RESOURCES

FACILITIES: Specify the facilities to be used for the conduct of the proposed research. Indicate the performance sites and describe capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Under "Other," identify support services such as machine shop, electronics shop, and specify the extent to which they will be available to the project. Use continuation pages if necessary.

Murine Genetic Analysis Laboratory (part of the Veterinary Genetics Laboratory):

Laboratory:

The Murine Genetic Analysis Laboratory (MGAL) is located in the Animal Resource Services (ARS) compound on Old Davis Road. The laboratory conducts DNA based animal parentage verification and identity and genetic disease testing utilizing PCR analysis of di-, tri- and tetranucleotide microsatellite markers. The MGAL works in association with the Veterinary Genetics Laboratory (VGL), which maintains an active research program, in addition to providing client services, and is currently capable of genotyping 4,500 samples per week. The MGAL shares a portion of the 7984 ASF of laboratory and office space assigned to the VGL.

Animal:

None.

Computer:

MGAL/VGL maintains an advanced network of computer systems in support of research, production, and administrative services. All researchers, technicians, and graduate students are outfitted with Pentium®-class or better computers running Windows NT®. In addition, several laboratories are equipped with computers for general use. A switched 10/100 megabit network connects all of these systems to the VGL data-center providing Internet, printing, file storage, database, and Unix services. Two development engineers and one programmer/analyst provide support for these facilities on a full time basis. This staff has developed in-house software for automated DNA fragment sizing and analysis.

Office:

MGAL/VGL has individual offices for three Associate Directors, an MSO, one AAIII, one AAII, an administrative office, conference room, graduate student office and individual desks, files and shelves for SRAs.

Other:

The University of California, Davis campus support facilities include libraries containing over 2,300,000 volumes and 51,600 periodicals and journals. In addition to the book collections, there are 2,100,000 items on microscopy, 150,000 maps, 567,000 pamphlets and 13,000 sound recordings. The Carlson Health Sciences Library serves the Schools of Medicine and Veterinary Medicine with a collection of 217,000 volumes of research reports. Other campus facilities include a Nuclear Magnetic Resonance Resource Facility, a Statistical Laboratory, and a Protein Structure Laboratory with a Gas-phase protein peptide sequencer and a DNA synthesizer. Other Core facilities include a hybridoma laboratory, an Optical Imaging Laboratory, Mouse Genetics Core Laboratory (based in the CCM) and Histology Core laboratories in both Schools of Medicine and Veterinary Medicine.

MAJOR EQUIPMENT: List the most important equipment items already available for this project, noting the location and pertinent capabilities of each.

VGL currently houses 22 DNA thermal cyclers, two Applied Biosystems (ABI) 377 and two 373 automated sequencers, two automated 96-well dispensers, three -70°C freezers, assorted -20°C freezers, balances, shaking incubators, water baths, ice machine, spectrophotometer, pH meters, assorted bench top and floor model centrifuges, three microfuges, laminar flow and fume hoods, autoclave, electrophoresis equipment for polyacrylamide, agarose and starch gels, UV view boxes, one gel photography apparatus and general laboratory equipment.