

Center of Experimental Surgery

The Center of Experimental Surgery is equipped with:

1) An X-Ray mobile radiography system (Practix 300 PHILLIPS)

2) A C-Arm diagnostic x-ray image acquisition system (BV libra PHILIPS)

3) The Sonometrics system. Small piezo-electric transducers can be implanted or attached to soft tissue structures (cardiac muscle, skeletal muscle, arteries, veins, heart valves, etc.) and the distances between the transducers can continuously be measured. This information can be used to quantify the active and passive functional properties of moving organs, arteries, etc. The Sonometrics unit is also an acquisition system, it can store data from 6 invasive pressures (fluid filled transducers or Millar) and up to a total of 16 analogue signals (ecg, flow etc). (SONOMETRICS Corporation, Canada)

4) MILLAR tip manometer pressure transducer catheters

SPC-721 Dual sensor, non lumen, 2.5F

SPC-450 Single sensor, lumen, sampling/slow speed injection, 5F

SPC-760 Dual sensor, lumen, sampling/slow speed injection, 6F

SPR-249A Single sensor, no lumen, 3F

MPC-500 Single sensor, no lumen, 5F

5) A Millar Pressure-Volume conductance system for measurement of left ventricular volume and pressure in rats (Aria-1, MILLAR INSTRUMENTS)

6) Perivascular Flowmeter TRANSONIC SYSTEMS T403, 4 channels

Probes available:

MC2PRB, MC3PRB, MC4PRB, MA2PSS, MA2PSB, MA2.5PSS, MA2.5PSB, MA4PSB, MA10PSB, MA12PSS, MA12PSB, MA12PAX, MA14PAX, MA16PAX, MA20PAX, MA24PAX, MA28PAX, MA1PRB, MA1.5PRB (the number indicates the diameter (in mm) of the vessel the probe can be used with)

7) A WITT BIOMEDICAL Physiomonitring unit for hemodynamic studies and measurements of 4 Invasive Pressures, 12 lead ECG, Cardiac Output, SpO₂, NIBP and Temperature

8) A Sarns 5000 Extracorporeal machine with 5 pumps

5 Sarns individual portable pumps

A Sarns heater-cooler machine

9) Blood Gas analyser (Irma, DIAMETRICS MEDICAL) measures or calculates, from 1ml of blood: pH, pCO₂, pO₂, Hct, Na⁺, HCO₃, TCO₂, BEb, BEecf, O₂Sat, tHb, iCa(N)

10) Vital signs monitors (ECG, Temp, SpO2, NIBP)

2 Passport 2, DATASCOPE

2 Dash 2000 pro, GE

11) Defibrillator (Responder 3000, GE)

12) Stereo and Diagnosis Microscope, 5 step (4x-30x) magnification changer and 3 objectives (f=200mm, f=300mm, f=400mm) (OP 5F, SFBN)

13) Ventilators

4 Ventilators suitable for rabbits and pigs (EMC2000, Hallowell)

1 portable Ventilator for rabbits and pigs (Transpoc 2, Simspneu pac)

2 Ventilators suitable for mice, rats and rabbits (Inspira AH55-7058, Harvard Apparatus)

14) Anesthetic machines

2 for Isoflurane induced anaesthesia (MDS Matrix)

1 for Sevoflurane induced anaesthesia (MDS Matrix)

15) Dual-channel syringe pump (Twinfuse, GRASBY)

16) Intensive Care Units

2 ICUs for large animals (Regal ICU, SUBURBAN)

12 ICUs for small animals (Regal TU, SUBURBAN)