

3D-ROTTENER:

3D non-invasive reconstruction of the tumor epithelial basement membrane

ADRESSED PATHOLOGY: Cancer

GENERAL OBJECTIVE:

To develop 3D image reconstruction techniques for the study of the integrity of tumor basement membrane which could enable in situ recognition of benign vs. malignant growth. The 3D reconstruction will be performed using i) laser technology capable of imaging through "turbid environments" such as tissues, and ii) bioimpedance measurements that can identify discontinuities in the medium to evaluate its depth. Furthermore, nanoparticle front band dynamics during diffusion within the tumor will be analyzed.

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CLINICAL/EXTERNAL GROUPS:

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