

Technology Transfer and Commercialisation in Biomedical Engineering

Prof. Zhanfeng Cui

University of Oxford

Date: 1 August 2024 Time: 11:00 am

Venue: LT-11, John Chan Lecture Theatre, 4/F

Yeung Kin Man Academic Building

Abstract

In this talk I will introduce our research activities briefly in biomedical engineering and medical biotechnology, in University of Oxford and also in Oxford Suzhou Centre for Advanced Research. I will share my experience in commercialising developed technologies including 3D cell culture, bioreactor technology, and rapid test of Covid-19. I will outline the challenges in technology transfer in medical engineering and biotechnology and demonstrated the importance of international collaboration.

Biography

Professor Zhanfeng Cui is the Donald Pollock Professor of Chemical Engineering, University of Oxford since the Chair was established in 2000. He is the Founding Director of the Oxford Suzhou Centre for Advanced Research (OSCAR), the only Oxford University Centre outside the UK in Physical Sciences and Engineering. He was educated in China, and awarded BSc (1982), from Inner Mongolia Polytechnic University, MSc (1984) and PhD (1987) from Dalian University of Technology. After a postdoc in Strathclyde University (1988-1991), he became a Lecturer of Chemical Engineering in Edinburgh University in 1991, moved to Oxford in 1994 as a University Lecturer in Engineering Science and Tutorial Fellow of Keble College. He became a Reader in Engineering Science in 1999. He was elected to the first Chemical Engineering Chair at the University of Oxford in 2000 and a Professorial Fellow of Hertford College. He is a Fellow of the Institution of Chemical Engineers (FIChemE, 2003) and a Fellow of American Institute of Medical and Biological Engineering (FAIMBE, 2014). In 2009, he was awarded a Higher Doctorate, Doctor of Science (DSc), by the University of Oxford, to recognize his excellence in academic scholarship. He was elected to a Fellow of the Royal Academy of Engineering (FREng) in 2013, a Foreign Member of the Chinese Academy of Engineering in 2021, and a Fellow of the UK Academy of Medical Sciences (FMedSci) in 2023.

Prof Cui is known for his work on membrane technology and bioprocessing. He has focused on the interface between Chemical Engineering and Life Sciences and Medicine. His current research interests focus on the development of enabling technologies for regenerative medicine (bioreactors, three dimensional culture, cryopreservation and scale-up), and applications to treat cancers, diabetes, neural degeneration and musculoskeletal conditions. He is also active in developing in vitro diagnostic technologies for point of care testing, in particular, of cancers and infectious diseases.