



11 JUL, 2019

## Back to the flu-ture

Herald Sun, Melbourne

# Back to the flu-ture

## WWII drug emerges as new influenza treatment

### BRIGID O'CONNELL

AN anti-inflammatory drug used since World War II has emerged as a potential new flu treatment that could be used at any stage of the illness.

Melbourne researchers have found two existing medications — one once used to prolong the life of penicillin and now to treat gout, and other an experimental anti-arthritis drug — could be key to reducing flu-related deaths.

Co-lead researcher Michelle Tate, of the Hudson Institute of Medical Research, said it was not the virus that was deadly, but the immune system reacting dangerously, causing tissue and organ damage.

“The flu virus has become resistant to antivirals, and you have to take them within the first couple of days of getting sick,” Dr Tate said.

“People typically present to hospital five days after they get sick, and apart from oxygen

and supportive care there are no actual treatments for them.

“There is a real fine balance, because you want some immune response to fight the infection.

“Unfortunately with the flu, in severe cases the immune system builds to a point where it's too strong and causes damage.”

Three years ago the Hudson team found a key player in what triggers the immune system to become “hyper-inflammation” in response to flu.

The next step was to take drugs that acted on the protein, Probenecid and a second drug called AZ11645373, and test them in mice.

Both drugs dampened the immune system — at all stages of influenza — so the animal could fight off infection.

The findings, which involved Monash University, were published in the *British*

*Journal of Pharmacology* with Australia amid one of its most deadly flu seasons.

At least 250 people — including 50 Victorians — have died this winter, more than a month before the expected season peak. Last week a 13-year-old Melbourne girl died three days after showing flu-like symptoms.

“We think about a good drug being very potent, but in this case we don't want to get rid of the immune response all together,” Dr Tate said. “These drugs are taking the edge off, rather than completely ablating the immune response.

“Vaccines target a really specific strain of the virus, and you have to be vaccinated before you get sick. With these drugs, by targeting the immune response in the host, the virus isn't going to become resistant to these drugs.”

Researchers are planning a

clinical trial of the new treatments.

[brigid.oconnell@news.com.au](mailto:brigid.oconnell@news.com.au)