

Three conscious mice atop the **ECGenie** instrumentation. The ECG signal is detected passively through the paws of the center subject, as the other two subjects acclimatize to the **ECGenie** recording platform.

The **ECGenie™** is a rapid non-invasive solution for recording electrocardiograms (ECGs) from conscious laboratory animals. Applications include arrhythmia detection, health monitoring, and drug screening in fragile transgenic and knockout animals, **including newborn mouse pups**.

The **ECGenie™** captures the heart's electrical signals at 2 kHz to provide optimal fidelity in mapping the rapid ECG interval durations in mice (e.g., QRS interval duration of ~8 ms). The typical lab animal setting easily accommodates this portable kit. Shielded acquisition platforms, footplate electrodes, analog input and signal bioamplification, and data acquisition software are included.

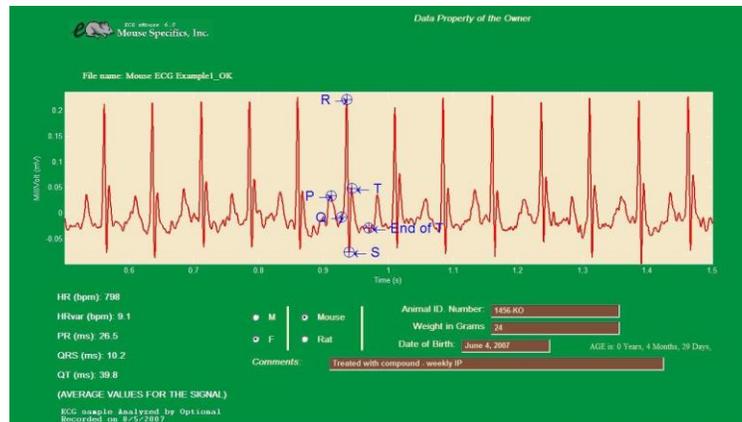
The instrument is based on patented technology for non-invasively detecting cardiac electrical activity through the animals' paws. The size and spacing of disposable footplate electrodes facilitate contact between the electrodes and the paws to provide a lead I, II, or III ECG in lab animals. **EzCG** analyses software, provided by Mouse Specifics, analyzes the signals to assess animal health, cardiac diseases, and drug toxicity.

#### ECGenie™ features:

- “Quick-connect” interchangeable platforms for mice and larger rodents
- Disposable footplate electrodes
- High-pass and low-pass filtering
- USB interface for data processing and storage

#### EzCG Analyses software features:

- Interpretation of ECGs from conscious moving mice, rats, and guinea pigs
- Published algorithms for heart rate and P Q R S T interval durations
- Custom inclusion of client-specific algorithms, including QTc
- HTML and text formatted output for multiple spreadsheet applications



Analysis of electrocardiograms is quick and easy with **EzCG**.

**• NO Anesthetic • NO Implants • NO Surgery**

**Record ECG from 2 cages of mice in < 60 minutes**

#### Publications and Applications:

1. *Cardiac anomalies in  $\beta$ -glucuronidase (GUSB) null mice are corrected by non-ablative neonatal marrow transplantation.* PNAS 101:603-608; 2004.
2. *Structural and functional cardiac cholinergic deficits in adult neurturin knockout mice.* Cardiovasc Res. 82:93-99; 2009.
3. *Genetic influence on electrocardiogram time intervals and heart rate in aging mice.* Am J Physiol Heart Circ Physiol. 296:H1907-H1913; 2009.

“...better data from every mouse.”

www.MouseSpecifics.com