

# BioPhotonics

Bringing Light to the Life Sciences®

## WEBINARS

Join us for a **FREE Webinar**

### Advancing Raman Spectroscopy by Using Bioresponsive Optical Nanomaterials

**Wednesday, May 7, 2025 1:00 PM - 2:00 PM EDT**

[Register Now](#)

Sponsored by

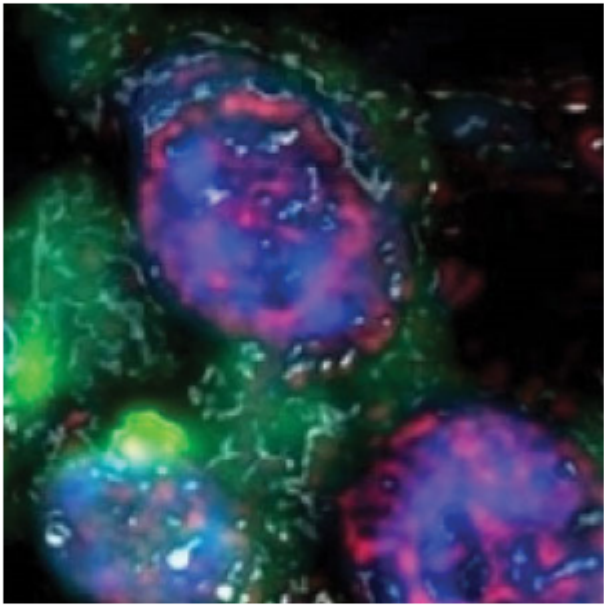


DialAct Corporation



OceanOptics

Raman spectroscopy provides label-free molecular characterization by detecting chemical bond vibrations, enabling direct visualization of molecular responses in living cells and tissues. Despite significant advancements, the clinical translation of Raman spectroscopy has been hindered by two key challenges: limited detection sensitivity and insufficient specificity. For instance, it has not found use in imaging enzyme activity, a significant aspect of biomedical research. Leveraging nature-inspired self-assembly strategies, intracellular bioorthogonal enzyme-responsive nanoprobes (nanoSABER) have been developed. Engineered from enzyme-responsive peptides, these nanoprobes assemble into supramolecular structures with distinct Raman-active vibrational signatures upon interaction with targeted enzymes. Incorporating vibrational tags such as alkyne (C≡C) and nitrile (C≡N) groups within the cell-silent Raman window (1800 to 2600 cm<sup>-1</sup>), nanoSABER specifically images enzyme activity with minimal interference from endogenous cellular signals.



### Upcoming Webinars

- [Optimization of LED Illumination for Hyperspectral Imaging Applications](#), 7/9/2025 11:00:00 AM EDT
- [Quantum Sensing with Atomic Systems and Reconfigurable Instrumentation](#), 7/23/2025 1:00:00 PM EDT

### Archived Webinars

- [Multifunctional Metaoptics: From Science into Your Smartphones](#)
- [FLIR MIX – A Breakthrough in Infrared and Visible Imaging](#)
- [Introduction to Imaging Radiometry and FLIR Research Studio](#)

### Don't miss out!

[Sign up for our Webinar Alerts email today and never miss an upcoming event.](#)

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 - 2025 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.



LAURIN PUBLISHING

PHOTONICS MEDIA