GLP-1 RESEARCH SERIES

Ozempic

VS.

Retatrutide

A precision breakdown of the compound the market knows versus the compound that's rewriting the rules. One receptor. Three receptors. The data speaks for itself.

FOR RESEARCH & EDUCATIONAL PURPOSES ONLY

THE COMPOUNDS

ESTABLISHED · FDA APPROVED

Ozempic

SEMAGLUTIDE · WEEKLY INJECTABLE

Developed by Novo Nordisk and FDA-approved for type 2 diabetes management. Ozempic (semaglutide) is a GLP-1 receptor agonist that suppresses appetite and improves insulin sensitivity. Its close relative Wegovy carries the same active compound, approved for chronic weight

NEXT-GENERATION · PHASE 3 CLINICAL TRIALS

Retatrutide

TRIPLE AGONIST · WEEKLY INJECTABLE

Eli Lilly's investigational triple agonist, currently in Phase 3 clinical trials (TRIUMPH program). Retatrutide hits three receptor types simultaneously — GLP-1, GIP, and glucagon — making it the most mechanistically advanced obesity compound ever tested. Phase 3 data released December 2025

management. Ozempic is the established standard — widely prescribed, extensively studied, and available now.

produced the highest weight loss numbers ever recorded in a clinical trial. FDA approval is projected for 2027.

MECHANISM OF ACTION

Ozempic — Single Pathway

GLP-1 — Glucagon-Like Peptide-1
Slows gastric emptying, reduces appetite signals, and promotes insulin release in response to meals. The entire mechanism of Ozempic operates here.

GIP — Not Targeted
No GIP receptor activity. Fat metabolism enhancement from this pathway is absent.

GCG — Not Targeted
No glucagon receptor activity. Energy expenditure boost from thermogenesis is absent.

Retatrutide — Triple Pathway

GLP-1 — Glucagon-Like Peptide-1
Same appetite suppression and insulin response as Ozempic — but this is only one of three simultaneous mechanisms.

GIP — Glucose-Dependent Insulinotropic Polypeptide
Amplifies insulin secretion and accelerates fat metabolism. Highest receptor potency of the three targets (EC50 0.064 nM).

GCG — Glucagon Receptor
Increases energy expenditure through thermogenesis — the fat-burning engine not found in Ozempic or tirzepatide. Retatrutide doesn't just reduce input. It increases output.

CLINICAL RESULTS

AVG. WEIGHT LOSS 14.9% STEP 1 Trial · 68 weeks	WEIGHT LOSS	AVG. WEIGHT LOSS 28.7% TRIUMPH-4 · 68 weeks · 12mg
RECEPTORS TARGETED 1 GLP-1 only	TARGETS	RECEPTORS TARGETED 3 GLP-1 · GIP · Glucagon
FDA STATUS Approved Available by prescription now	APPROVAL	FDA STATUS Phase 3 Projected approval 2027
MECHANISM DIRECTION Reduce Input Appetite suppression primary	EFFECT	MECHANISM DIRECTION Reduce Input + Increase Output Appetite + thermogenesis + fat metabolism

SIDE-BY-SIDE BREAKDOWN

CATEGORY	OZEMPIC (SEMAGLUTIDE)	RETATRUTIDE
DEVELOPER	Novo Nordisk	Eli Lilly
CLASS	GLP-1 Receptor Agonist	Triple GLP-1 / GIP / Glucagon Agonist
ADMINISTRATION	Weekly subcutaneous injection	Weekly subcutaneous injection
WEIGHT LOSS	~14.9% at 68 weeks	~28.7% at 68 weeks (12mg) NEARLY 2× THE RESULT
FAT BURNING	Indirect via caloric reduction only	Direct thermogenesis via glucagon receptor activation ACTIVE FAT BURNING
MUSCLE PRESERVATION	Some muscle loss reported alongside fat loss	Early data suggests superior lean mass preservation
BLOOD SUGAR	Strong glycemic control (primary indication)	Strong glycemic control across all three pathways
LIVER HEALTH	Moderate improvement in liver fat	Dramatic reductions in liver fat (MASLD relevant) SUPERIOR HEPATIC BENEFIT
CARDIOVASCULAR	Proven CV benefit (SELECT Trial) LONG-TERM DATA ADVANTAGE	CV trials ongoing — data pending
SIDE EFFECTS	Nausea, vomiting, GI upset (common, dose-dependent)	Similar GI profile, slightly higher rate at higher doses
SAFETY HISTORY	Extensive long-term approved data ESTABLISHED TRACK RECORD	Strong Phase 3 data — long-term data accumulating
AVAILABILITY		

CATEGORY	OZEMPIC (SEMAGLUTIDE)	RETATRUTIDE
	FDA approved, prescription available now	Phase 3 trials only — approval projected 2027
COMPOUNDING	Compounded versions under FDA scrutiny	FDA has explicitly prohibited compounding — warning letters issued
PLATEAUS	Weight loss plateaus commonly reported	Triple mechanism may reduce plateau likelihood SUSTAINED TRAJECTORY

THE LVL UP PERSPECTIVE

Two Different Eras of Science.

Ozempic is the compound that changed the conversation around weight loss. Proven, approved, and accessible — it remains the clinical gold standard with the safety data to back it up. For someone seeking a regulated, physician-prescribed solution today, Ozempic is a legitimate tool.

Retatrutide is what happens when the research community asks a harder question: what if we stopped treating one pathway and started treating three? The TRIUMPH-4 Phase 3 results — 28.7% average body weight reduction at 68 weeks — are the highest numbers ever recorded in an obesity trial. By comparison, the best outcomes from bariatric surgery typically land in that same range. That is not a minor upgrade. That is a category shift.

The critical distinction is mechanism. Ozempic reduces what you take in. Retatrutide reduces input AND increases output. For high performers and athletes where body composition — not just weight — is the target, that thermogenic glucagon pathway is the difference that matters.

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