# PI MacManes

# Major Equipment

(2) High memory Linux Workstations

(1) Windows Desktop

(1) OSX Desktop

VWR -80 Freezer

Refrigerator and -20 Freezer

96 well gradient PCR machine

Life Technologies Gel Imager

Egel gel electrophoresis

Abaxis VS2 vetscan

Atago urine refractometer

Environmental Chamber for housing animals

(2) refrigerated centrifuge

SHARED EQUIPMENT WITH THE HUBBARD CENTER FOR GENOME STUDIES

# W. Kelley Thomas, Director, HCGS

# Major Equipment

**Genomics Equipment**

(1) Illumina HiSeq 2500

(1) Applied Biosystems 3130 Genetic Analyzer

Biomek 2000 Liquid handler

Pharmacia Ultrospec III spectrophotometer

(3) refrigerated benchtop centrifuges Beckman TL-100 benchtop ultracentrifuge

(2) floor model shaker/incubator

V&P Scientific magnetic levitation stirrer

Savant SpeedVac with cold trap

(5) microcentrifuges

Covaris M220

**Proteomics Equipment**

Typical incubators, baths and gel electrophoresis equipment

PE 480 Thermal Cycler

PE 9600 Thermal Cycler

PE9700 Thermal Cycler

(1) BioRad *E. coli* pulser

BioRad CHEF-DRII gel system

Gene Machines Hydroshear

(6) –80C upright freezers

(6) 96-Well Gradient Thermal Cyclers

Genetix Mini Q-Array (MicroArrayer)

Genetix Q-bot

Agilent 2100 Bioanalyzer

Thermo Nanodrop/Spectrophotometer

Qubit

Thermo LTQ-Orbitrap XL

Preparative HPLC & nano-flow rate HPLC

Thermo Steri-cycle CO2 incubator

Kratos Analytical AXIMA-CFR: MALDI-TOF MS

Kratos Analytical AXIMA-QIT: MALDI-Ion Trap-TOF MS

Micromass Q-TofTMAPI-US: LC-MS-MS

Finnigan LTQ: LC/MS/MSn

Finnigan LCQ and GCQ Ion Trap Mass Spectrometers

Proteome Systems IsoelectrIQ2: Multicompartment Electrolyzer

XCISE: Integrated Gel-excision processor

Alpha ImagerTM Model 3400 Alpha Innotech Corp.

Bio-Rad Rotofor

PBI Barocycler NEP2017

PolarisQ Ion Trap GC/MSn

Shimadzu HPLC

# Microscopy System

Olympus IX81 Motorized Research Microscope system

Our image capturing system includes a IX81 motorized, inverted Olympus microscope connected to a Retiga-1300, Mono, 12-bit cooled camera with RGB Liquid Crystal Color Filter Module (Slider), both the camera and the microscope controlled by a basic IP Lab software with additional script designed for our own specific needs.

# Computing Equipment

In addition to personal and office computers, and those dedicated to running particular pieces of laboratory equipment, there are four desktop Macintosh PowerPC systems and a 4 Dell PowerEdge T310 Servers, each with Intel Xeon 8 CPUs, 2.53 GHz, two with 32Gb RAM, one with 16 Gb RAM, and 1 with 8GB RAM. Two of these have 2 TB hardrives, one with 1.5 TB Hard drive and the fourth with 40 GB hard drive. A 2 x 2.8 GHz Quad Core Processor Mac Server with 2 Gb RAM and 4 x500 Gb storage running OSX handles our internal databases and provides Apache WWW services. Each computer is wired to the campus Ethernet for internet access and shared printers. All data is regularly archived to the RAID configuration on the server or the NAS drive (4Tb). There is also an HP DL165G7 cluster computer with 128 GB RAM for processing of data and sample management.

In addition, the Resource Computing and Instrumentation Core Facility manages a data server for the HCGS which is scheduled to have a storage capacity of at least 60 TB by 2015.