FEMTO 3D ATLAS

3D TWO-PHOTON IMAGING SYSTEM

- All-in-one solution: combines and exceeds the benefits of traditional 2P microscopes
- 30 kHz scanning speed to any points in 3D
- high-speed arbitrary frame scanning with 40 fps
- fast recording of over 2000 neurons
- 3D photostimulation
- 3D anti-motion technology
- automatic wavelength tunability

FEMTO SMART Dual

WITH TILTING OBJECTIVE MODULAR AND FLEXIBLE

- high-level of accessibility to the sample
- fast Z-stack acquisition from tilted positions
- galvo and resonant scanners
- frame scanning with 31 fps
- flexible and fast ROI scanning possibilities
- photostimulation

Scan QR code for watching videos or go to www.femtonics.eu/videos

WHO WE ARE?
DEDICATED TO NEUROPHOTONICS SINCE 2005

OUR MISSION is to support you to become an exceptional explorer, by giving you the most appropriate two-photon imaging systems. Femtonics microscopes supply the most innovative technologies while addressing your scientific needs and a wide variety of *in vivo* and *in vitro* biological applications.

OUR TECHNOLOGY is a pioneer and innovative in the field of microscopic imaging, it has been awarded at high levels. The value of Femtonics' technology reflects in those scientific results and breakthroughs which have been produced by our devices and published in the highest quality international scientific journals.

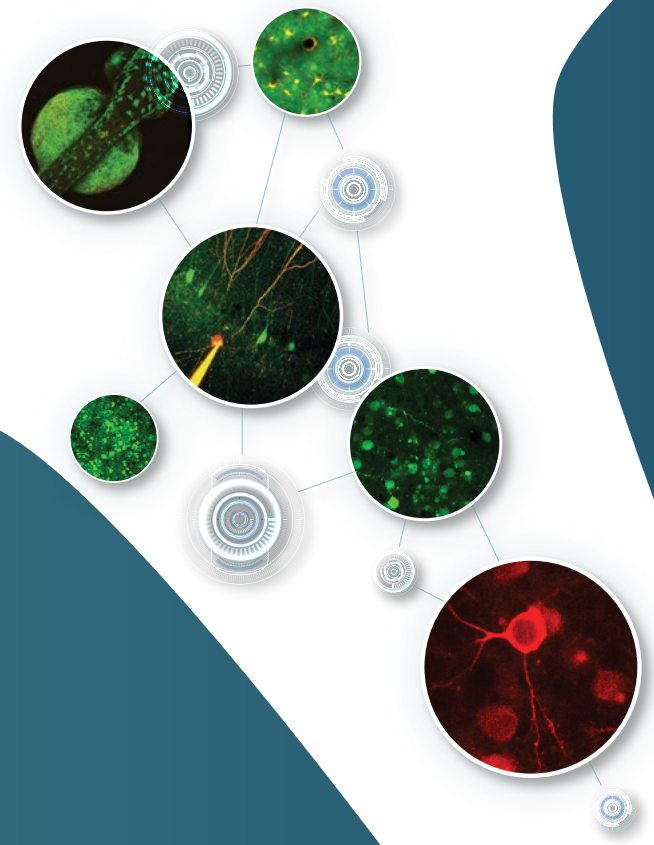
OUR TEAM includes mechanical, optical and software engineers, as well as application scientists. Starting with a custom selection of the best microscope and modules for you, our team is ready to provide technical advice and guidance the through the process of assembly, installation and maintenance.

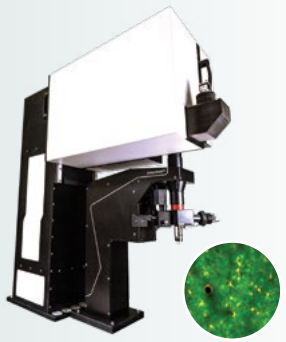
THINKING AHEAD
FEMTONICS
MICROSCOPY

Are you ready for the new world of microscopy?
Contact us now!

THINKING AHEAD
FEMTONICS
MICROSCOPY

A NEW WORLD OF MULTIPHOTON MICROSCOPY



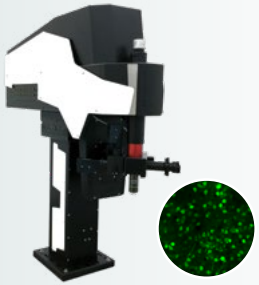


FEMTO3D ATLAS
open your microscope
to 3D imaging

Atlas means a new acousto-optic scanner-based two-photon microscope extension which can be added to existing upright microscopes to open their imaging capability to ultrafast, *in vivo*, real-time 3D imaging during behavior.

FEMTOSMART GALVO
focusing on regions-of-interest

The FemtoSmart Galvo is designed to be focused flexibly on the region of interest (ROI) which are relevant for the scientist, resulting in faster recording, and elimination of background noise.



FEMTOSMART RESONANT
fast frame and volume scanning

FemtoSmart Resonant is the most appropriate choice for imaging the entire field-of-view: raster scanning at 31 fps acquires images ~5 times faster than galvo scanning.

FEMTOSMART DUAL
the combination of Galvo and Resonant microscopes

Follow activity on a large field of view at high speed, then zoom to selected ROIs with high SNR. Or use it for photostimulation.
The column-based, moving body offers plenty of room for bahavioral equipment.

3P WAVELENGTH EXTENSION
for three-photon excitation

It allows non-invasive functional imaging of the deeper tissues with higher axial resolution compared to the 2P excitation. Use it for SHG and THG.

MULTIPLE BEAM PATH
for uncaging and optogenetics

We offer secondary, fine-tuned laser sources utilizing the same light path of the scope for a wide range of biophotonics applications.

TILTING OBJECTIVE UNIT
for free rotation of the objective

It rotates the objective, giving a higher level of freedom to reach the sample from different angles. Built-in piezo objective positioner ensures additional Z-movement.

PIEZO OBJECTIVE POSITIONER KIT
for fast Z-stack and 3D imaging

It positions mechanically, rapidly the objective enabling the microscope to collect signals from different depths with up to 200 Hz.

IN VITRO EXTENSION
for cultured cells or acute brain slices

Gradient contrast illumination eases camera guided patch-clamping while transmitted fluorescence detectors enhance signal collection and SNR.

FLIM EXTENSION
for Fluorescence Lifetime Imaging

Time correlated single photon counting and the derived fluorescence lifetime imaging provide intimate information about molecular dynamics.

BRIDGE STRUCTURE
for coarse Z movement

The Bridge structure is a lifting apparatus for FemtoSmart which can replace the foot, providing extreme freedom in positioning of the body.

LED LIGHT SOURCE
for full field optogenetics

Full-field illumination allows molecules and cells to be stimulated over the whole FOV homogeneously. Full-field optogenetics.

GREEN ILLUMINATION
for vessel pattern visualization

Green illumination allowing high-contrast visualization ofblood vessels helps to navigate on the surface of any organsunder *in vivo* conditions.

EPIFLUORESCENT UNIT
for multicolor full-field illumination

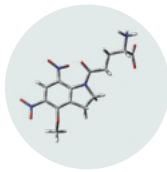
Wavelength-specific full-field excitation is performed by powerful LED light sources built in a rotating unit abovethe objective.

GRAMOPHONE for behavior studies

Gramophone is a locomotion tracking device which allows a head restrained mouse to run on the disk and to respond to visual or other stimuli.

HEAD HOLDERS for rodents

Head holders fix the rodent'shead in different positions, enabling, precise measurements in the brain of anesthetized and behaving animal models.



DNI-GLU and **iDMPO-DNI-GABA**
for uncaging

This masked form of glutamate or GABA releases the bioactive glutamate or GABA rapidly and requires less irradiation for release than other caging scaffolds.

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