

# What Is the Genetic Architecture of Asthma-COPD Overlap Syndrome (ACOS)?

## STUDY DESIGN

- **Genome-wide association study** using UK biobank

**8,068**  
patients with ACOS

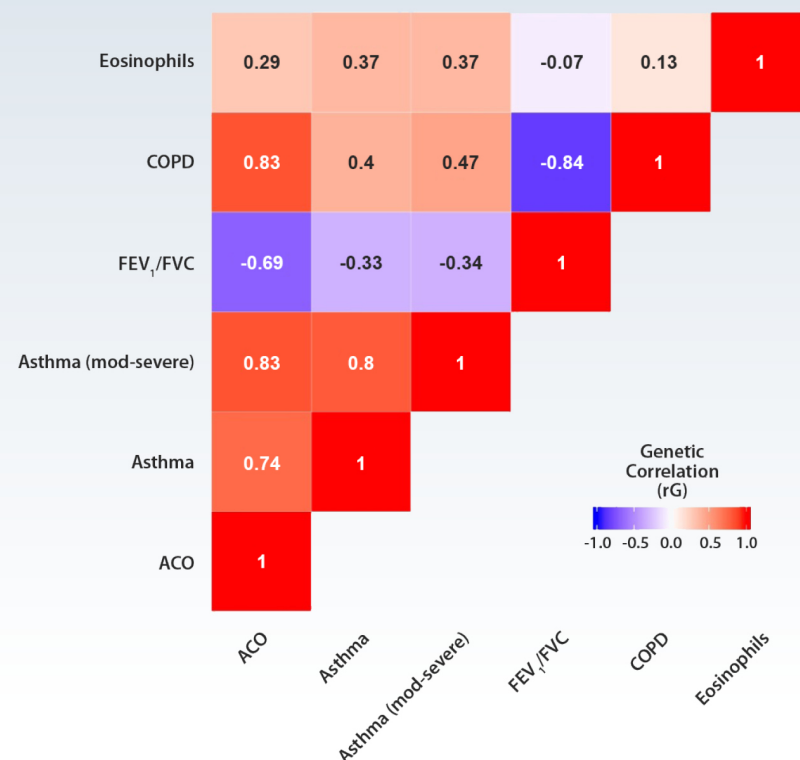
**40,360**  
control patients  
without asthma or COPD

## RESULTS

Identified **eight novel signals** for ACOS

Spectrum of shared genetic influence with predominantly influencing:

- **Asthma** – *FAM105A, GLB1, PHB, TSLP*
- **Fixed airflow obstruction** – *IL17RD, C5orf56, HLA-DQB1*
- One **intergenic signal** on chromosome 5 not previously associated with asthma, COPD, or lung function



Eight signals for asthma-COPD overlap were identified, which may represent loci that predispose to type 2 inflammation and serious long-term consequences of asthma.