

Developments in Molecular Genetics



1953

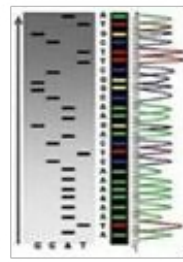
DNA structure solved from Franklin's data

First GMO
E.coli



1973

Sanger
Sequencing
Technology



1977

Moratorium
on gene cloning

1978



Insulin & growth hormone manufactured

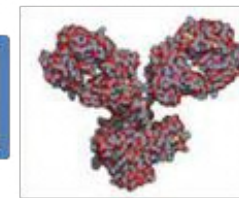
1979

1989



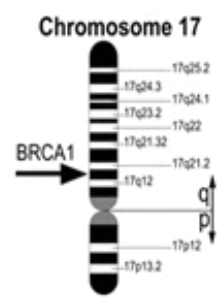
Cystic fibrosis gene ID

1992



Infliximab cloned for arthritis

Breast Cancer Gene ID



1994

2000



Golden rice developed

Human genome sequence - final



2003

Gene editing technology breakthrough

2014

2015



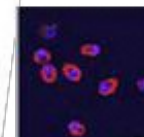
Vaccine rVSV-ZEBOV effective

1000 genomes sequenced



2015

2016



Gene editing corrects CFTR mutation



Mitochondrial DNA Transfer approved UK

Yellow light to human embryo editing by US Academies + Strict Guidelines & Governance



2017



Gene editing for leukaemia