Pulmonary fibrosis is a chronic, deadly disease that affects five million people worldwide. It is irreversible, its cause is poorly understood, and it has a median survival of only about 3 years. A new study that implicates mast cells—an immune cell involved in allergic asthma—in the
development of idiopathic pulmonary fibrosis could lead to new, more
effective therapies. The study is published in *DNA and Cell Biology.*

In the article "Mast Cells: A Pivotal Role in Pulmonary Fibrosis," A.
Veerappan and colleagues from Weill Cornell Medical College, New
York, NY, showed that in mice unable to produce mast cells, a chemical
trigger known to cause pulmonary fibrosis does not result in disease.
However, when the researchers introduced mast cells into the lungs of
these mice, disease protection was reversed and the mice developed
pulmonary fibrosis. The authors identify a role for two key compounds
produced by mast cells—histamine and renin—and propose that they
promote fibrogenesis when mast cells are activated early in the course of
the disease.

Editor-in-Chief Carol Shoshkes Reiss, PhD, Departments of Biology and
Neural Science, New York University, NY says, "Randi Silver's lab has
shown, in this compelling paper, that mast cells contribute to the
pathogenesis of pulmonary fibrosis. These observations are important
and may lead to the development of new therapeutic modalities to
prevent deterioration of lung function."

**More information:** The article is available free on the *DNA and Cell

Provided by Mary Ann Liebert, Inc

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