

Metabolic Disease Platform

From Discovery to In Vivo, Step in at Any Stage of Your Research

Target

HIT

Lead

Candidate

Key Metabolic Models

Diabetes

Pancreatic β -cells | IR cell model
(*GSIS, glucose uptake*)
NOD mice, *db/db* mice
ZDF rats, ZSF1 rats
STZ mice | rats | NHPs

Obesity

3T3-L1 | human adipocytes
(*Lipolysis, Seahorse assay*)
Humanized DIO mice | rats
ob/ob mice
DIO mice | rats | NHPs

Liver Disease

PRH | PMH | PCH | PHH |
liver fibrosis model
MASH mice | rats
(HFD+CCl₄, GAN Diet, CDAHFD)
ALD mice (Ethanol)

CVD

Cardiac cell model (iPSC-CM)
HFrEF/HFpEF mice | rats
Ldlr^{-/-}, *ApoE*^{-/-} mice
Stroke mice
HFrEF/HFpEF NHPs

Kidney Disease

HK-2 | RPTEC |
kidney fibrosis model
CKD mice (Pan/Adenine)
AKI mice (Cisplatin/LPS)
Renal Anemia mice

Hyperlipidemia

Hepatocytes (*LDL uptake*)
Humanized mice (hPCSK9, hLPA)
Diet-induced hyperlipidemic
mice | golden hamster
Ldlr^{-/-}, *ApoE*^{-/-} mice

GLP-1R

Amylin

GCGR

GIPR

ALK7

ACTRII

PCSK9

INHBE

and more...

Priority
Targets

Drug
Modality

Small
Molecule

Peptide

Oligonu-
cleotide

Antibody

Cell
Therapy



Screen Smarter

Highly translatable *in vitro* assays



Assess Deeper

Comprehensive *in vivo* profiling

30+

Priority
Targets

40+

Phenotypic
Assays

80+

Metabolic
Models

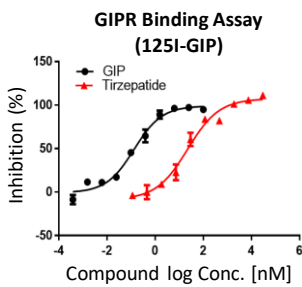
300+

Metabolic
Scientists

Your solution for more efficient drug discovery

Showcase of Studies in Metabolic Diseases

Obesity Drug Discovery Pipeline



Receptor Screening

- Receptor activation
- Receptor binding
- Biased agonism evaluation

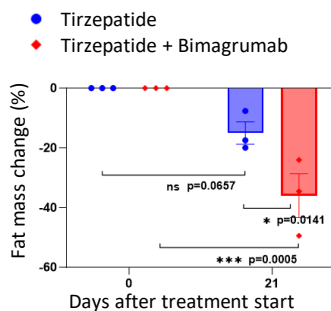
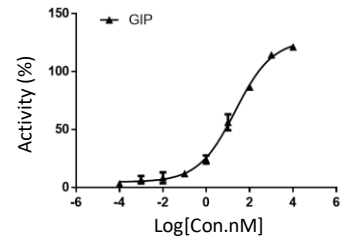
Cell-based 125I-GIP binding assay evaluating Tirzepatide binding activity at GIPR

Metabolic Pharmacology

- Lipolysis
- Glucose uptake
- Insulin secretion, etc.

Tirzepatide-mediated lipolysis evaluated in GIPR-expressing adipocytes (lipolysis assay)

Lipolysis Assay in 3T3-L1 Adipocytes



NHP Disease Models

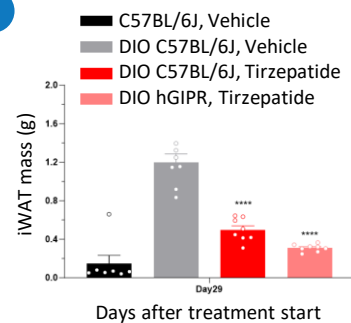
- Body weight
- Body composition
- Food intake, etc.

Significantly increased fat mass loss with Tirzepatide + Bimagrumb co-treatment during weight loss in DIO NHPs

Rodent Disease Models

- Body weight
- Body composition
- Energy expenditure
- Food intake, etc.

Tirzepatide shows greater fat mass loss in DIO-humanized GIPR vs. DIO WT mice



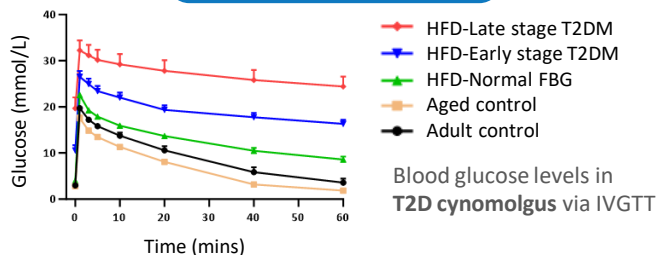
Diabetes

Type 1 Diabetes



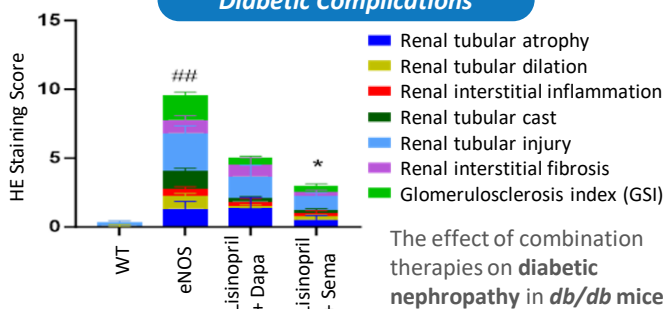
WT vs. STZ-T1D SD rats
Pancreatic insulin IHC

Type 2 Diabetes



Blood glucose levels in T2D cynomolgus via IVGTT

Diabetic Complications

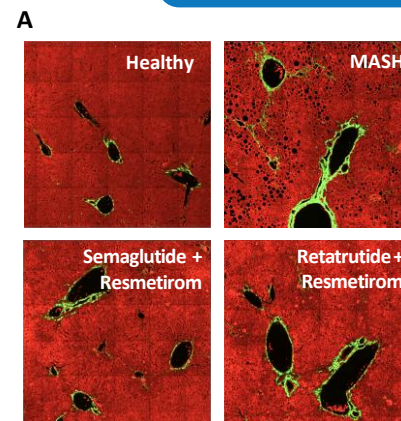


The effect of combination therapies on **diabetic nephropathy** in *db/db* mice

MASH

Metabolic Dysfunction-Associated Steatohepatitis

Combination Therapy



GLP-1RA-based combination therapies in MASH models
(A) Digital pathology and (B) fibrosis septa results showing bridging fibrosis, (C) NAS score based on conventional histology

