

Griffith University tackles deadly Hendra virus

June 4 2012

Australian medical researchers are on the brink of an effective human treatment for the deadly Hendra virus, and potentially the closely related Nipah virus, which has killed more than two hundred people in South East Asia.

Associate Professor Nigel McMillan from Griffith University's School of Medical Science has been awarded Australian Federal <u>Government</u> <u>funding</u> to make further progress towards a human cure for Hendra virus.

Since the first <u>outbreak</u> of the disease in 1994, there have been seven confirmed human cases in Australia, resulting in four deaths. Currently there are no safe, effective <u>treatment options</u>.

Associate Professor McMillan's research will be of great significance in South East Asia where the closely related Nipah virus has killed 248 people. There have been outbreaks of the Nipah virus in Indonesia, Bangladesh, Malaysia and Singapore. Both Hendra and Nipah viruses have a death rate above 50%.

The Griffith University research team, in collaboration with CSIRO, is developing a new therapy that attacks the virus by turning off a vital gene. Team leader, Associate Professor McMillan said the beauty of the treatment is that it is very simple.

"We have already been able to reduce Hendra virus in cells by 99.99%



within a laboratory, and we have found the treatment is highly effective in very low doses," Associate Professor McMillan said.

"We have also developed a novel way of delivering the therapy through what we call "stealth liposomes", which will safely take the treatment to where it needs to go in the body," he said.

The only therapy currently available for people who have been exposed to Hendra virus is a highly experimental anti-body therapy. Associate Professor McMillan believes his team is on the threshold of a <u>treatment</u> which will be not only completely effective, but harbour no serious sideeffects.

"If someone comes in who has been infected we will be able to give them a therapy which will turn off the virus and the patient will recover naturally because <u>virus</u> won't have the opportunity to spread," Associate Professor McMillan said.

"Furthermore, the patient will then develop a lifelong immunity to <u>Hendra virus</u>," he said.

Provided by Griffith University

Citation: Griffith University tackles deadly Hendra virus (2012, June 4) retrieved 26 April 2024 from <u>https://medicalxpress.com/news/2012-06-griffith-university-tackles-deadly-hendra.html</u>

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