



## Differentiate your incretin-based therapies and SGLT2 inhibitors in DIO mice: clues for positioning

**Differentiate** your drug against competitors beyond anti-diabetic effects with validated *in vivo* experiments

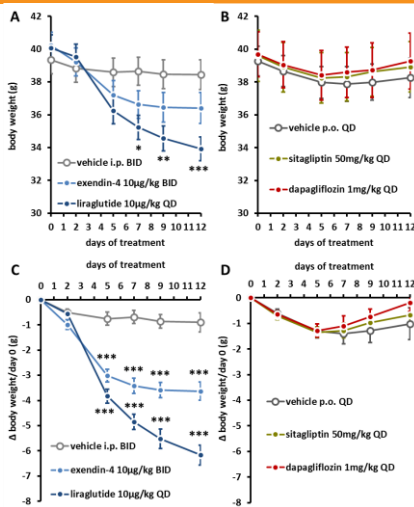
### Key objectives:

- ✓ *In vivo* validation of the main classes of approved anti-diabetic compounds
- ✓ Differentiate your drug against competitors through *in vivo* experiments to unmask specific benefits/scientific advantages
- ✓ Take advantage of Physiogenex's unique state of the art technical and scientific expertise

### ANIMAL MODEL

- C57BL6/J, 8-week old male mice
- 60% high fat diet over 12 weeks to induce obesity, glucose intolerance and insulin resistance
- Positive reference compounds: GLP-1 receptor agonists, DPP-4 inhibitors, SGLT2 inhibitors

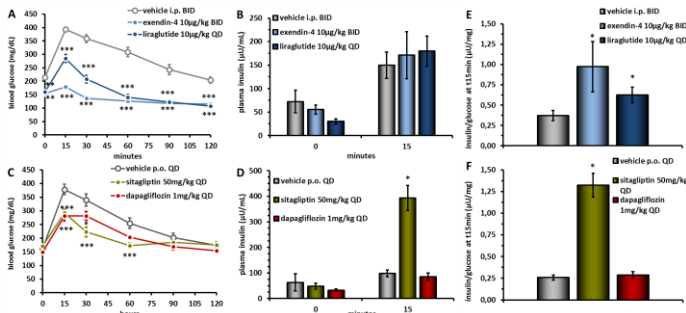
### DIFFERENTIATION ON BODY WEIGHT LOSS



Body weight follow-up (A, B) and body weight loss (C, D) in vehicle, exendin-4, liraglutide, sitagliptin and dapagliflozin-treated mice

- Exendin-4 and liraglutide induce substantial body weight loss

### DIFFERENTIATION ON GLUCOSE SENSITIVENESS

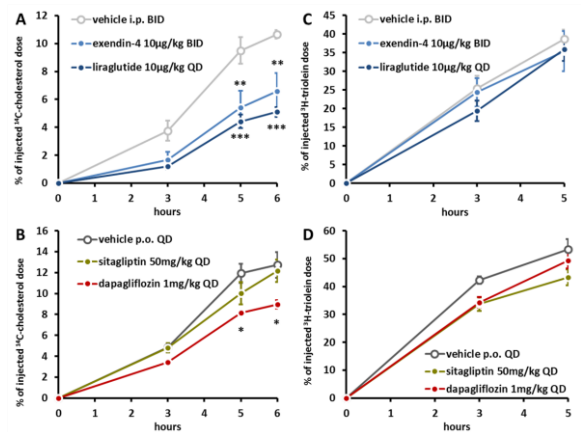


Blood glucose (A, C) and plasma insulin (B, D) levels after an oral glucose load in vehicle, exendin-4, liraglutide, sitagliptin and dapagliflozin treated mice

- Exendin-4 and sitagliptin increase glucose-induced insulin secretion

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001 vs. vehicle

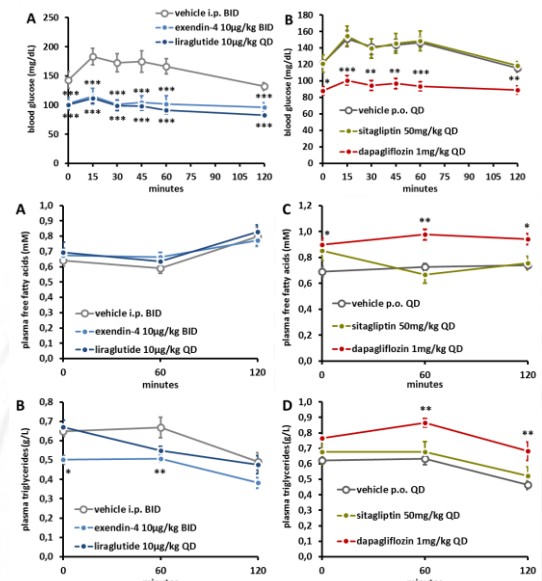
### DIFFERENTIATION ON INTESTINAL LIPIDS ABSORPTION



*In vivo* intestinal cholesterol (A, B) and triglycerides (C, D) absorption in mice treated with vehicle, exendin-4, liraglutide, sitagliptin and dapagliflozin

- Exendin-4, liraglutide and dapagliflozin reduce intestinal cholesterol absorption

### DIFFERENTIATION ON GLUCOSE/LIPID PROFILE DURING A MEAL TEST



Postprandial blood glucose (A, B), free fatty acids (C, D) and triglycerides levels during a test meal in mice treated with vehicle, exendin-4, liraglutide, sitagliptin and dapagliflozin

- Exendin-4, liraglutide and dapagliflozin all reduce blood glucose levels but differentially alter plasma lipids levels