NOVARTIS

Principal Scientist I, (QSP) - Modeling & Simultion

Job ID
REQ-10080386

6月 16, 2026

India

摘要

In this role, you will work closely with PKS M&S, Therapeutic Areas, and multidisciplinary teams to develop and apply quantitative disease models that inform key scientific and development decisions. You will contribute to the development of mechanistic disease models, support model-informed insights, and help embed disease modelling approaches across programs from discovery through early clinical development.

About the Role

Key responsibilities:

- Contribute to the development and application of mechanistic disease models (e.g., systems biology, QSP, PK/PD-disease models) to understand disease progression and response to intervention.
- Support end-to-end modelling activities, including data curation, model development,

calibration, qualification, and simulation.
- Work with cross-functional teams (biology, PKS, clinical, and data science) to translate biological and clinical questions into modelling approaches.
- Integrate diverse data sources (preclinical, clinical, and literature) to support development of predictive disease models.
- Generate simulations and analyse model outputs to support decision-making in discovery and early development.
- Clearly communicate modelling results and insights to multidisciplinary project teams.
- Support the application of disease models in areas such as target validation, biomarker understanding, and study design.
- Contribute to establishing and improving modelling workflows, tools, and best practices within the team.
- Stay informed on advances in disease modelling, quantitative pharmacology, and related fields.
- Participate in internal knowledge-sharing and contribute to scientific reports, presentations, and, where appropriate, publications.

Essential requirements

- Ph.D. (or MSc with relevant experience) in biology, bioengineering, pharmacology, applied mathematics, or a related quantitative discipline.
- 2-5 years of experience in academia or industry, with exposure to disease modelling, systems pharmacology, PK/PD modelling, or related mechanistic modelling approaches.
- **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, data visualization, and foundational data science concepts.
- **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.
- **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).

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)

部门
Biomedical Research

Business Unit
Development

地点
India

站点
Hyderabad (Office)

Company / Legal Entity
IN10 (FCRS = IN010) Novartis Healthcare Private Limited

Functional Area
Research & Development

Job Type
Full time

Employment Type
Regular

Shift Work
No

var kPlayer = KalturaPlayer55802022 || KalturaPlayer; var config = { targetId: "kalturaplayer6a319839d9f1f474287886", provider: { widgetId: "10m7rm1pm", partnerId: "2076321", uiConfId: "55802022" }, playback: { autoplay: false, autopause: false, muted: false, loop: false }, sources: { options: {}, startTime: 0 }, disableUserCache: "true", plugins: {}, sources: { options: {}, startTime: 0 }, ui: { showCCButton: false, settings: { showQualityMenu: true, showSpeedMenu: false }, components: { fullscreen: { disableDoubleClick: false } }, uiComponents: [{ presets: ['Playback', 'Live'], area: 'BottomBarRightControls', replaceComponent: 'Fullscreen', get:

kPlayer.ui.components.Remove }] } }; // Check and add plugins only if they exist if (kPlayer.plugins["download"]) { config.plugins.download = { disable: true }; } if (kPlayer.plugins["transcript"]) { config.plugins["playkit-js-transcript"] = { position: "right", // Default: bottom;('left', 'right', 'top', 'bottom') to enable transcript. expandMode: "over", // Default: alongside;('alongside', 'hidden', 'over') expandOnFirstPlay: false, showTime: true, downloadDisabled: false, printDisabled: false, disable: true }; } if (kPlayer.plugins["preventSeek"]) { config.plugins.preventSeek = { preventSeekForward: false, preventSeek: false }; } config.plugins.floating = { disable: true }; if (kPlayer.plugins["navigation"]) { config.plugins.navigation = { position: "right", expandMode: "over", expandOnFirstPlay: false, visible: false }; } if (kPlayer.plugins["hotspots"]) { config.plugins['playkit-js-hotspots'] = { disable: true }; } if (kPlayer.plugins["moderation"]) { config.plugins['playkit-js-moderation'] = { disable: true }; } if (kPlayer.plugins["info"]) { config.plugins['playkit-js-info'] = { disable: true }; } if (kPlayer.plugins["share"]) { config.plugins.share = { disable: true }; } config.ui.uiComponents = []; if (kPlayer.plugins["googleAnalytics"]) { config.plugins.googleTagManager = {}; config.plugins.googleTagManager.customEventsTracking = {}; config.plugins.googleTagManager.containerId = 'GTM-57RJQ5'; config.plugins.googleTagManager.customEventsTracking.custom = []; config.plugins.googleTagManager.customEventsTracking = { preset: { coreEvents: true, UIEvents: false, playlistEvents: false, castEvents: false } }; }

// Ensure the global player registry array always exists, regardless of embed type. window.kalturaPlayerVideos = window.kalturaPlayerVideos || []; try { var kalturaPlayer = kPlayer.setup(config); // Add the player to the global array. window.kalturaPlayerVideos.push(kalturaPlayer); // Load the Player for other media. kalturaPlayer.loadMedia({entryId: "1dgfvmafo"}); } catch (e) { console.error(e.message) }

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