

Over the past century, the Medical Research Council has been at the forefront of scientific discovery to improve human health. **Key discoveries related to viruses include:**

**1933****Discovery of the influenza virus**

MRC scientists proved that influenza is caused by a virus, rather than a bacterium, after studying ferrets.

**1947****Influenza monitoring centre set up**

The MRC National Institute for Medical Research monitors flu strains worldwide – in 2009 it played a key role in efforts to counter the H5N1 'swine flu' epidemic.

**1957****Discovery of interferon**

Interferon proteins are used today to treat hepatitis, cancer and multiple sclerosis.

**1975****Monoclonal antibodies developed**

Isolating and producing unlimited numbers of individual, or monoclonal, antibodies is a powerful tool in medical research.

**1980****Babies vaccinated against pneumococcus**

In developing countries pneumococcus bacteria are responsible for around one million child fatalities every year - a vaccine developed by MRC scientists reduced deaths by 16%.

**1980-1989****Humanised monoclonal antibodies developed**

'Humanised' monoclonal antibodies are better suited to medical use. Monoclonal antibodies now form the basis of a third of all biotechnology products in development.

**1981****Structure determined of the proteins flu uses to stick to cells**

Work to reveal the 3D structure of influenza haemagglutinin, the proteins that allow the virus to stick to cells and infect them, may help in designing new antiviral drugs.

**2002****Haemophilus influenzae type B (Hib) disease eradicated in The Gambia**

MRC research in The Gambia led to a national vaccination programme that wiped out Hib, one of the main causes of pneumonia and meningitis in children in developing countries.

**2003****Mystery of how Spanish flu jumped from birds to humans solved**

MRC investigators used X-ray crystallography to solve the 85-year-old mystery surrounding the world's most lethal flu outbreak.

See the full Centenary Timeline at:

<http://www.centenary.mrc.ac.uk/>