CrystalGenomics

Positions
- Research Scientist or Senior Research Scientist, Structure biology
- Research Scientist or Senior Research Scientist, Pharmacokinetics
- Research Scientist or Senior Research Scientist, Toxicology
- Research Scientist or Senior Research Scientist, Cell & molecular biology

The biology team is responsible for new drug discovery and evaluation of drug candidates, across all therapeutic areas. Biology team initiates and supports small molecule research projects by identifying screening hits and providing key data and insights for their successful optimization in Medicinal Chemistry. Our department also contributes to the discovery of therapeutic proteins and supports emerging therapeutic modalities. We are a tightly knit community of many and diverse talents, closely collaborating with other functional teams. Working with other departments/functions, members of biology team establish new evaluation systems, conduct experiments with speed and precision, and generate accurate and well organized study reports. Members of biology team can also evaluate and provide scientific feedback for the non-clinical and clinical plan and results.

Location: Pangyo, Korea

Job Descriptions & Responsibilities

Coordinate projects together with therapeutic area project leaders and other key functional representatives as well as external partners with aim of improving efficiency and effectiveness of drug candidates
- Lead and expand a team of scientists to advance innovative drug discovery and engineering technologies and support therapeutic pipeline progression
- Collaborate and work closely with scientific leads across all therapeutic areas to ensure timely progress of pipeline projects and drive technological innovations
- Direct and progress therapeutic programs from early discovery to development stage
- Establish high-level of scientific innovation and develop new platform technologies for drug optimization, enhanced selectivity, improved developability, and reduced off-target and off-organ toxicities to ensure scientific excellence and effective achievement of research goals
- Track record of scientific innovation as evidenced by strong scientific publications, inventorship on patents and presentations at major conferences

Qualifications
Common
- Ph.D. degree or equivalent plus postdoctoral experience
- Various experiments in *in vitro, ex vivo, in vitro*
- Accuracy and attention to detail
- Analytical skills
- Excellent written and oral communication skills
- Good teamworking abilities
- A logical and inquisitive mind

Structure Biology
- A scientist in biology, biochemistry or a related life sciences field with superior experience in protein production for structural biology and assay development
- Work on Protein Science aspects throughout the entire process from gene to structure using cryoEM or synchrotron – with a focus on purification, protein characterization, grid freezing and optimization
- Experience in relevant software packages (RELION, cryoSPARC, cisTEM, EMAN) is a plus

Pharmacokinetics
- Experience on metabolite profiling/characterization in *in vitro* and *in vivo* matrices using high resolution LC-MS/MS and/or metabolite identification software. Developing suitable assays for met id, reactivity etc. and strategies to support small molecule drug design and SAR. Identifying soft spots, metabolic pathways and responsible drug metabolizing enzymes.
- Strong background in the use of biophysical, biochemical, and cell-based analytical methods to interrogate molecular attributes, including drug-target interactions that potentially influence their plasma pharmacokinetics and tissue distribution
- Ability to execute experiments to quantitate molecular entities by mass spectrometry in support of both drug discovery and early development programs. This role requires an excellent understanding of bioanalytical techniques. Ability to assist in troubleshooting when instrument or assay problems arise.
- (Preferred): Solid background in PK-PD modeling with an emphasis translation of models across species (animals to humans).

Toxicokinetic
- Experience with preparation and extraction of samples from biological matrices and formulated drug materials
- Basic knowledge of the principles of pharmacokinetics, toxicokinetics, and associated in vivo study design is required
- Oversee nonclinical safety pharmacology and toxicology evaluation of development program

- Knowledgeable in the application of good laboratory practices to provide well-regulated and accurate documentation of analytical results for inclusion into regulatory documents, and to demonstrate this while auditing/reviewing of data from laboratory peers
- Experience serving as a toxicology representative on a drug development team
- (Preferred): Experience in managing CROs for GLP-Toxicity studies and IND filings

Cell and Molecular Biology

Ability to work in a fast-paced environment with a high degree of independence to effectively address both strategic and tactical challenges, leveraging their solid understanding of cell biology and oncology

- Strong understanding of cancer biology, clinical oncology, and/or immunology
- Experience performing FACS analysis
- Proficient, molecular techniques (qPCR, Western, ELISA, etc), cell culture, aseptic technique and isolation of immune cell populations from biological samples
- Experience developing and validating ligand binding assays for the purpose of bioanalysis, immunogenicity testing and biomarker measurement for nonclinical and clinical studies
- Experience in the contract research or pharmaceutical industry conducting scientific research
- Assay development experience
- Antibody engineering experience
  - Proven record in antibody drug development and driving protein therapeutic programs from early discovery into development stage
  - extensive hands-on experience in molecular biology, antibody engineering and design and characterization of various antibody formats
  - Strong experience in structure/function-based techniques, including crystallography, Cryo EB, augmented drug design, and in silico tools for protein design and structure
- Gene therapy experience
  - Experience with gene therapy and gene delivery
  - Experience with AAV molecular biology and expression analysis
  - Familiarity with gene editing methodologies (CRISPR, RALEN, ZFNs)