

Biophotonics for patient care: building a translational research team at a medical center in the United States

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Biophotonics is a rapidly advancing interdisciplinary field at the convergence of light and biological matter. With a formal background in Physics and PhD training in biophotonics under the guidance of Dr. Jānis Spīgulis, I have been passionate about developing and applying light-based technologies for improving patient care. This talk will highlight my experiences building a translational research team within the Department of Dermatology of the Vanderbilt University Medical Center in Nashville, Tennessee, the United States. Dr. Eric Tkaczyk founded the Vanderbilt Dermatology Translational Research Clinic (VDTRC.org) in 2016 as a platform for direct translation of biophotonics for clinical impact in dermatology, oncology, and related specialties. The mission is seamless integration of technology-based patient care and translational research. I will also share our experience starting a new field of bedside confocal videomicroscopy. Through a reflectance confocal microscope, we noninvasively studied individual immune cells moving in the upper microvessels of human skin.

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