**BBC**

**Edinburgh and Cambridge scientists make virus discovery**

Scientists have gained new knowledge into how viruses such as flu and HIV jump between species.

The research, by Edinburgh and Cambridge universities, should help predict the appearance of new diseases.

The scientists wanted to understand how viruses such as bird flu infect distant species like humans.

They found they were better able to infect species closely related to their typical target species than species that were distantly related.

However, the research also suggested that when diseases make a big leap they may then spread easily in species closely related to the new victim, regardless of how closely related these are to the original target species.

Dr Ben Longdon, of Edinburgh University's school of biological sciences, who led the study, said: "Emerging diseases such as Sars, HIV and some types of flu have all got into humans from other species.

"Understanding how diseases jump between different species is essential if we want to predict the appearance of new diseases in the future."

By infecting more than 50 species of flies with three different viruses, the researchers showed that species closely related to a virus's usual target species were more susceptible than distantly related flies.

They also showed that groups of flies that were closely related were similarly susceptible to the same viruses.

The study, funded by the Biotechnology and Biological Sciences Research Council, Natural Environment Research Council, the Wellcome Trust and the Royal Society, was published in the journal PLoS Pathogens.