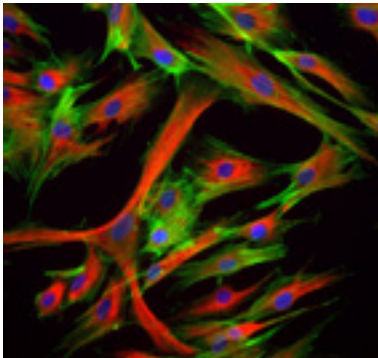


Nanotechnology in Medicine Network

Wednesday 2nd November 2016

2:00pm - 6:00pm

Manchester Cancer Research Centre (MCRC)



The inaugural of the Manchester Nanomedicine Lecture Series that will showcase renowned international speakers from the areas of oncology, nanomedicine and ethics, attempting to offer a perspective on how nanotechnology has and can contribute to the development of advanced cancer therapeutics and diagnostics.



Lecture Series I
Nanotechnology in Oncology

Speakers

David A. Scheinberg

Targeting cancers with antibodies and nanomaterials



Antibodies can serve as targeting vehicles for a variety of warheads or more complex nanomaterial based structures to deliver cytotoxic agents or other biologically active molecules to cancer cells and normal cells in live animals and humans for therapeutic effects.

David A. Scheinberg is currently Vincent Astor Chair, and Chairman, Molecular Pharmacology, Sloan Kettering Institute. He founded and Chairs the Experimental Therapeutics Center, and founded and was Chair of the Nanotechnology Center from 2010 to 2014.

He is Professor of Medicine and Pharmacology and Co-chair of the Pharmacology graduate program at the Weill-Cornell University Medical College and Professor in the Gerstner-Sloan Kettering Graduate School at Memorial Sloan Kettering Cancer Center.

He is a founder and a Director of the Therapeutics Discovery Institute, a non profit drug discovery corporation.

Francis Lévi

Clock-based chemotherapy delivery



Improved treatment selectivity is especially relevant in oncology, because of the tight efficacy/toxicity balance of anticancer medications, and the need for sparing host tissues from adverse lesions despite prolonged treatment durations.

Advances in molecular medicine have further led to develop tools for delivering the right drug at the right dose for the right patient. Yet, a network of molecular circadian clocks moderates pharmacologic mechanisms and dose-response effects through redundant mechanisms.

The existence of such a coordinated Circadian Timing System emphasizes the need for treatment timing specifications, so that personalized and precision cancer medicine reaches full effectiveness. Francis

will review the evidence, and discuss how nanoparticles embedded cancer therapies could fit in these circadian concepts and improve patient outcomes.

Francis Lévi is Clinical Professor of Biomedicine-Medical Oncology at the University of Warwick Medical School and Honorary Consultant at the Cancer Center, UHB Queen Elisabeth, and coordinates the Warwick-INSERM European Associated Laboratory "Personalising Cancer Chronotherapy through Systems Medicine (C2SysMed).

His current research focuses on the systems medicine approach to the interactions between the circadian timing system, the cell cycle and drug metabolism, and their implications for improving cancer therapy and health-related quality of life.

Bernadette Bensaude-Vincent

War on cancer or house of cancer? Reflections on the impact of metaphors



Trained as a philosopher and historian of science, Bernadette Bensaude-Vincent is currently a professor at the University Paris 1 Panthéon Sorbonne, and the director of the CETCOPRA.

Her main research interests span from the history and philosophy of chemical sciences, the science/public relations and the French tradition of epistemology.

From 2000, Bernadette's research shifted towards contemporary technologies: materials science and engineering, nanotechnology, synthetic biology.

Boris Vojnovic

Fluorescence imaging during surgery



The application of fluorescence image-guidance techniques used during human surgery, in optimising preclinical radiation delivery systems and on the application of advanced fluorescence microscopy techniques in biomedicine.

Borivoj Vojnovic is Professor of Biophysics and has been the head of the Advanced Technology Development Group at the Oxford Institute for Radiation Oncology and Biology within the Department of Oncology since 2007. He held a similar position at the Gray Institute at Mount Vernon Hospital and has over 30 years' experience in developing fast kinetic spectrophotometry techniques,

fluorescence-based oxygen sensors, a range of accelerators and radiation sources applicable to radiobiology studies and numerous other biomedical instrumentation systems. His more recent interests include the development of advanced fluorescence microscopy techniques and, in particular, clinical optical imaging.

His presentation will focus on current and future applications of fluorescence image-guided cancer surgery, with emphasis on keyhole surgery approaches. Requirements of contrast agents, the potential for 'nano' agents, regulatory issues and other topics relevant to the field will be covered.

Nanotechnology in Medicine Network

The Nanotechnology in Medicine (NanoMed) Network is a new cross-faculty interdisciplinary network that aims to facilitate the exploitation of novel nanomaterials and nanotechnologies, such as graphene and other 2D materials, in order to provide solutions for unmet clinical challenges.

The University is in a strong position to take an international lead in this field and in the development of interdisciplinary research collaborations across the University. The Network will capitalise on our vibrant biomedical and clinical research community, along with its world-leading expertise in physical and engineering sciences to encourage ground breaking, excellent science and clinical technology development in this new and high value area of research.

By focusing effort on responding to unmet clinical needs, the NanoMed Network will make full use of the considerable untapped potential within the University and broader MAHSC partnership, federating

the activities of the international and national nanomedicine community, and opening up valuable new opportunities with major funders and industry.

An expert and multi-disciplinary Steering Board chaired by Professor Kostas Kostarelos (Chair of Nanomedicine) and composed of Dr Graham Cadwallader (Director of Strategic Funding, FBMH), Professor Colin Sibley (Research Director, MAHSC), and Professor Chris Taylor (Associate Vice President of Research, The University of Manchester) will direct the network. Dr Ania Jolly (Lead Strategic Funding Manager, Strategic Funding Team) is the Network Project Manager.

More information on Nanotechnology in Medicine Network members and forthcoming activities will be available shortly.

Contact NanoMedNetwork

Please contact Ania Jolly, Lead Strategic Funding Manager, Strategic Funding Team for further information about the network:



ania.jolly@manchester.ac.uk



www.manchester.ac.uk/nanomed



0161 306 1125

Contact Strategic Funding Team

This event is supported by Strategic Funding Managers from the FBMH Strategic Funding Team. Find out more about the SFT:



<http://tinyurl.com/hwdcefk>



SFT@manchester.ac.uk



@RD_UoM

Sign up to receive the Strategic Funding Team funding bulletin by email: <http://goo.gl/4sYRW7>