**CHARLES E. SCHMIDT COLLEGE OF MEDICINE – EQUIPMENT**

*Use what you need, this is only a template, tailor to your grant*

**FAU College of Medicine Shared Equipment.** The College of Medicine provides state-of-the-art shared facilities and resources to support the research activities of their faculty and trainees. Located on the Boca Raton campus, the following shared equipment is available:

Induced Pluripotent Stem Cell (iPSC) Facility: Sorvall Legend XIR centrifuge, Nikon Inverted Microscope, ThermoScientific CO2 incubators, Invitrogen neon transfection system, Biological Safety Level-2 Cabinets, Revco -135 ultralow freezer.

Molecular Facility:Two facilities offer two sets of the following equipment: Applied Biosystem SimplyAmp Thermocycler, Agilent AriaMX Real-Time PCR System, Vortexer, MX300SP Stratagene Q-PCR, Nanodrop ND 8000 Spectrophotometer, Agilent 2100 Bioanalyzer, Agilent Tapestation, Microbeta scintillation counter, and Thermofisher QUBIT 4 Flourometer Wifi Box.

Imaging Facility: Carl Zeiss Microimaging LSM 700 Confocal Laser Scanning System, Licor Odyssey Infared Imager, Bio-Rad TransBlot Turbo, VWR e5430r refrigerated benchtop micro centrifuge, UVP EpiChemi II Darkroom, Hybridization Oven and ~~Storm Phosphorimager.~~

Cell Analytics Facility:BD FACS Calibur Analyzer, Orflo Moxi-Go, ACEA Biosciences xCELLigence RTCA DP system, Hypoxia chamber, and MEA2100 system (multi-microelectrode arrays).

Genomics Facility: VWR epMotion 5073 liquid handling robotic system and a Diagenode Pico Disruptor, Oxford Nanoore Sequencer and 10x Chromium ix, ~~nanopore sequencer,~~ FreezerWorks laboratory management software and -135 freezer.

Proteomics Facility:FPLC, Lablanco freeze zone 4.5 plus, Bio Rad Protein Purification System, and BMG LabTech CLARIOstar and Fluostar.

Histology Facility**:** Leica cryostat (CM1850 and CM1860), microtomes, paraffin embedding station.

Nikon Center of Excellence Cell Imaging Core: Nikon N-SIM E and A1+R combined Super Resolution and Confocal Imaging System and a Neurolucida 360 imaging station/software.

AAALAC-Accredited Animal Facilities: phenotyping equipment, including a Med Associates animal locomotor tracking system, Noldus behavioral mouse maze, Neurostar motorized stereotaxic system, microdialysis set up.

**Max Plank Core Equipment.** Through a reciprocity agreement, FAU faculty and trainees have access to the specialized core facilities at the Max Planck Florida Institute of Neuroscience located on the FAU Jupiter campus. This includes the following equipment:

Electron Microscopy Core: FEI Tecnai transmission electron microscope, Zeiss Merlin VP Compact scanning electron microscope, High-pressure freezing system (HPM100), Automatic freeze-substitution device (AFS), Cryo-preparation system (CPC), Ultramicrotome (UC7), and a Freeze-fracture system (JFDV).

Microscopy Core: Zeiss LSM 780 confocal system, Leica SP5 II resonant confocal system, and a Prairie Moving In Vivo Multiphoton system.

Mechanical Workshop: 5-axis high-speed CNC milling machine and a 3+2-axis CNC milling machine.

**Scripps Florida Core Equipment.** Through a reciprocity agreement, FAU faculty and trainees have access to the specialized core facilities at the Max Planck Florida Institute of Neuroscience located on the FAU Jupiter campus. This includes the following equipment:

Flow Cytometry Core: BD FACSAria3, BD FACSAria Fusion, BD LSR2, Beckman Coulter Gallios, BD Canto, LCM microscope, Hemavet 950FS, BD 12x75mm tube with cell strainer cap, and LEICA LMD 7000.

Genomics Core: Illumina NextSeq500, ABI SOLID5500 and EZ Bead system, Ion Torrent Personal Genome Machine, Ion Torrent Proton, Affymetrix GeneChip System, Quantitative RT-PCR: a Roche Light Cycler 480 instrument and an Applied Biosystems A Step One Plus instrument, Agilent 2100 Bioanalyzer and Tapestation 2200, and a Hamilton Microlab STARlet Robotic Liquid Handler Unit.

High-Throughput Screening: Agilent 1200 series LCMS with multimode mass spectrometry (ES, APCI, ELSD). Microbiology: PCR machines, post-PCR equipment, Akta FPLC, Spiral Biotech spiral platers and Qcount imaging colony counters.

High Performance Computing: more than 456 processors and 456 GB of distributed memory, several small-scale SMP machines for memory-intensive tasks, two large dedicated SMP machines each with 128 GB of RAM and 32 cores.

Histology: VIP Tissue Processor, BIOCARE NxGen Decloaking Chamber, Rotary Microtome, Staining Center, Leica Cryostat, and Zeiss Axio Microscope/Camera Software.

Metabolic Core: CLAMS units, Minispec LF-50/mq 7.5 NMR (Brucker Optics) analyzer, BioDAQ system (Research Diets), Metabolic Cages (Tecniplast), DSI Telemetry Systems (Data Sciences International), MC4000 blood pressure and heart rate analyzer for mice (Tailcuff method, Hatteras Instruments), Mouse Ox Plus Vital signs monitor (Starr Life Sciences). Laboratory Tests and Instrumentation: The Cobas c311 clinical chemistry analyzer (Roche Diagnostics), a GM7 analyzer (Analox instruments), a Luminex 200 (Luminex Coorporation), 24 and 96-wells Sea Horse analyzers (SeaHorse Biosciences), and an AR-2000 radio-TLC Imaging Scanner (Eckert & Ziegler).

Nuclear Magnetic Resonance (NMR): three Bruker nuclear magnetic resonance instruments, two Avance 400 MHz ULTRAShield instruments and one Avance III 700 MHz ULTRAShield instrument. The machines run 24 hours a day, 365 days of the year and are fully equipped to run multi-nuclear 1D and 2D experiments, with both direct and indirect detection for a variety of nuclei.

Proteomics and Mass Spectrometry: ThermoQ Exactive with Thermo Easy-nLC 1000 Liquid Chromatograph, Thermo LTQ Orbitrap with Eksigent NanoLC Ultra, Thermo LTQ-ETD with Agilent HP1100, Bruker MALDI-ToF (MicroFlex), Agilent 1100 with UV and fraction collector HPLC, TA Nano Isothermal Titration Calorimeter (ITC).

X-Ray Crystallography Core Facility: Minstrel III, RoboIncubators, Leica stereomicroscope, Gryphon Crystallization Robot, **Bruker AXS Smart APEX CCD** ﻿diffraction system, Rigaku MicroMax-007 HFM X-ray generator with a VariMax HR optics and an X-Stream 2000 crystal cryo-freezing system, Mar345dtb image plate detector, and **Proteros Free Mounting System (FMS).**