



1 *Biometric animal telemetry system*

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2 *Bipotential transmitter device for mice*

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BIOMETRIC ANIMAL TELEMETRY SYSTEM

In order to better understand pathophysiological changes in vital parameters during the course of diseases and their significance for diseases, Fraunhofer IME uses and offers a biometric animal telemetry system. This real time understanding makes it possible to specifically develop new therapy approaches and to optimize existing options. Transmitters are surgically implanted into laboratory animals to acquire data changes. They can detect internal animal characteristics, process the information into data and transmit the data which can be externally processed.

Species

- Rodents (mice)

Field of application

- Basic physiology research
- Modelling of physiological processes
- Testing novel therapeutics and drugs

Endpoints

- Defined time
- Physiological parameters

Readout parameters

- In vivo measurement of blood pressure, electrocardiography, heart rate, temperature and physical activity

Experimental setups

All animal experiments at Fraunhofer IME in Frankfurt follow the guidelines of the animal care and use committee of the State of Hesse.

Mode of implantation

- Carotid artery cannulation with subcutaneous or intraperitoneal device placement
- Abdominal aorta cannulation with intraperitoneal cavity device placement