

**CELLULAR PHYSIOLOGY**  
**EQUIPMENTS AND SERVICES**

**EQUIPMENTS**

Equipment	Manufacturer	Model	Self-service equipment	Equipment with technical support
Operetta cellular imager	PerkinElmer	Operetta	yes	yes
Extracellular Flux Analyser	SeaHorse BioScience	XF24-3	yes	yes
EnVision multilabel plate reader	PerkinElmer	2104	yes	yes
Nikon slide scanner	Nikon	LS 9000ED	yes	yes
High definition Aperio slide scanner	Aperio	ScanScope CS	yes	yes
Image analysis software Columbus	PerkinElmer	Columbus	yes	
Calorimeter	Parr	6200	yes	yes

**SERVICES**

**Metabolism-related determinations**

**Immunoassay & biochemical determinations**

Quantification of hormones, cytokines and peptides (insulin, c-peptide, glucagon, GLP-1, TNF $\alpha$ , leptin, IL-6, etc) in plasma/serum and incubation media via ELISA and AlphaLISA.

**Measurement of beta & alpha cell masses by immunohistochemistry**

Quantification of beta and alpha cell masses,  $\beta$  cell /  $\alpha$  cell ratio, cell proliferation (Ki-67) and apoptosis (TUNEL) by immunohistochemistry as well as morphometry measurements using an Aperio slide scanner.

## **Seahorse XF24-3 flux analyzer**

The Seahorse XF24-3 instrument analyzes mitochondrial respiration and glycolysis in live cells. More specifically it measures oxygen consumption, CO<sub>2</sub> production and extracellular acidification using special detectors (label-free assays).

## **Operetta high content imaging system**

Measurement of various cellular activities by high content fluorescence imaging using the Operetta imager. The Operetta allows the quantification of cell activities such as apoptosis, proliferation, migration, intracellular protein translocation, mitochondrial mass & activities in 96/384 well plate format, in confocal or non-confocal mode.