

The diet-induced obese mouse

A standard mouse model of diet-induced obesity for drug efficacy testing.

Standard model for profiling drug therapeutic effects in obesity

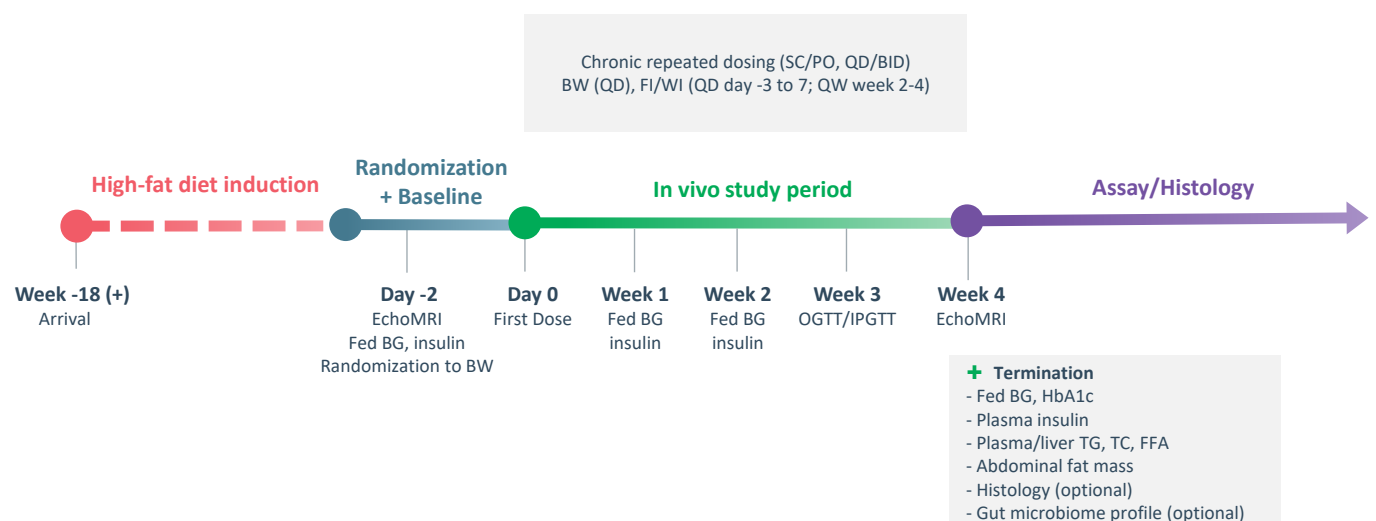
High-fat diet-induced obese (DIO) mouse is the most common mouse model employed in preclinical obesity drug development.

Key model traits

- Obesity and adiposity.
- Prediabetes characterized by insulin resistance and impaired glucose tolerance.
- Similar dysmetabolic phenotype in mice and rats.
- Treatment efficacy across a wide range of anti-obesity and anti-diabetic drug classes.

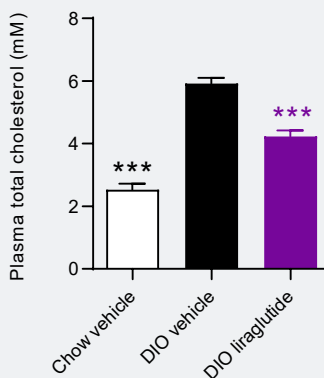
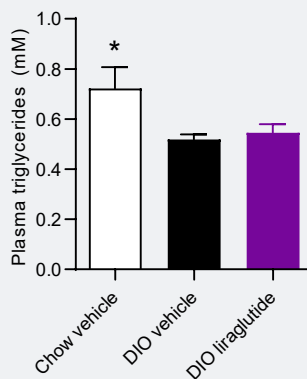
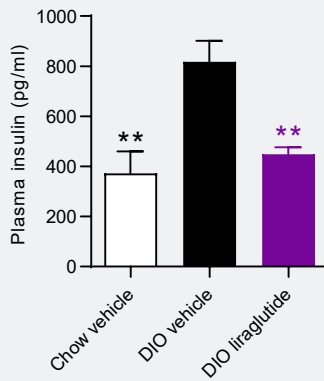
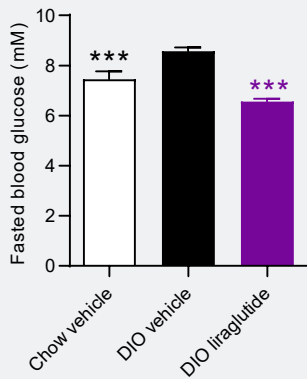
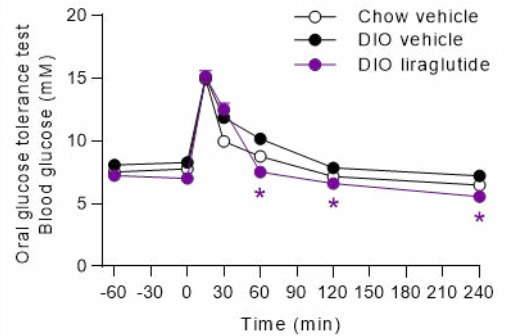
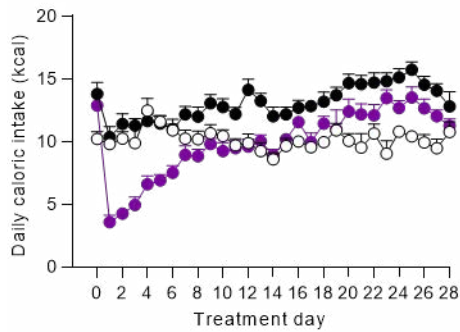
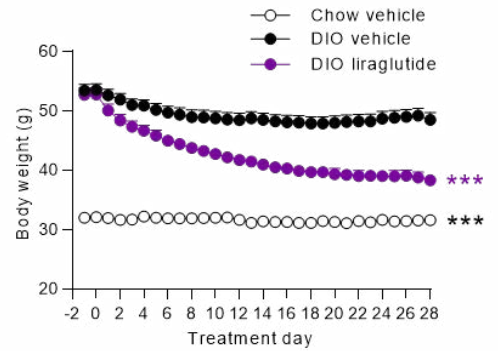
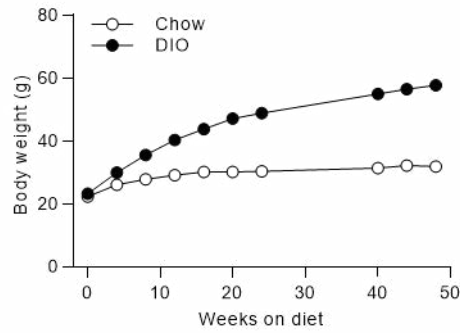
Diet	HFD 60% fat (Ssniff #D12492) Chow (Altromin 1324)	Diet-induced obesity mice are enrolled into studies after ≥18 weeks of high-fat diet induction. Age-matched chow-fed animals serve as lean controls.
Strain	C57BL/6JRj	

Study outline



Body weight, food intake and glucose tolerance

4 weeks of liraglutide (GLP-1 agonist) treatment promotes robust weight loss, appetite suppression and improves glucose tolerance in DIO mice.



Blood biochemistry

DIO mice develop mild hyperglycemia, hyperinsulinemia and elevated plasma levels of triglycerides and cholesterol.

Liraglutide treatment for 4 weeks improves blood biochemistry in DIO mice.