Mouse Specifics, Inc.

ECGenie Clinic

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

The **ECGenie Clinic** 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) and allows for real time monitoring of the signal. The typical lab animal setting easily accommodates this portable kit. Included are the disposable acquisition towers, bio-amplification unit, data acquisition and data analysis software The instrument is based on patented technology for non-invasively detecting cardiac electrical activity through the animals' paws (United States Patent 6,445,941 and 10,959,399).

CorVita Data Capture Features:

- Quick, non-invasive measurements from your conscious animals. No anesthetics, surgery, implants, nor restrains needed.
- Disposable, reusable recording towers with tunnel handling.
- Battery and AC powered bio-amp for increased portability.
- Real-time measurement of Heart Rate (HR), Heart Rate Variability (HRV), and Coefficient of Variability (CV).
- Near simultaneous data capture from two animals at once.
- Optional Temperature sensor and scale for health monitoring.

EzCG Data Analysis Features:

- Interpretation of ECGs from conscious moving adult mice and pups, rats, and guinea pigs.
- Over 20 metrics calculated
- Time Domain and Frequency Domain Analysis of heart rate variability.
- 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

The ECGenie Clinic amplifier filters and transmits the ECG signal from the recording tower to the CorVita software for live ECG measurements. The bio amp allows for portability via an incorporated optional battery or it can be powered via a standard outlet. The bio amp allows for optional weight measurements and body temperature measurements from your animal as well.