The pathophysiological role of novel pulmonary arterial hypertension gene *SOX17*

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Shareable abstract (@ERSpublications)
***SOX17*, a risk gene in PAH, manifests *in vivo* phenotypes and interacts with key signalling pathways and transcriptional targets in the pathobiology of PAH. Restoration of *SOX17* gene expression and signalling may represent a new therapeutic strategy in PAH.** https://bit.ly/37ldkIL

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Abstract

Pulmonary arterial hypertension (PAH) is a progressive disease predominantly targeting pre-capillary blood vessels. Adverse structural remodelling and increased pulmonary vascular resistance result in cardiac hypertrophy and ultimately failure of the right ventricle. Recent whole-genome and whole-exome sequencing studies have identified *SOX17* as a novel risk gene in PAH, with a dominant mode of inheritance and incomplete penetrance. Rare deleterious variants in the gene and more common variants in upstream enhancer sites have both been associated with the disease, and a deficiency of *SOX17* expression may predispose to PAH. This review aims to consolidate the evidence linking genetic variants in *SOX17* to PAH, and explores the numerous targets and effects of the transcription factor, focusing on the pulmonary vasculature and the pathobiology of PAH.