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

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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.


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