

This year's flu season may be just as bad as last year's—and we still don't have a universal vaccine

With the [deadly 2017-2018 flu season](#) still fresh in public health officials' minds, this year's outbreak is shaping up to be just as severe. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases (NIAID), says this flu season could be one of the worst in decades.

...

Even within subtypes of influenza, the virus's genetic code is constantly mutating, causing season-to-season changes that scientists call antigenic drift.

"Most of the time, the virus changes just enough from one season to another so that last year's flu isn't exactly the same as what this year's flu is," Fauci says. "In order to get optimal protection, you recommend vaccinating people every year. ... There really is no other vaccine that you recommend somebody getting vaccinated every single year."

To keep up with antigenic drift, scientists are constantly tweaking the flu [vaccine](#), which is designed to respond to a surface protein called hemagglutinin, targeting what Fauci calls the "head" of the protein. ...

The other end of the protein—the "stem"—is much more resistant to mutations. A vaccine that targets the hemagglutinin stem has the potential to provide protection against all subtypes of [influenza](#) ..., offering an essentially universal defense against the flu.

Read full, original post: [As the World Faces One of the Worst Flu Outbreaks in Decades, Scientists Eye a Universal Vaccine](#)