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## Osteoprotegerin, RANKL and extracellular matrix intersection in fibrosis

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## Propositions

# OSTEOPROTEGERIN, RANKL AND EXTRA CELLULAR MATRIX INTERSECTION IN FIBROSIS

Habibie

1. OPG has potential to be used as a biomarker for testing efficacy of novel drugs against liver fibrosis and for diagnosing progressive fibrotic lung disease (this thesis).
2. RANKL induces alveolar type II cell proliferation and may therefore be further explored as a therapeutic approach in lung diseases characterized by inadequate epithelial regeneration like pulmonary fibrosis, chronic obstructive pulmonary disease and cystic fibrosis (this thesis).
3. OPG may contribute to the progression of fibrosis and other lung diseases via inhibition of RANKL-induced epithelial regeneration (this thesis).
4. OPG may represent a novel therapeutic target for fibrosis (this thesis).
5. A stiff environment triggers activation of (myo)fibroblasts and also regulates the OPG/RANKL pathway (this thesis).
6. OPG is associated with the pathogenesis of fibrotic disease, especially in liver and lung. However, little known about its role in this machinery (this thesis).
7. As a researcher, sometimes we find that the best condition for an experiment does not match the best quality of life and we need to find a way to balance it (PhD journey).