

University of Groningen

## Exploring the genetics of asthma

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**Exploring the genetics of asthma**  
from gene variants to targeted treatments

1. Functional genetic analysis of gene variants associated with asthma offers the opportunity for the identification of novel drug targets for asthma treatment, such as soluble IL-6R (Chapter2)
2. Understanding the pleiotropic effects of asthma genetic variants on related traits, such as eosinophilia, allergy, and airway obstruction, contributes to a more comprehensive understanding of asthma heterogeneity. (Chapter3)
3. Analyzing the effects of genetic variations on gene expression in asthma-related tissues provides valuable information that extends beyond the investigation of gene expression in whole blood. (Chapter4)
4. Enhancing the annotation of asthma-related genetic variations through cell-type deconvolution analysis in relevant tissues improves our understanding of the molecular mechanisms involved. (Chapter 4)
5. IL-6 signaling defines a subgroup of asthma patients with low sputum eosinophil numbers, suggesting a potential role for targeting the IL-6 pathway in these patients. (Chapter5)
6. The generation of gene signatures contributes to the classification of subtypes or endotypes, enabling more tailored approaches for patient management. (Chapter5)
7. “Beginning is not only a kind of action. It is also a frame of mind, a kind of work, an attitude, a consciousness.” – Edward Said
8. “Education is the passport to the future, for tomorrow belongs to those who prepare for it today.” - Malcolm X.
9. “Two things define you: Your patience when you have nothing and your attitude when you have everything.” - Imam Ali
10. Receiving a Ph.D. is not the end of a journey, but the beginning of a lifelong adventure where learning, discovery, and mentorship continue to shape the world.