

A chemical within a traditional Chinese medicine has been found to be effective against Ebola

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Health workers in protective clothing speak with new arrivals in the outpatient waiting room of Redemption Hospital, formerly an Ebola holding centre, in Liberia. John Moore/Getty Images

A chemical found in the Chinese herb known as Han Fang ji switches off the channels which the Ebola virus uses to enter and infect cells, according to research by US and German scientists.

The scientists found that using a small dose of the chemical tetrandrine, but not the herb itself, stopped the virus from replicating and protected mice from the disease without obvious side effects.

The discovery of the promising drug therapy against Ebola is announced in the journal *Science*.

Dr Robert Davey, of the Department of Immunology and Virology at Texas Biomedical Research Institute, says the small molecule Tetrandrine is a potent at inhibiting infection of human white blood cells in experiments and preventing Ebola virus disease in mice.

Scientists at Texas Biomed have been working in the Institute's Biosafety Level 4 containment laboratory for more than 10 years to find a vaccine, therapies and detection methods for the Ebola virus.

The Ebola virus begins its entry into a cell by first binding to several types of cell surface proteins. Then the virus is taken into the cell and follows a route which transports the virus to cell compartments.

"When we tested in mice, the drugs stopped virus replication and saved most of them from disease," Davey said.

This drug shows an ability to stop the virus before it has a chance interact with cells.

"We are very excited about the progress made in this study and the momentum it provides as scientists across the world vigorously search for effective vaccines and treatments against Ebola virus," Davey said.

"We are cautiously optimistic. The next step in the process is to test both safety and effectiveness of the interaction of the drug with Ebola virus in non-human primates."

So far 9,589 people have died in the West Africa Ebola outbreak, according to [WHO \(World Health Organisation\)](#).