

# Outlooks

## When will cancer become less frightening?



When a patient is diagnosed with cancer, their world falls apart. In that moment, only one thing matters to them: can it be treated?

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In recent years, cancer treatment has advanced dramatically thanks to progress in molecular medicine, which provides insights into which molecular properties facilitate tumour growth – and which drugs can inhibit it. This has taken precision oncology, or personalised cancer treatment, a huge step in the right direction. Another approach that has become established in the past decade and is used to treat many types of cancer are drugs known as immune checkpoint inhibitors, which make cancer cells visible to the immune system.

Internal Medicine / Oncology

These and other effective innovations are constantly being refined – and new ways to help patients are being added to the list. The next major breakthrough could come in the form of an mRNA vaccine against cancer. The idea here is to use AI-assisted processes to develop vaccines designed to target the specific characteristics of each tumour based on individual tumour samples and the patient’s individual immune system. The vaccine then functions like a cheat sheet, telling the immune system how to recognise the tumour so that it can fight and destroy it.

Innovations like these show that cancer treatments are becoming increasingly individualised and diverse because every cancer and every patient is different. This may not take the initial shock out of a cancer diagnosis, but it means that in the future we medical professionals will be able to respond more often to the question “Can it be treated?” with a confident “yes”.