119,700 to \$222,300 for Senior Expert I, and \$132,300 to \$245,700/year for Senior Expert II; however, while salary ranges are effective from 1/1/25 through 12/31/25, fluctuations in the job market may necessitate adjustments to pay ranges during this period. Further, final pay determinations will depend on various factors, including, but not limited to geographical location, experience level, knowledge, skills, and abilities. The total compensation package for this position may also include other elements, including a sign-on bonus, restricted stock units, and discretionary awards in addition to a full range of medical, financial, and/or other benefits (including 401(k) eligibility and various paid time off benefits, such as vacation, sick time, and parental leave), dependent on the position offered. Details of participation in these benefit plans will be provided if an employee receives an offer of employment. If hired, employee will be in an "at-will position" and the Company reserves the right to modify base salary (as well as any other discretionary payment or compensation program) at any time, including for reasons related to individual performance, Company or individual department/team performance, and market factors.

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Division

Biomedical Research

Business Unit

Pharma Research

Location

USA

State

Massachusetts

Site

Cambridge (USA)

Company / Legal Entity

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

Functional Area

Data and Digital

Job Type

Full time

Employment Type

Regular

Shift Work

No

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