

**DANIEL L. FARKAS' Translational Biophotonics talk series**  
**PART 2 (May 2019)**  
**SALA DE CONFERINTE CETAL**

1. **MARTI 7 MAI, ORA 13:30** : Cellular and Molecular Micro- and Nano-imaging
  - a. Cellular and mitochondrial membrane potential in real time
  - b. Multimode microscopy, for molecular, cellular and developmental biology (at the Center for Light Microscope Imaging and Biotechnology)
  - c. Spectral cytopathology, histopathology, intracellular proteomics
  - d. Standing wave microscopy, omni-directional standing wave microscopy (OSWM), photonanoscropy
  - e. Subcellular imaging (for exosomes), subnuclear imaging (for epigenetics)
  
2. **JOI 9 MAI, ORA 13:30** : Preclinical Optical Bioimaging
  - a. Cyanine dyes for live imaging of tumors
  - b. Hirschsprung's Disease
  - c. Stem cell monitoring *in vivo*
  - d. Multimode imaging studies of cancer
  - e. Targeted chemotherapy and its assessment
  
3. **MARTI 14 MAI, ORA 13:30** : Clinical cancer optical imaging
  - a. Molecular/tissue work (lymphocyte infiltration, immunohistochemistry, immunofluorescence, animal models)
  - b. Head and neck cancers
  - c. Multimode/hyperspectral imaging (SkinSpect) in patients
  - d. Early detection of melanoma
  - e. Moh's microscopic surgery (for basal cell carcinoma) revisited
  
4. **JOI 16 MAI, ORA 13:30** : Neurophotonics
  - a. Identifying cancer stem cells
  - b. Fast imaging of calcium domains in neuromuscular junctions
  - c. Oxygenation mapping in brain and eye
  - d. Multimode and lifetime imaging in the brain
  - e. Alzheimer's Disease: very early, non-invasive detection in the retina
  
5. **MARTI 21 MAI, ORA 13:30** : The GI tract: Endoscopy and food
  - a. Confocal endoscopy: world's smallest microscope
  - b. Hyperspectral and ultraspectral endoscopy for Mie scattering
  - c. Applications to clinical theranostics: spectral confocal scanning
  - d. The Operating Room of the Future
  - e. Multimode imaging for food compositional analysis, defense and safety