

## **Internship Opportunity: Histology-Based Validation of OCT Imaging in Coronary Arteries**

### **Department of Cardiology, Radboudumc**

We are seeking a motivated Master's student to join our research project focusing on the histological validation of Optical Coherence Tomography (OCT) imaging in coronary arteries of human post-mortem hearts. The project plays a key role in the development and validation of an AI algorithm for automatic lesion detection, using histology as the gold standard.

In this project, coronary arteries from human post-mortem hearts are studied using OCT imaging and histology. After imaging, the coronary arteries are processed and stored as frozen tissue blocks, from which histological sections are obtained. Different histological stainings are performed on the tissue sections to visualize specific tissue components (e.g. lipids and calcifications). These components will then be quantified to enable comparison with what the AI algorithm detects in the OCT images.

Your role:

- Help maintain an overview and structure of the study workflow
- Work with and organize histological tissue sections
- Match histological sections to corresponding OCT images
- Quantify tissue components in stained sections for comparison with AI algorithm output

We are preferably looking for a Master's student, ideally with hands-on experience in histology. The internship duration is at least four months. If you are interested, please contact [Carolien.Kuster@radboudumc.nl](mailto:Carolien.Kuster@radboudumc.nl).