Universal flu vaccine on the horizon?

By ACSH Staff — January 13, 2015

The CDC issued a recommendation yesterday [1], advising doctors to treat the flu more aggressively by using two antiviral drugs that supposedly work to minimize the effects of flu. Although there has long been controversy over whether these drugs work at all, this recommendation is in response to both a bad flu season and a poor match of this year’s vaccine with circulating influenza strains.

Well, scientists at New York’s Mount Sinai Health System are working to develop [2] a flu vaccine that protects against all strains of the flu and which may provide protection for up to two decades. The vaccine works by targeting the part of the influenza virus that remains unchanged from year to year, according to Dr. William Schaffner, chairman of Preventive Medicine at Vanderbilt University Medical Center.

This goal has been among the most sought-after goals of infectious disease researchers since viruses were discovered to be the cause of influenza. In fact, researchers at Mount Sinai [3] have been working for years to develop a universal flu vaccine. In 2010, researchers removed the head of the hemagglutinin protein one of the proteins found on the surface of the flu virus and targeted the stable section of the molecule exposed after removing the head. This version proved protective against multiple strains of the flu when tested in mice. Current flu vaccines target the head of the hemagglutinin protein, which is constantly changing.

The new vaccine is supposed to go to clinical trials later this year, to which Dr. Schaffner says, A universal vaccine is the Holy Grail and the prospects of what this could do for medicine [are] staggering.