Imaging Techniques for the Assessment of Coronary Atherosclerosis, Intracoronary Devices and Vessel Response after Metallic or Polymeric Scaffolds Implantation

1. Coronary angiography does not provide visualization of the vessel wall and is not suitable for complete assessment of atherosclerosis. Conversely single or combined intra-coronary imaging modalities can fully evaluate atherosclerotic plaque composition and distribution. (this thesis)

2. Lipid-rich plaque (LCP) distribution along the vessel wall, analyzed by near infra-red spectroscopy (NIRS), is independently affected by the distance from coronary ostium, resembling the distribution of the culprit lesions in STEMI patients. (this thesis)

3. Bioresorbable vascular scaffolds have significantly lower eccentricity index as compared to metallic stents. (this thesis)

4. A coronary segment scaffolded by ABSORB device exhibits the return of a normal physiologic reactivity to vasoactive drugs – with a relative absence of necrotic core - once the mechanical integrity of the device has disappeared. (this thesis)

5. The healing process following ABSORB implantation shows the formation of a neointima layer, that resembles a thick fibrous cap, known for its contribution to plaque stability (this thesis)

6. Everything is simpler than you think and at the same time more complex than you imagine (Johann Wolfgang von Goethe)

7. Success is the ability to go from one failure to another with no loss of enthusiasm (Winston Churchill)

8. Patience everything obtains. (St. Teresa of Avila)

9. Mediocre people have an answer for everything and are astonished by nothing (Eugene Delacroix)

10. Art is I, Science is We (Claude Bernard)