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/](http://www.centenary.mrc.ac.uk/)