



IEBE Lecture Series

“Biomedical Applications of Magnetic Nanoparticles”

Prof. Quentin Pankhurst
University College London

Wednesday, March 22, 2023, 4 p.m.
UMIT TIROL, HS 002

Abstract

‘Healthcare Biomagnetics’ – the sensing, moving and heating of magnetic nanoparticles in vitro or in the human body – offers the potential for safe and convenient alternatives for many therapeutic and diagnostic applications. This is leading to the development of products such as remote sensors, mechanical actuators, and therapeutic heat sources. In this lecture a selection of recent examples will be presented and discussed.

Quentin Pankhurst

is a Professor of Physics and Director of the Healthcare Biomagnetics Laboratory at University College London – one of the top universities in the UK. Quentin’s work in bio- and nanomagnetism is directed towards making practical advances in the use of magnetic nanoparticles in healthcare. These include a medical tool for breast cancer staging; a molecular imaging microscope for living cells; and the development of multi-functional nanoparticles for therapy and diagnostics. In his career to date he has published more than 250 papers that have been cited more than 13,500 times, and he has generated more than £45M in research grant income and investment. He is a co-inventor on 12 patent families with 80+ national filings covering applications in magnetic sensing, heating and actuation; and he is the co-founder of three spinout companies.