

METABOLIC DISORDERS IN RODENTS

Dyslipidemia and Atherosclerosis Mice

- Apo E -/-
- LDLR -/-

Type 1 Diabetes models

- Streptozotocin (STZ) mouse/rat

Mouse Models of Type 2 Diabetes

- ob/ob: lacking leptin
- db/db: lacking the leptin receptor

Rat Models of Type 2 Diabetes

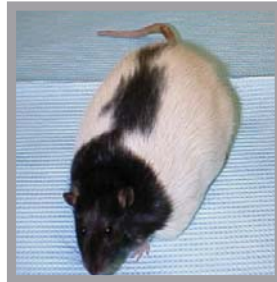
- ZDF: mutation in leptin receptor (fa/fa) spontaneously develops insulin resistance, hyperlipidemia and obesity

Models for Obesity

- Diet-Induced Obesity Mice (DIO)
- Zucker Fatty rats: hyperphagic and hyperinsulinemic without hyperglycemia

Nonalcoholic Steatohepatitis (NASH) Models

- STZ induced NASH



END POINTS FOR METABOLIC DISORDERS IN RODENTS

In Life Measurements

- Body weights
- Blood glucose measurements
- Insulin levels
- C-peptide
- GTT (OGTT and ipGTT)
- ITT
- Hemoglobin A1c (HbA1c)
- Metabolic cages
 - Urine and feces collection
- Food and water consumption
- Blood pressure via tail cuff using CODA™

Cytokine levels by ELISA

Clinical Pathology

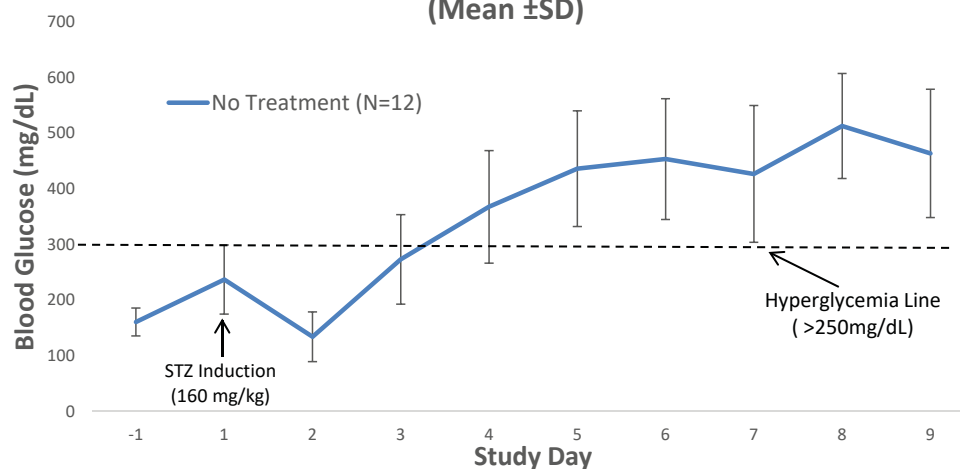
- HDL
- LDL
- Total cholesterol
- Total triglyceride
- Liver enzymes

Tissue Analysis

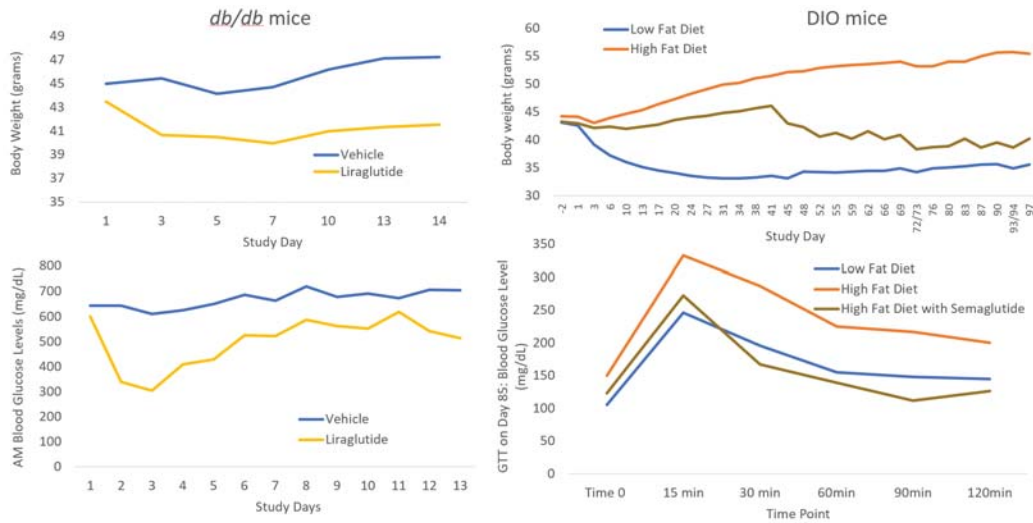
- Immunohistochemistry (IHC)
- Histopathology

BLOOD GLUCOSE LEVELS IN STZ INDUCED DIABETES IN MICE

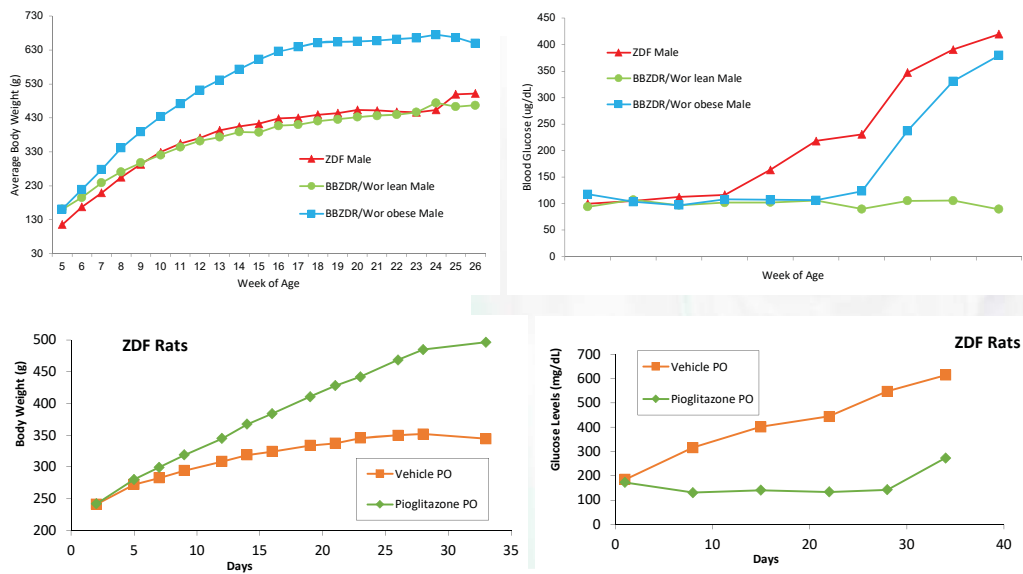
(Mean ±SD)



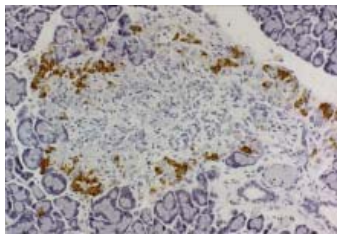
THE EFFECTS OF POSITIVE CONTROLS IN MOUSE MODELS FOR TYPE 2 DIABETES



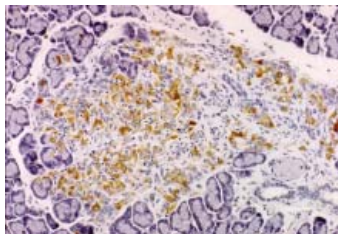
RATS MODELS FOR TYPE 2 DIABETES



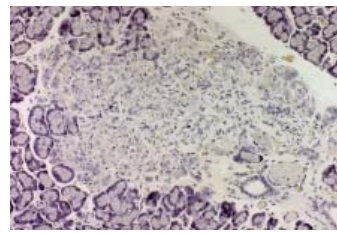
IMMUNOHISTOCHEMISTRY OF THE PANCREAS IN TYPE 2 DIABETES RATS



Glucagon Staining



Insulin Staining



GLUT-2 Staining

IT'S PERSONAL.

Driven to expedite your journey.



“Obesity and Type 2 diabetes are a rising epidemic in the Unites States effecting millions of people. Biomere has established itself as a leader in metabolic disease research, testing novel therapeutics in gold standard diabetic/obesity rat and mouse models, customized to meet your program needs. We continue to push the limits to advance metabolic research!”

- Amy D., Client Services and Alliance Management Lead