



MMMPP
Melbourne Mouse Metabolic
Phenotyping Platform



Electrocardiogram recording in unrestrained mice

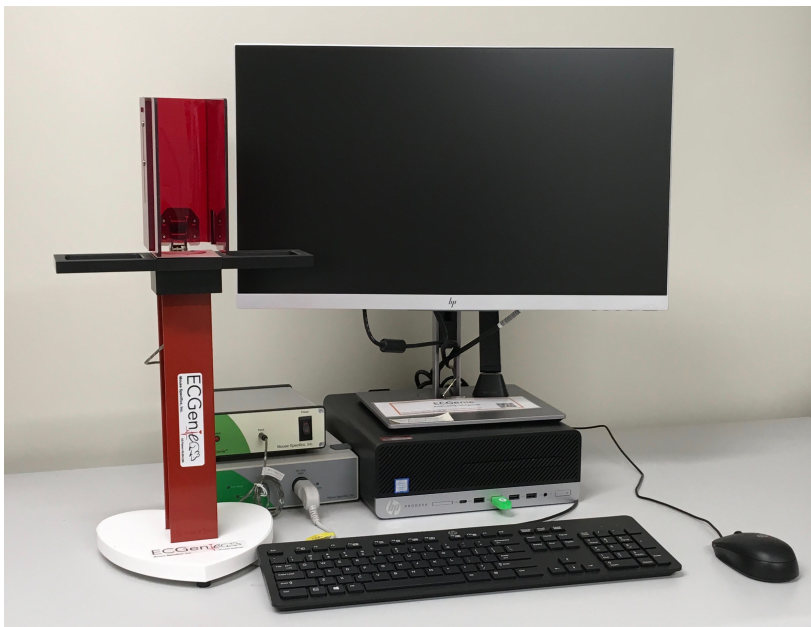
1. Experiment

Record and analyse an electrocardiogram (ECG) in an unanesthetised, unrestrained mouse

2. Aim

To detect ECG anomalies that may be indicative of cardiopathy

3. Equipment



The ECGenie records electrocardiograms (ECGs) in awake, unrestrained mice. Applications include arrhythmia detection, health monitoring and drug screening. The ECGenie records the cardiac electrical signals at 2 kHz to detect the rapid ECG interval durations in mice (eg. QRS interval duration). Cardiac electrical activity is detected through the paws using special disposable footplate electrodes.

4. Training requirements

Researchers are 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

- Researchers who have access to the animal facility may use the ECGenie independently once they have been trained
- When making a reservation please allow 5 min to set up, 10 min per mouse and 10 min to export data and clean up at the conclusion

6. Monitoring

During ECG analysis mice are monitored for signs of discomfort and/or distress. Mice will be observed throughout the procedure and 15 minutes after their return to home cage.

7. References

<https://mousespecifics.com/heart-monitoring/ecgenie/>