A microinfusion pump drug delivery system to reduce animal usage and improve animal welfare.

Primetech is seeking partners to help expand the use of their novel microinfusion pump for programmable infusion of test compounds in rats.

What could the Solution be used for?

iPRECIO® Pumps provide a highly flexible automated dosing solution for basic research and drug discovery. They permit continuous administration of short half-life proteins, peptides and new molecular entities to virtually any tissue while eliminating the need for night-time or weekend dosing. The iPRECIO® SMP-200 pump, which is refillable percutaneously, is small enough (7.9g) to be completely implanted subcutaneously, enabling the rat to move freely. The pumps can be programmed with a variety of infusion rates and complex infusion protocols, including up to 10 distinct flow steps, may be programmed in a daily or weekly repeating loop.

Need for collaboration

We are seeking collaborators to expand the use of iPRECIO® pumps to a variety of new applications, including:

- Studies with behaviour as an endpoint
- Telemetry studies involving comparison of dosing methods
- PK-PD studies
- Studies where a very high dosing accuracy is required
- Paired dataset studies

3Rs impact assessment

iPRECIO® pumps provide a significant refinement to dosing procedures, removing the need for repeated injections or tethered infusion models. The required level of animal handling is minimised, reducing stress and variability and permitting a reduction in both required dosage and animal numbers. Animals may also be group housed, which is recommended for welfare purposes and further reduces stress compared to singly-housed animals.

For more information or to contact Primetech go to:
www.crackit.org.uk/microinfusion-pump-drug-delivery-system-reduce-animal-usage-and-improve-animal-welfare

Micro infusion pump

iPRECIO®

◌ Implantable ◌ Refillable ◌ Programmable

NC3Rˢ