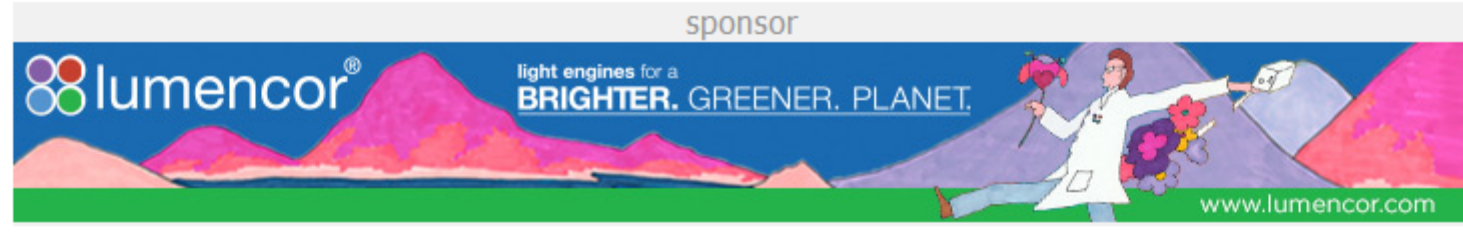


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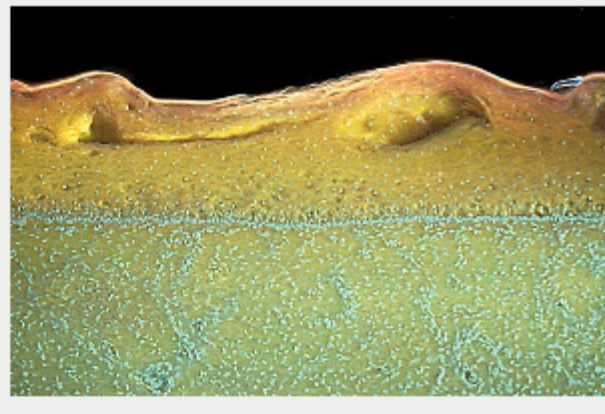


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MUSE: Simple Slide-Free Microscopy

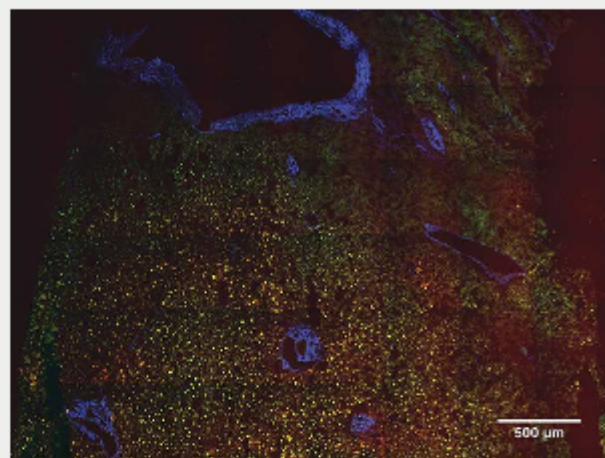
Even in this era of molecular medicine, conventional light microscopy remains the principal contributor to cancer diagnostics and also serves to guide surgical procedures, monitor disease activity and follow therapy responses over time. Although pathologists don't like to admit it, the optical principles that underlie their microscopes date back, largely unchanged, to the 18th century. Moreover, for these microscopes to be useful, properly prepared tissue samples mounted onto glass slides are a prerequisite, and the methodology for the necessary histological processing has itself not changed significantly since the end of the 19th century. Both aspects of tissue diagnostics are due for a refresh.



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Endospectroscopic Imaging Takes Optical Biopsies to the Next Level

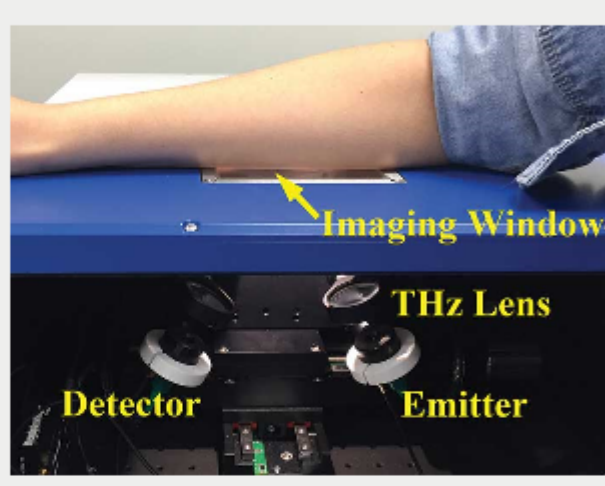
Spectroscopy has the potential to provide pathologists with fast in vivo tissue characterization to determine tumor type and grade and to delineate tumor margins. However, extending the applicability of microspectroscopy to in vivo imaging requires suitable optical fiber probes for an endoscopic inspection of difficult-to-access body regions. The engineering process is challenging. Besides the miniaturization of microscopy, it requires innovative scanning, excitation light delivery and signal collection, as well as robust and alignment-free light sources.



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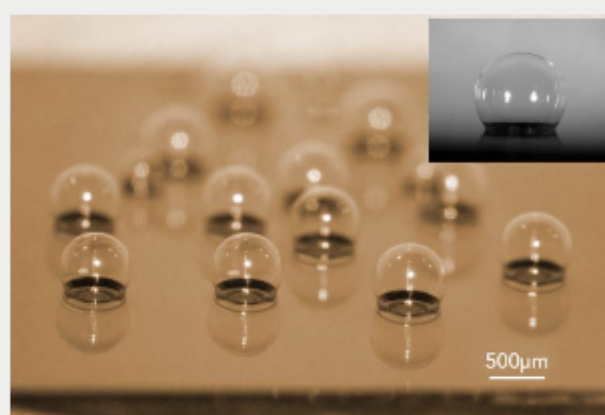
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Tue, Mar 20, 2018 1:00 PM - 2:00 PM EDT

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