Lab-dish advance against MERS virus

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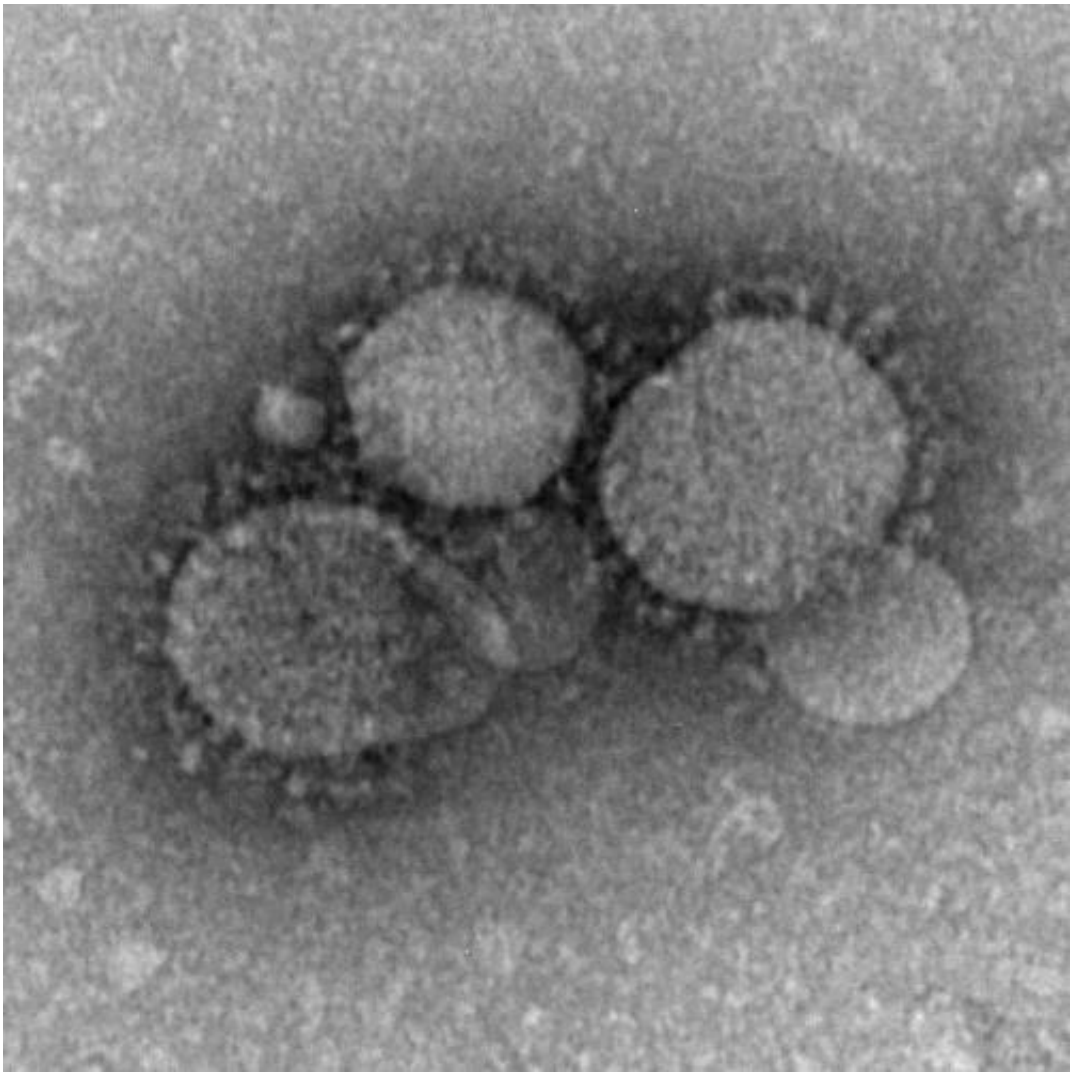

MERS-CoV particles as seen by negative stain electron microscopy. Virions contain characteristic club-like projections emanating from the viral membrane. Credit: Centers for Disease Control and Prevention

Chinese scientists said Tuesday they had identified a compound that, in lab dish experiments, blocks infection by the deadly Middle East Respiratory Syndrome (MERS) virus.

A type of small protein, also known as a peptide, prevents the spikey virus from fusing with human respiratory cells, they said.

Fusion is a key step in replication of the virus. It enables the virus to infiltrate a cell and hijack its cellular machinery in order to reproduce.

The study, published in the journal *Nature Communications*, was led by Shibo Jiang at Fudan University in Shanghai.

The peptide, called heptad repeat 2 (HR2P), has "good potential" for development into a future drug against MERS, it says.

So far, HR2P's effects have only been studied on cells in a lab dish and not yet on animals—the next step in a long process to validate any new drug for safety and effectiveness.

The first case of MERS surfaced in Saudi Arabia April 2012.

It is considered a more virulent but less transmissible cousin of SARS, a so-called coronavirus that erupted in Asia in 2003 and infected 8,273 people, nine percent of whom died.

There have been 180 laboratory-confirmed cases of MERS, including 77 deaths, according to a World Health Organisation (WHO) toll issued on Tuesday.

More information: Paper: press.nature.com/templates/press/images/spacer.gif