Progress in understanding genetics

Key milestones in unravelling the mystery of DNA

1953

Double helix structure of DNA discovered

Scientists now understand how DNA can carry genetic information that tells the body's cells what to do.

2003

Human Genome Project completed

Completing an accurate sequence of the 3 billion DNA base pairs of the human genome paved the way for scientists to understand how certain genes might cause or prevent diseases.

2012

ENCODE consortium builds functional genomics technologies

New tech helps scientists understand much of the non-coding DNA (previously thought of as "junk" DNA) is involved in the control or regulation of gene expression.

1977

First DNA-based genome sequenced

The technology used by Fred Sanger and team led to a major breakthrough in DNA research, allowing long stretches of DNA to be rapidly and accurately sequenced.

2007

Next-generation sequencing techniques introduced

New tools and techniques now enable millions of samples to be sequenced at rapid speed, dramatically increasing scale and reducing cost of sequencing.

2012

CRISPR gene editing technique opens up new potential

CRISPR offers new treatment and medicine discovery techniques by knocking out, modifying or replacing genes which can help scientists discover and validate new targets.

Our ambition

We're joining forces with the University of California, San Francisco (UCSF), and University of California, Berkeley (UCB) to establish a new Laboratory for Genomics so we can deepen our understanding of human biology using cutting-edge technologies to find better medicines faster.