



~Engineered Theranostic Materials~

Speaker : Prof. Stephen Evans

School of Physics and Astronomy, University of Leeds Head of Molecular and Nanoscale Physics Group & Director of Research and Innovation

Date : 2015 May 20th (Wed) 10:50-12:00 Place : South 4th Bldg. Room 422 Enquiry : Masayoshi Tanaka (2140, m_tanaka@chemeng.titech.ac.jp)

Abstract

Microbubbles are finding widespread application as theranostic agents, i.e ones that combine diagnostic imaging capability with therapeutic delivery. This talk will describe our microfluidic approaches for the design of microbubbles with complex architectures for targeted, triggered release for drugs and their effectiveness for the treatment of cancer.

A second theranostic system based on the plasmonic properties of gold nanotubes will also be described, in which their tunable absorption in the near-infrared (NIR) region can provide application as photothermal conversion agents and *in vivo* photoacoustic imaging contrast agents.