# When biology meets behaviour: can medication adherence mask the contribution of pharmacogenetic effects in asthma?

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*To the Editor:*

We read the study of Ruffles *et al.* [1] with great interest. The authors undertook one of the first randomised controlled trials (RCTs) assessing the potential benefit of personalised prescription of bronchodilators according to Arg16Gly beta-2 genotype in adolescent patients with asthma. Following a 1-month run-in with inhaled corticosteroid (ICS) monotherapy, the intervention group received a bronchodilator according to their genotype, where AA and AG genotypes received an oral leukotriene antagonist (LTRA), montelukast, and GG genotype received an inhaled long-acting $\beta_2$-agonist (LABA), salmeterol. The control group received usual care based on the British Thoracic Society guidelines, where addition of a LABA is first choice when patients are uncontrolled on ICS alone. The authors found a small but significant (p=0.048) benefit on the Pediatric Asthma Quality of Life Questionnaire in the intervention group.