Key benefits:

- Sensitivity (15%) sufficient to detect a statistically significant impact of your compound on glucose metabolism: a lack of significant results in blood glucose assays does not imply your drug compound doesn’t improve glucose turnover.
- Essential and robust data for your records: isotopic glucose enrichment provides unique insights into whole-body glucose metabolism (glucose turnover, glycolysis and glycogen synthesis).

**DESCRIPTION AND PARAMETERS EVALUATED**

- Species: rat, mouse
- Glucose fluxes
- Glucose turnover (= hepatic glucose production)
- Whole-body glycolysis rate
- Whole-body glycogen synthesis
- Glycemia
- Glucose clearance rate

**ADD-ON STUDIES**

- Individual tissue glucose uptake assay to identify specific tissues targeted by your compound, and to identify unexpected adverse effects or additional tissue-specific benefits
- Euglycemic hyperinsulinemic clamp + 3H-glucose in the insulin-stimulated state to profile your compound’s efficacy on insulin sensitivity
- FFA turnover in basal conditions to complete your compound's lipid profiling

**REFERENCES**

Burcelin R et al, Diabetes 48: 16264-9, 1999

**Effects of rosiglitazone on glucose fluxes**

- Glucose turnover in awake mice fed a high-fat diet

**Glucose turnover in awake mice fed a high-fat diet**

- Blood glucose mg/dl
- Blood clearance ml/min

* p<0.05 vs. HFD vehicle