

Blood pressure drug limits cigarette smoke-induced lung injury in mice

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Chronic obstructive pulmonary disease (COPD) is among the most common causes of death in the US. It is a smoking-related disease for which there are currently no disease-altering therapies. However, hope that one could be developed is now provided by the work of Enid Neptune and colleagues, at Johns Hopkins University, Baltimore, in a mouse model of lung disease caused by exposure to cigarette smoke.

Neptune and colleagues found that losartan, a drug used widely in the clinic (e.g., to treat [high blood pressure](#)), reduced lung disease in mice caused by exposure to [cigarette smoke](#).

Losartan blocks the protein angiotensin receptor type 1, and its effects on cigarette smoke - induced lung injury were a result of the fact that blocking angiotensin receptor type 1 leads to a decrease in levels of the soluble molecule TGF-beta.

The authors therefore suggest that other TGF-beta - targeted therapeutics might also be viable candidates for the treatment of COPD.

More information: Angiotensin receptor blockade attenuates cigarette smoke - induced lung injury and rescues lung architecture in mice, *Journal of Clinical Investigation*.

Provided by Journal of Clinical Investigation

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