**Facilities and Other Resources**

**The Small Molecule Discovery Center at UCSF**

The Small Molecule Discovery Center (SMDC http://smdc.ucsf.edu/) is a core and research facility on the Mission Bay campus founded by Dr. Jim Wells and co-directed by Dr. Adam Renslo and Dr. Arkin. The SMDC’s mission is to accelerate the path of drug discovery by collaborating in the discovery of small molecules that modulate biological processes and have the potential to alter disease states. Dr. Arkin oversees the HTS facility, which runs ~12-15 screens per year, and a group of postdocs and staff scientists who work collaboratively to develop drug-discovery technologies and novel drug leads. The SMDC is affiliated with the California Institute for Quantitative Biosciences (qb3), a cooperative effort among three UC campuses (UCSF, UCB, and UCSC) and private industry. The SMDC is a key contributor to qb3’s successes in collaborating across the three campuses, starting new companies, and engaging in research projects with industry.

**Laboratory:** The SMDC is a ~3000 sqft laboratory located on the fifth floor of Byers Hall on the UCSF Mission Bay campus. The laboratories contain all routine equipment needed for biochemistry, cell biology, and medicinal chemistry, including six chemical hoods, desks and benches for 18 scientists, tissue culture facilities, chemical storage, a cold room, and computers and associated software. The SMDC has six additional spaces for medicinal chemists on the fifth floor of the adjacent Genentech Hall. As outlined in “Major Equipment,” the SMDC maintains a suite of modern robotic instrumentation for high-throughput screening of cell-based and biochemical assays, instruments for routine biochemistry, cell biology, and medicinal chemistry.

**Clinical:** Not applicable.

**Animal:** Not applicable.

**Arkin office:** Dr. Arkin’s office is located in an office suite adjacent to the laboratory. Her office includes a small conference table, projector, and conference phone to facilitate team meetings. Departmental support includes an administrative assistant, financial analyst, and purchasing support.

**Renslo office:** Dr. Renslo’s office is located in an office suite adjacent to the Genentech Hall laboratory. His office includes a conference table, projector, and conference phone to facilitate team meetings. Departmental support includes an administrative assistant, financial analyst, and purchasing support.

**Computer:** The investigator and key personnel have up-to-date desktop and/or laptop computers at their desks. All laboratory equipment is connected to the internet and to password-protected servers for data storage. Small-molecule screening and follow-up data are stored in a MySQL database running on a high capacity server with mirroring and nightly backup. SMDC’s in-house web application, HiTS, provides a user interface to view and query chemical and biological data. Access to HiTS is password protected and encrypted. The user interface is built using Groovy/Grails and integrated with Pipeline Pilot and Vortex to provide users the ability to visualize and query the data. The user interface is dynamically downloaded from the backend server. In addition, the SMDC has a data management program that has been operational for the past several years using the Collaborative Drug Discovery (CDD) database (Collaborative Drug Discovery Inc., South San Francisco, CA) which is web-based, password protected, and can be used by all team members to mine and share data.

**Mission Bay Campus of UCSF**

UCSF is a premier academic research institution. The Mission Bay Campus of UCSF contains programs in structural and chemical biology and molecular, cell, and developmental biology. The investigators have access to a range of core facilities on campus, including the Center for Advanced Technologies (including sequencing, proteomics, and instrumentation for biophysical analysis), the Nikon Imaging Center, and the Laboratory for Cell Analysis (tissue analysis and flow cytometry). The campus houses several institutes for translational and basic science, including the Gladstone Institutes, the Smith Cardiovascular Research Institute, the Helen Diller Cancer Center (of which Dr. Arkin and Dr. Renslo are full members), the Institute for Quantitative Bioscience (qb3), the Sandler Neuroscience building, and the Center for Global Health. The UCSF Medical Center at Mission Bay, including a cancer hospital and the Benioff Children’s Hospital, opened across the street from the SMDC in February 2015. Additionally, several pharmaceutical and biotech companies, incubators, and venture capitalists maintain offices and/or laboratories in the buildings surrounding the Mission Bay Campus.