

## **Tulane gets \$1.6 million to develop better flu vaccine**

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As flu season officially begins this month, researchers at Tulane University School of Medicine are working on developing more effective flu vaccinations thanks to a \$1.6 million grant from the National Institutes of Health.

Tulane immunologist [Elizabeth Norton](#) and her team are testing the efficacy of two adjuvants - compounds that stimulate the immune system - as part of the effort to create a better flu vaccine. LTA and LTA1 are new generation proteins developed from a parent molecule that proved to be a highly effective adjuvant in earlier trials but produced unacceptable side effects in a small number of people.

Adjuvants LTA and LTA1 have several potential benefits. They can boost a vaccine's effectiveness, helping to protect high-risk populations (e.g., elderly, immunocompromised) or be used in smaller doses to stretch a limited vaccine supply, potentially critical in a pandemic flu setting. These particular adjuvants cause no or limited memory response in the immune system, so they could be used for a number of different vaccinations.

"It's really exciting that we have the opportunities and the tools here at Tulane to be investigating something that could help so many people," says Norton.

The team will primarily use mice to test flu vaccines by both skin injections and nasal sprays. The studies will examine immunologic responses, the level of virus protection offered and how the vaccine is working mechanistically.

The NIH grant will support the research through 2020.

"At the end of the day, I'm a scientist because I believe researching human health to give people better, happier and more productive lives is the best thing I can do with my time," says Norton. "I think this grant will really help us to do something that could potentially have a huge impact on our community and the general

population."