**Facilities and Other Resources**

Montana State University (MSU), founded in 1893, is a four-year land grant state institution with undergraduate and graduate programs in basic sciences, agriculture, engineering, nursing, liberal arts, business, human medicine, and education. In 1984, MSU made the decision to centralize the program for laboratory animal care and the Animal Resources Center (ARC) was built. The ARC houses all small laboratory animals used for research at MSU, with the exception of fish and amphibians. The ARC is part of the College of Letters and Science, which is has been fully AAALAC accredited since 1987.

*Montana State University (MSU) – Biomedical Research Environment*

MSU hosts a number of programs that directly engage in or support biomedical research and provide faculty and students excellent research opportunities. The integration of learning and discovery is a hallmark of the undergraduate experience at Montana State University, which offers every student a hands-on research or creative project in his or her sophomore year. MSU has become a model university for combining these two critical aspects of higher education. Currently, Montana State University offers 55 master's degree options, 34 doctoral degree options including one specialist program. The WWAMI Medical Education Program, a multi-state medical education program, transitions students to the University of Washington - School of Medicine for primary care physician training. Health-related topics are of interest to a number of departments such as Nursing, Health and Human Development, Psychology, Engineering and Sociology. Faculty are encouraged to work collaboratively and crossdisciplinarily particularly when problems prove to be complex and enduring. This model of mentored collaboration has been facilitated successfully through the Montana INBRE program, a five-year award by the National Institute of General Medical Sciences (NIGMS), a division of the National Institutes of Health.

Faculty at MSU report high levels of support from long-standing institutional programs and ready access to excellent cutting-edge facilities and resources to support their projects. The Center for Faculty Excellence, funded by the Provost’s Office, offers seed grants, peer review, and ongoing training related to teaching, research, and service excellence, while the Office of Research and Economic Development offers bridge funding, new faculty start-up support, and internal grant funding. Faculty and students have access to cutting edge facilities and resources in which they may conduct research such as the Proteomics, Metabolomics and Mass Spectrometry facility, Functional Genomics Core Facility, and the Image and Chemical Analysis Laboratory (ICAL). Some other helpful resources include the Human Ecology Learning and Problem Solving (HELPS) Lab, a facility offering a variety of technologies for conducting social and behavioral research by facilitating interviews, message-based experiments, focus groups, and Web, mail, phone, and mobile surveys. Affiliated with MSU are the Montana Office of Rural Health (MORH) and Montana Area Health Education Center (AHEC). These programs work closely with faculty to engage in rural health projects. Also noteworthy is the Center for Biofilm Engineering, a National Science Foundation funded research center that focuses on research and education relevant to industry, health, and the environment.

*Animal Biosciences Building*

The ABB is a state of the art $15 million 40,463 sq. ft. facility developed with majority support from private interest groups. Opened in 2010, ABB has been equipped with cutting edge teaching and research facilities. Research resources include all modern molecular equipment, suitable for high quality nucleic acid extraction, fluorescence microscopy, real time and regular PCR, mutagenesis and DNA recombination, temperature-controlled centrifugation (including bench-top through to a Sorvall RC-6 superspeed centrifuge), spectrophotometry, Gas chromatography-Mass Spectrometry, electrophoresis and visualization, high-performance liquid chromatography, temperature controlled rooms and incubators.

In addition the Animal and Range Sciences department is associated with ten research stations: The Wool lab, The Nutrition Center, Bozeman Agricultural Research and Teaching Farm, Fort Ellis Research Farm, Red Bluff Research Ranch, Brady Experimental Ranch, The Plant Growth Center, Northern Agricultural Research Center, USDA-ARS Fort Keogh Livestock & Range Research Laboratory and the USDA-ARS U.S. Sheep Experiment Station.

Faculty have 100ft2 offices near the laboratories. Additional office space is available for students, postdocs, and senior staff.

*MSU Library*

Professional library services at Montana State University include mediated literature searching in research databases, citation analysis, collaboration portal support, and curation of an institutional repository. Librarian consultation topics include bibliographic citation management software, MEDLINE, NIH public access policy compliance, copyright, social media tools, and individual information management. Scientists have full access to web-based knowledge resources at Montana State University including current journal subscriptions, and reference texts. Documents not available online may be requested via MSU interlibrary loan document delivery services.

*Computing Capability*

The Montana State University network is linked to the Internet via a 20Mbps fiber optic connection providing access to resources at collaborating sites. The scientific desktop network consists of 200 PC and Macintosh computers linked via a 1 Gbps Local Area Network (LAN). Shared peripheral devices include network storage, color laser printers, high-resolution scanners and multi-media production equipment. Centralized software includes packages for DNA sequence analysis, statistics, proteomics analysis, microscopic image management, laboratory information management systems (LIMS), grants management, word processing and technical graphics. Montana State University professional IT staff maintains the information technology infrastructure.