Ph.D. Thesis Propositions

Left atrial vascular and metabolic remodeling in pig models of atrial fibrillation

1. Atrial fibrillation leads to atrial metabolic and vascular remodeling. — This thesis

2. Key aspects of the early atrial remodeling resemble the adaptive response to exercise training. — This thesis

3. Although atrial metabolism shows several adaptive changes early in the pathogenesis of AF, these changes fall short of restoring the balance between energy consumption and production. — This thesis

4. Loss of atrial contractility in the failing heart will accelerate the development of decompensating heart failure. — This thesis

5. The phenomenon of capillary rarefaction during AF will restrict the ability of the atria to respond to fluctuations in demand. — This thesis

6. After one week of AF, the function of isolated atrial mitochondria is intact, but the cellular capacity for energy production has decreased. — This thesis

7. To prevent AF progression, early (days to weeks), aggressive treatment is vital. — This thesis

8. Disease was a natural process and its symptoms were the reactions of the body to the disease. — Hippocrates

9. Faith is knowledge within the heart, beyond the reach of proof. — Khalil Gibran

10. There is no capital more useful than intellect and wisdom, and there is no indigence more injurious than ignorance and unawareness. — Imam Ali bin abi taleb

Hussein M. Nasrallah
Maastricht, December 2015