

# BIOPHOTONICS

BRINGING LIGHT TO THE LIFE SCIENCES®

## WEBINARS

Join us for a **FREE Webinar**

### An Oblique Plane Light-Sheet Microscope with 200-nm-Scale Resolution

Tuesday, August 4, 2020 1:00 PM - 2:00 PM EDT

[Register Now](#)

Sponsored by



**ANDOR**



APPLIED SCIENTIFIC  
INSTRUMENTATION



## .: About This Webinar

Light-sheet fluorescence microscopy (LSFM) has generated significant interest in the biological community. Not only does it deliver light to only the in-focus portion of a specimen, decreasing the illumination burden, but the resulting fluorescence can be collected with modern scientific cameras, allowing for millionfold detection parallelization. Nevertheless, despite these advantages, its adoption for subcellular imaging remains limited.

The reasons for this include complicated sample preparation, the reliance on high-NA water-dipping objectives, and the lack of modalities that make microscopy routinely useful, such as sample environment control and laser-based autofocus. There is, however, one form of LSFM, referred to as oblique plane microscopy, that avoids these complications and is compatible with traditional sample mounting, environment control, and autofocus mechanisms.

In this webinar, Kevin Dean, Ph.D, will describe an oblique plane microscope that uses a newly developed glass-tipped objective and an optimized optical train to maximize the speed, field of view, and resolution of the overall imaging system. He will characterize the performance of this microscope, and then demonstrate biological imaging of clathrin-mediated endocytosis, cell migration, natural killer cell induced cytotoxicity, and more.

#### Who Should Attend:

Scientists, researchers, laboratory technicians, clinicians, and others in the fields of biology, biotechnology, microbiology, and other areas of the life sciences who are using light-sheet fluorescence microscopy. Engineers and commercial representatives involved in R&D and marketing of LSFM microscopes.

#### About the Presenter:

Kevin Dean received his B.A. in chemistry at Willamette University in Oregon and was recognized twice as an ESPN Regional Academic All-American in football. He received his Ph.D. in biochemistry at the University of Colorado, where his work focused on spectroscopy, protein engineering, and multiparameter high-throughput microfluidic analyses and cell sorting. After establishing the first campuswide light microscopy facility at the BioFrontiers Institute at the University of Colorado, he moved to the University of Texas Southwestern Medical Center in Dallas to perform his postdoctoral research. He has been named a Ruth L. Kirschstein Postdoctoral Fellow, published five first-author publications and co-authored an additional three, received the Dean's Discretionary Award, and was the runner-up for the UT Southwestern Brown-Goldstein Excellence in Postdoctoral Research award. Today, he runs a collaborative lab at UT Southwestern that brings cutting-edge computer vision and microscopy to biologists in an effort to advance our understanding of biological systems.

This webinar is sponsored by [Applied Scientific Instrumentation \(ASI\)](#). ASI develops and manufactures motion control, automation, and related products for light microscopy. ASI's modular components make it easy to build complete semi-custom microscopes, including light sheet microscopes.

This webinar is also sponsored by [Andor Technology](#), part of the Oxford Instruments Group. Andor develop and manufacture high performance scientific cameras, microscopy systems, and spectrographs for academic, industrial, and government applications.

This webinar is also sponsored by [TOPTICA Photonics](#). TOPTICA has been developing and manufacturing high-end laser systems for more than 20 years. The systems are used for demanding scientific and industrial applications in biophotonics, industrial metrology and quantum technology.

## .: Mark Your Calendar

**Date: Tuesday, August 4, 2020**

**Time: 1:00 PM - 2:00 PM EDT**

Space is limited. Reserve your Webinar seat now at: <https://attendee.gotowebinar.com/register/4033902961250801936>

After registering you will receive a confirmation email containing information about joining the Webinar.

## SYSTEM REQUIREMENTS

#### Operating System

Windows® 7 or later, Mac OS® X 10.9 or later, Linux®, Google Chrome™ OS  
Android™ OS 5 or later, iOS® 10 or later

#### Web Browser

Google Chrome™ (most recent 2 versions)  
Mozilla Firefox® (most recent 2 versions)

#### Mobile Devices

Android™ 5 or later  
iPhone® 4S or later  
iPad® 2 or later  
Windows Phone® 8+, Windows® 8RT+

## .: More from Photonics Media

### Upcoming Webinars

- [Embedded Vision: An Overview](#), 7/23/2020 1:00:00 PM EDT
- [Practical 3D Imaging: An Overview](#), 8/11/2020 1:00:00 PM EDT
- [Principles and Applications of Light and Color Measurement](#), 8/19/2020 1:00:00 PM EDT

### Archived Webinars

- [Beam Shaping: The Next Step for Ultrashort-Pulse-Laser-Based Processes](#)
- [Radiometric Accuracy and Commercial UAVs: A Clash of Cultures?](#)
- [Principles of Laser Power/Energy Measurement](#)

We respect your time and privacy. You are receiving this email because you are a Photonics Spectra magazine subscriber. You may use the links below to manage your subscriptions or contact us.

Questions: [info@photonics.com](mailto:info@photonics.com)

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949

© 1996 - 2020 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office. Reproduction in whole or in part without permission is prohibited.

