

# Molecular Mechanisms of Immunotherapies for Solid Tumours

## Virtual study day

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Friday 10 December 2021

### **Aims:**

The focus of this morning is on cancer's relationship with the immune system, and how this knowledge is being used to improve the outlook of people with various solid tumours.

Our presenter, Dr Elaine Vickers, will focus much of her attention on the checkpoint inhibitor group of immunotherapies, which include PD-1, PD-L1 and CTLA-4 targeted antibody therapies. She describes how checkpoint inhibitors boost cancer-fighting T cells. She also highlights some of the lessons learned through the hundreds of clinical trials with checkpoint inhibitors that have taken place over the past decade.

In the latter part of the morning Dr Vickers explains other technologies, such as CAR T cell therapy, vaccine-based treatments and oncolytic viruses.

As ever, Elaine's presentations are full of colourful and enlightening illustrations to help learners make sense of scientific concepts. Elaine's descriptions avoid unnecessary jargon and are pitched so that even those with a limited understanding of cell biology are able to understand.

This morning is the second part of a virtual study day and follows on from "Molecular Mechanisms of Targeted Therapies for Solid Tumours" on Thursday 9 December

### **Audience:**

This content is ideal for research nurses, clinical nurse specialists, pharmacists and clinical trials coordinators. It may also be of interest to other healthcare professionals involved in the diagnosis and treatment of people with solid tumours, and to junior doctors.

### **Cost:**

£50 per day

### **Register:**

[www.royalmarsden.nhs.uk/studydays](http://www.royalmarsden.nhs.uk/studydays)

### **Get in touch:**

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## Programme- Day 2:

**10:00 Welcome and Introductions**

**10:10 Session 1—Cancer’s Relationship with the Immune System**

- A brief introduction to the immune system
- How cancer’s relationship with the immune system changes over time
- How the immune system can recognise and react to the presence of cancer in the body
- Mechanisms of immune-evasion by cancer cells
- Introduction to immunotherapy and the importance of T-cells
- Reasons why immunotherapy sometimes does work and sometimes doesn’t

**10:45 Live Q&A**

**10:55 Break/Sponsor Exhibition**

**11:00 Session 2—Immunotherapy with Checkpoint Inhibitors**

- Introduction to T cells and checkpoint proteins
- Mechanism of action of checkpoint inhibitors
- Spot the difference: CTLA-4 and PD-1/P-L1 targeted checkpoint inhibitors
- Examples of results and lessons learned from clinical trials

**11:40 Live Q&A**

**11:50 Break/Sponsor Exhibition**

**11:55 Session 3—Cancer Treatment Vaccines, CAR-T Cell Therapy and TCR- Engineered T Cells**

- Cancer vaccines: peptide, DNA, dendritic cells, oncolytic viruses
- CAR T cell therapy for solid tumours, are we making progress?  
Another option: TCR-engineered T cells
- What’s the future of immunotherapy for solid tumours, and how do we get there?

**12:30 Live Q&A**

**Please note that the content will be available online for 30 days after the event .**