PSYCHOLOGICAL STRESS AND TELEMETRY

Is your stress model valid?

Combine telemetry to confirm and evaluate in real time.

Forced immobilization is commonly used as a model of stress in small laboratory animals, especially for inducing psychological stress mimicking human situation in small enclosure (claustrophobia). Stress may lead to various pathophysiological and biochemical changes. The use of animal models of stress is particularly useful in deciphering the mechanisms involved in the adaptation to stress as well as in the development of the related pathologies/diseases (anxiety, depression, post-traumatic stress disorder, ulcer, etc.)

SOLUTIONS



IMMO Board and Restrainer with Telemetry Receiver

StartFear Conditioning System

APPLICATIONS

Post-traumatic stress disorders (PTSD)

Anxiety, Depression & Fear

FUNCTIONS & PARAMETERS

- Heart Rate, Blood Pressure, ECG
- EEG, EMG, Sleep
- Respiratory Rate
- Body Temperature
- Immobilization
- Emotional Stress I

COMBINATION BENEFITS

Combining telemetry with forced immobilization paradigms can provide real-time cardiovascular, temperature and/or glucose data that will show the physiological effects of psychological stress; helping to confirm a proper stress model for subsequent fear conditioning studies.

REFERENCES

Extinction of Fear Memory Attenuates Conditioned Cardiovascular Fear Reactivity https://www.frontiersin.org/articles/10.3389/fnbeh.2018.00276/full

A mouse model of high trait anxiety shows reduced heart rate variability that can be reversed by anxiolytic drug treatment. https://www.ncbi.nlm.nih.gov/pubmed/21320392

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