



LIGHTPOINT —MEDICAL—

Molecular imaging to guide cancer surgery

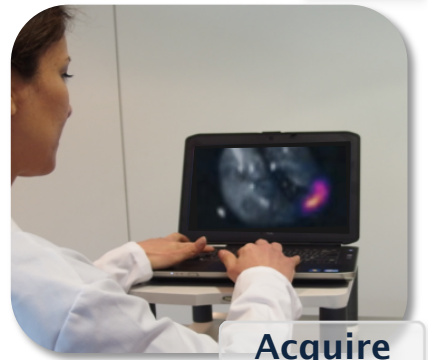
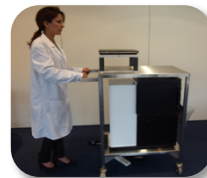
The Medical Need

Current methods for intra-operative margin assessment such as frozen section analysis are time-consuming and have low sensitivity.

The Solution: The LightPath™ specimen analyser

LightPath™ is a proprietary molecular imaging technology that can **perform molecular imaging of surgical specimens in the operating theatre**. It combines the benefits of optical imaging with the power of PET imaging — portability, rapid assessment, high resolution, and potentially high diagnostic performance.

Clinical trials of the specimen analyser are ongoing for tumour margin assessment and lymph node staging in breast, prostate, and gastric cancer.

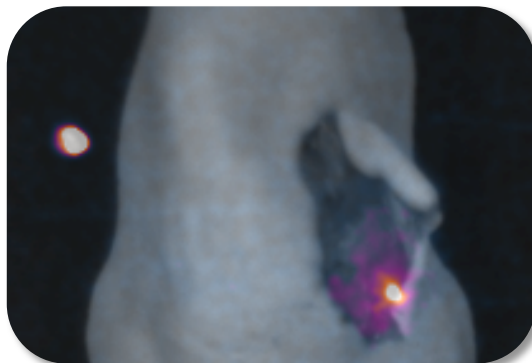


LightPath™ Benefits

- Molecular imaging in the OR for rapid detection of cancerous tissue.
- No need for sample preparation reduces need for additional staff.
- Portability allows for sharing between theatres.
- Compatible with all PET imaging agents including FDG, NaF, and Choline.
- Easy to set-up, use, and clean.
- Integrated structural and functional imaging.

The Technology

- The LightPath™ specimen analyser uses a novel imaging modality called Cerenkov Luminescence Imaging (CLI). CLI exploits the recent discovery that PET tracers, in addition to emitting positrons, also emit light in the visible range.
- CLI has sub-millimeter spatial resolution and tissue depth penetration >1 cm.

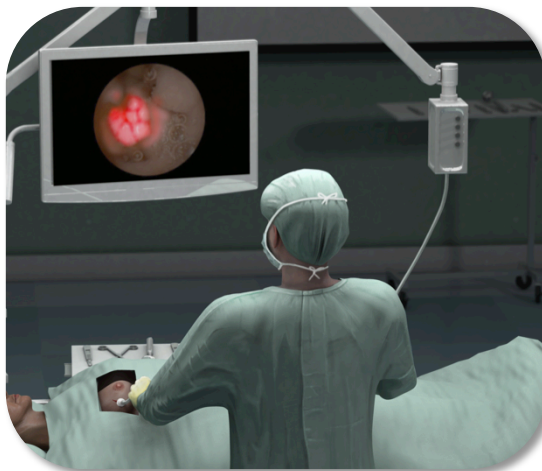


LightPath™ technical specifications

- High spatial resolution: 156 μm resolution and 8x8 cm^2 Field-of-View
- High sensitivity: 1.1×10^5 photons/sec/ $\text{cm}^2/\text{sr}/(\text{kBq}/\mu\text{l})$ for ^{18}F
- Small footprint: 75.0 cm H x 66.7 cm W x 32.7 cm D
- High performance optics: f/0.95 lens and thermoelectrically-cooled emCCD
- Spectral selectivity: 5-wavelength filter-wheel

Molecular imaging in the palm of your hand

- Lightpoint Medical is currently developing a hand-held CLI fibre-scope for imaging of residual disease in the surgical cavity, lymph node staging, and diagnostic imaging.
- The hand-held device will be ready for clinical trials in Q3 2014.



About Lightpoint Medical

- Lightpoint Medical is a privately-held, early-stage medical device company based in Rickmansworth, UK and Cambridge, Massachusetts.
- Please contact us or visit our web page to learn more.

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