Equipment

The Runstadler Laboratory

The main laboratory has equipment required for general microbiological, molecular, and cellular biology work including biosafety cabinets, refrigerated centrifuges, incubators, water baths, PCR machines, electrophoresis equipment, refrigerators, freezers (-20°C and -80°C), liquid nitrogen storage tanks, and rocking and shaking platforms.

Specialty equipment in the Runstadler lab relevant to this proposal includes:

- Agilent 2100 Bioanalyzer
- 4 certified BSL-2 Safety Cabinets (4)
- Life Technologies 9700 PCR (2), Veriti gradient cycler, and Step One RT-PCR equipment
- Centrifuges
- Microscopes
- cold storage
- Computer and Server capacity (see above Computers)

MIT BioMicro Center (http://openwetware.org/wiki/BioMicroCenter)

A critical directive of the BioMicro Center is to provide a cutting-edge research core for members of the MIT community. The BioMicro Center provides advanced research equipment in a core facility accessible to all MIT and supported jointly by several divisions of the MIT community. Equipment and technical expertise in both laboratory work and bioinformatics support are available for use by the MIT community. Equipment relevant to this proposal includes Illumina HiSeq and MiSeq sequencing platforms, a Luminometer, two Tecan Freedom EVO 150s for liquid handling, Varioskan flash reader, Pippen Prep automated electrophoresis, and MJ Research and Roche Lightcycler PCR equipment. Through a partnership with the University of Massachusetts Medical Center's Deep Sequencing Core Facility, PacBio sequencing capabilities are available as well.

Koch Institute for Integrative Cancer Research (KI) (http://ki.mit.edu/sbc/hts/instrumentation)

The Swanson Biotechnology Center at the KI has robotic liquid handling facilities that may be reserved, including two EVO 150s for liquid handling in Baker Hood enclosures, a Tecan M1000 plate reader. Additionally, an Integrated Robotic Automated Assay Platform is available, including a Tecan EVO 150 liquid handling deck, BioTek 406 plate washer, an automated microplate centrifuge, and integration with the Tecan M1000 plate reader.

The Broad Institute at Harvard and MIT

The Broad Institute operates a Sequencing facility providing access to scheduled and walk up sequencing capability with next generation sequencing capability including a PacBio sequencer.