### Continuous glucose telemetry to enhance research and improve animal welfare

Data Sciences International (DSI) is seeking partners to adopt their implantable telemetry device capable of providing continuous, real-time measurements of blood glucose, temperature and activity in rats to demonstrate the scientific and animal welfare benefits of this technology.

## What could the Solution be used for?

DSI's continuous glucose technology is designed for scientists involved in blood glucose monitoring research areas, such as diabetes and other areas of metabolic research. This implantable solution enables long-term, chronic monitoring of blood glucose levels, enabling researchers to build multiple acute challenges of glucose metabolism (glucose tolerance tests) while having an accurate characterisation of glucose homeostasis like never before. This new tool enables research that has not been feasible previously.

# Solutions



### Need for collaboration

We are seeking partners who are looking to change the way blood glucose monitoring is carried out in the research community today. We particularly want to collaborate with those focused on the scientific and animal welfare benefits of our implantable device. Such research could include study designs to target:

- Increasing statistical power enabling a reduction in animal use
- Enabling new and beneficial scientific evaluations that are not feasible with current technologies
- Improving animal welfare and glucose measurements by decreasing stress

#### 3Rs impact assessment

**Refinement:** This device greatly reduces the need for blood draws which, in turn, reduces handling and animal stress throughout a study.

**Reduction:** This device collects blood glucose levels continuously and in real-time, providing a complete blood glucose profile enabling scientific conclusions to be achieved sooner using a smaller cohort of animals. Furthermore, it facilitates longitudinal studies where animals can be used as their own controls.

To find out more or to connect with the technology developer contact <u>crackitenquiries@nc3rs.org.uk</u>

**DSI**<sup>™</sup>

www.CRACKIT.org.uk @CRACK\_IT crackitenquiries@nc3rs.org.uk 020 7611 2233