Scientist/Senior Scientist, Artificial Intelligence, Modeling and Simulation, Clinical Pharmacology

Job ID: 201903-106765

Job Function
Modelling & Simulation

Location
South San Francisco
California
United States of America

Company/Division
Pharmaceuticals

Job Level
Individual contributor

The Position

The Modeling and Simulation (M&S) group in Clinical Pharmacology Department at Genentech, Inc. is seeking highly motivated Ph.D. level Scientist or Senior Scientist who is driven to use artificial intelligence (AI) approaches, including machine learning (ML) and deep learning (DL) methods to advance the clinical development of novel drug candidates. This individual will be responsible to apply ML, DL, and other state of art advanced analytics skills, in the context of specific molecule or therapeutic area needs to support clinical trials such as dosing, identification of patterns in drug concentration and responses (biomarker, efficacy, safety), analyzing data and infer model parameters, derive biological/pharmacological insights, and the automation of these analytics tasks, to enable pharmacokinetic/pharmacodynamics (PK/PD) characterization, patient selection, biomarker and diagnostic investigation, \textit{in vitro} to clinical translation, and combination therapy identification and optimization.

Major Responsibilities:

- Strategize, plan, execute, and report ML, DL, and any other advanced analytics activities independently, as well as to present work at cross-functional teams, department meetings, senior management review committees, regulatory interactions, and scientific conferences.
- Apply advanced analytic methods on massive, integrated PK/PD/biomarker/efficacy/safety data sets to support innovative clinical development programs and publications in high quality scientific, technical, or medical journals.
- Work in close partnership with other scientists in Modeling and Simulation, Clinical Pharmacology, Clinical Science, Informatics, Biostatistics, Preclinical and Translational PK, DMPK, Safety Assessment, Biomarker, Diagnostics, Regulatory, and other functions.
• Contribute to best practices on application of artificial intelligence, ML, DL, and other advanced analytics techniques across department.
• Maintain expertise and knowledge of technology trend and artificial intelligence landscape in our industry, assess and identify new opportunities for business objectives.
• Adapt and thrive in an interactive, team-oriented culture.
• Qualified candidate may be responsible for overseeing the strategy and implementation of ML and DL by other scientists across projects and across platform.

Competencies and Qualifications:

• Have outstanding expertise in applied mathematics, statistics, bioinformatics, and/or artificial intelligence, master machine learning and deep learning programming skills (e.g., using R, S-plus, Matlab, Python, TensorFlow, PyTorch, Keras, Mathematica, SAS etc.), and application experience in healthcare/drug development.
• Have strong drug development knowledge and demonstrated impact using AI approaches is highly desired.
• Have solid understanding of traditional PK/PD modeling and quantitative systems pharmacology modeling for drug development is a big plus, but not required.
• Have excellent communication and interpersonal skills and the ability to work independently and effectively on cross-functional teams.
• Have strong leadership skills and the ability to influence project team collaborators.

Education and Working Experiences:

A Ph.D. in Artificial Intelligence, Computational Science, Engineering, Biomedical Engineering, Chemical Engineering, Biostatistics, Statistics, Applied Mathematics, Physics, Bioinformatics or related discipline with 0+ year (for Associate Scientist), 3+ years (for Scientist), 7+ years (for Senior Scientist) of industry, academia, regulatory, and/or related post-doctoral experience is required.

#LI-GREDNN1
#ASCPT19
#devsci

Who We Are

A member of the Roche Group, Genentech has been at the forefront of the biotechnology industry for more than 40 years, using human genetic information to develop novel medicines for serious and life-threatening diseases. Genentech has multiple therapies on the market for cancer & other serious illnesses. Please take this opportunity to learn about Genentech where we believe that our employees are our most important asset & are dedicated to remaining a great place to work.

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