

MICROSCOPY

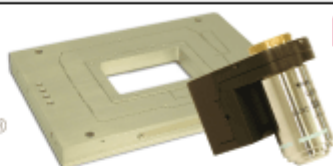
Tech Pulse



October 2015

Microscopy Tech Pulse is a special edition newsletter from Photonics Media and Prior Scientific covering key developments in microscopy technology.

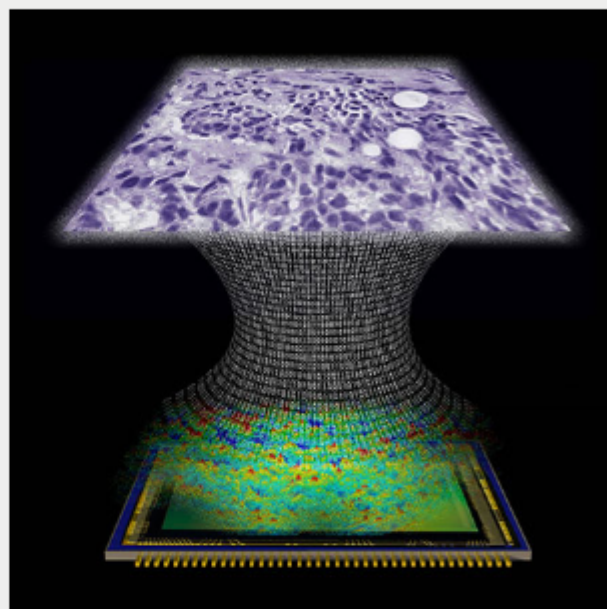
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Nanopositioning Systems for Microscopy
Single Molecule Microscopes
Atomic Force Microscopes

Lens-Free 3D Microscope Sharp Enough for Pathology

A computational lens-free, holographic on-chip microscope could provide a faster and cheaper means of diagnosing cancer and other diseases at the cellular level.



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Prior Scientific, Inc.

Leaders in Microscope Automation & Optical Instrumentation

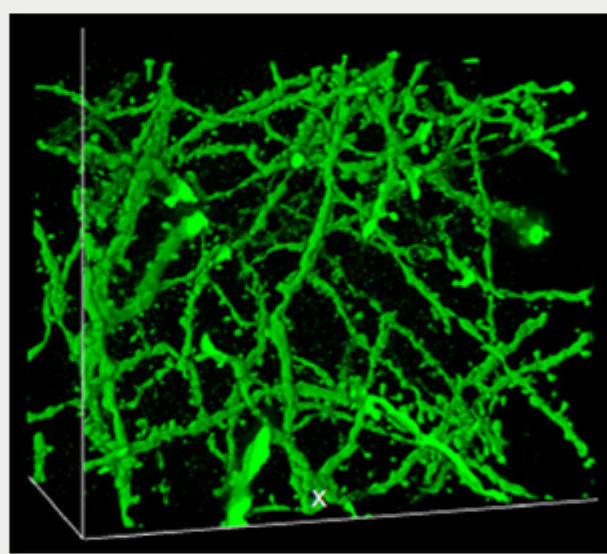
Prior Scientific is the leading manufacturer of microscope automation equipment. Prior specializes in the production of high precision motorized microscope stages, robotic sample loading systems, LED and metal halide high intensity fluorescence illumination systems, physiology stage platforms, nanopositioning Piezo Z stages, motorized filter wheels, high speed shutters, laser autofocus systems, custom optical systems and a wide array of microscopy accessories and custom designed solutions. Contact Prior Scientific today to speak to a product engineer to find the ideal solution to your application!



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Expanded Tissues Show More Detail under Confocal Microscopes

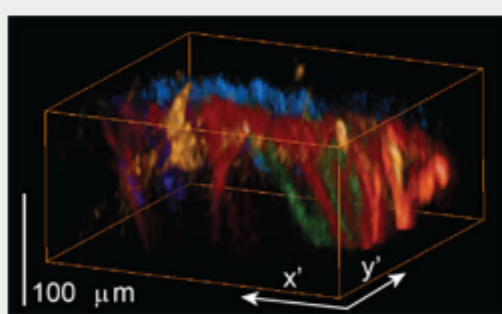
A new technique makes biological tissue samples physically larger, rendering their nanoscale features visible to conventional confocal microscopes. Using inexpensive, commercially available chemicals, it could give more scientists access to 3D superresolution imaging.



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Microscope Takes 3D Images From Inside Moving Subjects

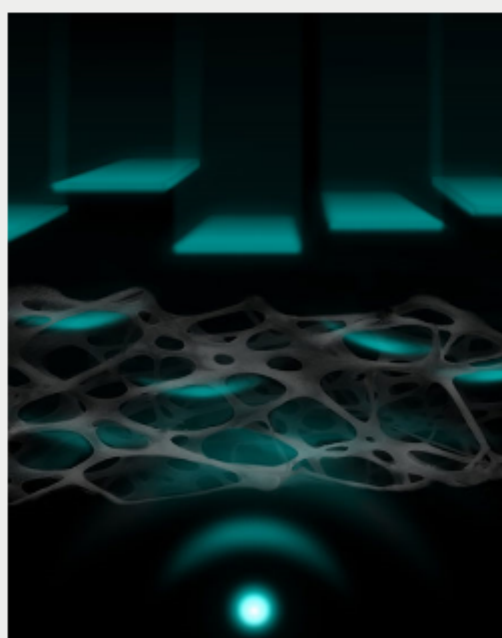
The microscope scans a sheet of light through the sample, making it unnecessary to position the sample or the microscope's single objective.



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Technique 'Pre-Corrects' Microscope Illumination

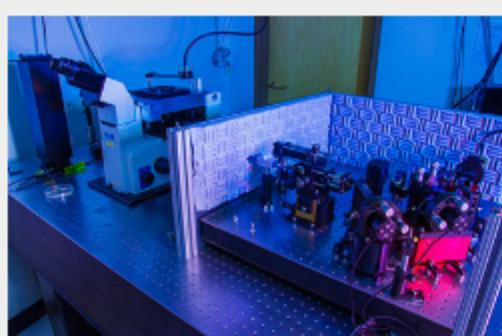
A new adaptive optics technique focuses laser light through dense tissues without the need for an invasive guide star. The technique can resolve a point less than a micron across.



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Microscopy Platform Enables Ultrastable Measurements

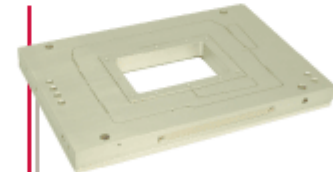
Stable enough to track the movements of individual molecules over many hours, a new measurement platform for microscopes could enable a deeper understanding of subcellular processes.



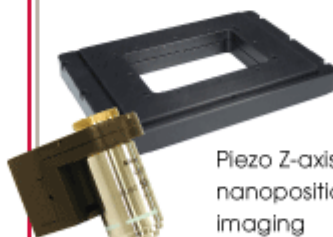
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Nanopositioning Systems for Microscopy



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Piezo Z-axis closed loop nanopositioners for confocal imaging

Objective lens nanopositioners for imaging and drift correction

Mad City Labs is the leading US manufacturer of piezo nanopositioning systems for super resolution microscopy, single molecule microscopy, and atomic force microscopy.



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