Passive Hyperspectral Sensing Reliably Identifies Colorectal Cancer in Intraoperative Colon Specimens

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Technology description

Unmet Need:
Surgical management of colorectal cancer relies on accurate intraoperative identification of tumor and resection to negative margins. Hyperspectral (HS) imaging is a passive, non-ionizing diagnostic method that has garnered increased interest for its ability to detect multiple tumor types and even neoplastic biomarkers. We sought to explore the ability to use HS spectroscopy for transluminal identification of tumor specimens during surgical resection of colorectal cancers.
Technology Overview:
The accuracy of HS measurements to identify colorectal cancer was high during both transluminal and direct tumor imaging. Signal fidelity does not appear to degrade within the first 30 minutes following resection. High-resolution optical spectroscopy is a potentially useful diagnostic tool in the operative management of colorectal cancer.
Stage of Development:
Publication:
"Passive hyperspectral sensing reliably identifies colorectal cancer in intraoperative colon specimens." Journal of the American College of Surgeons Volume 223, Issue 4, Supplement 1, October 2016, Pages S34
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Institution

Johns Hopkins University

Inventors

Nita Ahuja
Chair of Surgery, Yale University
Outside
Robert Beaulieu
Fellow

Seth Goldstein
Fellow/Resident
Surgery SOM
Amit Banerjee
Engineer
Applied Physics Laboratory
Bashar Safar
Assistant Professor