FACILITIES & OTHER RESOURCES – UNIVERSITY OF CALIFORNIA, LOS ANGELES

Laboratory: Dr. Meyer's lab occupies dedicated laboratory space on the 5th floor of the Engineering V (EV). EV opened in Fall of 2007 and provides a state-of-the-art research home for the Department of Bioengineering faculty members and their labs. Dr. Meyer is allotted over 800 square feet of space including laboratory and shared research support space. A portion of this (200 sq ft) is a dedicated, positive-pressure cell culture room. This space includes access to air/gas and vacuum connections at both the bench and hood locations, internal deionized water systems, and appropriately scaled HVAC and electrical service. Recent renovations (2017) have ensured it is specifically tailored to the work proposed here. The lab space is within close proximity to shared resources, conference room space, and office space.

Computational: Dr. Meyer has two computers: (1) a Mac Pro located in his office (Mac OS), and (2) a MacBook Pro laptop (Mac OS). Each technician and student is equipped with a similar laptop. The University provides a subscription to Zoom Meeting telecommunication software for remote meetings and provides all campus members with unlimited storage versioned and stored off-site through the Box service. The engineering school provides all faculty, students, and staff with access to software development tools, office software, and statistical software for common and specialized needs (e.g. MATLAB). The Meyer lab maintains two high-performance, 32-core servers for computationally intensive jobs. For long-term storage, the lab maintains a network attached storage server (Synology) with 10TB of space. In addition, the Hoffman2 cluster on campus provides support for larger computational tasks with 13,340 cores and over 50TB of memory. All computers in the Meyer lab are automatically and continually backed up to off-site storage. The combination of these information technologies contributes to efficient data handling and optimal communication among members of the research team.

Office: As a faculty member of the Bioengineering Department within the Samueli School of Engineering, Dr. Meyer has an office one floor away from his laboratory. It is equipped with desk, task chairs, two 4-drawer filing cabinets, and hardwired high-speed access. His lab members have access to dedicated, separate office space in the lab's own room for writing and study. The students'/technician's shared office space is similarly equipped with four individual desks, four task chairs, and five 2-drawer filing cabinets. There is also access to the internet through the University's wireless network. These facilities ensure that Dr. Meyer and his immediate research team will have the necessary space in which to formulate experiments, analyze results, and prepare manuscripts for publication.

Institutional Support: Full administrative support is provided by the engineering school. This includes staff individually dedicated to funds management, student advisement, purchasing, and facilities maintenance.

Intellectual Rapport: The academic structure is founded on an interdisciplinary ethic. There are many opportunities to meet, hear about, and discuss research, including the Bioengineering seminar series, the Bioinformatics seminar series, the Stem Cell Center meetings, Jonsson Comprehensive Cancer Center speaker series and discussion meetings, and the QCBio (Institute for Quantitative and Computational Biology) seminar series. The Meyer lab additionally participates in a regular joint meeting with the labs of Alex Hoffman (Immunology) and Roy Wollman (Biological Chemistry) on modeling and microscopy.

All members of the Meyer lab receive regular feedback and career planning formalized through individualized development plans and annual reviews. Additionally, graduate students are assigned a thesis committee that helps to provide independent mentorship and career planning advice.

Shared Resources:

As a member of the Jonsson Cancer Center and the Broad Stem Cell Center, Dr. Meyer has access to extensive resources within the core facilities including flow cytometry, genomics, molecular screening, small animal imaging, translational pathology, high-throughput sequencing, imaging, and biostatistics. These services are available to members of the centers at a subsidized rate. Particularly relevant to the work

proposed here:

The Advanced Light Microscopy/ Spectroscopy Core is housed within the California NanoSystems Institute and provides consultation, services, and support for the application of novel spectroscopic methods and advanced image analysis techniques for the study of macromolecules, cellular dynamics and nanoscale characterization of bio-materials.

The Janis V. Giorgi Flow Cytometry Core Laboratory is a part of the UCLA medical school and offers consultation, services, and support for flow analysis and sorting. As a member of the Jonsson Comprehensive Cancer Center, the Meyer lab receives a discounted rate on all services.