

MBF Bioscience Introduces SLICE™: Reimagined Light Sheet Microscopes From the Ground Up

Breakthrough system combines high performance, unprecedented affordability, and compact design, making light sheet microscopy accessible to labs of all sizes.

WILLISTON, VT, UNITED STATES, June 12, 2025 /EINPresswire.com/ -- MBF Bioscience, a world leader in microscopy solutions, today announced the commercial launch of SLICE™, a revolutionary light sheet microscope that represents a paradigm shift in advanced imaging technology. Invented by leading researchers at Columbia University, this patentpending innovation delivers advanced 3D imaging capabilities to research



SLICE[™] Light Sheet Microscope by MBF Bioscience a compact, benchtop-ready system engineered for high-performance 3D imaging.

labs of all sizes while offering performance that surpasses systems costing ten times more.

Breaking Down Barriers to Advanced Imaging

SLICE addresses one of the most significant challenges in modern biological research: the limited accessibility of high-performance light sheet microscopy due to high costs and complex infrastructure requirements. This innovative system offers high sub-micron resolution imaging of biological samples, making it ideal for both individual laboratories and core facilities, effectively democratizing access to what was previously available only to well-funded institutions.

" MBF Bioscience has been committed to putting powerful research tools in the hands of scientists everywhere," said Jack Glaser, President and Co-founder of MBF Bioscience. "To advance science, we had to change the math. SLICE represents the embodiment of that mission—delivering the performance researchers need at a price point that makes advanced light sheet microscopy accessible to labs that previously couldn't afford this technology. We're

not just selling a microscope, we're opening doors to discoveries that might never have happened otherwise."

Dr. Raju Tomer, Associate Professor of Biological Sciences at Columbia University and inventor of the technology underlying SLICE, added: "When we developed this approach, our goal was to overcome the fundamental limitations that have kept light sheet microscopy out of reach for so many researchers. SLICE realizes that vision—it's a system that doesn't compromise on scientific capability while dramatically reducing the barriers to entry. I'm excited to see how the broader research community will use this technology to push the boundaries of what's possible in biological imaging."

Technical Innovation Meets Practical Design

SLICE comes equipped with powerful software for tera-voxel visualization, seamless image stitching, and sophisticated post-processing. The system's compact, benchtop design enables placement in diverse research environments, even in small lab spaces.

Key features of SLICE include:

• Exceptional Performance-to-Cost Ratio: Performance surpassing systems costing ten times as much

• Multi-wavelength Compatibility: 3 illumination wavelengths for popular labels such as: GFP, eYFP, Alexa 514, 633, 647, mCherry, tdTomato

• Versatile Clearing Compatibility: Compatible with iDISCO, CLARITY, CUBIC, BINAREE and virtually all other clearing techniques

• Comprehensive Software: BrightSLICE software for acquisition, visualization, and postprocessing

• Seamless Integration: Integrates with MBF Bioscience's suite of analytical tools, including Neurolucida 360, NeuroInfo and NeuroDeblur

Expanding Research Capabilities

The SLICE system enables researchers to image labeled cells and neuronal processes throughout cleared tissue with exceptional clarity and speed. A wide range of proteins and dyes can be used with SLICE, including c-Fos, mScarlet, and Thy1-eYFP, making it suitable for diverse research applications across neuroscience, biology, cancer research, and beyond.

Advanced image stitching produces 3D images suitable for MBF Bioscience's AI-based analysis software for analyzing morphometry, cell populations, sub-cellular processes, vasculature and fluorescence properties, enabling researchers to conduct sophisticated analyses previously limited to specialized facilities.

About MBF Bioscience

MBF Bioscience develops microscopy software and hardware for bioscience research. Its primary location is Williston, Vermont, USA and has offices that sell and support its products in Ashburn, Virginia; San Diego, California; Europe, and Asia. The company was founded in 1988 as MicroBrightField, Inc. by the father and son team of Dr. Edmund Glaser and Jack Glaser, and has been instrumental in advancing quantitative microscopy for over three decades. MBF has received numerous awards for innovation, customer service, and employee satisfaction, including the US Small Business Administration's Tibbetts Award for excellence in high technology. MBF's tools have been cited in over 16,000 peer-reviewed publications, underscoring the company's impact on global scientific research.

Availability and Pricing

SLICE is now available. The complete system, including the light sheet microscope, BrightSLICE software, and computer workstation, is priced under \$75,000 – representing exceptional value for advanced 3D imaging capabilities. For demonstrations, technical specifications, or ordering information, visit <u>www.mbfbioscience.com/products/slice</u> or contact MBF Bioscience directly.

Pasang Sherpa MBF Bioscience +1 802-288-9290 email us here Visit us on social media: LinkedIn Bluesky Instagram Facebook YouTube X

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