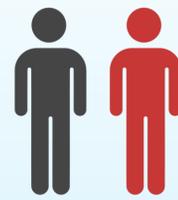


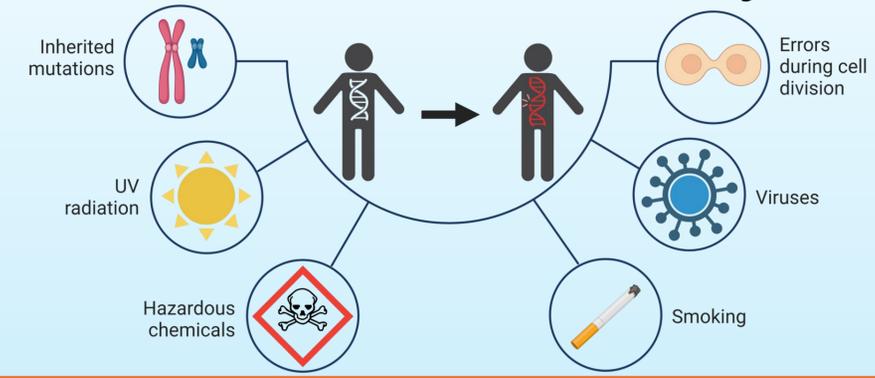
Cancer Genetics



1 in 2 people will be diagnosed with cancer at some point in their life.

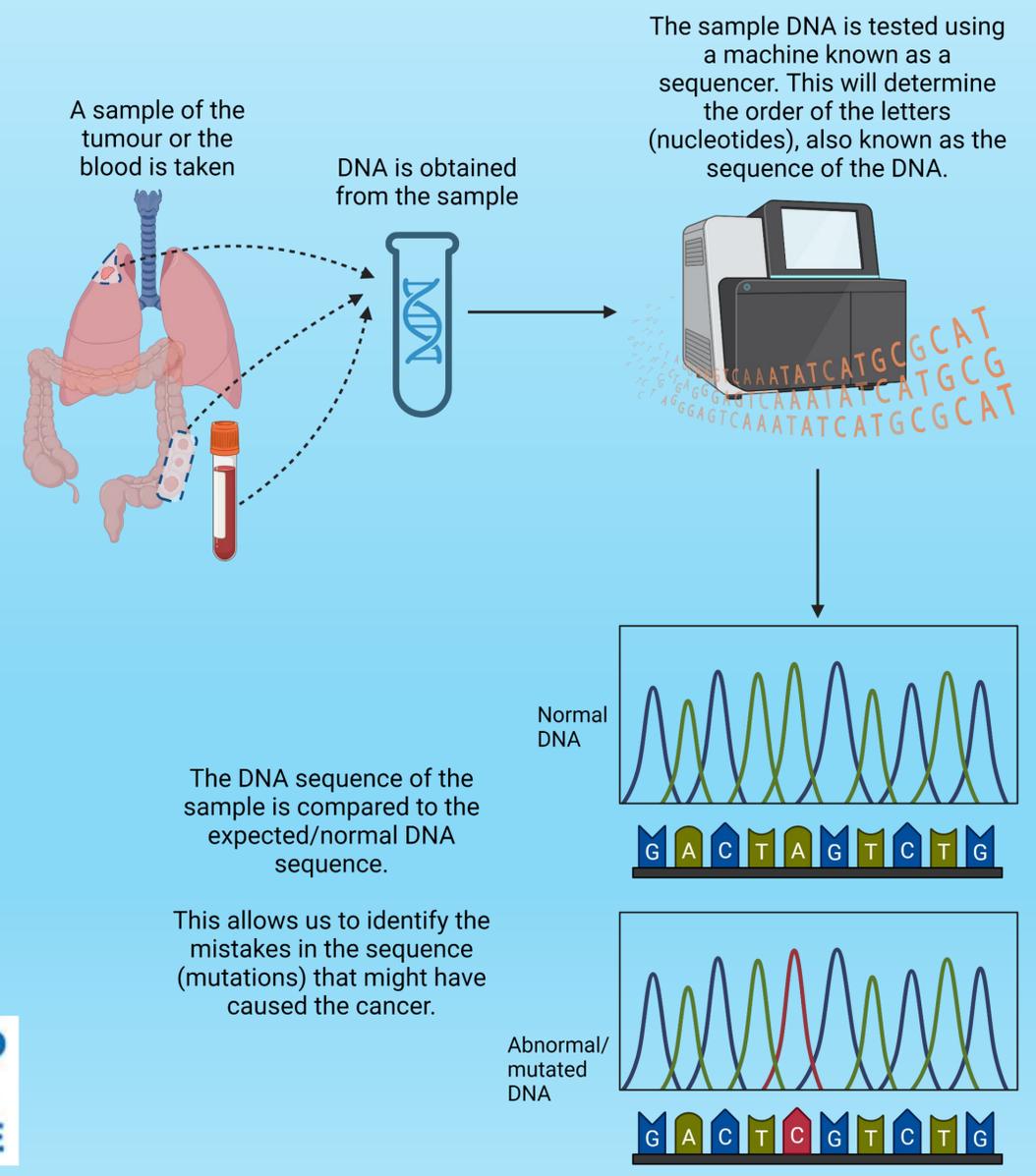
Cancer is a disease caused by mistakes in genes, known as mutations. But what causes these gene mutations?

Gene mutations can be inherited, or they can be caused by a variety of environmental and lifestyle factors. They can also happen randomly during cell division. If these mutations accumulate, this can eventually lead to cancer.

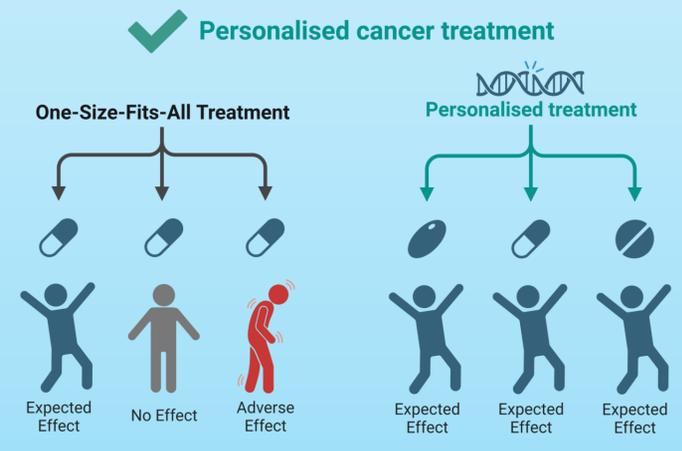


What is laboratory genetics? What role do they play in the diagnosis and treatment of cancer?

In laboratory genetics, we test tumours and blood samples from patients with cancer. Our main goal is to identify gene mutations in the samples.

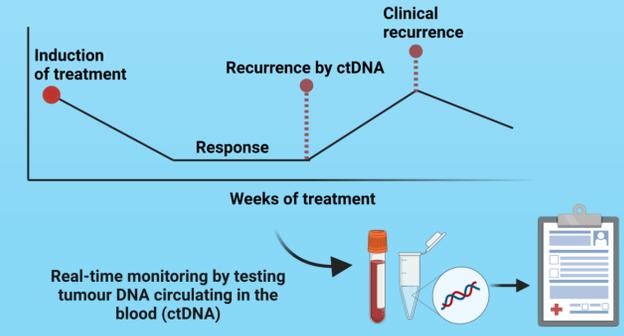


Why do we do this?



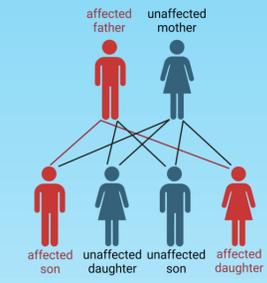
Genetic analysis of cancers ensures that every patient gets the most appropriate therapy, tailored to their needs.

- Monitoring response to therapy
- Early detection of relapse



It enables us to identify when a patient's disease is resistant to treatment or has started to relapse, allowing for timely intervention.

- Determine whether the mutation is inherited
- Identify families with a high risk of cancer



We can identify the families most at risk of cancer so they can be offered advice and screening.

Kerri Sweeney, PhD
Trainee Clinical Scientist