

Program Content

<p>This course provides background and introduction to the emerging discipline of Translational Medicine and the increasingly important role it will play in biomedical research and the biopharmaceutical industry.</p>	<p>TM in action: drivers and barriers. Inter-relationships from 'bench to bedside'</p>
<p>Translational Medicine provides an integrated and interdisciplinary approach for the improved understanding and treatment of disease. This course will highlight the increasing requirement to understand and define disease at a multi-system level (molecules > populations) to enable more sophisticated analysis of the origin and pathogenesis of disease processes.</p>	<p>Fundamentals of disease mechanisms In vitro vs in vivo disease models Stem cell & gene therapies</p>
<p>This course describes the spectrum of clinical, scientific and societal metrics and measurements required in Translational Medicine research for the identification and definition of disease systems at various levels.</p>	<p>Post genomic technologies Imaging technologies Systemic measurements Biomarkers</p>
<p>This key course explores current and emerging challenges facing the biopharmaceutical industry and the major role Translational Medicine will play in future drug development strategies.</p>	<p>Conventional drug discovery Translational approaches to drug discovery PharmacogenomicsBiological</p>
<p>This course will complement others in the programme which are</p>	<p>Ethics of tissue banking</p>

<p>dealing with the scientific and medical contexts and will focus on strategic, policy and regulatory aspects. It will consider the requirements of a wide range of medical advances (from drugs to tissue engineering) in terms of innovative strategic approaches to deliver advances to patients, and the contrasting requirements for effective translation in commercial companies and health services.</p>	<p>Legal frameworks</p> <p>Patient group interface</p> <p>IP issues</p>
<p>The Certificate will provide participants with an in depth understanding of the rationale and impact of Translational Medicine and appreciation of its increasingly important role to medical research, the drug development industry and regulatory sectors. The multidisciplinary, integrative and interactive nature of Translational Medicine will be highlighted and understanding of its relevance and impact to scientific, medical and societal sectors will be gained.</p>	<p>Interdisciplinary research teams</p> <p>Medical bioinformatics & systems analysis</p> <p>Clinical trial evaluation</p> <p>Translational Medicine case studies</p>