Stellingen behorende bij het proefschrift:

Multi-omics Study of Chronic Obstructive Pulmonary Disease and Related Disorders

1. Rare variants in *SLC22A11* and *MTL5* genes are associated with the risk of COPD. (*this thesis*)

2. Genetic variants in chromosomes 15q25.1 and 19q13.2 contribute to the risk of COPD through differential DNA methylation and regulation of expression. (*this thesis*)

3. DNA methylation associates with decreased lung function, irrespective of smoking behavior. (*this thesis*)

4. Glycoprotein acetyls levels in blood are biomarkers of the COPD pathogenesis that are associated with the risk of COPD. (*this thesis*)

5. Hypermethylation of *CDC42BPB* and *ARHGEF3* genes is associated with depressive symptoms and with differential expression of genes in the immune system pathway. (*this thesis*)

6. Personalized medicine is the future direction of health care and systems biology serves as the enabling force. (*Chen & Snyder, Current Opinion in Pharmacology 2012*)

7. Inclusion of comprehensive phenotyping using clinical and imaging approaches will be essential to complement multiple –omics profiling in the dissection of complex diseases. (*Silverman & Loscalzo, Discov Med. 2012*)

8. Clinical programs for the management of COPD patients must not only treat airways disease but should also assess and manage the associated comorbidities. (*J.A. Wedzicha et al., Eur Respir Monogr 2013*)

9. It is the molecule that has the glamour, not the scientists. (*Francis Crick*)

10. Progress in science depends on new techniques, new discoveries and new ideas, probably in that order. (*Sydney Brenner*)

11. Scientific discoveries will not advance significantly as long as women account for less than one third of researchers worldwide.

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