



**MMMPP**  
Melbourne Mouse Metabolic  
Phenotyping Platform



THE UNIVERSITY OF  
MELBOURNE

## Laser doppler imaging (Moor LDI)

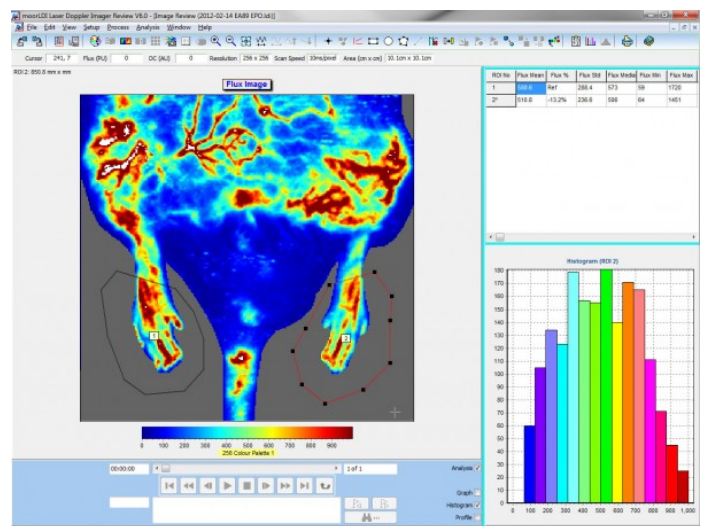
### 1. Experiment

Doppler imaging of blood flow in limbs in anaesthetised mouse

### 2. Aim

To visualize and quantify blood flow

### 3. Equipment



The moorLDI2-HIR laser doppler provides 100 micron pixel size and 256 x 256 pixel resolution for high resolution blood flow images. The scan areas range from just 2.5cm x 2.5cm up to 25cm x 25cm with scan times typically less than 10 minutes. The focused laser provides a measurement depth optimal for hind limb ischemia, angiogenesis and tumour modelling.

The measurement and comparison software allows for comprehensive image analysis. To use the doppler please also make a booking for the SomnoSuite anaesthesia delivery system, as mice must be anaesthetised in order to remain completely still for clear imaging.

### 4. Training requirements

Researchers must first complete the online University of Melbourne TrainMe unit 'Safe radiation practices – laser'. Researchers are then required to complete adequate training prior to independent use. Training takes approximately 30 min and is usually scheduled to coincide with the first booking of a new user.

### 5. Experiment design considerations

- Make a booking for the SomnoSuite anaesthesia delivery system for the duration of your experiment. Mice must be anaesthetised in order to remain completely still for clear imaging.
- Time per scan will vary depending on the size and resolution of image you want

### 6. Monitoring

This will vary so refer to your specific monitoring requirements in your ethics approval. Generally, mice must be monitored throughout the experiment, 4 hours later, and the next day for signs of distress.

### 7. References

<https://www.moor.co.uk/products/imaging/high-resolution-laser-doppler-imaging/>