

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

List of instruments and equipment available at the LTTA Laboratory subject to the 'Rules on the sharing of Instruments and Equipment' (Mod. M3-PR-STR).

DESCRIPTION OF EQUIPMENT	FUNCTIONS	CURRENT LOCATION	METHOD OF USE	CONDITIONS OF USE	CONTACT	AGREEMENT (1)
<p>Microscopy system Scan^R workstation</p> <p>Automated station for digital imaging of cytometric parameters in live cells</p>	<p>The automatic recognition of objects enables the use of high content/throughput protocols to study the principal cellular events (apoptosis, necrosis, autophagy/mitophagy, cell cycle, morphological changes, protein expression, automated analysis for FISH, and protein localization and translocation).</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Digital and Confocal Microscopy service at: www.ltta.tecnop.oloferara.it</p>	<p>Dr. Sonia Missiroli e-mail: sonia.missiroli@unife.it Prof. Paolo Pinton e-mail: pnp@unife.it</p>	<p>YES</p>
<p>Microscopy system Xcellence workstation</p> <p>Multiple wavelength high resolution fluorescence microscopy system</p>	<p>The system's high resolution enables 2D/3D analysis of intracellular structures and organization (i.e. mitochondria, endoplasmic reticulum, and cytoskeleton) and live measurement of ratiometric probes such as fura or pericam to be performed.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Digital and Confocal Microscopy service at: www.ltta.tecnop.oloferara.it</p>	<p>Dr. Sonia Missiroli e-mail: sonia.missiroli@unife.it Prof. Paolo Pinton e-mail: pnp@unife.it</p>	<p>YES</p>
<p>Microscopy system Live Scan Swept Field Confocal Microscope</p> <p>High-speed confocal fluorescence microscopy system for in vivo analysis of multiple cell parameters</p>	<p>The system enables simultaneous measurement of cell parameters such as $[Ca^{2+}]$ (cytoplasmic/mitochondrial), protein translocation, reorganization of cellular structures, and vesicular generation, loss and fusion.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Digital and Confocal Microscopy service at: www.ltta.tecnop.oloferara.it</p>	<p>Dr. Sonia Missiroli e-mail: sonia.missiroli@unife.it Prof. Paolo Pinton e-mail: pnp@unife.it</p>	<p>YES</p>

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

<p>XF96 Extracellular Flux Analyzer Plate reader for throughput study of cellular metabolism</p>	<p>The instrument is specifically designed to measure in real-time energy metabolism in living cells, permitting to quantify simultaneously mitochondrial respiration and glycolysis in a simple, efficient, ease-of-use assay.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Digital and Confocal Microscopy service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Dr. Sonia Missiroli e-mail: sonia.missiroli@unife.it Prof. Paolo Pinton e-mail: pnp@unife.it</p>	<p>YES</p>
<p>AutoMACS pro-separator Automated system for purification of cell subsets, using immunomagnetic procedures</p>	<p>The instrument and the technology applied allow that almost any type of cell, even directly from whole blood, can be isolated or enriched, using fully standardized procedures.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Biobank service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Dr. Rebecca Voltan e-mail: rebecca.voltan@unife.it Prof. Paola Secchiero e-mail: paola.secchiero@unife.it</p>	<p>YES</p>
<p>MAGPIX System Platform for Immunoassays</p>	<p>The MAGPIX system is a versatile and compact immunoassay platform designed for the simultaneous analysis of up to 50 markers in single biological samples. The system provides users with a powerful multiplexing tool that offers higher sample analysis throughput, increased assay flexibility and reduced sample volume (25µl).</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Biobank service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Dr. Rebecca Voltan e-mail: rebecca.voltan@unife.it Prof. Paola Secchiero e-mail: paola.secchiero@unife.it</p>	<p>YES</p>
<p>Integrated biobanking system Biobanking solution platform, cryogenic containers, CO₂ incubators, biohazard cabinets, centrifuges, refrigerators and freezers</p>	<p>The computerized banking system with dedicated software enables the cryopreservation and cataloguing of cells and tissue samples in liquid nitrogen with automated refill. This ensures the confidentiality of the clinical data and the anonymity of samples which are traceable only by using a barcode reader. The laboratory is equipped for the</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Biobank service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Dr. Rebecca Voltan e-mail: rebecca.voltan@unife.it Prof. Paola Secchiero e-mail: paola.secchiero@unife.it</p>	<p>YES</p>

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

	preparation of primary cell cultures from tissues and associated pharmacological studies.					
<p>Cell Sorter BD FACSAria II</p> <p>High performance cytometer and cell sorter for basic research applications. With 4 laser sources (blue - 488 nm, red - 633 nm, violet - 405 nm, near UV - 375 nm), it can detect up to 9 fluorescence parameters. The cytometer is provided with four nozzle sizes (70, 85, 100, and 130 µm) to accommodate a variety of particle sizes. Equipped with the breakoff monitoring system to automatically adjust the amplitude to maintain the same break-off value throughout a sort.</p>	<p>Suitable for applications in basic research, clinical practice and in clinical trials. Isolation of highly purified viable cell populations from several types of human and animal tissues, using high-throughput cell sorting. The sorts can be sterile or non-sterile and will be set up by the FACS operator according to your requirements. The sorted cells are collected in a variety of vessels including: 15 ml Falcon tubes for 2-way sort, 5 ml FACS tubes for 4-way sort, 1.5 ml and 1.0 ml microcentrifuge tubes, 6,12,48 and 96-well plates and microscope slides.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – third floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Flow Cytometry and Cell Sorting service at: www.ltta.tecnop.olo ferrara.it</p>	<p>Dr. Elisabetta Melloni e-mail: elisabetta.melloni@unife.it Prof. Giorgio Zauli e-mail: giorgio.zauli@unife.it</p>	<p>YES</p>
<p>BD FACSCalibur Analyzer</p> <p>Bench flow cytometer with two light sources: air-cooled argon laser with emission at 488 nm and a solid state laser (visible red diode laser) with emission at 635 nm, for analysis of up to 4 colours. Equipped with the DDM (Doublet Discrimination Module) system, through the detection of FL2-A and FL2-W, can discriminate doublets in samples, which allows true expression of diploid DNA content of a single cell.</p>	<p>Suitable for applications in basic research, clinical practice and in clinical trials. Analysis of transfected cells with fluorescent molecules. Immunophenotyping of blood cells or tissue through antigens or markers presents on their surface. Cell cycle and apoptosis studies following in vitro pharmacological treatments.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – third floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Flow Cytometry and Cell Sorting service at: www.ltta.tecnop.olo ferrara.it</p>	<p>Dr. Elisabetta Melloni e-mail: elisabetta.melloni@unife.it Prof. Giorgio Zauli e-mail: giorgio.zauli@unife.it</p>	<p>YES</p>

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

<p>Beckman Coulter Epics XL MCL Standard instrument for flow cytometry analysis, in a compact yet versatile benchtop analyser capable of analyzing up to four fluorochromes with a single air-cooled argon laser (488 nm). Acquisition by automated carousel sample holder.</p>	<p>Suitable for applications in basic research, clinical practice and in clinical trials. Cell differentiation monitoring. Characterization of circulating cell subpopulations in peripheral blood of humans or laboratory animals. Cell proliferation. Quantitative evaluation of cell apoptosis and ploidy studies following in vitro drug treatment. Transfections monitoring that require the use of fluorescent molecules.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – third floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Flow Cytometry and Cell Sorting service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Dr. Elisabetta Melloni e-mail: elisabetta.melloni@unife.it Prof. Giorgio Zauli e-mail: giorgio.zauli@unife.it</p>	<p>NO</p>
<p>Corbett Rotor Gene 6000 Real time-thermal cycler</p>	<p>Gene expression analysis (and real-time PCR applications). miRNA detection. Virus detection. Genotyping (SNPs and mutations). Methylation analysis.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – third floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Please ask for a quote.</p>	<p>Dr. Elisabetta Melloni e-mail: elisabetta.melloni@unife.it Prof. Giorgio Zauli e-mail: giorgio.zauli@unife.it</p>	<p>YES</p>
<p>Laser microdissection and microscopy System Leica DM6000B</p>	<p>Leica DM600B is a laser microdissection platform that permit to separate and collect single cells or cell clusters for further analyses, such as PCR, RT-PCR and proteomics.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Animal Facility service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Prof. Silvano Capitani E-mail: silvano.capitani@unife.it Prof. Michele Simonato E-mail: michele.simonato@unife.it</p>	<p>YES</p>
<p>SEM Zeiss EVO 40 Scanning electron microscope</p>	<p>The instrument gives information about the morphology and surface topography from large areas by using the zoom function (one mm side length) down to submicrometer scale. Possibility to operate either conventionally under high vacuum or under variable pressure (SEM XVP).</p>	<p>Electron Microscopy Centre of University of Ferrara, Chemical and Bio-medical Centre - basement floor Via Luigi Borsari, 46 – 44121 Ferrara</p>	<p>Available on reservation, directed by dedicated staff, with the presence and participation of users</p>	<p>Pricelist: see Electron Microscopy service at: www.ltta.tecnop.oloFerrara.it</p>	<p>Prof. Silvano Capitani E-mail: silvano.capitani@unife.it Dr. Maria Rita Bovolenta E-mail: bvm@unife.it</p>	<p>YES</p>

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

<p>Hitachi H800 Transmission electron microscope</p>	<p>The ultrastructure of biological preparations, the morphology of nanoparticles and the structural analysis of defective areas in crystalline materials can be observed. Maximum acceleration voltage: 200 kV Images on photographic plates</p>	<p>Electron Microscopy Centre of University of Ferrara, Chemical and Bio-medical Centre - basement floor Via Luigi Borsari, 46 – 44121 Ferrara</p>	<p>Available on reservation, directed by dedicated staff, with the presence and participation of users</p>	<p>Pricelist: see Electron Microscopy service at: www.ltta.tecnop.oloferara.it</p>	<p>Prof. Silvano Capitani E-mail: silvano.capitani@unife.it Dr. Maria Rita Bovolenta E-mail: bvm@unife.it</p>	<p>NO</p>
<p>TEM Zeiss EM 910 Transmission electron microscope</p>	<p>The ultrastructure of biological preparations, the morphology of nanoparticles and the structural analysis of defective areas in crystalline materials can be observed. Maximum acceleration voltage: 120 kV Digital images</p>	<p>Electron Microscopy Centre of University of Ferrara, Chemical and Bio-medical Centre - basement floor Via Luigi Borsari, 46 – 44121 Ferrara</p>	<p>Available on reservation, directed by dedicated staff, with the presence and participation of users</p>	<p>Pricelist: see Electron Microscopy service at: www.ltta.tecnop.oloferara.it</p>	<p>Prof. Silvano Capitani E-mail: silvano.capitani@unife.it Dr. Maria Rita Bovolenta E-mail: bvm@unife.it</p>	<p>YES</p>
<p>Nanoscope III Digital Instruments Atomic force electron microscope</p>	<p>It is possible to observe surface topography down to nanometric level, the dimensions of particles even vertically respect to the plane of the sample (section analysis), roughness, the Fourier spectrum, the presence of magnetic domains of submicrometric dimension (in MFM) in combination with the topography of the area scanned.</p>	<p>Electron Microscopy Centre of University of Ferrara, Chemical and Bio-medical Centre - basement floor Via Luigi Borsari, 46 – 44121 Ferrara</p>	<p>Available on reservation, directed by dedicated staff, with the presence and participation of users</p>	<p>Pricelist: see Electron Microscopy service at: www.ltta.tecnop.oloferara.it</p>	<p>Prof. Silvano Capitani E-mail: silvano.capitani@unife.it Dr. Maria Rita Bovolenta E-mail: bvm@unife.it</p>	<p>NO</p>
<p>Equipment package for cell cultures (Safemate 1.2, MVE CryoSystem 2000, SI50 orbital incubator, Julabo SW20 water bath, Heraeus incubator, EnVision Xcite Multilabel Plate Reader)</p>	<p>Maintenance and expansion of immortalized cell lines and preparation of primary cells, cellular assays and signal transduction pathway studies with bioactive molecules.</p>	<p>Sezione di Endocrinologia c/o University Hospital of Ferrara Via Aldo Moro 8 – 44124 Cona, Ferrara</p>	<p>Access permitted to laboratory researchers only</p>	<p>Pricelist: see Molecular Interactions, Biomarkers And Delivery service at:</p>	<p>Prof. Maria Chiara Zatelli e-mail: ztlmch@unife.it Dr. Erica Gentilin e-mail: erica.gentilin@unife.it</p>	<p>NO*</p>

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

				www.ltta.tecnop.oloFerrara.it		
Equipment package for real-time PCR and sequencing (<u>Verity thermal cycler</u> , <u>Gene Amp 9700 thermal cycler</u> , <u>Fast thermal cycler 9800</u> , 3130 Genetic Analyzer sequencer, 7900 HT Real-Time PCR system, GEL DOC XR System)	Genotype-phenotype correlation studies, polymorphism analysis.	Sezione di Endocrinologia c/o University Hospital of Ferrara Via Aldo Moro 8 – 44124 Cona, Ferrara	Access permitted to laboratory researchers only	Pricelist: see Molecular Interactions, Biomarkers and Delivery service at: www.ltta.tecnop.oloFerrara.it	Prof. Maria Chiara Zatelli e-mail: ztmch@unife.it Dr. Erica Gentilin e-mail: erica.gentilin@unife.it	NO*
Equipment package for protein expression analysis (<u>Pharos FX Molecular Imager</u> , <u>EXQUEST Spot Cutter</u> , PD Quest software)	Protein expression analysis using two-dimensional electrophoresis with spot cutter.	Dep. of Biochemistry and Molecular Biology, basement floor _ Lab. Great Instrumentations via Luigi Borsari, 46, 44121 Ferrara	Access permitted to laboratory researchers only	Pricelist: see Molecular Interactions, Biomarkers and Delivery service at: www.ltta.tecnop.oloFerrara.it	Prof. Mirko Pinotti e-mail: pnm@unife.it	NO*
Agilent 6520 Accurate-Mass Q-TOF LC/MS system coupled to a nano-HPLC	The Accurate-Mass Q-TOF LC/MS system is designed to provide superior data quality and advanced analytical capabilities for profiling, identifying, characterizing, and quantifying low molecular-weight compounds and biomolecules with confidence. It is possible to perform fragmentation experiments and to analyze complex matrices for the detection of biomarkers and metabolites	Laboratory LTTA Dep. of Chemical and Pharmaceutical Sciences – second floor Via Fossato di Mortara 17, 44121 Ferrara	Only dedicated staff	Pricelist: see Molecular Interactions, Biomarkers and Delivery service at: www.ltta.tecnop.oloFerrara.it	Dr. Remo Guerrini e-mail: remo.guerrini@unife.it	YES
Scanner for microarray image acquisition and quantification	The instrument allows high resolution reading (up to 2 μ m) of gene expression and microRNA arrays,	Laboratory LTTA Chemical and Bio-medical	Only dedicated staff (laboratory recognized as a	Pricelist: see Bioinformatics service at:	Prof. Massimo Negrini e-mail: ngm@unife.it	NO

LIST OF SHARED INSTRUMENTS AND EQUIPMENT

<p>Agilent High-Resolution Microarray Scanner Bundle It includes scanner with a resolution of 10 to 2 µm, PC and LCD Monitor, Barcode Reader & Feature Extraction Software.</p>	<p>CGH arrays, methylation analysis arrays, SNP and CNV arrays from Agilent, and compatible arrays from other companies. Image processing is managed by Feature Extraction software.</p>	<p>Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Certified Service Provider by Agilent)</p>	<p>www.ltta.tecnopolo ferrara.it</p>	<p>Dr. Manuela Ferracin e-mail: manuela.ferracin@unife.it</p>	
<p>Software for microarray data analysis GeneSpring GX software Instrument for the visualisation and analysis of gene expression, genomics, proteomics and metabolomics data.</p>	<p>Complete software for the analysis of microarray data. It enables classification, prediction and GWAS pathway analysis to be performed. It can also be used on external data from any commercial or custom platform.</p>	<p>Laboratory LTTA Chemical and Bio-medical Centre, 'CUBO' – second floor Via Fossato di Mortara 70, 44121 Ferrara</p>	<p>Only dedicated staff (laboratory recognized as a Certified Service Provider by Agilent)</p>	<p>Pricelist: see Bioinformatics service at: www.ltta.tecnopolo ferrara.it</p>	<p>Prof. Massimo Negrini e-mail: ngm@unife.it Dr. Manuela Ferracin e-mail: manuela.ferracin@unife.it</p>	<p>NO</p>

⁽¹⁾ Indicate YES if the equipment was purchased with funds from the Technopole and is therefore accounted for under the agreement. Indicate NO if the equipment was purchased using other funds but will still be made available to the Network.

* The instruments underlined were co-financed.