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Food for thought: why is there more airway smooth muscle in asthma?

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Shareable abstract (@ERSpublications)
Altered lipid metabolism in airway smooth muscle cells in asthma drives hyperplasia and may contribute to increased muscle bulk *in vivo* https://bit.ly/3dypJMv

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All definitions of asthma include reference to smooth muscle contraction, which manifests as either episodic wheeze, breathlessness, cough, bronchospasm and/or exacerbations. Furthermore, bronchodilators are one of most effective classes of therapeutic for the management of acute exacerbations and long-term treatment of asthma. It is therefore somewhat surprising that the smooth muscle cell is often under researched in comparison to inflammatory and epithelial cells in asthma. This likely relates to the difficulty of obtaining bronchoscopic samples and the expertise required to isolate and grow airway smooth cells *in vitro*. The *in vitro* growth of smooth muscle cells from bronchial biopsies was pioneered by the group led by J.L. Black [1]. The first publication from her group characterising airway smooth muscle cells in asthma was published 20 years ago, and described increased proliferation of smooth muscle cells *ex vivo* from people with asthma. It seems fitting that understanding the cause of this increased proliferation was elegantly investigated by Esteves *et al.* [2] in this issue of the *European Respiratory Journal*.