

# The therapeutic relevance of microRNA-199b in preclinical models of heart failure

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Propositions belonging to this thesis

## **The therapeutic relevance of microRNA-199b in preclinical models of heart failure**

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2017

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1. Cardiac injury by ischemia and/or pressure overload triggers the upregulation of miR-199b. (this thesis)
2. miR-199b is proven in different preclinical models of heart failure to be a valuable therapeutic target by means of its critical roles in key regulatory pathways. (this thesis)
3. Among the tested anti-miR-199b oligonucleotides, antagomir designed with a cholesterol moiety at the 5' end accomplished the most efficient downregulation of miR-199b in the heart. (this thesis)
4. Comprehensive studies into the distinct subtypes of heart failure are required to determine therapeutic significance of a molecule before extrapolating preclinical data to clinical application. (this thesis, valorization)
5. 'Despite advances in care, we found that men and women with a diagnosis of HF continue to have worse survival than patients with one of several common cancers.' (M.A. Mamas Eur J Heart Fail 2017)
6. 'Remarkably, there is a direct correlation between the number of miRNAs and morphological complexity, suggesting that miRNA innovation may be a key player in the emergence of increasingly complex organisms.' (E. Berezikov Nat Rev Genet 2010)
7. Intelligence without ambition is a bird without wings. (Salvador Dali)
8. It does not matter how slowly you go as long as you do not stop. (Anonymous)