Title: Effects of bitter taste receptors on airway smooth muscle cell function

Application deadline: Applications accepted all year round

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Funding: Self-funding only

Recent evidence suggests that manipulation of bitter taste receptors in the lungs may lead to the design of novel therapeutic options in asthma (Deshpande et al., 2010; Robinett et al., 2011; An et al., 2012). Although activation of bitter taste receptors exerts bronchodilator actions via a direct action of airway smooth muscle, studies are still needed to further define their mechanisms of action in this cell type. The aim of this project will be to define the signalling pathways activated by bitter taste receptors in airway smooth muscle. This project will provide additional information about the therapeutic action of bitter taste receptors in chronic lung diseases.

Main skills
Cell culture
Cell and molecular biology
Flow cytometry
Pharmacodynamic studies (bronchoconstriction and bronchodilation)

References