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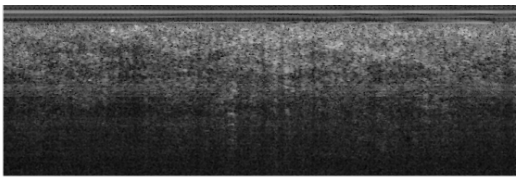
OPTICS & PHOTONICS
UNIVERSITY OF NOTTINGHAM

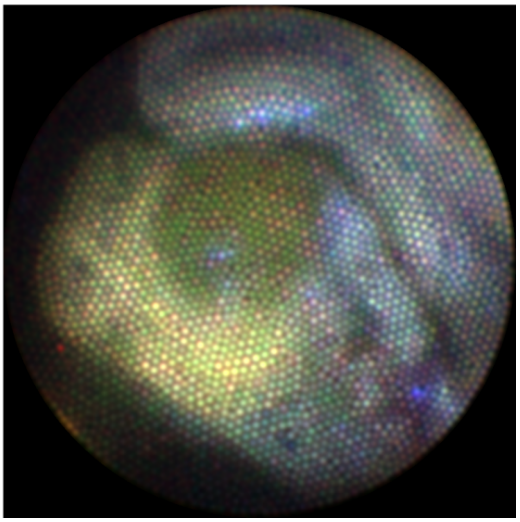
Optics and Photonics Group
Lunchtime Seminar

"Early detection of cancer with multi-modal endoscopes"

Prof Jennifer Barton

University of Arizona





13:30 Tuesday 8 November 2022
B3 - Life Sciences
All Welcome

Add to Calendar

http://optics.eee.nottingham.ac.uk/wiki/Seminars_2022-2023

“Early detection of cancer with multi-modal endoscopes”

Prof Jennifer Barton

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B3 - Life Sciences

All Welcome

MS Teams link

Optical modalities such as optical coherence tomography and fluorescence spectroscopy can distinguish subtle tissue changes that occur during carcinogenesis. They are much more sensitive and specific than whole-body imaging techniques such as MRI or CT. However, the limited penetration depth of light necessitates building endoscopic delivery systems. For some diseases such as ovarian cancer, flexibility and extreme miniaturization are required to reach the tissue of interest. I will present our work determining the optical signatures of early stage cancer and development of multi-modal endoscopes.

Jennifer Barton is currently Professor of Biomedical Engineering, Electrical and Computer Engineering, Optical Sciences, and Agriculture and Biosystems Engineering at the University of Arizona. She has served as department head of Biomedical Engineering, Associate Vice President for Research, Interim Vice President for Research, and is currently Interim Director of the BIO5 Institute, a collaborative research institute dedicated to solving complex biology-based problems affecting humanity.