

**DIO vs. ob/ob**  
**(Lale Ozcan, October 2016)**

**DIO is a better to model to:**

1- inject insulin through portal vein. In DIO mice, portal vein is always visible. Because ob/ob mice are very obese, the portal vein is embedded in omental fat and hard to see/localize and inject insulin/PBS.

2- analyze skeletal muscle because they have better developed and visible skeletal muscle than ob/ob. In ob/ob mice, skeletal muscle is very rudimentary (not developed and small) and again is embedded in fat -it is very hard to dissect it (and clean the fat surrounding it) within 2 minutes of insulin infusion.

3- anesthetize -they respond better to anesthetics and sleep within 5 minutes of injecting it with better respiration and circulation. Ob/ob mice (because of their high body fat ratio) respond poorly to anesthetics and the window for safe anesthesia is small.