

PROPOSITIONS – STELLINGEN

Genetics and Epigenetics of Alveolar Capillary Dysplasia – From bedside to bench

1. If positive, targeted genetic testing for *FOXF1* variants reduces the time to diagnose ACD/MPV and therefore, prevents futile and expensive treatments - *This thesis*
2. The variation of phenotypes observed in patients carrying the same *FOXF1* variant suggests that additional molecular mechanisms contribute to the severity and presentation of ACD/MPV - *This thesis*
3. Research into the pathogenesis of ACD/MPV should include investigation of DNA methylation aberrations at the *FOXF1* locus as these could prove to be of significant importance in the development of the disease - *This thesis*
4. The use of patient derived induced pluripotent stem cells is essential to overcome the lack of fresh patient material for the investigation of rare genetic disorders such as ACD/MPV - *This thesis*
5. Before we start to consider testing of therapeutic compounds in ACD/MPV patients, it should be elucidated whether the different genomic *FOXF1* variants detected in ACD/MPV patients affect *FOXF1* expression and function in a similar manner - *This thesis*
6. Human cell models offer major advantages over animal models, such as a full understanding of involved cell types, increased experimental efficiency and more relevance to human physiology - *Sharma et al., Cell Stem Cell 2020*
7. The growing evidence of the effect of environmental factors on epigenetic aberrations is not reflected by the efforts invested in disease prevention - *Cavalli and Heard, Nature 2019*

8. Although direct-to-consumer genetic testing is appealing and in line with the right of self-determination, people are often unaware of the multiple limitations of these tests. Therefore, healthcare professionals should discourage the use of direct-to-consumer genetic testing to prevent misinterpretation and negative psychological consequences - *Horton et al., BMJ 2019*
9. Considering the beneficial effects of yoga on anxiety and depressive symptoms, yoga should be implemented as one of the standard treatments in mental healthcare - *Brinsley et al., Br J Sports Med. 2020*
10. The vast majority of ground-breaking scientific discoveries are the products of years of hard work, persistence and courage to think outside the box. Thus, "don't judge the day by the harvest you reap, but by the seeds you plant" - *R. Stevenson 1884*
11. "Sometimes letting things go is an act of much greater power than defending or hanging on it" - *E. Tolle 2009*