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| Job Description | Principal Scientist, Structural Biology |
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What is this role really like?

Mirati is seeking an x-ray crystallographer with a track record of enabling structure-based drug design (SBDD) projects through the generation of protein/ligand co-complex crystal structures. You have broad experience in protein construct design, protein expression and purification, and protein/ligand co-complex structure determination. You form strong working interactions with project scientists across discovery including computational chemists, enzymologists, biophysicists, pharmacologists, and medicinal chemists. In addition, you are comfortable communicating and presenting your daily work to members of multi-disciplinary project teams and can, when necessary, teach your coworkers the underlying details of x-ray crystallography to help guide them in their decision-making process.

Day-to-Day Duties:

- The candidate will be responsible for the generation of protein/ligand co-complex crystal structures in support of SBDD efforts for >50 internal and external synthetic chemists across multiple projects spanning hit identification, hit-to-lead, and lead optimization
- Lead construct design and protein expression/purification efforts for structural biology, enzymology, and biophysics leveraging both internal and external resources
- Pro-actively troubleshoot construct, expression, purification and crystallization issues for challenging targets
- Design and build out structural biology lab operations at Mirati
- Establish and manage beamline services through external collaboration
- Contribute to the strategic planning of the Mirati Research group
 - Manage structural biology efforts and workflows across multiple projects to maximize the return on investment for protein deliveries and crystal structures
 - Coordinate protein deliveries with members of the broader Research group
- Effectively communicate and collaborate with internal and external project team members from multiple disciplines including computational chemistry, medicinal chemistry, pharmacology, biochemistry/biophysics, informatics, DMPK, toxicology, legal/IP, and project management
- Triage and enable new drug discovery projects
- Maintain a current knowledge of the structural biology, crystallography, and broader drug discovery scientific literature. Identify and - where appropriate - implement novel structural biology techniques and technologies
- Advance the Mirati Research Portfolio and company value through presentation/publication of project results in scientific meetings and peer-reviewed literature as guided by Mirati publication policies





What would a successful candidate look like?

- Demonstrated problem-solving skills, scientific creativity, and the ability to think logically and critically
- Expertise in structural biology with extensive experience in the crystallization of protein/ligand co-complexes and high-resolution structure determination
 - In-depth understanding of protein structure and function, protein motion, small molecule conformations, and ligand-protein interactions
 - Working knowledge of structure-based drug design
 - Experience in crystallographic support of fragment-based lead discovery campaigns
- Strong experience in protein production including construct design, cloning, expression, purification, and characterization methodologies is required
- Experience with biophysical techniques such as DSC/DSF, SPR, MST, ITC, and SHG is a plus
- Working knowledge of industrial drug discovery platforms, technologies, and techniques. Able to strategically contribute to structural biology efforts and to broader drug discovery projects
- Expert user of crystallography software such as Coot, Phenix, CCP4, etc. Experience with molecular modeling software (PyMol, MOE, etc.) is a plus
- Ability to work pro-actively and independently
- Excellent interpersonal and communication skills
- BS/MS/PhD with 18/15/3 years of experience, respectively, and experience in a pharma or biotech environment

Mirati is an Equal Opportunity Employer (EOE) – we celebrate diverse experiences and welcome applicants that meet the minimum requirements. All applicants must be legally authorized to work in the US without sponsorship.

This role is NOT open to agencies- please no emails or phone calls.

