# BIO TALK: Opportunities for light in cancer detection and treatment

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June 14, 2022
12:30 to 13:30
BLR (351-P3)

**Abstract:**
Optical techniques (those using light) play a critical role in medicine to both detect and treat disease. Optical microscopy uniquely provides subcellular resolution and is used as the primary medical imaging technique for histopathology, the standard of care in diagnosing many diseases including most cancers. A laser's precision focusing ability allows for numerous surgical techniques including corrective eye surgery and skin treatments. The miniaturization and reduced costs of optical devices (lasers, cameras), computational advances (machine learning, data analytics), and new optical materials (plasmonic nanomaterials) are providing numerous opportunities for optical applications in medicine. This presentation will highlight our group's efforts in developing optical approaches for the noninvasive diagnosis of skin cancer, the surgical guidance of tumor removal, a laser microbiopsy, and tumor treatment using nanomaterials.

The lecture will be held in the **BLR (351-P3)** on **June 14 from 12:30-13:30**
After the lecture a networking session with pizza will take place at the picnic area, outside ICFO - An opportunity to meet and talk with colleagues in an informal setting.
Participation is open to all ICFOnians
Participants interested in also attending the networking session should register here.
**Hosted by:** Academic Affairs