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## Redirecting TGF- $\beta$ signaling pathways: advancing targeted therapy for PAH and FOP

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Stellingen behorend bij het proefschrift getiteld  
**Redirecting TGF- $\beta$  signaling pathways: Advancing targeted therapy for PAH and FOP**

1. The TGF- $\beta$  signaling family is crucial for fundamental cellular processes and tissue homeostasis.

*This thesis*

2. Sex-specific differences in TGF- $\beta$  signaling explain sex-differences in PAH.

*Chapter 4 of this thesis*

3. AP-1 is a promising target for FOP treatment, given its activation by mechanotransduction, its pro-inflammatory function, and its role in driving excessive bone conditions such as osteosarcoma and osteosclerosis.

*Chapter 5 of this thesis*

4. Although clinically PAH and FOP are two worlds apart, many cellular and molecular determinants are similar in both pathologies.

*This Thesis*

5. Sotatercept represents a paradigm shift in PAH therapy and has become the first clinically approved drug addressing the underlying cause of PAH pathobiology.

6. The drug discovery process can be accelerated by utilizing complex live-cell screening models.

7. The high luminescence intensity of NanoBRET allows detection of protein interactions at low levels comparable to endogenous physiological conditions, making it a highly sensitive detection method for protein interactions.

*Adapted from Machleid et al., ACS Chemical Biology, 2015*

8. Most of the basic scientific discoveries often get lost in translation because they lack funding, incentives, and technical expertise to advance any further.

*Adapted from Seyhan, Transl. Med. Commun., 2019*

9. As academic freedom is currently under worldwide pressure, we are forced to transition our curiosity towards societal gain.

10. Research is like boxing, as an unexpected punch or result can quickly destroy the best laid-out plan. "Everyone has a plan until they get punched in the mouth."

*Quote from Mike Tyson, 1987*

11. To gain personal growth, it is important to confront all the challenges you are uneasy with.

12. Having resilience is one of the most important traits for a scientist, because without it, one would not overcome the many setbacks. "The greatest glory in living lies not in never falling, but in rising every time we fall."

*Quote from Nelson Mandela*