



Marie Skłodowska-Curie
Actions



Network Wide Training 1, Timetable 28-31st March 2017

Tuesday 28th March 17		
Drug Discovery Workshop Venue: FRED, Level 5 TBSI	Giuseppe Campiani & Vincent Kelly	
9.30 – 10.30	<i>Cancer therapies, old and new</i>	Prof Vincent Kelly, TCD
<i>Coffee break, 10.30-11.00</i>		
11.00-12.00	<i>Medicinal chemistry in cancer drug discovery</i>	Prof Giuseppe Campiani, UNISI
12.00-13.00	<i>Molecular Modelling to identify cancer drug targets</i>	Dr Andy Knox, Dublin Institute of Technology
<i>Lunch break, 13.00-14.00</i>		
Antibody Technology Workshop	Emma Creagh	
14.00-15.00 Venue: Room 6.07, Level 6 TBSI	<i>Introduction to Antibodies & their Application for Research</i>	Prof Emma Creagh
15.00-15.30	<i>ELISA: Set-up overnight stimulation of HEK293T cells with IL-1; Coat ELISA plates with coating antibody (anti-IL-8).</i>	Prof Emma Creagh
*Animal Models in Cancer & Tumour Histology Workshops		
15.30-16.30 Venue: Room 6.07, Level 6 TBSI	<i>Murine Tumour Models & Introduction to Tumour Histology</i>	Prof Vincent Kelly & Jeff O'Sullivan
16.30-17.30	<i>Tumour Histology Workshop, part 1 - Imaging & Dissection of Tumours & Adjacent Normal tissue from mice (fix one tumour set, homogenise the second set)</i>	Prof Vincent Kelly & Jeff O'Sullivan
Wednesday 29th March 17		
*Animal Models in Cancer & Tumour Histology Workshops		
9.00-10.00	<i>Processing of Fixed tumours in Histology suite.</i>	Prof Jeff O'Sullivan
Antibody Technology Workshop cont'd		
10.00-11.00	<i>Western Blot: Preparation of SDS-PAGE gels and tumour lysate samples. Load and run SDS-PAGE gels.</i>	Prof Emma Creagh
11.00-11.30	<i>ELISA: Incubate HEK293T supernatants from overnight IL-1 stimulation on ELISA plate.</i>	Prof Emma Creagh
*Animal Models in Cancer &		
	Jeff O'Sullivan and Vincent Kelly	

Tumour Histology Workshops	Kelly	
11.30-13.00	<i>ESRs will return to histology suite (in pairs, 20 mins/pair) to embed the tissue samples (normal & tumour).</i>	Prof Jeff O'Sullivan
<i>Lunch between 11.30-13.00</i>		
13.00-14.00	<i>Western Blot: Transfer SDS-PAGE gels to nitrocellulose/PVDF membrane.</i>	Prof Emma Creagh
14.00-14.30	<i>ELISA: Wash plates & incubate with IL-8 detection antibody (1h).</i>	Prof Emma Creagh
<i>Coffee break, 14.30-15.00</i>		
15.00-16.00	<i>Western Blot: Block membranes (1 h in 5% NFDm) before overnight incubation with primary antibody.</i>	Prof Emma Creagh
16.00-17.00	<i>Develop IL-8 ELISA and read plates (save raw data for graphing & analysis in report).</i>	Prof Emma Creagh
Thursday 30th March 17		
Antibody Technology Workshop cont'd	Emma Creagh.	
9.00-10.00	<i>Western Blot: Wash membranes and Incubate with secondary antibody (1h @RT).</i>	Prof Emma Creagh
*Animal Models in Cancer & Tumour Histology Workshops		
10.00-11.00	<i>Cut FFPE sections and H&E stain.</i>	Prof Jeff O'Sullivan
Antibody Technology Workshop cont'd	Emma Creagh.	
11.00-12.00	<i>Wash membranes and Develop blots (save images for report).</i>	Prof Emma Creagh
<i>Lunch 12.00-14.00</i>		
*Animal Models in Cancer & Tumour Histology Workshops		
14.00-16.00	<i>Examine H&E stained tissues, save representative images of tissue histology.</i>	Profs Vincent Kelly & Jeff O'Sullivan
16.00-17.00	<i>Review session on each of the techniques, prepare figures for reports.</i>	Profs Jeff O'Sullivan & Vincent Kelly
Friday 31st March 17		
Biomarker Discovery Workshop Venue: FRED, Level 5 TBSI	Jeff O'Sullivan	
9.00-9.45	<i>Development of commercial in-vitro diagnostic tests</i>	Dr Isabel Vega Carrascal, Product Development Manager, DiaSorin Ireland.
9.45-10.30	<i>Bioinformatics Approaches for Biomarker Discovery</i>	Dr Karsten Hokamp, SFI Bioinformatics Research Officer, TCD.

10.30-11.15	<i>Raman spectroscopy in biomarker detection</i>	Prof Fiona Lyng, Centre for Radiation & Environmental Science, Focas Research Institute.
11.15-12.00	<i>Using exosomes and ectosomes to identify new biomarkers and therapeutic targets in cancer</i>	Prof Lorraine O'Driscoll. School of Pharmacy & Pharmaceutical Sciences, TCD.
12.00-12.30	<i>A students' journey through biomarker research</i>	Nicoleta Sinevici, 1252 Scholar, TCD.
<i>Lunch break.</i>		
Research Ethics & Integrity Venue: FRED, Level 5 TBSI		
13.30-14.30	<i>Research Integrity</i>	Dr Barry Lyons, Bioethics, School of Medicine, TCD
Open Science Venue: FRED, Level 5 TBSI		
14.30-15.30	<i>Open Access in Horizon 2020</i>	Niamh Brennan Programme Manager, Research Informatics, TCD
Review of Training Activities Venue: FRED, Level 5 TBSI		
15.30-16.00	<i>Feedback from ESRs</i>	Prof Emma Creagh

***Animal Models in Cancer & Tumour Histology Workshops**

* A mouse model of subcutaneous melanoma will be used to introduce TRACT ESRs to tumour histology techniques. The subcutaneous model is widely used for the evaluation of therapy in many tumour models, including B16 melanoma. Upon subcutaneous injection, B16 will form a palpable tumour in 5 to 10 days and grow to a 1 × 1 × 1–cm tumour in 14 to 21 days. C57BL/6 mice (will be injected (1×10^5 cells/mouse) 14 days prior to the TRACT tumour histology workshop, so that there will be detectable tumours to dissect. Hands on experience in tissue sectioning, tissue embedding and staining will be provided using tumour samples recovered from the mouse tumour model.