

Variations within influenza strain may explain varying patient response

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(Medical Xpress)—Just the mention of H1N1 can conjure up images of long lines of people waiting to be vaccinated, news reports of the severity of the pandemic and the count of the number of people who perished from the 2009-10 outbreak. However, some positives are coming forward.

Researchers at the University of Louisville have found variations within H1N1 patients who were hospitalized and identified those that most impacted patients. Their findings were published on the [PLOS ONE](#) website.

"While all of the variants that we uncovered hijacked the body's usual system for fighting off foreign objects in the lungs, namely the [white blood cells](#), their ability to fight appears to differ," said Colleen Jonsson, Ph.D., professor of microbiology and immunology at UofL and the director of the university's Center for Predictive Medicine. "We were able to take the strain variants from patients who were hospitalized during the [pandemic](#), isolate those variants and determine how they functioned using a [mouse model](#). Future studies will determine the impact of various treatment options.

"These results are very limited and preliminary," Jonsson warned. "This year's [influenza outbreak](#) is an opportunity for us to verify much of what we originally learned and to extend our understanding of the mechanisms involved."

Jonsson said that collaboration between physicians at University of Louisville Hospital and her team has been critical to the advances made thus far. She noted that being able to have the full continuum of disease that has manifested inpatients, taking it to bench and animal research, and then ultimately back to helping patients is the final goal of the work.

Provided by University of Louisville

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