

Vaccine improves fibrosis in mouse model of idiopathic pulmonary fibrosis

April 7 2016

Idiopathic pulmonary fibrosis (IPF) is a progressive, fatal disease characterized by lung fibrosis and declining lung function. There are currently few effective treatments for IPF, and the median survival following diagnosis is between 2 and 5 years.

In this issue of *JCI Insight*, Maureen Horton and colleagues at the Johns Hopkins School of Medicine report that intranasal administration of a vaccine for vaccinia, the virus that causes small pox, improved [lung function](#) in a mouse model of IPF. The vaccine induced a population of T cells, known as resident memory CD4+ T cells, within the lungs of treated mice, which was associated with fewer fibrosis-inducing cells within the lungs and a marked reduction in [lung fibrosis](#).

These findings indicate that therapies to induce such immune cell populations may be a promising approach for the treatment of IPF.

More information: Samuel L. Collins et al. Vaccinia vaccine–based immunotherapy arrests and reverses established pulmonary fibrosis, *JCI Insight* (2016). [DOI: 10.1172/jci.insight.83116](https://doi.org/10.1172/jci.insight.83116)

Provided by Journal of Clinical Investigation

Citation: Vaccine improves fibrosis in mouse model of idiopathic pulmonary fibrosis (2016, April 7) retrieved 15 February 2024 from <https://medicalxpress.com/news/2016-04-vaccine->

fibrosis-mouse-idiopathic-pulmonary.html

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