

The CUNY Center for Advanced Technology In Photonics Applications (CUNY CAT)
 Designated by NYSTAR, the New York State Foundation for Science, Technology and Innovation

Optical Biopsy

Diagnosing Tissue with Light

Researchers in the Mediphotonics Laboratory at City College have developed a fluorescence-based optical biopsy system that uses the properties of light and its interaction with materials to provide a powerful tool to aid in the diagnosis of cancer. Optical biopsy can offer physicians significant advantages over traditional pathological measurements. The method is non-invasive and uses non-ionizing radiation to probe for tumors without damaging health tissue.

Potential Applications:

Endoscopic-based probes:

- Esophagus
- Stomach
- Colon
- Intestines
- Lungs
- Gynecological Tract

Stereotactic needle based probes:

- Breast
- Prostate
- Kidney

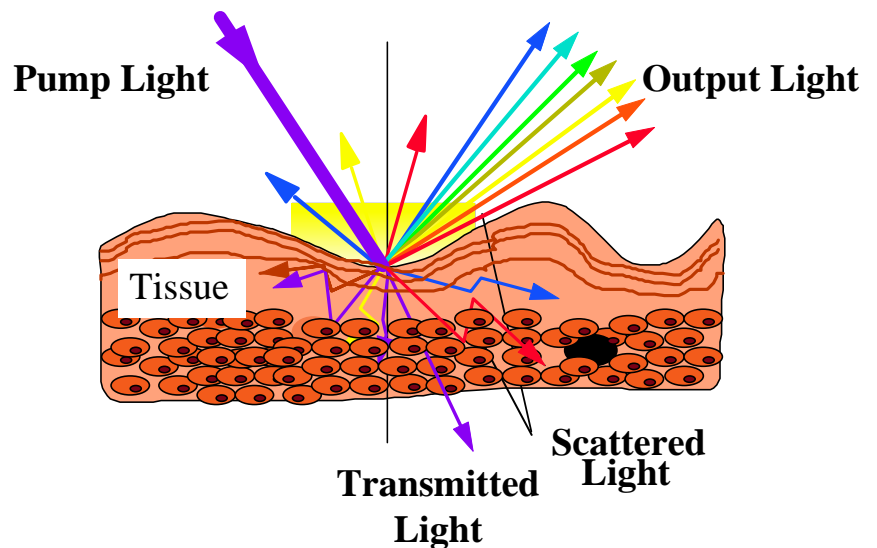
Other Areas:

- Aerodigestive Tract
- Operating Room

Benefits:

- Non-invasive. No tissue removal required.
- Rapid measurements with real time results.
- High spatial resolution to detect small tumors.
- Fluorescence imaging to clearly define tumorous regions.
- Potential to detect precancerous conditions.

Optical Biopsy



This technology opportunity sheet describes continuing efforts in this area. Several patents may have been issued or are pending and which may be available for licensing.

**For Details, contact Alan Doctor; email: alan.doctor@qc.cuny.edu; Phone: 718-997-4279 Fax: 718-997-4278
 Queens College • Razran 314 • 65-30 Kissena Boulevard • Flushing, NY 11367 www.cunyphotonics.com**