



Press Release

Development of Jacketed External Telemetry in Marmosets

ETISENSE (Lyon) and the EUROPEAN RESEARCH BIOLOGY CENTER (ERBC Group) announce a collaboration to develop and validate the DECRO telemetry solution for marmosets, a new world primate with several advantages in non-clinical studies.

The collaboration between ETISENSE and ERBC Group aims to develop and validate the DECRO telemetry solution on a new species: the marmosets, which are considered today as an easy to handle and economically attractive non-human primates (NHP) species for biomedical research.

DECRO is the brand name of ETISENSE's 1st product, developed originally for rats. It is a fully digital jacketed external telemetry solution adapted for small to medium sized animals, used in conscious, freely moving, and socialized animals to optimally address the 3Rs requirements. DECRO provides cardiac and respiratory physiological measurements and locomotor activity assessment required in safety-pharmacology, pre-IND toxicology studies of new drug candidates or in pathological research models, without using invasive or restraining techniques on the animals.

"This miniaturized jacketed external telemetry technology has already been used in several animal models to provide new approaches to reduce animal use and refine the 3Rs approach to non-clinical testing of human drugs," said Corinne Simon, Chief Business Officer of Etisense. "DECRO is designed for multi-species use, provided that new jackets are developed and tested on the chosen species, both for animal acceptance and welfare, and for ease of use. The algorithms should also be adapted to the chosen species to ensure that the proper physiological parameters are defined and recognized. This has already been achieved in other species such as juvenile minipigs and guineapigs."

Marmosets provide highly attractive models for preclinical in vivo pharmacology, safety studies and toxicology assessment due to multiple advantages over Old World Monkeys (OWM, e.g., rhesus or cynomolgus monkeys). These include: (1) a non-human primate of smaller size, (2) physiological similarities to humans, (3) translatable hepatic metabolism, (4) higher number of litters per year, (5) immunological similarity to humans, and (6) already produced transgenic marmosets with germline transmission.

"The goal of the collaboration is to adapt and validate the DECRO technology in marmosets" said Raafat Fares, PhD, Scientific Director at ERBC Group. "At ERBC, we have extensive experience with this species, and we





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are confident that together with ETISENSE we will achieve the expected results: access to standardized cardiac, respiratory and behavioural parameters required for safety, pharmacology and toxicology studies in freely moving animals, thus optimally meeting the requirements of the 3Rs."

Once the new jacket prototype is available and tested in the C.R.O. environment, the new product will be implemented in toxicology studies.

About ETISENSE

ETISENSE company is a French company incorporated in 2018 as a spin-off of TIMC Lab. at Grenoble-Alpes University, specialized in non-invasive physiological monitoring instruments used in translational research. Etisense's expertise ranges from e-textiles to embedded electronics and signal processing analysis. These skills provide our users with reliable, easy-to-read, and easy-to-use parameters, while meeting the 3Rs requirements of animal research.

Contact: Corinne Simon, Chief Business Officer - Corinne.simon@etisense.com

For more information: https://etisense.com/

About ERBC

ERBC is a European leader in non-clinical studies. It offers healthcare and chemical professionals a comprehensive range of experimental capabilities, preclinical models, regulatory pre-IND package and consultancy services to de-risk innovation and improve R&D productivity. ERBC provides a full range of services from preclinical proof-of-concept to market for any type of drug candidate or chemical compound. This includes genetic and reproductive toxicology, carcinogenicity, pharmacology and safety pharmacology, non-clinical cardiology, electrophysiology, and pathophysiology. At the interface of biology, pathophysiology, pharmacology and toxicology, safety pharmacology is a full-fledged discipline. Over the past 50 years, ERBC has become a leader in the field, conducting annually more than 200 non-GLP or GLP-compliant safety studies. ERBC is deeply committed to animal ethics and welfare. ERBC supports the Basel Declaration, respects the 3Rs concept and continuously improves its tools and procedures to maximize the balance between health benefits and animal welfare.

Contact: Raafat Fares, PhD, Scientific Director - rfares@erbc-group.com

For more information: www.erbc-group.com