

Downloadable Resource Equipment List*

(Last updated June.15.2017)

Biomolecular Research Center

Imaging

Zeiss LSM Meta 510 Confocal Microscope
SkyScan 1172 MicroCT X-Ray Scanner
AMG EVOS Fluorescence Microscope
Zeiss Stemi 2000 Microscope
Pentax Optio W80 Digital Camera
Mini-Computer Animated Visualization Environment
Life Technologies Countess® II FL Automated Cell Counter
Nikon TS100/SPOT RT3 camera
ProteinSimple FluorChem™ R Imager
Odyssey CLx Li-COR Imaging System
IVIS in vivo Fluorescence Scanner

Histology

Leica TP1020 Benchtop autoembedder Leica
Leica EG1150H Heated Paraffin Embedding Module
Leica RM2235 Rotary Microtome Leica CM1950 Cryostat
Leica Vibratome VT1000
Leica Autostainer XL
Leica DM 1000 Microscope
PathScan Enabler IV Slide Scanner
Slide warmer XH-2001
StatSpin CytoFuge

Real-Time and Quantitative PCR

Applied Biosystem Veriti Thermal Cycler
Roche LightCycler® 96 Real-Time PCR System

Mass Spectrometry Facilities

Bruker maXis Q-TOF Mass Spectrometer/
Dionex Ultimate 3000 HPLC system
ThermoScientific Velos Pro Linear Ion Trap Mass Spectrometer
MALDI Tandem Mass Spectrometer with Imaging Capabilities
HTX Imaging TM-Sprayer Tissue MALDI Sample Preparation System
Genius 1050- Nitrogen Generator

Cell and Tissue Culture and Molecular Biology

Life Technologies Countess® II FL Automated Cell Counter
Lonza Nucleofector II/2b Device
LabGuard Nuair Class II, Type A2 Biological Safety Cabinets
NuAire DH AutoFlow Tissue Culture CO2 Incubators
ThermoScientific Sorvall 16R Centrifuges
Synthecon Rotary Cell Culture System
Applied Biosystems Electric Cell-substrate Impedance Sensing (ECIS) Zθ
Thermo Scientific CryoPlus 2

*This list is intended as a convenience and may not be comprehensive.

Molecular Interaction Determination

Biotek Synergy H1m Microplate Reader
Jasco J-810 Circular Dichroic Spectropolarimeter
Beckman Proteomix XL-1 Analytical Ultracentrifuge
SynergyHT Multi-Mode Microplate Reader
Field Flow Fractionation-Multiangle Light Scattering (FFF-MALS)
Size Exclusion Chromatography-Multiangle Light Scattering (SEC-MALS)

DNA and Protein Isolation and Characterization

Beckman Optima Ultracentrifuge Agilent 1200 HPLC System
Omni GLH Homogenizer
BioRad Criterion 12-Gel Electrophoresis Tank
LifeTechnologies iBLOT2
GyroMax 727 & GyroMax 727R Orbital Incubators
Fisher Scientific IsoTemp Plus Chromatography Refrigerator
BioRad BioLogic Low Pressure Chromatography System
BioRad Protean Isoelectric Focusing System
ThermoMix 500
FisherScientific Accuspin Microcentrifuge
NanoDrop 1000
Eppendorf Vacufuge Vacuum Concentrator
Branson Tabletop Ultrasonic Cleaner
Fisher Scientific IsoTemp Plus Chromatography Refrigerator
ThermoScientific Sorvall LYNX 4000

Department of Biological Sciences

AGFA CP1000 Automatic Film Processor
Biotek SynergyMx Microplate Reader
Zeiss Stemi SV1/M2Bio Microscope Olympus BX53
Compound Microscope Zeiss Axiovert 40CFL
Zeiss AxioCam ERc5S digital camera
BioRad ProFX Fluorescent Imager
Olympus BX53 Microscope
Olympus BX53 Polarizing Microscope
Applied Biosystem ABI 7300 Real-Time PCR Machine
Cepheid Smart Cycler Real-Time PCR Machine
Applied Biosystem GeneAmp Thermal Cycler
BTX 630 Electroporator
BTX 830 Square Current Electroporator
Eppendorf InjectMan NI2 Micromanipulator
BioFlux Inverted Microscope Microfluidic Flow Chamber
Reichert SR7000 Surface Plasmon Resonance Instrument
Varian Cary 100 UV/VIS Spectroscopy
Biotek SynergyMx Microplate Reader
BioTek ELx405R 96 Well Plate Washer
NanoDrop 1000
Cary Eclipse Fluorescence Spectrophotometer
Thermo Scientific Spectronic 200E
Luminex 100 Analyzer
BioRad Mini-Protean Electrophoresis Tank System

Invitrogen X-Cell SureLock Electrophoresis Tank System
Fisher Scientific IsoTemp Plus Chromatography Refrigerator
BioRad BioLogic Low Pressure Chromatography System
Invitrogen iBLOT Blotting System
Millipore SNAP I.D. Protein Detection System
BioTek ELx405R 96 Well Plate Washer
Eppendorf 5430R Microcentrifuge
ALC PM140 Refrigerated Centrifuge
GeneQuant Spectrophotometer
GreenChem Plus mini-Vessel Accessory Set / Solvent Extraction Option
Barocycler NEP2320
Thermo Scientific Locator Jr Cryo Tank

Flow Cytometry Core Facility

BD INFLUX Cell Sorter
BD Biosciences Accuri™ C6

Department of Chemistry and Biochemistry

Analytical Services Laboratory Assets

Agilent 6470 Triple Quadrupole LC/MS System
Agilent 1100 HPLC System
Beckman L8-750 Ultracentrifuge
Bruker HCT Ion Trap Mass Spectrometer
Bruker MPA spectrophotometer
Cary 60 UV-Vis Spectroscope
Cary Eclipse Fluorescence Spectrophotometer
CEM Corporation MARS5 chemical microwave
CS Bio CS136XT Automated Solid Phase Peptide Synthesizer
Dionex ASE 200 Accelerated Solvent Extractor
Eppendorf Mastercycler Real-Time Machine
Harvey SterileMax Autoclave
Heidolph rotary evaporator
Labconco freeze dry lyophilization system
ProteinSimple FluorChemE Imaging System
PupilCAM Megapixel KAM140
Savant SpeedVac DNA 110 & DNA 120 Concentrator
SynergyHT Multi-Mode Microplate Reader
Thermo Finnigan TRACE T Ultra Gas Chromatograph/AS 3000 II autosampler
Thermo Scientific UltiMate 3000 HPLC/MS-diode array and charged aerosol detector
Thermo Scientific UltiMate 3000 HPLC/MS-diode array detector and fraction collector
Thermo Scientific Sorvall Legend X1R Refrigerated Benchtop Centrifuge
Thermo Scientific Sorvall ST 16R Refrigerated Benchtop Centrifuge
NanoDrop 2000C
Varian Cary 50 Bio UV/VIS Spectrophotometer
Varian Cary 100 UV/VIS Spectroscopy

Nuclear Magnetic Resonance (NMR) Spectroscopy Laboratory

Bruker IPSO 300 MHz NMR Spectrometer
Bruker AVANCE III 600 MHz NMR Spectrometer

Department of Physics

Dr. Fologea's Lab

Molecular Devices Electrophysiology (patch clamp, whole cell clamp, bilayer) systems: Axopatch 200B, Amplifier, Digidata 1440A Digitizer with pClamp software
Nikon TS100 Fluorescence Microscope/Imaging software
Olympus IX-71 Epifluorescence microscope with motorized/ with TIRF capabilities
Acton Photonmax 512 High sensitivity camera/WinView Imaging software.
Horiba FluoroMax-4 Spectrofluorometer
AvantiLipids Liposome Extruder
AvantiLipids Sonicator
Sutter Instruments Glass Pipette Puller
Electroporation apparatus for single cell/cell suspension (custom)
Nano-injection system for single cell microinjection (custom)
Horiba Surface Plasmon Resonance (SPR) Instrument
Sapidyne Kinexa 3200 platform- quantifying biomolecular interactions

Dr. Ferguson's Lab

Zeiss LSM Meta 510 Confocal Microscope

College of Engineering

Boise State Center for Materials Characterization

JEOL JEM-2100 HR Analytical Transmission Electron Microscope Hitachi S-3400N-II Analytical Scanning Electron Microscope Bruker AXS D8 Discover X-Ray Diffractometer
CAMECA SXFive Electron Microprobe (EPMA)
FEI TENE0 Field Emission Scanning Electron Microscope (FESEM)
Rigaku Miniflex 600 Benchtop X-Ray Diffractometer
Leica DM6000 M Materials Microscope

Surface Science Laboratory

Bruker Dimension Icon FastScan Bio SPM with 64 bit Nanoscope V Controller
Bruker MultiMode 8 SPM with Nanoscope V Controller
Bruker Dimension 3100 SPM (formerly Digital Instruments/Veeco) with Nanoscope IV Controller
Hysitron TS 75 Triboscope
Phenom Tabletop SEM

Northwest Tissue Mechanics Lab

Instron E10000 Electropulse Biaxial Test System
Load Sensors (10kN Biaxial, 1kN Biaxial, 10 N Axial)
Omega signal conditioner
Supreme Air LV Fume Hood
Computing Lab –includes: quad-core iMac; quad-core Asus; HPC cluster (16 nodes/16 cores); Software includes LS-DYNA, LS-DYNA PrePost, FEBio, OpenFOAM), vmd, Amber-11, Charmm, Gromacs, NAMD and Solidworks

Transport Characterization Laboratory

Advanced Electrical Characterization Systems, Computer Controlled (3 systems Advanced DC & sub-RF)
Keithley 4200 –SCS semiconductor Parameter Analyzer-DC and pulse characterization
Agilent 4156C semiconductor characterization system with switch matrix
HP 4284A LCR meters (20Hz to 1MHz), (3)
Closed-cycle cryogenic Probe Stations (5.5 to 450 K)

High-temp probe station (673K)
Room temperature probe station
Low Noise Spectroscopy System
Agilent 4294A precision impedance analyzer
Lock-in Amplifiers (2, SRS SR830 dual phase and SRS SR810 single phase)
Mixed Signal oscilloscope (1GHz 4 channel 4GSamples/s)
Cascade Micromanipulator probes (4 high temperature);
Horiba Scientific LabRAM HR Evolution Raman Microscope

Advanced Nanomaterials & Manufacturing Laboratory

Axon MultiClamp 700B patch clamp amplifier on a vibration isolation table
Axon Digidata 1550 low-noise data acquisition system
pClamp 10 electrophysiology data acquisition and analysis software
Custom quartz tube variable pressure chemical vapor deposition system/
 4 inlet gases & 2 solid-source precursors
QSonica Q125 probe-tip ultra-sonicator
Branson 2800 variable temperature ultra-sonicator
Mettler Toledo Analytical Balance
Thermo Scientific Legend Micro 21 Microcentrifuge
Thinky Planetary Centrifuge
Thermo Scientific Heratherm Programmable Gravity Convection Oven
Heraeus Megafuge 8 with TX-150 Cell Cult Pkg (8 x 50 ml)
MTI 2" Quartz Tube furnace with inert gas inlet and vacuum compatible
Janis CCS-400H/204N high temp. optical cryostat system/
 Model 335 temp. controller, and Model TS-75-DTurbopumping station