Part of a Global Network of Scientific Excellence
The Novartis Institutes for BioMedical Research (NIBR) is the global pharmaceutical research organization for Novartis, committed to discovering innovative medicines to treat diseases with high unmet medical need. With more than 6,000 scientists, physicians and business professionals around the world, our open and entrepreneurial culture encourages collaboration across eight major campuses.

Located in the San Francisco Bay area, the NIBR Emeryville campus focuses on early discovery and research activities as a hub for infectious disease research, with additional expertise in structural and biophysical chemistry, computer-aided drug design and protein engineering across many disease areas. Here more than 300 NIBR scientists, physicians and business professionals are working to discover small molecules and antibodies that will change the practice of medicine. Located in the heart of a key academic and biotech cluster, NIBR Emeryville also collaborates with the Bay Area academic institutions such as Stanford, UCSF and UC Berkeley and on occasion seeks to partner with both established and start-up biotech companies.

Infectious Disease
NIBR’s Infectious Disease research is advancing the search for new medicines against both bacterial and viral infections. The Antibacterials group is investigating novel therapies and developing innovative technologies in the battle to treat multi-resistant bacterial infections. The Virology group is working on multiple DNA and RNA viruses with high unmet medical need and also seeks to discover new pathogens that might contribute to other human diseases, including cancer and autoimmune disorders. In addition, we collaborate globally with other NIBR Institutes (Novartis Institute for Tropical Disease and the Genomics Institute of the Novartis Research Foundation) to discover new treatments for fungal diseases and for developing world infectious diseases including malaria, dengue, and Chagas disease.

Structural and Biophysical Chemistry
The Structural and Biophysical Chemistry Group supports both small molecule and biologics projects by providing macromolecular structural support by NMR and X-ray crystallography. The group also supports biophysical screening and compound validation by surface-plasmon resonance, bilayer interferometry, and
calorimetric methods. They work closely with colleagues in Protein Sciences and Computer Aided Drug Design to provide integrated support for local and global projects.

**Computer Aided Drug Design**
The Computer Aided Drug Design Group uses a wide range of computational techniques to support all stages of pre-clinical drug discovery, both in Emeryville and globally. Virtual screening and de novo design are used to find early “drug-leads” and “tool compounds” for new therapeutic targets, rational drug-design is used to iteratively refine leads to drug candidates, optimizing both potency and pharmacological properties, and informatics are used to apply big and complex data from our experimental knowledgebase to new drug discovery problems. New computational methods are also developed to address unmet needs and further innovation.

**Protein Sciences**
The Protein Sciences Group supports small molecule and biologics projects (both in Emeryville and globally) in all stages of the pre-clinical drug discovery process with molecular biology, expression, protein biochemistry, biophysical and analytical technologies. As part of an integrated drug discovery effort, scientists of the Protein Sciences Group are essential members of the project teams. They work effectively across different functional areas to utilize and develop state of the art technologies to accelerate drug discovery.

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