

# Physiologic Monitoring Systems for Life Science Research



Partner with DSI and  
discover the possibilities.



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**DSI**<sup>TM</sup>

Better Data. Better Science.



# First Choice Among Researchers

DSI offers complete physiologic monitoring systems that sense, transmit, acquire and report data. Each system is engineered with quality and performance you can trust.

- High quality implants sense and transmit signals
- Accurate receivers, signal conditioners and amplifiers collect and transfer signals
- Robust software turns signals into usable, clean, accurate data



## Flexible Solutions for Research

### CARDIOVASCULAR

arterial and left ventricular pressures,  
ECG, activity, pressure volume loop

### METABOLISM

heart rate, temperature, activity

### RESPIRATION

tidal volume, minute volume, respiratory rate

### CENTRAL NERVOUS SYSTEM

EEG, EMG, EOG, video, temperature, activity

### UROLOGY

bladder pressure, EMG

### REPRODUCTION

intra-cavernosal,  
intra-uterine pressure and EMG

### OPHTHALMOLOGY

intra-ocular pressure

# Chronic Monitoring Systems

Proven health benefits and high quality data make wireless telemetry the first choice for chronic physiological monitoring in a variety of animals.

- Most humane means of monitoring animals
- Stress-induced artifact is significantly reduced as animal handling is minimized
- Physiologic measurements can be obtained around the clock with no lab personnel present
- Collects data from conscious, freely moving laboratory animals
- Decreases the costs of many protocols by reducing the number of animals required

## Robust Software Provides the Power

At the core of every physiologic monitoring system is a data acquisition and analysis platform. DSI provides state-of-the-art acquisition and analysis platforms designed to turn physiologic signals into usable results.

- Ponemah™
- Dataquest A.R.T.™
- NeuroScore™



## PhysioTel™ Digital Large Animal Implantable Telemetry



# Telemetry Systems

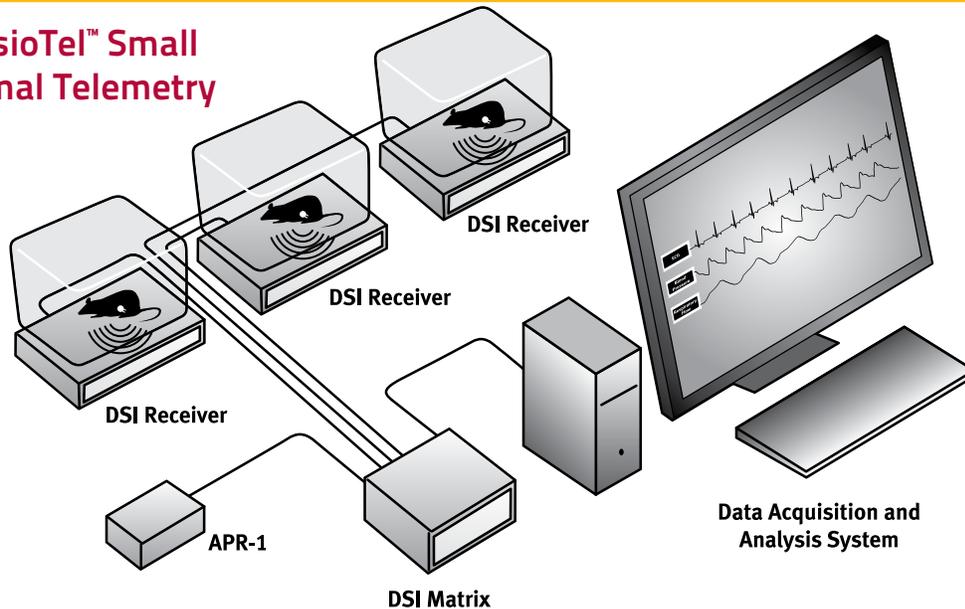
## Implantable Telemetry

Wireless implants are offered in a variety of models, shapes and sizes to optimize data collection, maximize lab space and simplify studies.

Physiologic signals measured include, but are not limited to:

- Pressures: arterial, pleural, venous, left ventricular, ocular, bladder
- Biopotentials: ECG, EMG, EEG, EOG
- Respiration
- Temperature and activity

## PhysioTel™ Small Animal Telemetry



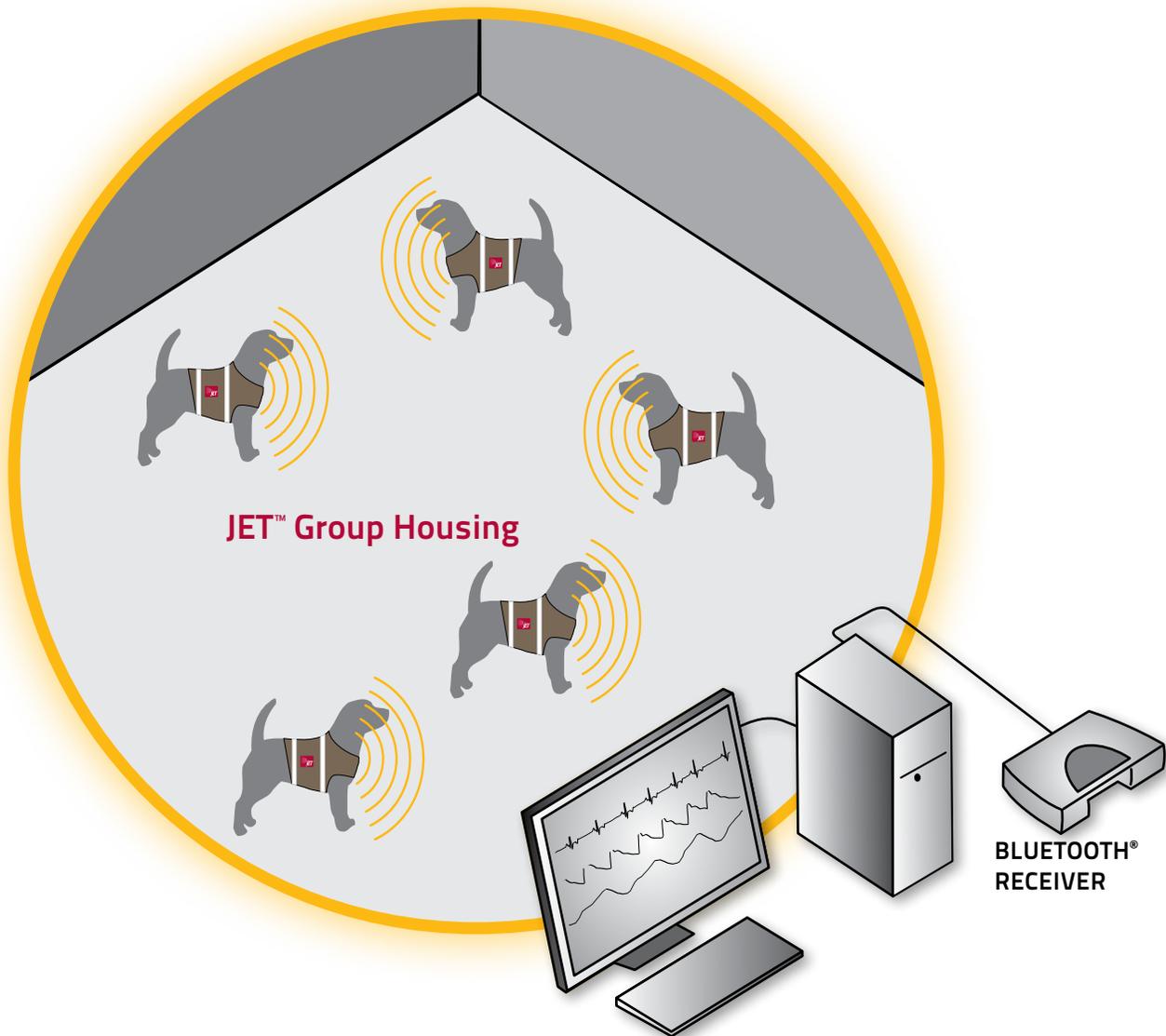
S21 - Small  
Animal Implant

## External Telemetry

Designed for large animal studies, it is capable of providing continuous, high quality data for short or long durations. The system is easy to use and setup offering Bluetooth® capability in a single system.

Physiologic signals measured include:

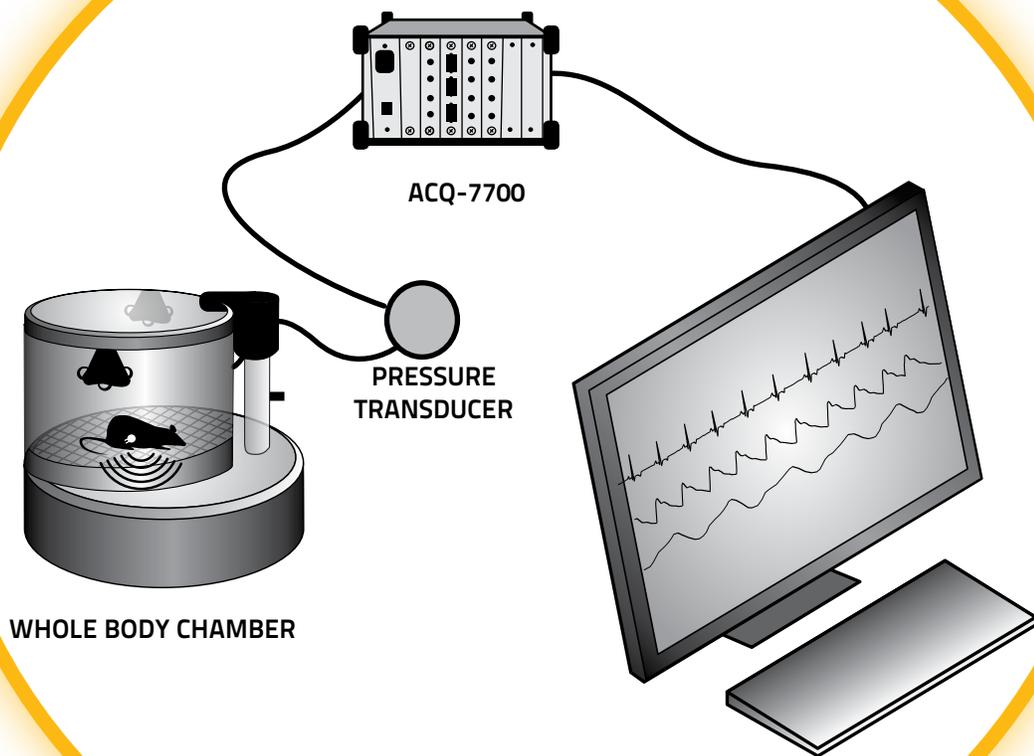
- ECG
- Blood pressure
- Respiration
- Temperature and activity



# Acute Monitoring Systems

To complement wireless monitoring, DSI offers hardwired solutions for acute or sub-chronic studies. Specifically designed for accurate, high-quality, stable measurements of physiologic data.

- Digital signal conditioners and amplifiers
- Plethysmography chambers
- Infusion pumps
- Glucometers



## Plethysmography System

DSI's hardwired solutions support select applications such as:

- Cardiovascular for short ECG recordings
- Central nervous system with high bandwidth, many channel EEG recordings
- Respiratory using plethysmography
- Isolated organ preparations for action potential measurements
- Cardiac output for pressure volume loop analysis

# Value Added Programs

Scientific Services help researchers successfully acquire and analyze physiologic data.

- Validation services to ensure full software system compliance
- Surgical services to help minimize surgical challenges
- Data analysis services to aid in data evaluation and reporting

DSI Exchange... because your next study is as important as your first.

DSI Exchange allows customers to exchange their used telemetry implants for replacement implants at a fraction of the cost of the original purchase price.

## About Data Sciences International

DSI is a pioneering biomedical research company focused on systems physiology and pharmacology. The recognized global leader in physiologic monitoring, DSI offers telemetry, instrumentation, software and services that help advance science. DSI serves many industries including: Pharmaceuticals, Academia, Contract Research Organizations, Biological and Chemical Defense, the Medical Device Industry, Government, and Biotechnology companies. We offer solutions that are tailored specifically to meet the unique research needs of our customers.

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