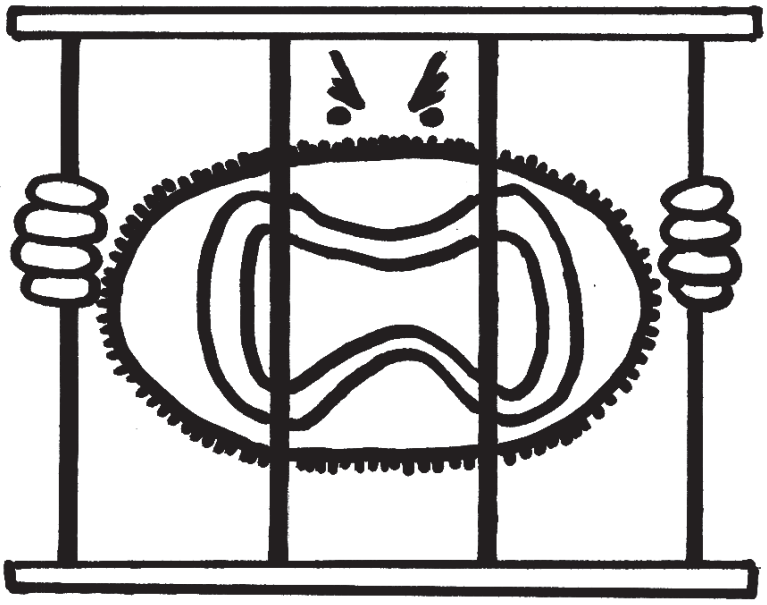
You're nicked!



Name: **Smallpox Virus**
A.K.A.: **Variola, Variola vera, smallpox**

Responsible for: As the name suggests – smallpox. Previously a deadly disease, the virus became the subject of the first experimental vaccination, carried-out by Dr Edward Jenner in 1796, on the basis that inoculation with the related cowpox virus conferred immunity to the smallpox virus.

Characteristics:

Infection of skin cells induces pus as the immune system attempts to attack the virus. This spreads and can cause the skin to become detached in large patches. Extensive haemorrhaging beneath the skin can also occur. Death may result from the loss of the protective layer of the skin (vital for protecting the body from infection), massive loss of body fluids due to the haemorrhaging, and multi-organ failure as the infection spreads.

Where are we now?

The smallpox vaccine is a great immunological success story. As a result of a concerted vaccination campaign by the World Health Organization in the 1970s, the final case of smallpox 'in the wild' came in 1979. The virus was then considered entirely eliminated, save for experimental samples retained in the USA and Russia. The virus's invariant viral coat meant that the vaccine remained effective without the development of resistant strains. The fact that the virus was restricted to humans, without additional animal carriers, also made elimination easier. Dr Jenner would have been proud!

Can you help? Immunology needs you!

http://www.immunology.org/dayofimmunology

British Society for immunology 50th anniversary

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