

# Weekly News





# Systems, Penny-Sized Laser Has Limitless Applications AMD is announcing it acquired silicon photonics startup

AMD Acquires Enosemi for Al

Enosemi for its evolving AI strategy. The European Machine Vision Association has awarded Rolandos Alexandros Potamias the Young Professional Award for 2025. Hamamatsu is partnering with Vizgen to help bring multiplex assay development to a range of new applications. Aeluma and Thorlabs Crystalline Solutions have shared results of a breakthrough, large-diameter wafer manufacturing platform. A new laser device, smaller than a penny, could prove useful in a range of applications. And a team of scientists from Vienna University of Technology and Keio University, have found a way to create artificial blood vessels to be used in

miniature organ models. Sponsored by CeramOptec and Norland Products. Watch Now

Toolkit



## Photonic Chips on Silicon Aeluma, in collaboration with Thorlabs, has demonstrated wafer-scale integration of the nonlinear optical material aluminum gallium arsenide onto CMOS silicon photonics-

Manufacturability of Quantum

Aeluma and Thorlabs Advance Mass-

standard 200-mm diameter wafers. Read Article

Chip-Scale Laser is an Ultrafast

Addition to the Optical Metrology

Researchers from the University of Rochester and University

of California, Santa Barbara, engineered a laser device smaller

than a penny. The researchers believe the device could power

everything from the lidar systems used in self-driving vehicles



# Quantum Computing Firm Pasqal Acquires AEPONYX

to gravitational wave detection. Read Article

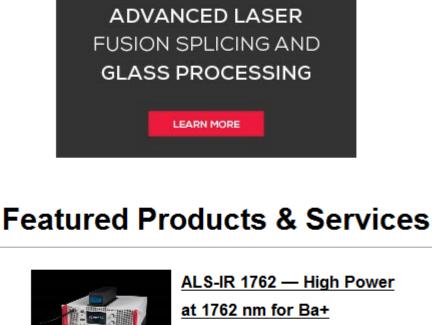
According to Pasqal, the move strengthens its existing hardware platform and accelerates its roadmap to faulttolerant quantum computing. Read Article

Neutral atom computing firm Pasqal has acquired AEPONYX,

a developer of photonic integrated circuits technology.

SYNOPSYS.

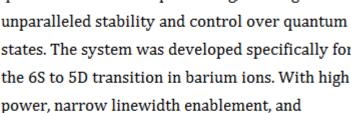
superior optics



NYFORS\*



### A significant leap forward in quantum information processing, offering



exceptional stability.

states. The system was developed specifically for the 6S to 5D transition in barium ions. With high

CO<sub>2</sub> laser glass-processing is

Toptica Photonics AG

Visit Website Request Info CO<sub>2</sub> Laser Glass-Processing NYFORS Teknologi AB 🚺 NYFORS'

designed to produce high-power and sensitive

photonic components and complex structures. It

linear, 2D and gapless array splicing, ball lensing,

precision solutions for fiber preparation, such as

NYFORS also manufactures automated high-

guarantees contamination-free processing for fiber

end-capping, and many other challenging processes.

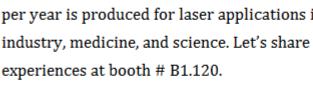
stripping, cleaving, recoating, and end-face inspection. NYFORS offers custom workcell automation solutions. Visit Website Request Info

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Laser

**Photonics** 

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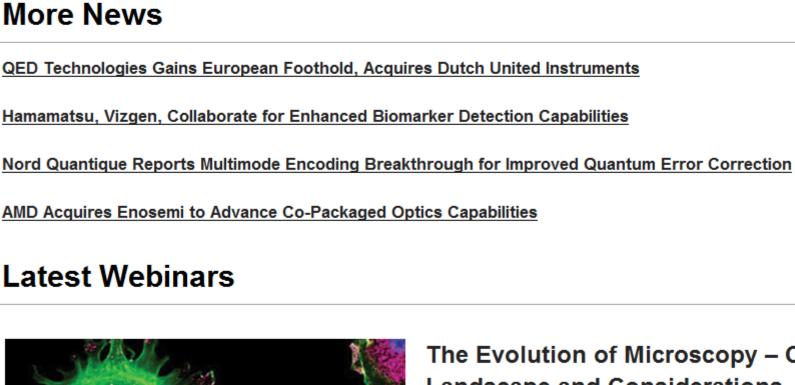
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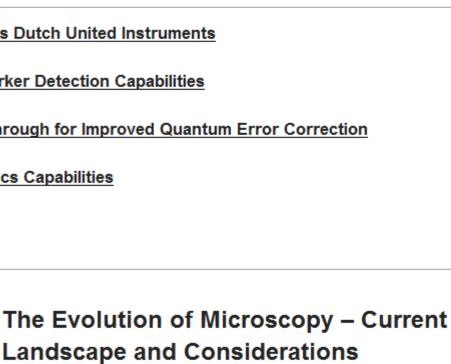
your ticket

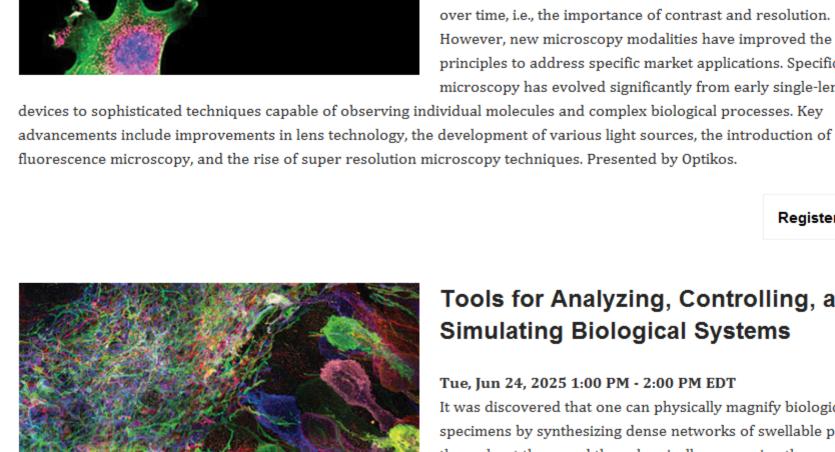
June 24—27, 2025 Messe München

Request Info









## selection. Attendees will learn that the optical principles of lens design for microscope objectives have not changed significantly over time, i.e., the importance of contrast and resolution. However, new microscopy modalities have improved the core principles to address specific market applications. Specifically,

microscopy has evolved significantly from early single-lens

microscopy, multiphoton microscopy, and superresolution microscopy. He explores a comparison of similarities and differences between these modalities and considerations for

David Biss of Optikos walks through a brief history and primer on microscopy, which was largely unchanged until the last 70

years. With that backdrop, this presentation delves into common types of modern microscopy: confocal microscopy, fluorescence

Wed, Jun 18, 2025 11:00 AM - 12:00 PM EDT

Register Now Tools for Analyzing, Controlling, and Simulating Biological Systems Tue, Jun 24, 2025 1:00 PM - 2:00 PM EDT It was discovered that one can physically magnify biological specimens by synthesizing dense networks of swellable polymer throughout them, and then chemically processing the specimens to isotropically swell them. This method, which is called expansion microscopy, enables ordinary microscopes to do nanoimaging - important for mapping molecules throughout cells, tissues, and organs. As a second example, Ed's team

serendipitously discovered that microbial rhodopsins,

genetically expressed in neurons, could enable their electrical

activity to be precisely controlled in response to light. These molecules, now called optogenetic tools, enable causal assessment of how neurons contribute to behaviors and pathological states, and are yielding new candidate treatment strategies for brain diseases. Finally, the development of new strategies such as robotic directed evolution, fluorescent reporters enable the precision measurement of signals such as voltage. To reveal relationships between different molecular signals within a cell, there is work of developing spatial and temporal multiplexing strategies that enable many such signals to be imaged at once in the same living cell. Register Now

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