

Demystifying the Science behind Targeted Treatments and Immunotherapies for Malignant Melanoma

9 December 2019

9.00 *Registration and coffee*

9.30 **Malignant melanoma cell biology and genetics**

- Cell of origin and mechanisms of development
- Key genetic mutations in malignant melanoma
- The relationship between melanoma and the immune system
- Differences between melanomas on sun-exposed vs. non-sun exposed skin and between cutaneous and non-cutaneous melanomas

10.30 **Work sheet 1**

11.00 *Break*

11.20 **B-Raf and MEK inhibitors for malignant melanoma**

- The EGFR/Ras/Raf/MEK/ERK pathway as a drug target
- Introduction to kinase inhibitors and their mechanism of action
- B-Raf inhibitors e.g. vemurafenib, dabrafenib, encorafenib
- MEK inhibitors e.g. trametinib, cobimetinib, binimetinib
- Combining B-Raf and MEK inhibitors – why is it better?
- Overview of clinical trials

12.15 **Work sheet 2**

12.30 *Lunch*

13.15 **Work sheet 2 answers**

13.25 **Immunotherapy for malignant melanoma**

- Introduction to T cells and checkpoint proteins
- Mechanism of action of checkpoint inhibitors (CTLA-4, PD-1 and PDL-1 monoclonal antibodies)
- Trials with licensed checkpoint inhibitors
- Development of biomarkers to guide patient selection

14.30 *Break*

14.50 **Novel targets and treatment approaches**

- Cell-based treatments and novel immunotherapies
- Progress with antigen and DNA vaccines
- Overview of agents in early phase trials

15.50 *Close*