Methacholine reactivity in lymphangioleiomyomatosis is inversely related to FEV_1 and VEGF-D

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To the Editor:

Lymphangioleiomyomatosis (LAM) is a multisystem disease characterised by cystic lung destruction, leading to respiratory failure, and associated with kidney (*e.g.* angiomyolipomas (AML)) and lymphatic involvement (*e.g.* lymphangioleiomyomas, chylous effusions) [1, 2]. LAM occurs sporadically or in association with tuberous sclerosis complex (TSC), an autosomal-dominant disorder characterised by mutations of the *TSC1* or *TSC2* genes. Lung destruction results from the proliferation of LAM cells, which possess neoplastic properties and are found in LAM lung nodules, in association with fibroblasts, mast cells, lymphocytes and lymphatic endothelial cells [3, 4]. LAM patients may show increases in serum levels of the lymphangiogenic factor, vascular endothelial growth factor-D (VEGF-D), a LAM biomarker used in differential diagnosis of cystic lung diseases and to identify LAM patients likely to respond to sirolimus treatment [5–7].