

At Astellas, we believe that nurturing exceptional relationships with our employees delivers exceptional business results.

Everyone at Astellas has a responsibility for creating a brighter future for patients around the world. From the first moment, Astellas will inspire you to put this ethos into practice – with a positive, agile company culture and with well-defined ethical principles, values, and systems.

Everything we do is led by our company values of integrity, being patient centric, taking ownership, delivering results, and communicating openly. These values are essential to Astellas' relationship with its employees and now is an exciting time to join us as we continue to evolve as a cutting-edge, value driven life sciences innovator.

Position: Clinical Modeling & Analytics Innovation Lead

Department: QSEG/Clinical Biometrics

Line Manager: Head, Clinical Modeling, Analytics & Operational Excellence

Location: Beijing/ Shanghai

Purpose and Scope

The Clinical Modeling, Analytics & Operational Excellence team is a high-impact innovation team that applies advanced analytics, real-world data, modeling & simulation, and AI/ML to solve critical challenges in clinical development. This team designs and implements predictive models for patient recruitment and retention, optimizes trial feasibility and site selection, assesses novel clinical endpoints, simulates study outcomes to guide protocol design, and develops innovative operational strategies to reduce execution risk and accelerate timelines.

The Clinical Modeling & Analytics Innovation Lead will shape the future of data-driven clinical development by pioneering innovative solutions at the intersection of AI/ML, advanced analytics, modeling and simulation. The position partners closely with colleagues across clinical,

biostatistics, real-world data, clinical operations, and digital/IT to improve feasibility assessments, enhance enrollment forecast, deepen data exploration and optimize trial decision-makings. In addition, the Clinical Modeling & Analytics Innovation Lead serves as a strategic partner and innovator, driving adoption of emerging technologies (e.g., generative foundational models, digital twins, and advanced imaging analytics) to transform clinical trial strategy and execution.

Responsibilities and Accountabilities

- Leads cross-functional initiatives applying clinical modeling & simulation, advanced analytics, and AI/ML to trial design, feasibility, and execution optimization.
- Develops advanced simulation and predictive models supporting a variety of critical clinical development tasks, e.g., site feasibility, patient enrollment, endpoint assessment, protocol optimization, operational risk estimation and trial outcome prediction etc.
- Partners with medical, biostatistics, real-world data, and operational teams to embed modeling & analytics insights into protocol development, portfolio planning and decision-making.
- Leads the development of clinical modeling & data strategy and roadmap dedicated to specific business areas, and contribute to portfolio-level clinical modeling strategy and capabilities accelerating and optimizing clinical development.
- Proposes and pilots innovative solutions (e.g., digital twins, trial emulation, hybrid designs, real-time patient targeting) to support trial planning, optimization and execution.
- Represents the organization in external scientific and regulatory forums, and establish thought leadership through publications, presentations, and industry collaborations.
- Mentors junior team members, foster internal quantitative excellence, share best practices and contribute to the culture of innovation, collaboration, and accountability for results

Required Qualifications

- Advanced degrees in Statistics/Biostatistics, Data Science, Artificial Intelligence, Machine Learning, Epidemiology, Computational Biology, Informatics or related quantitative disciplines.
- PhD with minimum 6+ years of experience or MS with minimum 9+ years of experience in pharma/biotech, CROs or healthcare settings.
- Deep expertise and strong hand-on experience of modeling and simulation techniques and AI/ML in predictive modeling, trial simulation, or trial operational analytics.

- Proficiency in R, Python, SAS, and relevant simulation platforms.
- Experience and knowledge with various data sources (i.e., clinical trials, RWD, industry benchmark data), and relevant data standards (CDISC, OMOP, CTMS etc.) in clinical development and operations.
- Track record of leveraging advanced analytics, modeling and AI/ML to drive measurable impacts in drug R&D and life sciences
- Strong communication skills and experience to develop collaboration and partnership

Preferred Qualifications

- Experience with development and deployment of generative AI solutions (i.e., LLMs or foundational models), digital twins or medical imaging analytics etc.
- Recognized contributions and quantitative expertise in advanced analytics, modeling & simulation and AI/ML, i.e., with top-tier publications and presentations
- Experience with MLOps and workflow development within cloud platforms (Azure, AWS, GCP etc.)