

The Spinning Disk Confocal Microscope That Will Revolutionize Your Research

The Vesalius spinning disk confocal microscope system is here to revolutionize your research. With its lightning-fast imaging speeds, versatility, and stunning image quality, Vesalius is the perfect tool for scientists who need to capture high-resolution images of tissue sections. Vesalius is a versatile, cost-effective system that is ideal for fast, large-scale, multi-channel 2D and 3D whole slide imaging of large tissue specimens, including mouse, rat, marmoset and non-human primates, and even human sections.

Imagine the Possibilities

Vesalius offers a number of advantages over conventional confocal imaging systems, including:

Speed: Vesalius is up to 10x faster than conventional laser scanning confocal microscopes and more than 100x faster than grid-based structured illumination. This means you can capture more data in less time, so you can focus on your research instead of waiting for your images to process.

Image a wide range of specimens: Vesalius can be used to image a wide range of specimens, including thick or thin tissue samples, and offers customizable imaging options. With its customizable imaging options, you can tailor your imaging settings to your specific needs, including standard slides, expansion microscopy, and cleared tissue.

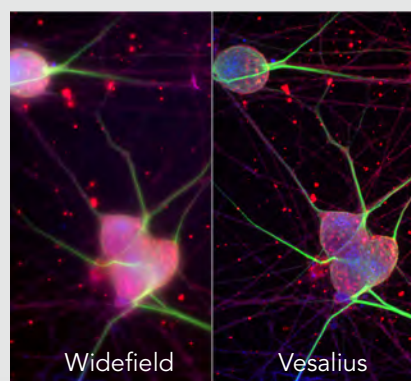
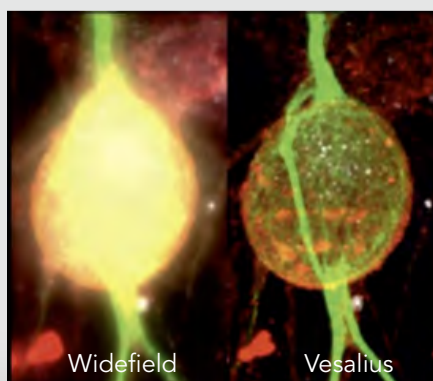
Image quality: Vesalius produces high-quality images with high signal-to-noise ratio and minimal photobleaching. This means you can capture clear, detailed images of even the most challenging specimens.

Ease of use: Vesalius is also incredibly easy to use. Its intuitive software makes it easy to set up and run your experiments, even if you're new to confocal microscopy.

Key Benefits

- Capture stunning, quantifiable images of large tissue specimens, from single stacks up to whole slides.
- Accelerate your research with fast, confocal imaging, ideal for performing quantitative image analyses using the latest AI technology.
- We customize your Vesalius system to meet your specific research needs.
- Extend the longevity of your samples with reduced photobleaching and phototoxicity.
- Enjoy the convenience of multiple imaging modalities (confocal, widefield, live cell, transmitted light) in one user-friendly instrument.
- Boost your productivity with intuitive image acquisition software that minimizes the experience curve.
- Integrate Vesalius with existing MBF Bioscience microscopy systems, including Stereo Investigator® and NeuroLucida® to acquire and analyze vast amounts of data from a variety of sources.

Images Acquired by Vesalius



Significant Value for Large and Small Labs

The Vesalius confocal system produces high-quality, multi-dimensional images of objects that range in size from subcellular structures to whole slides. Vesalius is a customizable, turn-key system that can be specifically designed for your research needs. It can work with microscope stands (upright and inverted) from Zeiss, Olympus, Nikon, or Leica, ultra-sensitive high-resolution cameras, motorized stages, and multi-channel lasers, suitable for a wide range of applications in core imaging facilities or individual research labs.

Technical Specifications

- Acquisition speed over 1,000 fps on full Field of View (25mm)
- Axial resolution (FWHM): ~600nm depending on objective lens
- Image Depth: up to ~200um
- FOV Field of view up to 25mm
- Light source options include lasers or LEDs
- Linear encoded motorized stage for the greatest accuracy
- Wide range of illumination sources (laser or LEDs, up to 7 excitation wavelengths from 390nm-750nm)
- Wide range of objective lenses, from 4x to 100x
- Spinning disk geometry (diameter/spacing)
 - 50/250 slit for high throughput & live imaging applications
 - 50/250 μ m pinholes optimized for LASER light source
 - 60/220 μ m pinholes optimized for LED light source
- Custom geometry and double pattern disks available on request
- Resolution
 - Lateral Resolution (FWHM): ~230 nm (High NA 1.4)
 - Axial Resolution (FWHM): ~600 nm (High NA 1.4)

Imagine the Possibilities

- Use Vesalius to create high-quality 3D images of whole mouse brains, revealing new insights into the neural circuitry underlying complex behaviors and mechanisms of disease and regeneration.
- Perform high-throughput screening of large tissue samples to identify new drug targets or diagnostic markers.
- Create stunning images of rare or fragile specimens for publication or educational purposes.

With Vesalius, the possibilities are endless.

Learn more at : mbfbioscience.com/products/vesalius



About MBF Bioscience

A rich history of creating the future of neuroscience.

MBF Bioscience is a leader in neuroscience research technology. We develop cutting-edge tools that enable scientists to collect and analyze data from fixed tissue and living organisms with high precision and accuracy. This data helps scientists understand brain diseases and processes at the system, cellular, and subcellular levels.

Our products have been used in over 17,000 peer-reviewed papers.

What our customers say

“We’ve been very happy for many years with MBF products and the course of upgrades and improvements. Your service department is outstanding.

William E. Armstrong, Ph.D.
University of Tennessee

“MBF Bioscience is extremely responsive to the needs of scientists and is genuinely interested in helping all of us in science do the best job we can.

Sigrid Veasey, M.D.
University of Pennsylvania