

Targeted treatments and immunotherapy for lung cancers

([scan the QR code to book online](#))

This course provides an overview of the targeted therapies and immunotherapies given to some people with lung cancers

Date: Tuesday 8 and Tuesday 15 September 2026 1:30 – 4:30pm
Delivery: Online via MS Teams
Fee: £175



Over the course of two afternoons [Dr Elaine Vickers](#) – a leading independent educator on the science of new cancer treatments will guide you through many of the most relevant topics relating to modern systemic treatments for non-small cell lung cancer (NSCLC).



In the first session, Elaine will focus on the gene faults that drive many NSCLCs and on the targeted treatments that exploit these faults, such as inhibitors of EGFR, ALK, ROS1, B-Raf, HER2, MET, and RET.

The second session explores cancer's relationship with the immune system and focuses on the checkpoint inhibitor group of immunotherapies, which include PD-1, PD-L1 and CTLA-4 targeted antibody therapies.

Dr Vickers' goal is to explain the science that underpins each treatment. She also hopes to provide learners with a broad understanding of why

treatments work well for some patients but not for others.

Audience

This course 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 lung cancer.

Please note: This session will be delivered via MS Teams and recorded so if you cannot attend on the date and time of delivery, you will be able to watch the presentations afterwards at a time convenient to you.

NHS England's [ACCEND](#) Programme aims to support the development of a skilled and knowledgeable cancer workforce. This course supports Component 3 of the ACCEND's **Education Framework**.

This course's learning outcomes meet core cancer knowledge needs at both the **'Foundation of Cancer Care'** and **'Fundamentals of Cancer Care'** levels enhancing understanding of:

- the biology of normal and cancer cells, cancer as a genetic disease/process of carcinogenesis, angiogenesis and metastases, cell growth, cell death and DNA repair, aetiology, epidemiology.
- genomics and its applications in cancer diagnosis, prognosis and treatment.
- cancer treatments, developments in personalised medicine and the rationale for their use.

The knowledge gained will empower staff to feel confident when communicating with patients and their families, as well as with clinical and non-clinical colleagues.

Session One: Tuesday 8 September 2026

Presentation 1 – Lung cancer cell biology and genetics

- The cell of origin of various types of lung cancer
- How and why lung cancer develops, and the differences between lung cancers in smokers and non-smokers
- The faulty genes and proteins that drive adenocarcinomas and squamous cell carcinomas

Presentation 2 – Treatments that target EGFR

- The role of EGFR and signalling pathways in NSCLC
- EGFR gene mutations that create sensitivity to EGFR inhibitors
- EGFR inhibitors: 1st, 2nd, and 3rd generation, and beyond

Presentation 3 – More targets and treatments

- ALK & ROS-1 inhibitors
- Targeting B-Raf, HER2, MET, RET, NTRK, K-Ras G12C
- What about antibody-drug conjugates?

Session Two: Tuesday 15 September 2026

Presentation 4 – Cancer's relationship with the immune system

- How cancer's relationship with the immune system changes over time
- Mechanisms of immune evasion by cancer cells
- Introduction to immunotherapy
- When is a targeted therapy or immunotherapy more likely to work?

Presentation 5 – Introduction to immune checkpoint inhibitors

- Introduction to checkpoint proteins on T cells
- Mechanism of action of immune checkpoint inhibitors
- Combining checkpoint inhibitors with other treatments

Presentation 6 – How can we predict who will benefit from them?

- Measuring PD-L1 protein levels and tumour mutation burden
- Preparing the patient: antibiotics, diet, and other influences on the microbiome

Presentation 7 – Experience from trials

- What have we learned from clinical trials with PD-1, PD-L1, and CTLA-4-targeted antibodies

Booking and payment

The fee for the course is £175 per delegate. To book a place on this course go to [Tickets](#) at the bottom of the booking page.

At the checkout you can make an online card payment or enter a coupon code to make alternative payment arrangements such as requesting an invoice for your employer to arrange payment using code **INVOICE**.

For more information see the [Making payments](#) & [Coupons](#) sections of our [Help and FAQs](#).

If you have any queries please contact the team at <mailto:nuth.newcastlehospitalsskillsacademy@nhs.net>

You can find more information and book online via our website by scanning this QR code.



Pre-course preparation

Elaine has created two YouTube playlists about [cancer biology](#) and [cancer treatments](#) to help learners get the most out of her courses.

Each playlist contains 10 videos of between 3 and 8 minutes.

Elaine has also given this advice: "If you're short on time and you're not sure about the relationship between DNA, genes and proteins, I would suggest watching the [Cells, DNA, genes and chromosomes](#) and [From genes to proteins](#) videos from the Cancer Basics playlist as a priority.

"If you're new to cancer I'd also recommend the [Mutations cause cancer](#) video."

"In the [Cancer Treatments](#) playlist, there are videos about all the various treatments I'll be mentioning in the first session.

"The two I'd prioritise explain why we use small chemical compounds ([small molecules](#)) and [antibodies](#) as cancer treatments."