



INDUSTRIAL PARTNERS











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Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

The future of imaging: from Microscopy to Unique Single Molecule Detection

Name : Dassine Zouaoui, Nicolas Bourg

Presentation of the new Abbelight SAFe imaging platform covering from microscopy to nanoscopy SMLM. During this presentation, we will describe all Abbelight technologies to improve reliability and throughput of TIRF and SMLM imaging. The Abbelight product team will be there to answer all your questions but also to take into consideration your imaging needs.







Room : Port Cros

Abbelight SAFe MN360

https://www.abbelight.com/solutions/bioimaging-instruments/

Description

Study from classical structural microscopy to extremly precise nanoscopy, with the most modular and complete platform endowed with the latest cutting-edge technology

The only multimodal microscopy and super resolution solution on the market offering a wide choice of extensively used imaging possibilities: WF, TIRF, 2D and 3D SMLM to offer researchers with a single complete and modular instrument answering with the highest precision to different problems in different fields of application such as study of membranes, neurosciences, cell biology etc...

Applications

Neuroscience Oncology Biophysics Microbiology Genomics



Figure 1 Two colors nanoscopy SMLM imaging of Tubulin and ER. Images acquired simultaneously using DNA-PAINT and multi-channel feature of the SAFe MN360. This image was obtained during **MiFoBio 2021**









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Practical Set-up Focus Friday 10 November from 2.00 pm to 3.45pm

Dr Gero Schlötel, Dr Dennis Uhlenkamp & Dr Frédéric Eghiaian

Stretching the application range of confocal and super-resolution with Abberior STED, Adaptive Optics, MATRIX dector and Timebow lifetime







Room : Club Enfant bas – salle 2 FACILITY LINE

https://abberior.rocks/superresolution-confocal-systems/facility/

Description

Abberior FACILITY LINE is an advanced multicolor confocal and 3D STED system, which proposes the highest 2D (25nm) and 3D STED (75nm) resolution, and a unique capability of volumetric high-resolution confocal and STED super-resolution at depths of several tens of micrometers, thanks to adaptive optics based on a deformable mirror. Based on a motorized inverted base, FACILITY LINE provides up to 5 excitation lines, 2 pulsed STED lasers (775 and 595nm), gated APD detection with fully tunable spectral bandwidth (400 to 800nm). Both confocal and STED are accessible with various immersions (here oil and water). In addition to highly efficient gated APD detectors, FACILITY LINE is equipped with an array detector (MATRIX) for improved confocal, denoising, combination of lifetime imaging with STED microscopy, and unparalleled STED dose reduction with adaptive illumination.

Applications

In addition to standard confocal imaging and state-of-the-art STED, FACILITY LINE is the only microscope enabling high-resolution confocal and super-resolution imaging deep in tissues (down to 100 μ m), with demonstrated applications in many fields of biology such as neurosciences (see figure: brain slice, from Ali Jalil, SPINN, imaged at MiFoBio 2021), developmental biology, plant sciences, organoïds...









Room : Club Enfant bas – salle 2 STEDYCON

https://abberior.rocks/superresolution-confocal-systems/stedycon/

Description

The STEDYCON is a multi-color confocal and STED module made for upgrading a wide range of upright or inverted optical microscopy bases. The STEDYCON allows 2D pulsed, gated STED at 775nm up to a maximum resolution of 35nm in one color (down to <55nm in 2-colors). Most importantly, its aligned-by-designed geometry, small size and intuitive software makes it a robust, user-friendly confocal and STED requiring very little maintenance. Combined here with a motorized inverted base, the STEDYCON provides 4 excitation lines, 1 pulsed STED laser (775nm), gated APD detection, one 100x oil objective for confocal and STED, and a 20x air objective for exploration. The STEDYCON software offers most basic confocal imaging modes such as xy, xyz imaging, z slices, multi-position and mosaic imaging, and time-lapse.

Applications

The STEDYCON provides any user with straightforward access to basic confocal modes, as well as STED on fixed and living cells (figure: 2 color confocal and STED on Golgi). The first layers of a tissue may be imaged in STED, and auto-fluorescent samples may benefit from gated detection (plant cells...). The STEDYCON has found many applications in neurosciences, mitochondria, meiosis, microbiology, virology...











Room : Cell Culture Room – La Capte

Abberior Labels & Media

https://abberior.rocks/dyes-and-labels/

Description

A sister company of Abberior Instruments, Abberior Labels develops fluorescent dyes and probes optimized for all purposes, in particular STED and MINFLUX superresolution nanoscopies. Probes include antibodies, cytoskeletal probes, DNA probes, membrane dyes, SNAP & Halo substrates, "clickable" substrates. In addition, Abberior Labels also produces STED-compatible test slides containing fixed cells, or fluorescent beads. In the context of MiFoBio 2023, Abberior Labels puts at disposal of all users a series of fluorescent probes and mounting media, including:

- -Secondary antibodies with STAR RED, ORANGE, GREEN and 460L
- -Mounting medium (polymerizing or liquid)
- -Possibly other fluorescent labels

Applications

Abberior Labels are suitable for a broad range of fixed and live fluorescence applications, and are compatible with all fluorescence imaging technologies.











<u>https://andor.oxinst.com/</u>

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Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

3D SMLM Super Resolution made accessible with New B-TIRF combined with HLE

Bruno Combettes and Benoit Binctin

Dragonfly 600 : The game changer in confocal microscopy and super-resolution

Dragonfly 600 spinning disk confocal delivers leading performance for both industrial and academic users. It integrates super-resolution solutions compatible with confocal, widefield or TIRF. Furthermore, it incorporates the newly developed High Power Laser Engine (HLE) and new TIRF imaging modality, which exploits Borealis® illumination, B-TIRF (Borealis TIRF) for easy setup, more even illumination and thus more usable data across the field of view.







Room : Club Enfant bas – salle 5

Dragonfly 600

Dragonfly Confocal Microscope System - Andor - Oxford Instruments (oxinst.com)

Description

Dragonfly Spinning disk confocal microscope B-TIRF High Power Laser Engine Nikon Ti2 3D Astigmatic lens

Applications

3D SMLM DNA Paint STORM PALM











Room : Club Enfant bas – salle 5

BC 43

<u>BC43 – The Ultimate Benchtop Confocal Microscope - Andor - Oxford Instruments</u> (oxinst.com)

Description

Transmitted Light DPC imaging Epi-fluorescence Light Confocal spinning disk High end imaging directly on the Bench Stitching Deconvolution

Applications

Live sample, Fixed samples to have high quality confocal imaging directly on the Bench











Room : Bergerie

Imaris Microscopy Image Analysis Software

Imaris is the world's leading Interactive Microscopy Image Analysis software, actively shaping the way microscopic images are processed through constant innovation and a clear focus on 3D and 4D imaging.

The power of Imaris lies in our multiple detection models and the versatility they provide for all users and their research problems. Our 4 models (Spots, Surfaces, Cells and Filaments) can be harnessed to detect and analyse almost all biological samples, including cells, nuclei, nucleoli, bacteria, viruses, organs, neurons, dendritic spines, blood vessels etc. Using them with alongside Imaris' other tools opens the possibility to analyse dynamics of objects over time as well as their relationships with other objects in the image and to present these data in an elegant and informative fashion.

Applications

Imaris will be present in many workshops along with different modality systems of different brands where you'll be able to see multiple applications.

Also, every day after lunch and before the first workshop, Imaris Flash Tutorials will train you on different functionalities needed for 3D visualisation and quantification of : Cleared samples, Organoids, Embryos, Astrocytes, Neurons, Spines, Tissue...











Web link: <u>www.bruker.com</u>

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Twitter: https://twitter.com/BrukerNano

Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

"Multiparametric AFM, Multiphoton, SMLM and SPIM Correlative Microscopy Solutions from Bruker Nano Surfaces"

Alexander Dulebo, Romina Macco, Juergen Mayer

Join us for an engaging session where you can learn about the latest bio AFM, advanced optical and super-resolution correlative microscopy solutions from Bruker Nano Surfaces. During the meeting you will have the opportunity to learn about recent products, NanoWizard V BioAFM for quantitative nano-mechanical imaging, Ultima 2Pplus all-optical multiphoton workstation, Vutara VXL single-molecule localization microscope, MuVi SPIM for multi-view selective-place illumination microscope as well as our data management solution Acquifer HIVE.







NanoWizard 5 Bio Atomic Force Microscope(AFM)

NanoWizard V

Description

NanoWizard 5 Bio Atomic Force Microscope (AFM) with CellHesion and FluidFM options

NanoWizard 5 AFM, a tip scanning BioAFM with 100x100x15 μ m (XYZ) scanning range, supplied with motorized stage (2x2 cm inspectable area). Will be equipped with additional CellHesion «head» that enables 100 μ m Z AFM probe movement needed for adhesion measurements or mechanical mapping of large rough samples like tissue. The AFM will be mounted on inverted manual Zeiss Axio Observer optical microscope equipped with fluorescent option (light source, filter cubes). Additionally, accessory for petri dish heating will be included and for doing FluidFM measurements (manufactured by Cytosurge company). Special microfluidic probes for FluidFM won't be included and should be provided by trainers. Regular AFM probes will be provided.

Applications

Imaging, force spectroscopy, adhesion measurements, mechanical mapping, microrheology measurements, FluidFM applications (single cell injection, single cell adhesion, spotting).











Ultima2Pplus

<u>Ultima2Plus</u>

Description

Multiphoton microscope that allows imaging of a wider portion of the biological sample both for structural and functional studies, offering a larger Field Of View in both galvo and resonant modes, without sacrificing signal collection efficiency, resolution and speed. Upright configuration, digital eyepiece/camera, 2 detectors (red/green) and High-Efficiency Detection module for better signal collection and imaging in depth, resonant scanner, rotating objective, XY moving base.

Applications

Investigation of cells, organoids, spheroids, tissue slices, small organisms (Zebrafish, Drosophila) and organs in living animals thanks to the high penetration performance, better resolution along the Z dimension and limited sample heating and damage. This powerful technique is optimal to study the physiology and pathology of the brain in neuroscience, as well as to elucidate biological aspects of life sciences in a broad range of other biomedical applications including immunology and oncology.











Vutara VXL

Vutara VXL

Description

Single Molecule Localization system to perform imaging at high resolution (20nm lateral, 50nm axial) also in thick samples. Inverted configuration, silicon oil objective 60x 1.3NA, proprietary biplane technology, 405nm - 488 nm - 555nm - 638nm high power lasers, Fusion BT sCMOS camera, integrated fluidics unit for multiplexing experiments

Applications

Wide range of applications including cell biology, immunology, cardiology, neuroscience, genomics, etc. Imaging at high resolution of molecules, proteins, vesicles, organelles, cell structures with STORM can be performed not only on thin monolayers of cells, but also in depth, for example on tissue slices and small organisms (Drosophila, C. Elegans), thanks to the VXL biplane 3D performance. Live cell imaging with PALM and 3D particle tracking. DNA-PAINT labeling for multiplexed Single Molecule Localization Microscopy.











MuVi SPIM

<u>MuViSPIM</u>

Description

Bruker's Multi-View Selective-Plane Illumination Microscope (SPIM) is not only the fastest light-sheet system on the market, but also incorporates years of Luxendo imaging experience and innovation. Due to its modular concept, MuVi SPIM facilitates both live-sample (LS) and cleared-sample (CS) imaging by an acquisition unit exchange. MuVi SPIM allows for high-speed volumetric acquisition of dynamic processes in live specimens, as well as cleared sample imaging with compatibility with any clearing method.

Applications

Live Samples : Developmental biology, marine biology, neurobiology and neurodevelopment, oncology. For example: drosophila, zebrafish, plants (subject to sample size requirements)

Cleared Samples: 3D microstructure analysis of tissues, brain and central nervous system tissues, organ development, Tumorigenesis

For example: organoids, mouse organs, tissues (subject to sample size requirements)











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Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Line re-scanning confocal solution ideal for fast and deep imaging of both fixed and living cells

Melvin Le Bihan

In this event we will introduce the groundbreaking NL5+ line re-scaninng confocal microscope solution. Following the presentation, participants are invited to a demonstration session, where they can witness the NL5+ in action, exploring its fast and photogentle imaging capabilities and versatility for biological applications.







Room : Club Enfant bas – salle 4

NL5+

https://www.confocal.nl/

Description

Phototoxicity is a central problem in the application of confocal microscopy for live cell imaging. To overcome these challenges, Confocal.nl developed the second generation of fast line rescanning confocal technologies. NL5+ excels in live cell imaging with camera-based detection and a slit pinhole design, delivering improved resolution, sensitivity, and signal-to-noise ratio while maintaining standard confocal sectioning. It's ideal for high-resolution studies of fast live cell dynamics, thicker specimens, and low-signal samples.

Transform any old fluorescence microscope into an advanced confocal system with NL5+. It offers flexibility in component choice, making it budget-friendly and future-proof. Available as a complete system for confocal, widefield, or brightfield imaging. NL5+ simplifies operation with optics-mechanics, ensuring consistent results and minimal training.

Applications

Our system excels in fast cell dynamics, live cell imaging, deep 3D imaging, and highcontent screening. It enables various applications, including cell migration, cytoskeleton dynamics, intra/extra-cellular transport, cell signaling, calcium imaging, developmental biology, regeneration, immunology, organoids, spheroids, zebrafish/mouse embryos, thick tissues, and drug discovery in 96-well plates.











EWIDENT

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Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Transform Your Imaging Experience with our Next Generation FluoView CLSM

Björn Sieberer, Stefan Marawske and Irina Rakotoson

We are personally inviting you at the MiFoBio2023 to be one of the first in Europe to learn about our latest imaging technology that will transform the way you think about precision imaging and broaden the spectrum of possibilities for your research.







Room : Port Cros

Next Generation FluoView CLSM

https://www.olympus-lifescience.com/en/landing/precision-imaging/

Description

Since 1919 Olympus, now Evident, has been manufacturing precision optical imaging technology to meet researchers' growing needs. During our over 100-year history, the company reimaged the traditional microscope by improving its functionality, including developing X-line objective lenses to improve performance and microscope bodies that are uniquely suited for various applications in the sciences.

Join us as we transform microscope imaging yet again. You will be able to acquire higher precision images with exceptionally low noise, empowering your research with more reliable and quantifiable data from your samples.

Applications

Mouse Cerebellum, Caenorhabditis elegans, nuclear structures marked with EGFP (cyan LUT) and cytoplasmic structures marked with mRuby (purple LUT), Wing in Drosophila (42 hours pupation), Tip of Leg in Drosophila (42 hours pupation)













<u>Cell & Tissue Scanner - Innopsys</u> <u>contact@innopsys.fr</u> <u>https://www.linkedin.com/company/innopsys/</u> https://twitter.com/innopsys

Practical Set-up Focus Friday 10 November from 2.00 pm to 3.45pm

French Fluorescence Whole-Slide Scanner

Lhorane LOBJOIS, Mathilde BOUAKIL, Cyril CAUCHOIS

Visit us and try out our latest product, made in France! Easy to use, you can quickly scan your slides in fluorescence thanks to our stitching-free technology. We'd be delighted to talk to you, so don't hesitate to drop in for a coffee - we'll be happy to help.







Room : Club Enfant bas – salle 1

InnoQuant

InnoQuant - Multiplexing, Fluorescent whole-slide scanner by Innopsys

Description

Innoquant is a whole slide fluorescence scanner (2D). Thanks to its 4 lasers (357nm, 488nm, 561nm, 640nm), this system allows you to excite your fluorochromes and recover the signal from all 4 channels simultaneously, up to a resolution of $0.5\mu m/pixel$. Thanks to their sensitivity, our detectors can recover low signals while maintaining a high signal to noise ratio. You can even add up to 6 additional filters per channel for your multiplexing experiments. So many possibilities! There's no need to spend time finding your sample or setting the focus - the software does it for you. With fast, continuous scanning, no stitching is required! Your images become one without homogeneity issues. Two models are available: a single slide version and an autoloader version (which can load 24 slides!) for high throughput experiments.

Applications

InnoQuant can scan many fluorescent sample types in 2D: from cells to thick tissues (1.6mm), while they're on a microscope slide. For example, biomarkers can be quantified in a whole tissue section, cell morphology can be analysed after treatment or tissue microarrays (TMA) can be used for diagnosis.











MORE THAN MICROSCOPY SOFTWARE

<u>https://inscoper.com/</u> contact@inscoper.com <u>www.linkedin.com/company/inscoper</u> <u>https://twitter.com/inscoper</u>

Practical Set-up Focus Friday 10 November from 2.00 pm to 3.45pm

Multi-colour confocal microscopy with MAICO I.S. solution

Otmane BOUCHAREB

Hamamatsu recently released a compact confocal unit that can be easily installed on the C-mount port of any inverted microscope. This bench-top microscopy module comes with 1-4 lasers (405, 488, 561, 638nm) and the most sensitive detectors (GaAsP-PMT).

Visit us to see the high quality of the images obtained with the MAICO I.S. solution.







Room : Club Enfant bas – salle 3

MAICO I.S. Solution

https://www.inscoper.com/maico-is/

Description

- Hamamatsu MAICO confocal unit
- Inscoper I.S. control & imaging solution

The MAICO I.S. solution enables fast multi-colour confocal imaging. Due to its MEMS mirror for high-speed scanning, the frame rate is 19fps at full detection area and can reach up to 76fps. Major advantages of MAICO I.S. for confocal imaging are low phototoxicity, low photobleaching and high detection efficiency thanks to the GaAsP detectors for live cell imaging or fixed samples.

Applications

Confocal imaging.

- 1. MAICO I.S. system
- 2. Comparison between MAICO I.S. acquisition (left) and widefield acquisition (right) of the mouse kidney section with Alexa Fluor 488 WGA, Alexa Fluor 568 phalloidin, DAPI













MICROSYSTEMS

Leica-microsystems website philippe.wurtz@leica-microsystems.com <u>Leica Microsystem on Linkedin</u> <u>Leica Microsystems on Twitter</u>

Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Come to see our new confocal platform STELLARIS 8 STED running Live

Clément LAIGLE

Clément will perform a "mini demo" regarding the new modalities of STELLARIS Near InfraRed Imaging

Integrated Fluorescence Life Time

Tau STED







Room : Ribaud

LEICA STELLARIS 8 FALCON STED

Leica STED website

Description

Confocal STELLARIS 8 with White Light Laser from 485 to 790 nm (with Pulse Picker) + laser 405 5 Spectral detectors HyD S X and R. Detection up to 850 nm. + BF detector. Fully spectral for excitation and emission. 8KHz Resonant scanner FLIM: Tau Sense toolbox and FACLON advanced tools. FCS STED: 660 and 775 depletion laser lines Fully motorized DMi8 inverted microscope. Objectives: 10x, 20x dry and mutli-immersion, 25x Water, 60x oil / STED 100x, and motorized 86x Water and 93x Glycerol (for STED on thick samples)

Applications

Multicolor confocal Spectral Imaging

FLIM, Biosensing, FRET, Dye separation etc...

Fixed and live samples

Multicolor (5 color) STED imaging. Tau STED with Life Time to improve image quality and lower phototoxicity. Low photo bleaching for live experiment X-STED











Room : Ribaud

STELLARIS 8 FALCON

Leica STELLARIS website

Description

Confocal STELLARIS 8 with White Light Laser (with Pulse Picker) from 485 to 790 nm + laser 405 5 Spectral detectors HyD S X and R. Detection up to 850 nm + BF detector. Fully spectral for excitation and emission. 8KHz Resonant scanner FLIM: Tau Sense toolbox and FACLON advanced tools. FCS Fully motorized DMi8 inverted microscope with DIC. Objectives: 10x, 20x dry and mutli-immersion, 25x Water, 60x water glycerol and oil FRAP / FRET

Applications

Multiplexing FLIM: Biosensing, FRET, Dye separation etc... FCS FRAP / FRET Autonomous microscopy











Room : Ribaud

MICA WIDEFOCAL

Mica website

Description

Fully automated, inverted research imaging system encapsulated in a nice design with precise scanning stage and high precision focusing.

- WF detection unit for FluoSync, detect and separate up to 4 labels simultaneously
- Fluorescence axis widefield and confocal. Transmitted light axis with condensor
- Automated modulation contrast unit
- Hardware Autofocus for drift correction as integral part of the focusing strategies
- Software Autofocus for image based focusing for use on demand and as integral part of the focusing strategies
- Sample Finder to find the sample sample and generation of an in-focus overview.
- Objectives HC PL FLUOTAR 1.6x, HC PL FLUOTAR 10x + APO 20x and 63x Water

Applications

Easy and automated multichannel imaging(4 channel in WF and confocal) 4 modalities: WF / Thunder / Confocal / LIGHTNING Live imaging / Time lapse Microfluidic











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Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

The keys to fast fluorescence imaging

Noel CONVERSET

Imaging of fast events in fluorescence requires hardware, software, and fine tuning of imaging parameters. We will see how to go from standard multichannel fluorescent acquisition to fast acquisition. Illumination hardware, fluorescence filter sets, TTL signals, software, and camera parameters, we will discuss how to deal with all of them to achieve the best speed performance.







Room : Club Enfant bas – salle 4

Spinning Disk - Lordil

https://www.lordil.fr/produit/crestoptics-spinning-disk-x-light-v2/

Description

The instrument consists in an

- Inverted motorized microscope ZEISS AxioObserver 7 with a
- CrestOptics X-light V2 spinning disk with laser 405, 488, 545, 637 nm.
- The microscope is equipped with XY motorized stage.
- The camera in a Hamamatsu Orca Fusion BT
- Software is ZEN Blue
- The system has triggers for synchronization to perform fast acquisitions.

Applications.

This system is dedicated for and fast acquisition experiment with sectioning.











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Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Light sheet Microscopy YES but not only for cleared Brain

Christian Feuillet – Simon Merz

We invite you to discover, through an immersive 3D and virtual reality experience, rare specimens such as snake embryos, spiders, and various insects, whose images were obtained using an Ultramicroscope Blaze. These samples will be used as a means to present to you the latest technological advancements in light sheet imaging and clearing







Room : Club Enfant bas – salle 1

Ultramicroscope Blaze

Light sheet microscopy | UltraMicroscope Platform | Miltenyi Biotec |

Description

The UltraMicroscope Blaze is a fully automated light-sheet microscope, specifically designed for imaging cleared samples ranging from a few cells up to an entire mouse, achieving remarkable subcellular resolution. Thanks to its groundbreaking multi-sheet technology and top-of-the-line optics dedicated to light-sheet microscopy, the UltraMicroscope ensures exceptional image quality and highly reliable data.

In this edition of MifoBio, we will unveil our brand-new ultra-fast acquisition modes, an innovation allowing for high-resolution captures. We are also thrilled to introduce our all-new software suite, MACSIQ 3D. Among other features, this suite includes innovative Denoising, Destripping, and Deconvolution modules, promising unprecedented light-sheet image renderings.

Applications

Observation of samples in 3 dimensions ranging from a few cells to a small animal evrfytime 3D geometry matter !













https://www.microscope.healthcare.nikon.com/en_EU/produc <u>ts</u> Contact : tony.fiore@nikon.com <u>https://www.linkedin.com/company/nikon-instruments-inc-/</u> <u>https://twitter.com/NikonInst</u>

Practical Set-up Focus Friday 10 November from 2.00 pm to 3.45pm

Presentation and hands-on experience of Nikon's new products

Tony Fiore, Christophe Machu, Benoit Ferrandi, Isabelle Delias and al.,

Come and talk to our teams about the latest technologies and innovations from Nikon Healthcare. If you're a keen player, you'll be able to take part in the little challenge organized by Nikon. Come and take up our challenge! :)







Room : Les Salins

Smart Microscopy

https://www.microscope.healthcare.nikon.com/en_EU/products/invertedmicroscopes/eclipse-ti2-series

Description

Do you want to automate certain experiments?

Do you need to be fast and get the best possible resolution?

Our software includes modules that enable you to image the way you need with just a few clicks. Customize your set ups and analyze your data real time or offline to get the best results without hours of invested training efforts. This system is made for SMART Microscopy. The high precision of our inverted microscope combined with the user-friendly interface makes SMART microscopy easy. Between the latest generation of confocal microscopes and our artificial intelligence tools, the only limit is your imagination.

Applications

Smart Microscopy. High Content Screening. Live Imaging. Confocal Imaging.











Room : Les Salins

Nikon AX-R and NSPARC

<u>Web link</u>

Description

The AXR Nikon confocal scanner has been designed with the idea to image more, brighter and faster. By combining its unmatched 25mm Field of View, its optimized light path, high quality optics and ultra resolved resonant scanner this goal has been reached. This system will enable you to image large and/or thick samples with an un parallel speed and precision thus giving you more time to repeat and confirm results. The list of benefits linked to the AXR have been expanded with the addition of the High-Resolution detector, the NSPARC. The NSPARC is based on ISM imaging and is using Photon-counting array of detector to reach resolutions up to 100nm in XY and 300nm in Z. Thanks to its architecture the NSPARC displays a virtually negligible level of noise and can be combined with resonant scanner of the AX to image up to 30 images/sec in 512x512.

Applications

- Bacteria, Yeast
- Fast events
- Mitochondria
- Cells
- Spheroids / organoids
- Tissue









Room : Les Salins

CrestV3 – DeepSIM

https://www.microscope.healthcare.nikon.com/en_EU/products/confocalmicroscopes/crest-x-light-series/x-light-v3-deepsim-x-light

Description

Based on a multi-spot structured illumination system, the DeepSIM is a reliable, simple to use and affordable solution to study cellular structures up to an XY resolution of ~100nm. Super-resolved optical sectioning, with Z resolution up to ~ 300nm, can be obtained using both high (60X - 100X) and low magnification (20x - 40x) objectives to expand the range of applications to include complex 3D models such as tissues, organoids, spheroids and small organisms. The DeepSIM is designed to work with samples of thicknesses comparable to those used in confocal microscopy, giving super-resolved data over 50μ mZ in depth in non-clarified samples.

This means that more meaningful data can be obtained from native heterogeneous complex samples using routine preparation protocols.

Applications

- Bacteria, Yeast
- Mitochondria
- Cells
- Spheroids / organoids
- Tissue















<u>Web link</u> Sylvain.Martin@optonlaser.com <u>LinkedIn profile</u>

Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Enhancement of FLIM, FCS and single molecule microscopy

Samaneh Rezvani, Evangelos Sisamakis

We will provide a brief introduction to Luminosa single photon counting confocal microscope highlighting how it can enhance your fluorescence microscopy capabilities in FLIM, FCS and single molecule applications.









Room : Porquerolles

Luminosa

https://www.picoquant.com/products/category/fluorescencemicroscopes/luminosa-single-photon-counting-confocal-microscope

Description

Luminosa is a single-photon counting confocal microscope. It pairs highest data quality with remarkably simple day-to-day operation. It easily integrates into any researcher's toolbox and becomes a time-efficient, reliable companion for scientists starting to explore the use of time-resolved fluorescence methodologies like FLIM, FCS and various single molecule fluorescence modalities.

Applications

Imaging of immobilized and diffusing single molecules, FLIM of multiple markers in fixed cells.













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Room : Hall near the Méditerranée Conference room

Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Laser : Episode I

Roume Florestan / El Bassri Farid



Around the Oxxius booth, we will be presenting a poster introducing the operating principle of LASERs. We will also

discuss the various types of optical fibers commonly used in microscopy. On-site experiments will provide a better understanding of these components. Please feel free to bring your questions; we will be available to answer them.







revvity

<u>revvity.com</u> julian.bursztyka@revvity.com <u>linkedin.com/in/jbursztyka</u>

Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

Data generation made easy: the case of CellPainting

Laurianne Davignon & Julian BURSZTYKA

HCS (High Content Screening) & HCA (High Content Analysis) or HCI (High Content Imaging) implements automated quantitative microscopy technologies on fluorescently or non-fluorescently labeled 2D and 3D samples, in a seamless workflow: Do you need to extract up to 5700 phenotypic parameter at the single cell level without spending more than few minutes in setting-up your analysis workflow ? Let see how it is possible thanks to Harmony's user-friendly interface.







Room : Restaurant Estrade

Operetta CLS

https://www.perkinelmer.com/fr/category/operetta-cls-high-content-analysissystem

Description

- 16 bit sCMOS camera, 4.7 Megapixel (2160 x 2160), 6.5 μm pixel size
- 8 high powered LEDs
- Brightfield, widefield, confocal (Nipkow disc), Digital Phase Contrast
- Incubation (CO2 0-10% +/- 0,5% & Temperature 37-42°C +/- 1°C)
- 5x, 10x, 20x air objectives
- 20x, 40x & 63x automated water immersion objectives
- Slide holder
- Image analysis (Harmony Software)
- Compatible with slides & microplates (6 to 1536 wells).

Applications

Depending on the quality of the sample preparation, phenotypic measurements, growth, migration, cell cycle, DNA damage, nuclear translocation, gene expression, CrispR/siRNA screens, CellPainting, ...













<u>www.zeiss.com/microscopy</u> <u>marketing.microscopy.fr@zeiss.com</u> Twitter : <u>@zeiss_micro</u>

Practical Set-up Focus

Friday 10 November from 2.00 pm to 3.45pm

ZEISS Microscopy: from Image to Results.

Leslie Bancel-Vallée, Sébastien Dupichaud, Emmanuel Elias, Michaël Gué, Julien Kissenberger, Davy Soleilhet.

Meet the ZEISS experts and discover the extended portfolio of imaging systems whatever your samples and your research projects require. From the image acquisition to the data visualization, we will show advanced solutions in live-cell imaging, high throughput imaging, super-resolution imaging and volumetric imaging.







ZEISS Lattice Lightsheet 7

zeiss.com/lattice-lightsheet

Description

ZEISS Lattice Lightsheet 7 (LLS7) makes light sheet fluorescence microscopy available for live cell imaging at subcellular resolution – while also allowing you to use your standard sample carriers. With this automated, easy-to-use system, volumetric imaging of subcellular structures and dynamics over hours and days with best protection from photo damage becomes available to everyone. Discover the dynamics of life in unprecedented depth of detail – with the ease you never imagined possible!

- Examine living specimens directly on your standard sample carriers
- Watch the subcellular dynamics of life over hours and even days
- Reveal three-dimensional details in their true proportions
- Don't miss an interesting event on your coverslip
- Focus your full attention on your experiments

Applications

Live cell imaging; 3D cell culture imaging; Adherent cells; Suspension cells; Spheroids Organoids; Cysts; Cells in hydrogel; Volumetric imaging of subcellular processes; Imaging of cell-cell interactions, 3D organization, migration and morphology; In vitro imaging of neuronal activity; Gentle imaging of live cells for hours up to days with minimal phototoxicity and photobleaching.

Left: image of the LLS7S with the ZEN software GUI; Right: Spheroid of U2OS cells expressing td-Tomato (green) stained with a cell marker dye (white) for visualization of the whole spheroid. The spheroid is \sim 200 µm in diameter and was imaged using the 100 × 1800 lattice light-sheet. The spheroid was imaged to a depth of 100 µm by recording multiple volume scans on top of each other.











ZEISS Lightsheet 7

zeiss.com/lightsheet

Description

Light-Sheet Multiview Imaging of Living and Cleared Specimens

Light sheet fluorescence microscopy (LSFM) is ideal for fast and gentle imaging of whole living model organisms, tissues and cells as they develop – over extended periods of time. What's more, use ZEISS Lightsheet 7 (LS7) to image large optically cleared specimens in toto – with subcellular resolution. Dedicated optics, sample chambers and holders allow adaption to the refractive index of your chosen clearing method.

- Observe real life fast and sensitively.
- Image large specimens in your preferred clearing solution.
- Get best image quality for various applications.

Applications

Fluorescence imaging of spatio-temporal patterns of gene expression, cell origin and migration, and organogenesis during embryogenesis; Fast imaging of cellular dynamics in embryos and small organisms; Live imaging of 3D cell culture; Developmental processes, physiological measurements; Fluorescence volume imaging of fixed specimens; Fluorescence imaging of marine organisms.

Left: Image of LS7; Right: Mouse kidney cleared with iDISCO, imaged in Ethyl Cinnamate with Lightsheet 7 detection optics 5x/0.16 foc. In red: DyLight 594 conjugated Tomatolection labels vasculature and glomeruli. In green: auto-fluorescence to visualize tissue anatomy. Sample courtesy of U. Roostalu, Gubra, DK. Processed with arivis Vision4D on ACQUIFER HIVE.











ZEISS Elyra 7

zeiss.com/elyra

Description

The super-resolution microscope Elyra 7 takes you far beyond the diffraction limit of conventional microscopy: With Lattice SIM² you can now double the conventional SIM resolution and discriminate the finest sub-organelle structures, even those no more than 60 nm apart. You don't need to sacrifice resolution when imaging at high speed using only the minimal exposure needed for life observation. Elyra 7 enables you to combine super-resolution and high-dynamic imaging – without the need for special sample preparation or expert knowledge of complex microscopy techniques.

- Resolve structures down to 60 nm.
- Observe live cell dynamics at up to 255 fps.
- Accelerate image acquisition in all three dimensions.
- Get the sharpest sectioning in wide-field microscopy.
- Utilize a wealth of imaging techniques on one platform.

Applications

Reveal mechanistic details in live cells, e.g. moving organelles, vesicle trafficking, membrane reorganization; Resolve structural detail in 3D with high penetration depth; Reveal the ultrastructure of organelles; Resolve structural details in 3D and multiple colors; Discover fast cellular processes in the context of whole cells; Resolve structural details in 3D over large areas.

Left: image of Elyra 7 system; right: Lattice SIM images of a Cos-7 cell undergoing mitosis stained for actin (Phalloidin Alexa Fluor 568, magenta), microtubules (anti-beta-tubulin Alexa Fluor 488, yellow) and nucleus (Hoechst, blue). Images are maximum intensity projections of 30 planes of a total depth of 3.19 µm. Objective: Plan-Apochromat 63×/1.4 Oil.











ZEISS LSM 980 Airyscan 2

zeiss.com/lsm980

Description

To analyze life with as little disturbance as possible, you must use low labeling density for your biological models. This requires excellent imaging performance combined with low phototoxicity and high speed. LSM 980, your platform for confocal 4D imaging, is optimized for simultaneous spectral detection of multiple weak labels with the highest light efficiency.

- A wealth of fluorescent labels from 380 nm to 900 nm
- Spectral flexibility with up to 36 simultaneous channels
- More information in less time with Airyscan 2 Multiplex
- Easy Access to Underlying Molecular Dynamics in Living Sample (Dynamics Profiler)

Applications

Fast and gentle multiplex imaging; high sensitivity imaging at high spatial resolution; large FOV and whole sample high speed imaging; Uncover molecular concentration, asymmetric diffusion, and flow dynamics of fluorescent proteins in living samples; Near Infrared (NIR) Imaging; Simultaneous spectral imaging.

Left: image of LSM980 system; right: Staining of F-actin (Phalloidin, cyan) and DE-Cadherin (red) in the Drosophila germarium. Imaged with ZEISS Airyscan 2 followed by Joint Deconvolution. Courtesy of T. Jacobs, AG Luschnig, WWU Münster; with T. Zobel, Münster Imaging Network, Germany.











ZEISS Axioscan 7

zeiss.com/axioscan-bio

Description

Digitize your specimens with Axioscan 7 – the reliable, reproducible way to create highquality virtual microscope slides. Axioscan 7 combines qualities that you would not expect to get in a slide scanner: high speed digitization and outstanding image quality plus an unrivaled variety of imaging modes are all available in a fully automated and easy to operate system.

- Fast automated scanning of up to 100 slides in a single run
- Robust scan performance for continuous 24/7 operation
- Easy-to-create scan profiles with intuitive wizards
- Rapid switching among fluorescence, brightfield, and circular and multi-angle polarization
- Sophisticated filter concept for demanding fluorescence imaging

Applications

High-resolution virtual slide with image analysis; Multiplexed imaging; Automated image analysis workflow; Fluorescence in-situ hybridization (FISH); Tissue microarrays (TMA); High throughput multimodality imaging.

Left: Image of Axioscan 7; right: Mouse embryo sagittal cut, embryonic day E13, 12 µm.SOX2 stained with Alexa488, Pax6 stained with Cy3, Nestin stained with Alexa647, Nuclei in Dapi.Sample courtesy: Ivan Mestres, TU Dresden, Germany.











ZEN Microscopy Software

zeiss.com/zen

Description

ZEN is the universal user interface you will see on every imaging system from ZEISS. For simple and routine works, ZEN leads you straight to result. For complex research experiments, ZEN offers the flexibility to design multi-dimensional workflows the way you wanted. No matter what microscopy task you have, you will find intuitive tools and modules to assist you:

- Acquire images using smart automation
- Process images with scientifically proven algorithms
- Visualize big data by GPU powered 3D engine
- Analyze images via Machine Learning-based tools
- Correlate between light and electron microscopes

Applications

Automated and advanced acquisition: time Lapse Imaging, Large Area Imaging, 3D Imaging; Image processing and analysis: deconvolution, 2D/3D analysis, AI processing, correlative and multimodality/multiscale imaging, Bio Apps.

Left: Experiment Designer module for advanced imaging acquisitions; right: advanced imaging processing.











ZEISS arivis Pro

zeiss.com/arivis

Description

Maximize your scientific image potential with our powerful tools. Create seamless analysis pipelines with just a few clicks. Effortlessly process massive datasets on compatible workstations. Optional VR toolkit.

- Automated End-to-End image analysis pipelines
- Multi-dimensional image analysis
- Preconfigured options for common tasks
- Handle large quantities of data efficiently

Applications

Immediate visualization, annotation and analysis; Advanced and easy-to-use image analysis tools with interactive preview options; Easy and integrated AI; Automated, scalable and integrated workflows that connect ZEN, ZEISS arivis Cloud, MATLAB and more; Distance measurements, compartmentalization and classification; Easy creation and export of 3D/4D high-resolution images and movies for publication.

Left: arivis PRO GUI; right: Single-channel light-sheet fluorescence microscopy (LSFM) of a 2-day lamprey embryo, kindly provided by Cody Saraceno and Jeremiah J. Smith, University of Kentucky, imaged with ZEISS Lightsheet Z1. Segmentation of all green fluorescent objects includes Nuclei, Micronuclei, and Debris. Vision4D 3.5 Object-based Machine Learning (ML) enables easy and quick classification of Nuclei and Micronuclei based on an array of Morphology, Size, Intensity and Position parameters. GPU-accelerated Voxel ML defines the embryo surface. Object Style Settings: Whole embryo is shown as a Glass Surface. Nuclei are shown as Traditional Surfaces. Micronuclei are represented by Centroids.







CELL CULTURE ROOM INDUSTRIAL PARTNERS











BIO-ONE















Practical Set-up Focus: Friday 10 November from 2.00 pm to 3.45pm

Room : Cell culture room – La Capte



Revolve epifluorescence microscope (Upright/Inverted) demonstration.

Camille Godon

During this demo we will show you how one single digital microscope stand be upright and inverted, for brightfield and fluorescence applications, with high image quality.

ThermoFisher SCIENTIFIC

Stunning, easy-to-capture images

Michaël KERDUDO, Julia ACHARD, Pierre-Olivier DE FRANCO

In just a few clicks, capture clear, bright, publication-quality images and videos that help you tell the story of your data.







https://fr.vwr.com/store/ LinkedIn

Room : Cell culture room – La Capte Equipements de Protection Individuelle

https://fr.vwr.com/cms/safety

Description

Éthanol ≥70% (v/v), TechniSolv® ref **VWRC83801.360** Blouses visiteur PP s/poche B/PRES XL ref **VWRI113-8269** Blouses visiteur PP s/poche B/PRES XL (bleu) ref **VWRI113-8295** Gant nitrile ambi light non poudrés XS ref **VWRI112-2765** Gant nitrile ambi light non poudrés S ref **VWRI112-2754** Gant nitrile ambi light non poudrés M ref **VWRI112-2755** Gant nitrile ambi light non poudrés L ref **VWRI112-2756** Gant nitrile ambi light non poudrés XL ref **VWRI112-2757**











https://www.dutscher.com/

e-mail: info@dutscher.com

<u>https://fr.linkedin.com/company/dominique-dutscher-sa</u> <u>https://twitter.com > Dutscher</u>

Room : Cell culture room – La Capte

M3D system and CellView products Greiner Bio-One

Complete range of imaging products CellView Slide and Dish, from Greiner Bio-One <u>https://www.dutscher.com/product/0A-43-02</u> <u>https://www.dutscher.com/product/0A-48-08</u>

New tools M3D magnetic system Greiner Bio-One to facilitate the handling and transfer of your spheroids/organoids. https://www.dutscher.com/product/0A-38-02





https://www.dutscher.com/article/060863



https://www.dutscher.com/article/886074





https://www.dutscher.com/article/062599CL



https://www.dutscher.com/article/006770







https://discover-echo.com/

Camille GODON : cgodon@discover-echo.com

https://www.linkedin.com/company/discover-echo/mycompany/

Room : Cell culture room – La Capte

Rebel & Revolve Digital Microscopes

https://discover-echo.com/

Description

Rebel microscope for Brightfield (Upright & Inverted)

Revolve microscope for **BF** + **FL** (Up/inv) - motorized <u>**Objectives**</u>: Olympus 1.25x-100x Achromat, Fluorite, Apochromat mounts on an Intelligent Nosepiece

<u>2 Cameras</u>: BF: 12MP CMOS Color

Fluo: 5MP sCMOS Mono

Motorized Fluorescence: 5 Channels - Mercury Free LED - Chroma filter cubes Condensers: ELWD (73mm WD | 0.3 N.A.)

High-Resolution (7mm WD | 1.35 N.A.)

Display: 12.9" iPad Liquid Retina® Touch Display - 264 ppi – 2732 x 2048 pixel resolution

Motorized Z-Stacks

Digital Haze Reduction Software module (suppress noise and reduce blur to provide stunning, crystal clear images by removing out of focus light)

Echo Pro Software (overlays, counting, annotations, measurements...)

Applications

- Cell culture (w/w.o. fluorescent proteins)
- Live Cell imaging
- Immunofluorescence (upright and inverted)





Upright

Inverted

Revolve





eppendorf

<u>Équipements, consommables et services pour laboratoire - Eppendorf</u> <u>France</u>

eppendorf@eppendorf.fr

(26) Eppendorf Group: Overview | LinkedIn

https://www.youtube.com/user/Eppendorf

https://www.facebook.com/eppendorf/

Room : Cell culture room – La Capte

Eppendorf Tubes® BioBased

Eppendorf Tubes® BioBased - Eppendorf France

The 5.0, 15, 25 and 50 ml Eppendorf BioBased tubes, thanks to the use of a second-generation bio-based polymer, are manufactured from 90% renewable resources (e.g. waste and residues from the refining of vegetable oils or used cooking oils). Certificates of general quality and specific purity attest to the superior quality of Eppendorf tubes. These tubes are your solution for cell culture and cell biology applications as well as for sample preparation protocols in microbiology and molecular biology laboratories.

epT.I.P.S.® BioBased

epT.I.P.S.® BioBased - Eppendorf France

The epT.I.P.S.® BioBased pipette tips, ep Dualfilter T.I.P.S.® BioBased and ep Dualfilter T.I.P.S.® SealMax® BioBased filter pipette tips for volumes of up to 1,250 μ L considerably reduce the product's carbon footprint. These pipette tips are made from at least 90% biobased polypropylene. They are only available in the new Reload variants, which significantly reduces plastic waste and represents a serious attempt by Eppendorf to decouple single-use consumables from the use of fossil resources







eppendorf

Centrifugeuse 5910Ri

Centrifuge 5910 Ri - centrifugeuse réfrigérée - Eppendorf France

The new 5910 Ri refrigerated benchtop centrifuge stands out for its ease of use and versatility: The large VisioNize® touchscreen interface, with its intuitive user experience, enables fast, error-free operation, guaranteeing efficient, reproducible cycles. With a full range of fixedangle and swivel-bucket rotors, this centrifuge adapts to a particularly broad spectrum of applications, making it the ideal choice for multi-user laboratories with diverse requirements.

Centrifugeuse 5425R

Centrifuge 5425/5425 R - microcentrifugeuse - Eppendorf France

These 24-place microcentrifuges have been designed to be extremely quiet. Short cycles of up to 12 minutes are very quiet, with an average noise level of 45 dB(A) and a maximum speed of 21,300 \times g. This is sufficient for the centrifugation steps of commonly used DNA/RNA purification kits. The cooling system ensures reliable cooling to 4°C, even at maximum rotor speed. These two new models include more new rotors and new software features to make your daily work more efficient and enjoyable



Eppendorf Research® plus - Mechanical Pipette

Pipetage manuel & distribution, Manipulation des liquides - Eppendorf France

The ultra-light pipette for effortless pipetting

The Eppendorf Research plus mechanical pipette is the result of over 60 years' experience. Thanks to the pioneering Eppendorf PhysioCare Concept®, the Research plus is highly ergonomic and protects your health in the laboratory: low weight and operating forces, extremely reliable, fully autoclavable and easy to use.

From single-channel pipettes with fixed or variable volume, to multi-channel pipettes with 8, 12, 16 or 24 channels, and our Research plus Move It micropipettes with adjustable tip spacing, we are confident that we can offer you the right choice for your application









<u>www.erlab-noroit.com</u> noroit-contact@erlab-noroit.com Erlab | LinkedIn

Room : Cell culture room – La Capte Class II microbiological safety cabinet Solis

<u>Class II biological Safety cabinet with an integrated bio-decontamination system -</u> <u>Solis Premium - Erlab - Noroit</u>

Description

Made in France, the class II microbiological safety cabinets Solis are designed to protect handling, the operator and the environment. The chamber protects the manipulated products from external particles to prevent any contamination. The front air barrier protects the user against inherent biological risks of manipulating pathogenic agents. These safety cabinets comply fully with the EN12469-2000 standard.

The Solis is equipped with a unique window tilting feature so you can easily clean the inside of the front window. The front window of the safety cabinet is electric. The touch screen offers a wide range of applications: calculator, timer to control the electrical outlet, camera, MP3 player, adjustable brightness in the handling chamber, ... And many options can be integrated into the equipment.

Applications

Handling of class II and class III micro-organisms and pathogens for applications in: Bacteriology, Cell culture, Genetics, Haematology, Immunology, Microbiology, Virology, ...











www.gbo.com/en-int/ accueil.france@gbo.com www.linkedin.com/company/11104174

Room : Cell culture room – La Capte Consommables culture cellulaire et imagerie

BioScience - Greiner Bio-One (gbo.com)



Applications

2D Cell Culture : <u>Cell culture vessels by Greiner Bio-One - Buy now (gbo.com)</u>

3D Cell Culture : <u>3D cell culture products – shop.gbo.com</u>

Liquid handling : Liquid Handling Products from Greiner Bio-One (gbo.com)

Imaging: Vessels for microscopy in top quality | Greiner Bio-One (gbo.com)

Biobanking : Cryo.s and Biobanking Tubes - Greiner Bio-One (gbo.com)

Microplates : Microplates for High-Throughput-Screening (HTS) – shop.gbo.com







https://www.memmert.com

info@memmert.com

https://de.linkedin.com/company/memmert-gmbh-co-kg

Room : Cell culture room – La Capte

Co2 Incubator 150 l

https://www.memmert.com/products/incubators/co2-incubator/#!filters=%7B%7D

The control system of the Memmert CO_2 incubator ICO is so finely tuned that the appliance reaches the setpoint temperature very quickly and without temperature overshoots. Alarm notifications to your mobile phone guarantee the safety of the chamber load, and the battery-buffered <u>ControlCOCKPIT</u> ensures continuous CO_2 control even when there is a power failure. Ideal hygiene is a given too: rounded edges enable easy and thorough cleaning, the interior can be sterilised within 60 minutes at 180 °C.

1.1	-	
11		
distant.		

Cooled Incubator IPP110 eco plus

https://www.memmert.com/products/incubators/peltier-cooledincubator/#!filters=%7B%7D

Powered by the sophisticated Advanced Peltier Technology from Memmert, the IPPeco is the most energy-efficient and, simultaneously, the most powerful cooled incubator of its kind. Compared to similar appliances, its heat-up, cool down and recovery times are much shorter. The Peltier-cooled incubator from Memmert saves on operating costs, ensures sample quality and makes work in a microbiological laboratory significantly more efficient. Common applications are microbiological analyses, bacterial count determination, cultivation above & below room temperature, beer stability accelerated aging test, or shelf life tests of dairy products.



Water Bath WTB11

https://www.memmert.com/products/water-baths/water-bath/#!filters=%7B%7D

The Memmert water bath is available in six model sizes. The operating concept impresses with its intuitive and convenient menu navigation. A special highlight: with the customizable, remote view CustomView, you can always keep an eye on the important information.









https://yris.ozyme.fr

sroubille@ozyme.fr

https://www.linkedin.com/company/ozyme https://www.linkedin.com/in/simon-roubille

Room : Cell culture room – La Capte

Automated cell counter EVE™ PLUS

https://yris.ozyme.fr/fr/company/ozyme/product/automatic-cell-counter-eve-plus-1-eve-mc2

Description

The EVE[™] PLUS automated cell counter is designed to measure the total number of cells as well as their viability, with precision and accuracy.

Features :

- Technique: trypan blue staining
- (Very) Fast:
 - < 1 second in automatic mode
 - < 10 seconds in manual mode</p>
- Simple and intuitive: on-board display for ease of use
- Accurate: identifies individual and clustered cells
- Access to analysis images after each count
- Reproducible: with a very low coefficient of variability (% CV) (~4%)

Applications

Used to measure and count the total number of cells lines and their viability by trypan blue staining. Very useful for after dissociation or for cytometric analysis.

Examples of cells lines : HeLa, NIH-3T3, HepG2, Hep3B, LNCaP, GH3...











Room : Cell culture room – La Capte

TRANSFECTION REAGENTS JetOPTIMUS[®] - INTERFERin[®]

https://yris.ozyme.fr/fr/shop?product_search[properties][392][]=7915&product_search[name]=jeto ptimus+interferin

Description

- JetOPTIMUS[®] is an optimum reagent for DNA transfection, enabling unrivalled transfection efficiency in adherent cells, even those that are difficult to transfect. DNA quantities and reagent volumes are minimized, preserving cell viability and morphology, and enabling work to be carried out under physiological conditions.
- INTERFERin[®] provides very high silencing efficiency already at 1 nM siRNA and can be used in a wide variety of adherent and suspension cells, avoiding offtarget effects. Easy to use thanks to its compatibility with serum and antibiotics, INTERFERin[®] is also perfectly suited for transfection of miRNA and other oligonucleotides like pre-miRNA, mimic miRNA, antimiR.

Applications

- JetOPTIMUS[®]: Transient and stable gene expression from plasmid DNA transfection, CRISPR Genome editing using DNA approach, small scal virus production.
- INTERFERIN®: Transfection of siRNA and other oligonucleotides











www.stemcell.com orders.eu@stemcell.com LinkedIn profile: STEMCELL Technologies Twitter : @STEMCELLTech

Room : Cell culture room – La Capte

IntestiCult OGM Mouse Kit <u>Catalog # 06005</u> AggreWell 400, 24-well <u>Catalog # 34415</u> Anti-Adherence Rinsing Solution <u>Catalog #07010</u> ReLeSR, 100mL <u>Catalog #100-0483</u> 100 μm Reversible Strainer, Large <u>Catalog #27270</u>

Description

IntestiCult[™] Organoid Growth Medium (Mouse) is a defined, serum-free cell culture medium for efficient establishment and long-term maintenance of mouse intestinal organoids.

AggreWell[™]400 plates are an easy, standardized approach to generate cell aggregates, including embryoid bodies and spheroids, consistent in size and shape.

Anti-Adherence Rinsing Solution (AARS) is a surfactant solution for pre-treating cultureware to reduce surface tension and prevent cell adhesion.

Filter single cells and isolate cellular aggregates with Reversible Strainers.

ReLeSR[™] is an enzyme-free reagent for dissociation and passaging of human pluripotent stem cells as aggregates without manual selection or scraping.

Applications

Organoid culture enables convenient in vitro characterization of a system with strong physiological relevance to the adult intestine.

Aggrewell and AARS suit a wide variety of applications, that can include embryoid body formation from PSCs, tumor spheroids, organoids, chondrospheres, and many others.











<u>https://www.thermofisher.com/fr/fr/home/life-science/cell-</u> <u>analysis/cellular-imaging/evos-cell-imaging-systems/models.html</u>

julia.achard@thermofisher.com

<u>LinkedIn</u>

<u>Twitter</u>

Room : Cell culture room – La Capte

Evos M5000 Imaging System

https://www.thermofisher.com/fr/fr/home/life-science/cell-analysis/cellularimaging/evos-cell-imaging-systems/models/evos-m5000.html

The EVOS M5000 microscope is a workhorse for cell imaging labs across a broad range of applications (Cancer, Oncology, 3D, Spheroids, Organoids, Stem Cells, Neurosciences), and imaging requirements (brightfield, multi-channels fluorescence, phase contrast, time lapse).





Cell Culture and Imaging Reagents https://www.thermofisher.com/fr/en/home/life-science/cell-analysis/cellular-

imaging.html

MitoTracker[™] Green FM FluoroBrite[™] DMEM MEM α, nucleosides, no phenol red Leibovitz's L-15 Medium, no phenol red CellLight[™] Tubulin-RFP Opti-MEM[™] no Phenol Red Ham's F-12 Nutrient Mix, GlutaMAX[™] RPMI 1640 Medium, no phenol red

Thermo Fisher Scientific offers the highest quality fluorescence microscopy reagents and assays including cell structure and function dyes and stains, antifades and mountants, instrument calibration and set-up tools and much more.

Applications

Fixed Cell Imaging, Live Cell Imaging, Immunofluorescence, Immunohistochemistry IHC, In Situ Hybridization











www.wpi-europe.com

wpifr@wpi-europe.com

<u>Linkedin</u>

Room : Cell culture room – La Capte

Pneumatic Picopump PV830 setup

Description

Designed to simplify **intracellular injection** and a variety of other microinjection tasks, WPI's PicoPumps use carefully regulated air pressures for securing cells and injecting them with fluid.

Injected volumes range from **picoliters** to **nanoliters**.

Separate ports supply positive and negative pressure—positive pressure for highpressure ejection, and suction for supporting the cell or for filling the pipette from the tip, held by an **M3301R manual micromanipulator**, mounted on an **M10 magnetic stand**.

Timing, ejection pressure, holding pressure, and suction are adjusted independently by control knobs and indicator gauges on the front panel.

Applications

• Intracellular injection in the picoliter to nanoliter range





Typical Microinjection setup

PV830 picopump







Room : Cell culture room – La Capte

FluoroDishes FD35-100

Description

WPI's FluoroDish[™] tissue culture dishes provide exceptional imaging quality for many applications requiring the use of inverted microscopes such as high resolution image analysis, microinjection and electrophysical recording of fluorescent-tagged cells. Taking advantage of WPI's extensive experience with low toxicity adhesives, FluoroDish[™] petri dishes use a specially formulated adhesive that is optically clear, durable and with extremely low toxicity.

The bottom glass has superior UV transmission (30% transmission at 300 nm, compared to less than 7% for the most popular German glass). Stringent quality control ensures that glass thickness is 0.17 ± 0.01 mm and each FluoroDish is supplied sterile.

- Optical quality glass bottom on petri dish offers better imaging quality (RI=1.525)
- Low sample volume for expensive chemicals
- Lowest access angle for micropipette

Applications

- High resolution image analysis
- Microinjection
- Electrophysical recording of fluorescent-tagged cells

