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## The Heart of the Matter: Discovery of new genetic loci for heart rate variability and its relationship with blood pressure and mortality

Teegene, Balewgizie

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## **Propositions accompanying the thesis**

1. Age and sex are main determinants of interindividual differences in heart rate variability and baroreflex sensitivity. (this thesis)
2. Large population-based family studies help to better understand genetic effects. (this thesis)
3. Shared genetic factors offer an alternative explanation of the effect of low heart rate variability in the development of high blood pressure. (this thesis)
4. Cardiac autonomic dysfunction increases the risk of mortality. (this thesis)
5. Novel genes associated with heart rate variability play a role in cardiac vagal pathways affecting the sinoatrial node. (this thesis)
6. The knowledge gained on the role of likely causal genes associated with heart rate variability has promising therapeutic potential. (this thesis)
7. Genetic markers for heart rate variability and heart response to exercise will help test the causal role of cardiac autonomic function in cardiometabolic and psychiatric outcomes. (this thesis)
8. The significant overlap in genes identified for heart rate variability, heart rate response to exercise and heart rate indicates common underlying pathways. (this thesis)
9. A low heart rate variability is not always “bad”
10. “Life is about rhythm. We vibrate, our hearts are pumping blood, we are a rhythm machine, that’s what we are.” -Mickey Hart
11. “If you torture the data long enough, it will confess.” -Ronald Coase