

Quantitative morphometric analysis of 3D structures in whole organs



Tissues & Organs • Light Sheet • Advanced Media • Morphometric Quantification • Cardiology

YOUR NEEDS

- Study of the morphology of whole organ structures
- Preclinical study of treatment efficacy



General Procedure

Image acquisition:

- Sample optical clearing
- 3D light sheet auto-fluorescence microscopy (label-free imaging)
- Multi-position acquisition

OUR SOLUTIONS

- Light sheet microscopy and clearing to characterize the vascular network in 3D
- Automated 3D image processing for micro-vascular network quantification

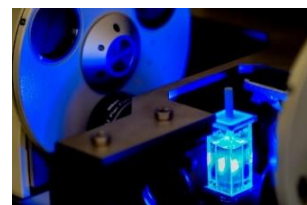
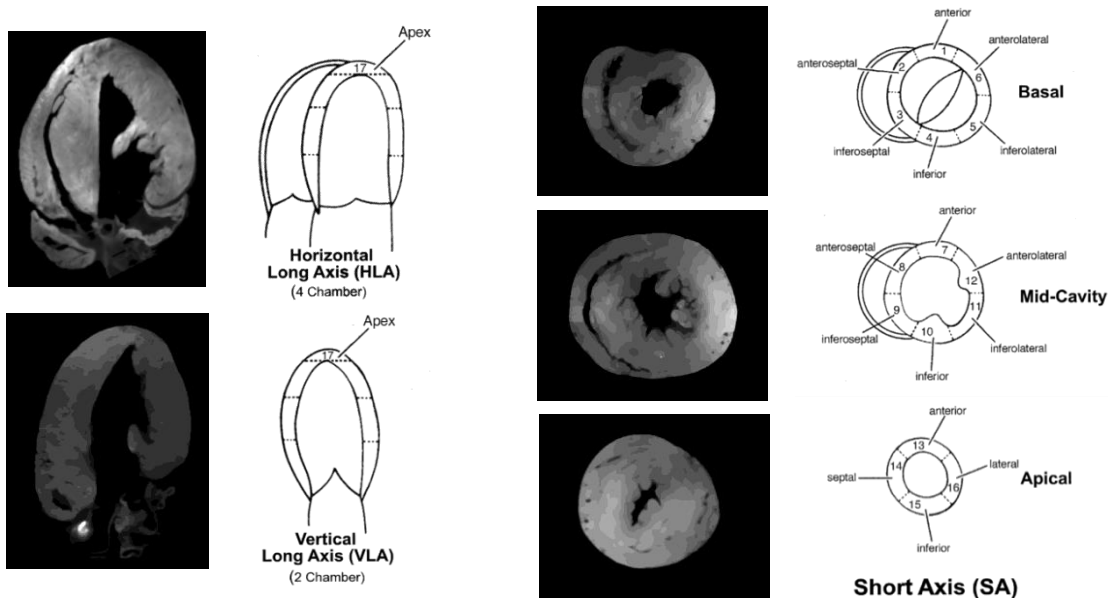


Image processing and analysis: Development of a specific algorithm to characterize 3D structures.

Application example

Aim: Analyze the heart morphology in 3D following the recommendations of [the American Heart Association Writing Group on Myocardial Segmentation and Registration for Cardiac Imaging](#).



Volume rendering and reconstruction of each ventricle allows the quantification of anatomical structures (graphic representation in function of the percentage of total volume).

