

## Scientific Equipment Center

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Microscopy

- Flow cytometry
- > SEM
- Chromatography & Spectrometry
- Histology
- In Vivo Imaging
- Gel Imaging
- Molecular Biology



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NGS

- DNA/RNA library prep
- Bioinformatics services



Bar-Ilan University The Azrieli Faculty of Medicine ע״ש עזריאלי

**Roey Lahav**, DVM Head of the Animal Facility The Azrieli Faculty of Medicine

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- Advanced SPF rodent
- Germ Free
- Pathogen\BSL3
- Zebra Fish (Danio rerio)
- Frogs







### Light Microscopy

- Super Resolution/ 3D STED
- Confocal/Multi-Photon
- Live Imaging / Time Lapse
- Slide Scanner
- Fluorescent Upright with Apotome
- Wide Field Fluorescent
- Laser Microdissection
- Incubated fluorescent Microscope
- Imaris/Hyugens (Image analysis)

#### SEM

- MerlinTM Scanning Electron Microscope
- High quality preparation of Biological samples
- High resolution sputter coater
- Cryo ultra-microtome
- Correlative epi-fluorescent and electron microscopy

### Flow Cytometry

- Sorters in Biological Hood (FACS)
- Flow Cytometer (Analyzer)
- Image Cytometer
- Analysis software



### Small Animal Imaging

- PET-CT
- Micro CT
- Pearl (Far red Imaging)

### Radioactive Room







# Scientific Equipment Center- Units (Continue)



Chromatography and Spectrometry Unit

MALDI TOF

GC/MS/FID

> HPLC

FPLC

MagPix

Octet Red

Pamstation

> MST

Plate reader

### Gel Imaging Unit

- Chemiluminescence
- Far Red Imaging
- Fluorescent Scanner

> EtBr

### Molecular Biology Unit

- UV crosslinker
- ➢ RT-PCR
- Peptide synthesizer
- Liquid handling system
- Cell irradiation system (up to 50 Gy/min)

### Histology Unit

- Microtome
- Cryostat
- Paraffin embedding station







- Highly trained and dedicated staff
- Support extensive and comprehensive research services
- > Support facilities include:
  - GERM FREE
  - SPF\BSL 2\3.
  - Small imaging facility
  - Biohazard housing at the BSL2 and BSL3 levels

Animal rooms are maintained at ventilation, temperature and humidity levels appropriate for the species of animal in the room



אוניברסיטת בר-אילן



# Genome Technology Center (GTC)

One stop shop service from Project Planning & Design, throughout Library Preparation (DNA, RNA, sRNA, Exome sequencing, targeted sequencing) Sequencing, bioinformatics & Data Analysis

### Equipment:

- MiSeq, NextSeq, HiSeq Illumina sequencers
  - NextSeq up to 400 M reads; HiSeq-up to 2 billion;
  - MiSeq 1-25 M reads
- Accompanied equipment: Covaris (S220,E220), Qubit, Tapestation, Bioanalyzer, SpeedVac, Bravo
- >Advanced Equipment:
  - Fluidigm (IFC controller, C1, FC1;
  - NanoString-nCounter ™ Sprint







