The murine cerebrovascular network is large and very complex.

The Goal: Morphological and functional images of the neurovasculature in mice.

Why? Understand and ultimately cure many neurological disorders.

The Challenge: Large brains with small vessels are difficult to image.

Currently used methods

Tomographic Imaging
- high imaging depth, endogenous contrast
- expensive, low resolution, slow

Optical Imaging
- simple, fast, very high resolution
- limited field of view, shallow imaging depth, requires contrast agents

HFOAM - Dual-Wavelength Hybrid Focus Optoacoustic Microscope

HFOAM Biomicroscope System Overview

HFOAM Scan Head

Resolution Characterization

Functional Imaging Using Spectral Unmixing

Acknowledgments

This work was supported by the European Union through the OILTEBIA (Optical Imaging and Laser Techniques for Biomedical Applications, Grant Agreement Number 317526) as well as by the European Research Council under grant agreement ERC-2015-CoG-682379.

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