The transcription factor myocyte enhancer factor 2 (MEF2) is significantly impaired in pulmonary arterial hypertension (PAH).

Inhibition of class IIa HDACs restored MEF2 activity in pulmonary arterial endothelial cells (PAECs), as demonstrated by increased expression of targets, including miR-424 and miR-503.

Augmentation of MEF2 activity holds a potential therapeutic value in PAH.

Selective HDAC IIa inhibition was identified as a viable alternative approach to avoid the potential adverse effects of broad spectrum HDAC inhibition in PAH.

Expression of miR-424 and miR-503 significantly increases in PAH PAECs treated with MC1568, a HDAC class IIa specific inhibitor that restores MEF2 activity.

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Publications:

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