

# Demystifying the Science behind Targeted Treatments and Immunotherapies for Malignant Melanoma

**Wednesday 9 December 2020**

**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 data

**12.10**      **Work sheet 2**

**12.30**      *Lunch*

**13.15**      **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

**14.15**      **Work sheet 3**

**14.30**      *Break*

**14.50**      **Novel targets and treatment approaches**

- Overview of agents in UK trials
- Combination trials with checkpoint inhibitors + novel immunotherapies
- Progress with vaccines, oncolytic virus and novel kinase inhibitors

**15.50**      *Close*