

Shared Epigenetics Equipment

The following pieces of equipment have either been purchased by or are maintained and shared within the epigenetics institute. Core labs are encouraged to take advantage of this access and to utilize this equipment in their work.

IMPORTANT NOTES

Maintaining service, training new users and managing access for each piece of equipment are key tasks shared across core labs. Each lab is responsible for assigning an individual to lead these tasks for their assigned machine. Interested users should refer to the descriptions to determine usage requirements and should plan to gain access accordingly.

The epigenetics institute covers the cost of SOME consumables for certain pieces of equipment (YES- qubit reagents, thermal imaging tape- NO bioanalyser chips, covaris tubes). In these cases, the individual responsible should contact Colleen Blair (colleen.blair@pennmedicine.upenn.edu) with the part #.

Please contact Colleen. Blair with questions or if your group has equipment to share with the group. If service is needed, please obtain a quote and send to Colleen as well. To use any Google calendars, please contact your lab manager first as they should have sharing access; if not, ask Colleen or Connor Hogan (Berger Lab, connor.hogan@pennmedicine.upenn.edu).

Covaris S220 Ultrasonicator

- Chromatin and genomic DNA shearing
- Programmable and temperature-controlled sonication
- Single sample (130uL or 1mL tube holders)

Usage: Users should contact the individual below with questions about gaining access to the machine and to schedule a time for use (Jain Lab maintains a Google calendar), new users must be trained

Location: Smilow 9-165

Contact: Jain Lab, Parisha Shah (parisha@pennmedicine.upenn.edu)

For service: Melissa Gabello (mgabello@covaris.com)

Diagenode Bioruptor

- Probe-based chromatin and DNA shearing for multiple samples at one time
- Holders accommodate samples in 1.5mL, 15mL, and 50mL tubes

Usage: Users should contact the individual below with questions about gaining access to the machine (retrieve holders from Berger Lab), new users must be trained

Location: 9-271B (Cold Room)

Contact: Berger Lab, Connor Hogan (connor.hogan@pennmedicine.upenn.edu)

For service: Cathy Stickney, Cathy.stickney@diagenode.com

s/n: BAB-120293

Agilent BioAnalyzer

- Quantification of concentration and size for nanogram quantities of nucleic acids
- Necessary for quality control for next-generation sequencing library preparation

Usage: Users should contact the individual below with questions about gaining access to the machine and to schedule a time for use (Google calendar and hard copy schedule at machine), new users must be trained

Location: 9-162A

Contact: Berger Lab, Connor Hogan (connor.hogan@pennmedicine.upenn.edu)

For service: 1-877-424-4536, cag_sales-na@agilent.com

Qubit

- Fluorimetry-based quantification of DNA, RNA, and protein
- Standard and high sensitivity reagents available
- Accurate quantification of picogram quantities of DNA
- Ideal for quantification of DNA for ChIP-sequencing experiments

Usage: advanced sign up not required; instructions for use are available at the machine or new users can contact individual below for instructions

Location: Smilow 9-162A

Contact: Berger Lab, Charly Good (crgood@pennmedicine.upenn.edu)

For service: customersupport@qubit.com, 1-212-201-0546

s/n : 2286610053

Thermo QuantStudio 7 Flex and Orbitor RS2 Real-Time PCR System

- High throughput quantitative PCR (SYBR, TaqMan, and other PCR dyes)
- 384-well plate format only
- Automated plate loading robot allows for continuous use

Usage: Advanced sign up is not required, all users must record usage into the user log at the machine at time of use, new users must be trained

Location: 9-162A

Contact: Berger Lab, Connor Hogan (connor.hogan@pennmedicine.upenn.edu)

For service: Tiffany Sullivan (tiffany.sullivan@thermofisher.com)

s/n: 279002506

Amersham Imager 600RGB

- Chemiluminescence, brightfield, and (limited) fluorescence gel/blot imaging system
- Software allows for basic quantification of bands

Usage: Users must schedule a time in advance (Google calendar), users should contact the individual below with questions about gaining access to the machine for training.

Location: Smilow 9-162A

Contact: Zaret Lab, Naomi Takenaka (ntaken@pennmedicine.upenn.edu)

s/n: 56930335

Eppendorf epMotion Automated Liquid Handling Robot

- Precision liquid handling station for volumes as low as 0.5uL
- Robot is programmable for repetitive applications using custom and pre-programmed methods (Qiagen 96-well minipreps, RNA preps, etc.)

- Vacuum aspirator, thermomixer, and PCR cycling available on-instrument

Location: Smilow 12-169

Contact: Pancreatic Islet Cell Biology Core, Nicolai Doliba (nicolai@pennmedicine.upenn.edu)

UVP UVsolo Touch

- UV imaging system for the capture of small to medium gels stained with Ethidium Bromide.
- Printer attached for printing photos.
- Contains UV light source.

Usage: Self-serve simple system for capturing DNA/RNA gels.

Location: Smilow 9-165A

Contact: Bonasio Lab, Tim Christopher (timoc@pennmedicine.upenn.edu)

Service: UVP (781)376-9899

Maxwell 16

- Automated DNA extraction from a number of sources (mouse tails, bacteria, etc.)
- Fast and consistent method for extracting DNA for mouse genotyping
- Multiple modules, applications, and methods available online

Usage: Users should contact the individual below with questions about gaining access to the machine and to schedule a time for use, new users must be trained

Location: Smilow 9-163

Contact: Berger Lab, Connor Hogan (connor.hogan@pennmedicine.upenn.edu)

For service : custserv@promega.com, 608-274-4330

s/n 32922518

NextSeq500 Benchtop Sequencer

- Single lane benchtop nextgen sequencing
- Average output of 400-600M reads in ~11hrs
- Can be used for singleplex, multiplex, paired end and longer length read variations of next gen sequencing

Usage: advanced sign up is required; only trained users will have access to the online scheduling calendar; only trained users are allowed to load samples onto the sequencer; users must contact the individual below for additional info regarding machine access and training.

Location: Smilow 9-136

Contact: Bonasio Lab, Tim Christopher (timoc@pennmedicine.upenn.edu)

Pyromark Q96MD Pyrosequencer

- Analysis of DNA methylation of short regions
- Allelic expression assays using SNPs
- Characterization of SNPs

Usage: Users should contact the individual below with questions about gaining access to the machine and to schedule a time for use, new users must be trained

Location: Smilow 9-173A

Contact: Bartolomei Lab, Chris Krapp (krappc@upenn.edu)

Sorvall RC6+ Centrifuge

- Available rotor :SLA-3000 fixed angle, F21-48 x1.5 fixed angle, HS-4 swinging bucket

Usage: Users must record usage into user book (Zaret Lab maintains a Google calendar)

Location: Hallway 9-166

Contact: Zaret Lab, Naomi Takenaka (ntaken@pennmedicine.upenn.edu)

For service:

s/n A4072

SpectraMax190 Microplate reader

- Quantify DNA and perform endpoint , kinetic and spectral scanning analyses
- Read up to 6 wavelengths for 96 well plates
- Monochromator-based wavelength selection from 190nm to 850nm

Usage: Users must record usage into user book

Location: Smilow 9-167A

Contact: Zaret Lab, Naomi Takenaka (ntaken@pennmedicine.upenn.edu)

Nanodrop

- Nucleic acid concentration and purity of nucleic acid samples without dilution
- Purified protein analysis (A280) up to 100mg/ml (BSA)
- Bradford assay analysis of protein

Usage: Users must record usage into user book

Location: Smilow 9-169

Contact: Zaret Lab, Naomi Takenaka (ntaken@pennmedicine.upenn.edu)