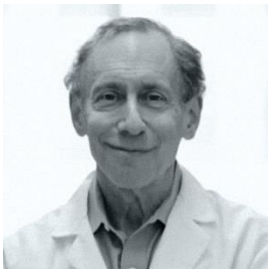


mRNA Series One / Lecture Two

GUEST SPEAKER

Professor Robert Langer (USA)

Co-Founder, Moderna and Institute Professor, Massachusetts Institute of Technology (MIT)



Robert Langer is one of 12 Institute Professors at the Massachusetts Institute of Technology (MIT); being an Institute Professor is the highest honor that can be awarded to a faculty member.

He has written over 1,500 articles, which have been cited over 381,000 times; his h-index of 307 is the highest of any engineer in history and the 2nd highest of any individual in any field. His patents have licensed or sublicensed to over 400 companies; he is a cofounder of a number of companies including Moderna. Dr Langer served as

Chairman of the FDA's Science Board (its highest advisory board) from 1999-2002.

Robert has over 220 awards include both the United States National Medal of Science and the United States National Medal of Technology and Innovation (he is one of 3 living individuals to have received both these honors), the Charles Stark Draper Prize (often called the Engineering Nobel Prize), Queen Elizabeth Prize for Engineering, Albany Medical Center Prize, Breakthrough Prize in Life Sciences, Kyoto Prize, Wolf Prize for Chemistry, Millennium Technology Prize, Priestley Medal (highest award of the American Chemical Society), Gairdner Prize, Hoover Medal, Dreyfus Prize in Chemical Sciences, BBVA Frontiers of Knowledge Award in Biomedicine, and the Balzan Prize.

He holds 40 honorary doctorates, including Harvard, Yale, Columbia, and Northwestern, and has been elected to the National Academy of Medicine, the National Academy of Engineering, the National Academy of Sciences and the National Academy of Inventors.

FACILITATOR

Professor Chris Porter

Director, Monash Institute of Pharmaceutical Sciences, Monash University



Chris Porter is Director of the Monash Institute of Pharmaceutical Sciences (MIPS) at Monash University. MIPS houses over 450 researchers and graduate students across five major themes of activity in Pharmaceutical Sciences – Drug Discovery Biology, Medicinal Chemistry, Drug Candidate Optimisation, Drug Delivery, Disposition and Dynamics and Medicine Use and Safety. Therapeutically, MIPS strengths lie in neuroscience and mental health, cardiovascular and metabolic health, and global health. Major capabilities lie in G-protein coupled receptor (GPCR) biology, synthetic medicinal chemistry, fragment-based drug design, ADME-informed lead optimisation, drug formulation and delivery (including nanomedicine), and optimised medicine use and safety in community and clinical settings. MIPS is committed to research translation and industry engagement and recent successes include the spin out/start-up companies Cincera, Septerna, Ankere and Inosi and significant ongoing relationships with local and international companies including eg. J+J, Takeda, Servier, CSL, Starpharma, PureTech and Polyactiva.

Chris completed a Pharmacy degree and PhD in drug delivery at the University of Nottingham in the UK before moving to Australia to pursue an academic career. His personal research programs have subsequently focused on understanding and quantifying the absorption, distribution and elimination profiles of drugs and



on developing novel formulation approaches to optimise these profiles. Major interests include improving the absorption of poorly water-soluble drugs, the role of the lymphatic system in drug absorption and the potential utility of dendrimers and other nanomaterials as drug delivery systems. Chris has published more than 250 peer reviewed papers (>25,000 citations, h-index 83) in these areas and his research programs have attracted >\$35m in funding from government and commercial organisations. He is an inventor on >15 separate patent families, many of which have been the subject of licencing/assignment deals with national and international pharma/biotech companies. The most significant of these are with Starpharma (Melbourne) to develop the DEP[®] dendrimer-based drug delivery system (currently in Phase 2 clinical trial) and with PureTech Health (Boston) to develop the Glyph[®], lymphatic targeting technology (currently in Phase 1 clinical trial). He is a Clarivate Analytics highly cited researcher (2015, 2016 and 2018) and a fellow of the American Association of Pharmaceutical Scientists. He was awarded an honorary doctorate by Uppsala University in 2018. He is an Editorial Board member for Molecular Pharmaceutics, Pharmaceutical Research and the Journal of Pharmaceutical Sciences and is a previous elected member of the Board of Scientific Advisors of CRS.