



Corporate Presentation

May 2024

Forward looking statements

This presentation contains “forward-looking statements” within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including, without limitation, statements concerning the Company’s future plans and prospects, any expectations regarding the the safety, efficacy, tolerability and CMC and scalability of GSB-1290 under development based on the interim clinical data from the Phase 2a study of GSB-1290 in patients with T2DM and obesity, including the potential for maintained or increased efficacy results with longer duration of treatment, the ability of GSB-1290 to treat type 2 diabetes, obesity, chronic weight management or related indications, the planned initiation and study design of the Company's Phase 2b studies for GSB-1290 in patients with T2DM and obesity and chronic weight management and the timing thereof; the update from the capsule to tablet formulation bridging optimization study of GSB-1290 and the planned timing thereof; the planned timing to file an IND for chronic weight management for GSB-1290; the planned timing of the Company's data results and continued development of GSB-1290 and next generation combination GLP-1R candidates; the planned timing of the Company's section of development candidates targeting amylin receptor agonist and GIPR; and the planned initiation and study design of the Company's Phase 1 SAD/MAD study in LTSE-2578. In addition, when or if used in this presentation, the words “may,” “could,” “should,” “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plan,” “predict” and similar expressions and their variants, as they relate to the Company may identify forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Although the Company believes the expectations reflected in such forward-looking statements are reasonable, the Company can give no assurance that such expectations will prove to be correct. Readers are cautioned that actual results, levels of activity, safety, performance or events and circumstances could differ materially from those expressed or implied in the Company’s forward-looking statements due to a variety of risks and uncertainties, which include, without limitation, risks and uncertainties related to the preliminary nature of the results due to length of the study and sample size, the risks that unblinded data is not consistent with blinded data, the risk that interim results of a clinical trial do not predict final results and that one or more of the clinical outcomes may materially change as patient enrollment continues, following more comprehensive reviews of the data, as follow-up on the outcome of any particular patient continues, and as more patient data become available, the Company’s ability to advance GSB-1290, LTSE-2578, ANPA-0073 and its other therapeutic candidates, obtain regulatory approval of and ultimately commercialize the Company’s therapeutic candidates, the timing and results of preclinical and clinical trials, the impact of any data collection omissions at any of our clinical trial sites, the Company’s ability to fund development activities and achieve development goals, the Company's reliance on third parties, including clinical research organizations , manufacturers, suppliers and collaborators, over which it may not always have full control, the impact of any global pandemics, inflation and supply chain issues on the Company’s business, its ability to protect its intellectual property and other risks and uncertainties described in the Company’s filings with the Securities and Exchange Commission (SEC), including the Company’s Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 8, 2024, Quarterly Report on Form 10-Q for the quarter ended March 31, 2024 filed with the SEC on May 9, 2024, and future reports the Company may file with the SEC from time to time. All forward-looking statements contained in this presentation speak only as of the date on which they were made and are based on management’s assumptions and estimates as of such date. The Company undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made, except as required by law.

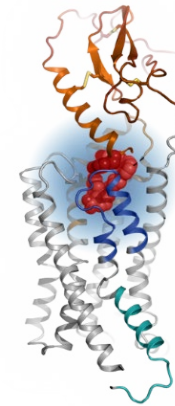
Our Mission is to Make Medicines More Accessible to All



PEPTIDE OR BIOLOGIC CHALLENGES

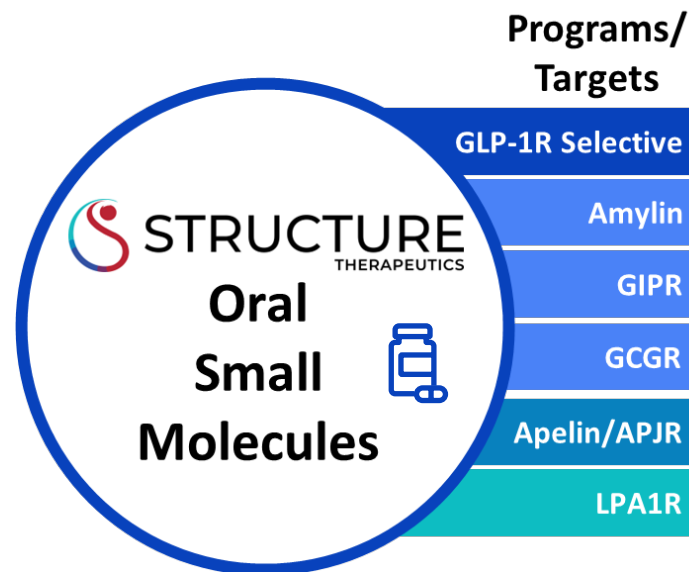
- Generally not orally available; injectables limit patient pool
- Higher COGS & supply constraints
- Limited stability, cold supply chain
- Broad signaling profile

MEDICINES ACCESSIBLE FOR ALL



ORAL SMALL MOLECULE OPPORTUNITIES

- Convenient oral; better compliance
- Lower costs
- Stable, no cold-chain requirements
- Dialed out arrestin signaling



Oral Small Molecule GLP-1RAs have the Potential to Meet the Needs of the Very Large Obesity Patient Population

>\$100B Total Addressable Market

Oral Small Molecules
With the Potential to Meet the
Needs of All Patients

GLP-1 Peptides
Challenging to Scale

>\$30B Sales in 2023⁴

>5 million
people in the
US served

>100 million
people in the US living
with obesity²



>800 million
People worldwide living
with obesity¹



**Projected to rise to 1.5 billion
people in 2030**

**Shortage and supply
chain constraints³**

 **STRUCTURE**
THERAPEUTICS
Ability to Scale

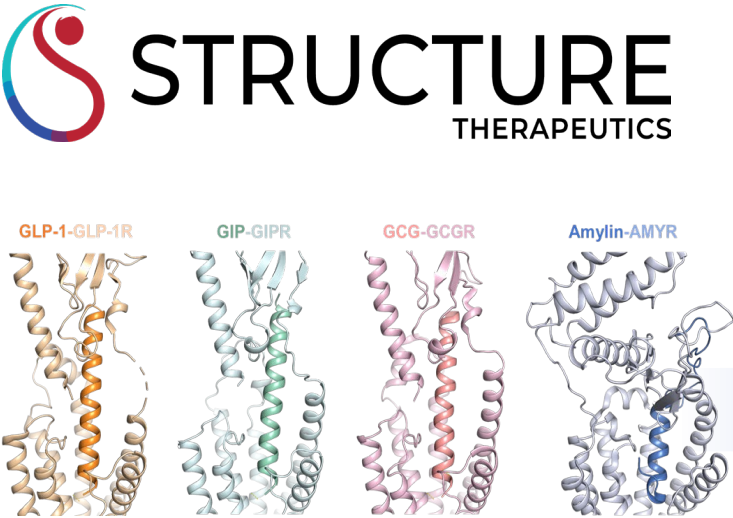


1. 2022 World Health Organization <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>
2. Trust for America's Health Report <https://www.tfah.org/report-details/stateofobesity2019/#:~:text=Obesity%20is%20a%20growing%20epidemic,100%20million%20people%20%E2%80%93%20have%20obesity.>
3. <https://www.fda.gov/drugs/drug-safety-and-availability/drug-shortages>
4. GlobalData, Drugs database <https://www.globaldata.com/media/pharma/glp1-agonists-set-to-become-the-best-selling-drugs-in-2024-says-globaldata/>

Disrupting the GLP-1RA Peptide Market with Portfolio of Oral Small Molecules



Our Small Molecules Metabolic Franchise



Selective GLP-1R
GSBR-1290
Phase 2a

GLP-1R/GIPR
GLP-1R/Amylin
GLP-1/APJR
Combinations

GLP-1R/GCGR
GLP-1R/GIPR/Amylin
GLP-1R/GIPR/APJR
Combinations

Our powerful platform enables
a franchise approach to complement
or potentially replace marketed peptides

GSBR-1290 Designed as a biased Oral Small Molecule GLP-1R Agonist Achieving High Potency, Once Daily Dosing and Potential Best-in-Class Profile

Foundational Backbone Asset in Oral Small Molecule Metabolic Franchise Portfolio

EFFICACY

- ✓ 4.74% weight reduction observed at 8wks (Interim) in Phase 2a Obesity study

SAFETY

- ✓ Clean 6- and 9-month non-clinical GLP-tox study (up to 1000 mg/kg/day)
- ✓ No unexpected drug-related serious adverse events in clinical studies, up to 12wks
- ✓ ~130 participants exposed to GSBR-1290

TOLERABILITY

- ✓ Majority of all reported adverse events (AEs) were mild or moderate
- ✓ Very low AE-related discontinuations (0 to 2.8%) across all studies

CMC AND SCALABILITY

- ✓ Lower COGS, aligned with “accessible to all” mission
- ✓ Opportunity for significant decrease in manufacturing costs and scale up in commercialization

GSBR-1290 GLP-Toxicology Studies Support Longer and Larger Trials

Higher Safety Therapeutic Margin Enables Higher Dosing (>120mg) in Future Studies

6-Month Study in Rats (N=216)

- NOAEL is 1000 mg/kg/day, leading to >100-fold safety window at 120 mg therapeutic dose
- No increase in ALT/AST and no test article-related changes in the liver

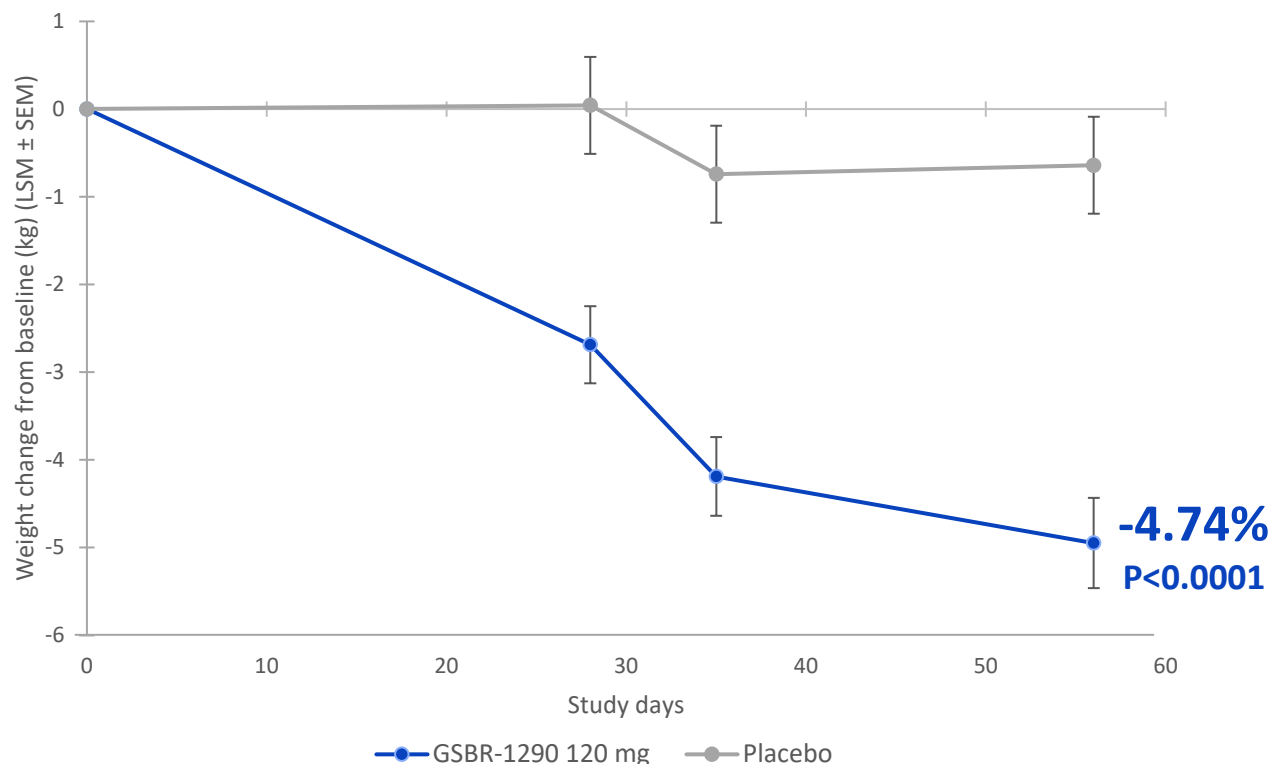
9-Month Study in Non-Human Primates (N=60)

- Dose-dependent body weight reduction up to -20% vs baseline
- No test article-related change in the heart rate or QTc interval
- No increase in ALT/AST and no test article-related changes in the liver

GSBR-1290 Positive Clinical Proof-of-Concept Experience to Date

PHASE 2A OBESITY INTERIM RESULTS (8WK)

WEIGHT CHANGE FROM BASELINE (KG), OVER TIME



Phase 2a Obesity Interim Efficacy (8wk)

- 4.74% statistically significant reduction in weight
- No AE-related study discontinuations up to 12 wk
- Additional 24 participants up to 12 wk (June 2024)

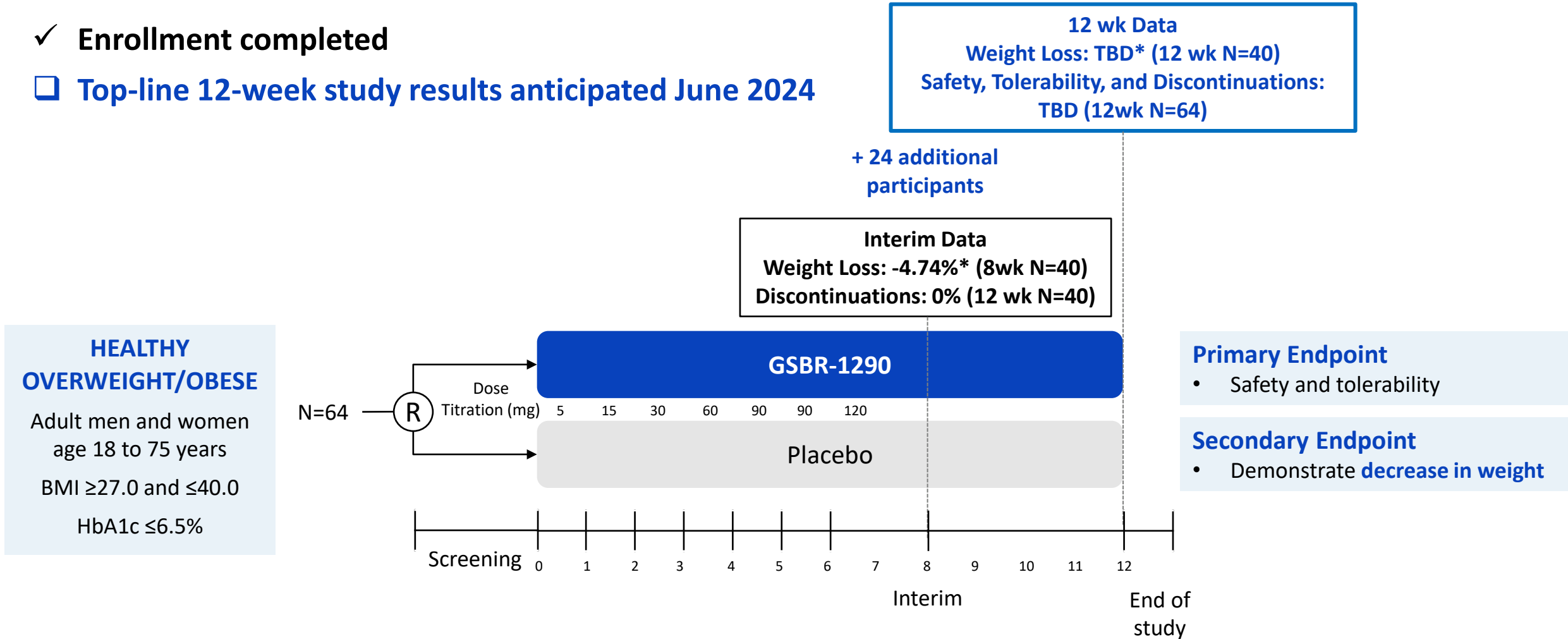
Phase 2a T2D Efficacy (12 wk)

- 3.5% statistically significant reduction in weight
- 1% HbA1c reduction
- One AE-related study discontinuation (2.8%)

GSBR-1290 Phase 2a (12 wk) Obesity Study On Track for June 2024 Data Readout

✓ Enrollment completed

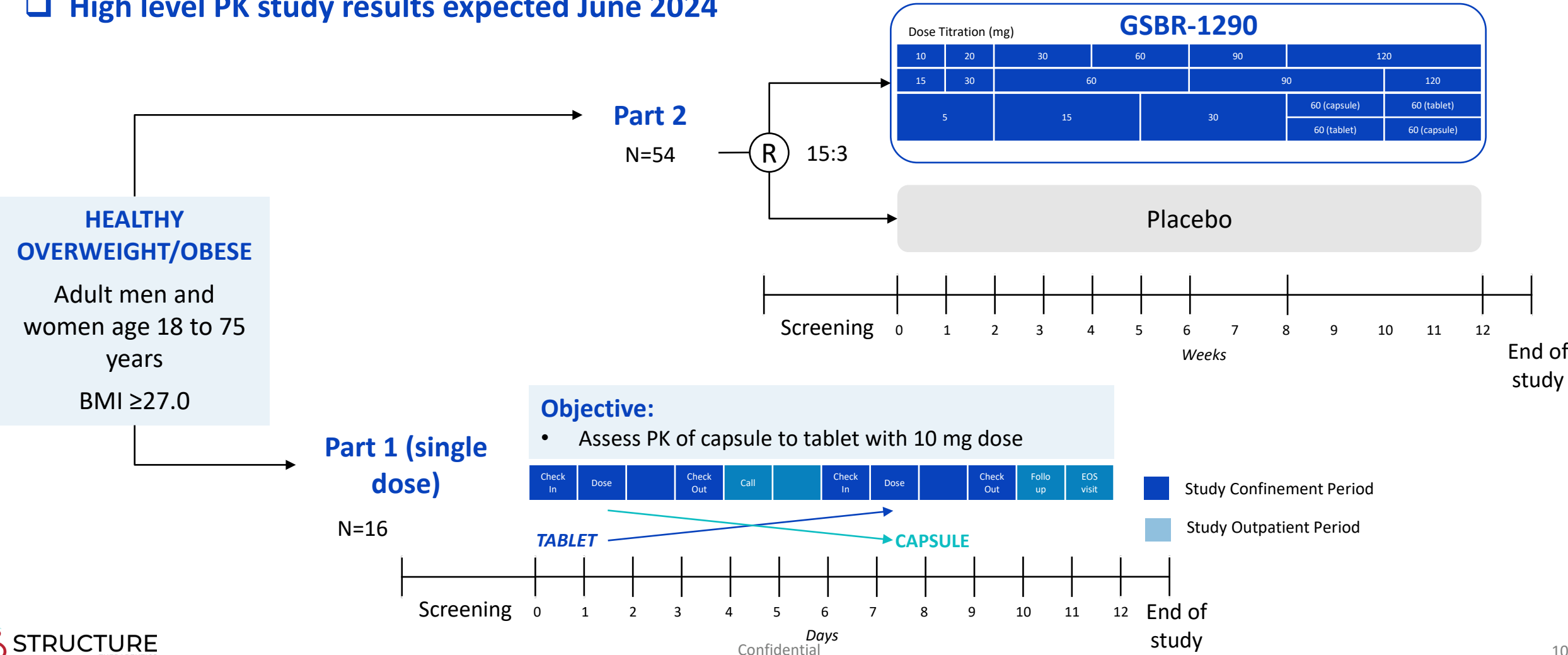
☐ Top-line 12-week study results anticipated June 2024



GSBR-1290 Capsule to Tablet Formulation Bridging and Explore Additional Titration Schemes

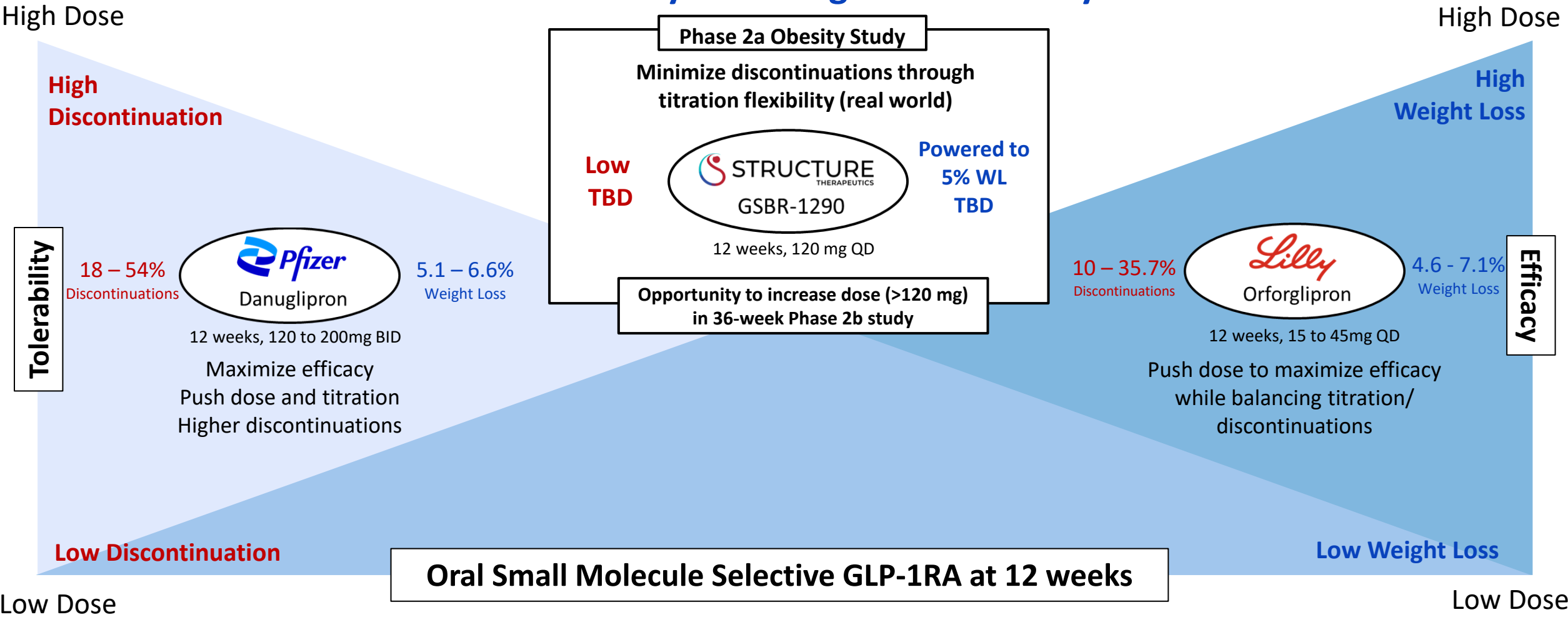
- ✓ Enrollment completed
- High level PK study results expected June 2024

- Objectives:**
- Safety and tolerability
 - Assess comparability of capsule and tablet at 60 mg

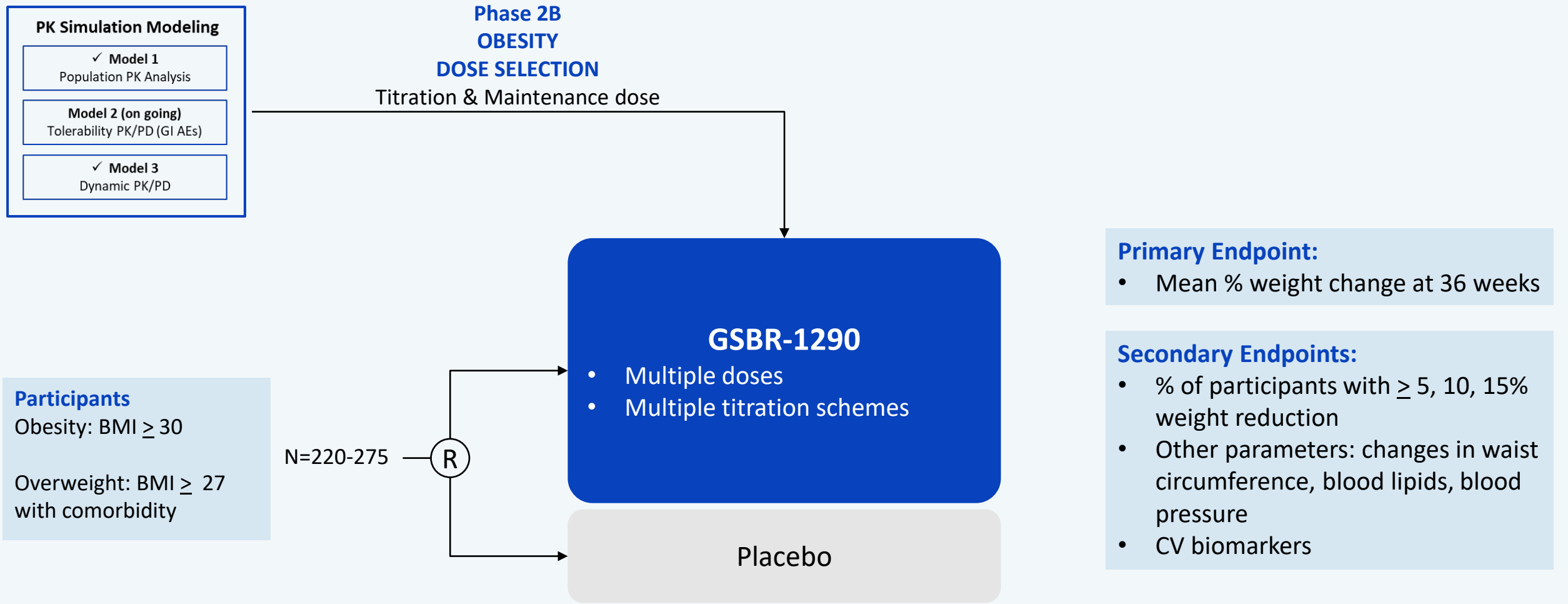


How to win in Oral Small Molecule GLP-1RAs

Optimizing Dosing Regimen to Balance Tolerability and Weight Loss Efficacy

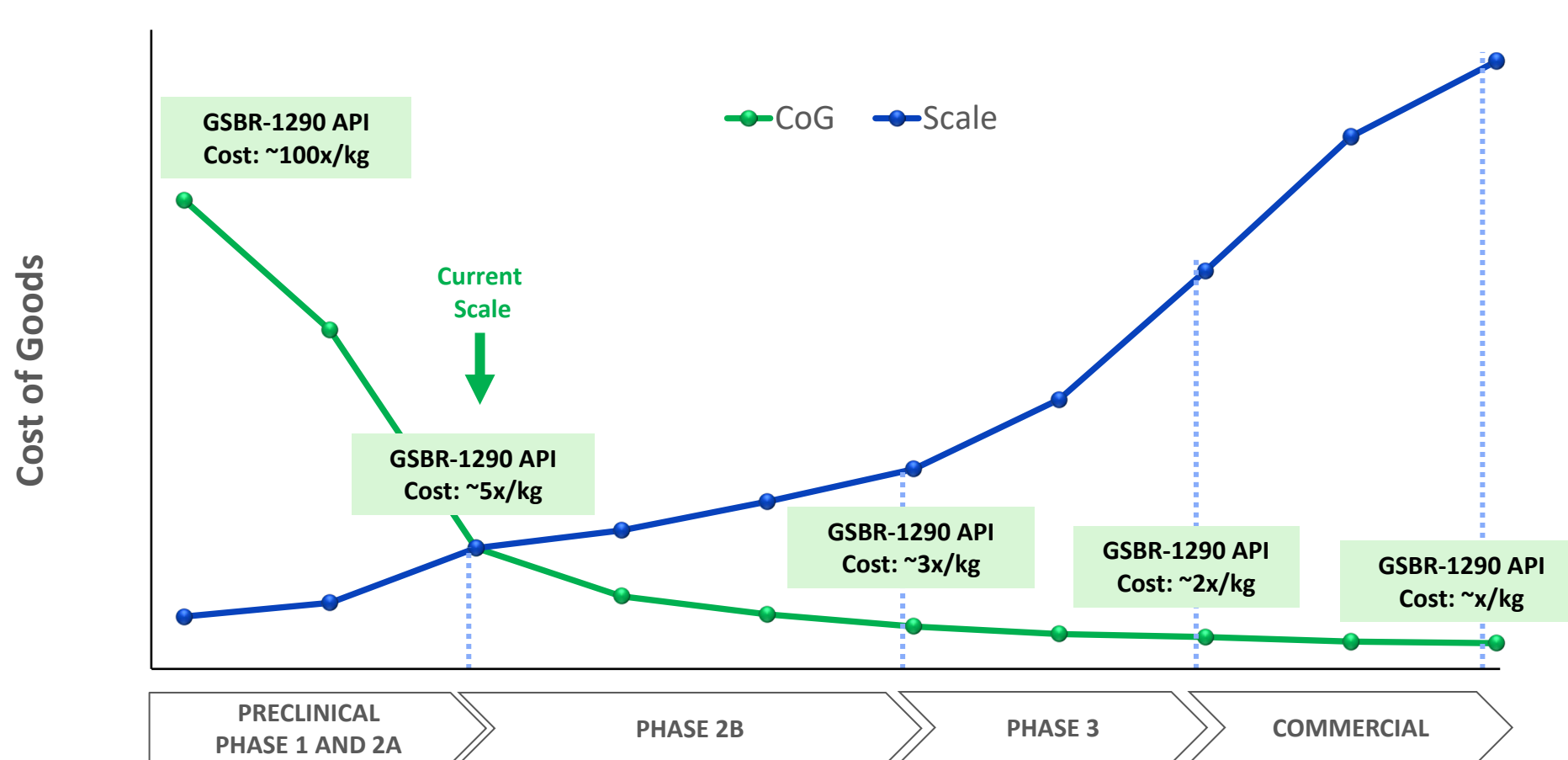


GSBR-1290 Phase 2b Obesity 36 wk Study Anticipated to Initiate in Q4 2024



Our Ability to Manufacture, Commercially Scale and Supply GSR-1290

- Synthetic route locked and ready for registration batches
- 6 GMP batches have been manufactured
- **Current capacity for manufacturing is 6,000 tons/year**



STRUCTURE
THERAPEUTICS
Oral Small Molecules

100 million patients/year
>40 billion tablets

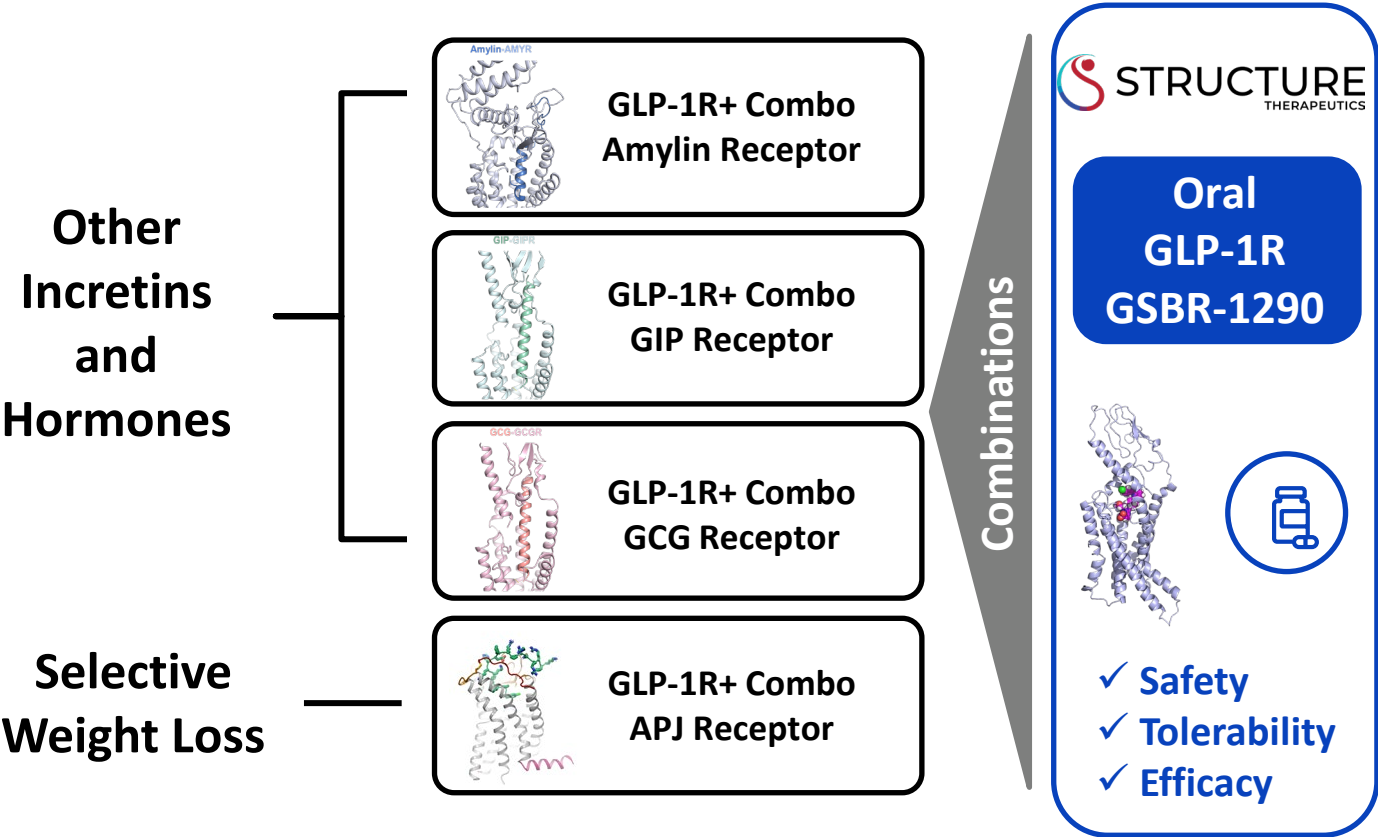
~5,000 tons

10 million patients/year
>4 billion tablets

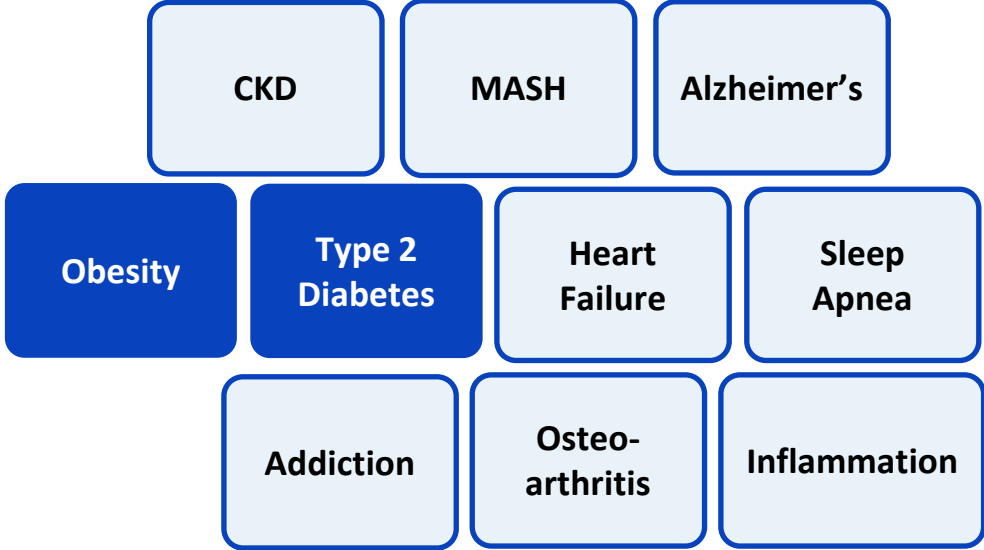
~500 tons

Metabolic Franchise Strategy 2024 – Our Oral Small Molecule GLP-1RAs have the Potential to be Foundational and Backbone for Future Combinations

OUR ORAL SMALL MOLECULE METABOLIC FRANCHISE

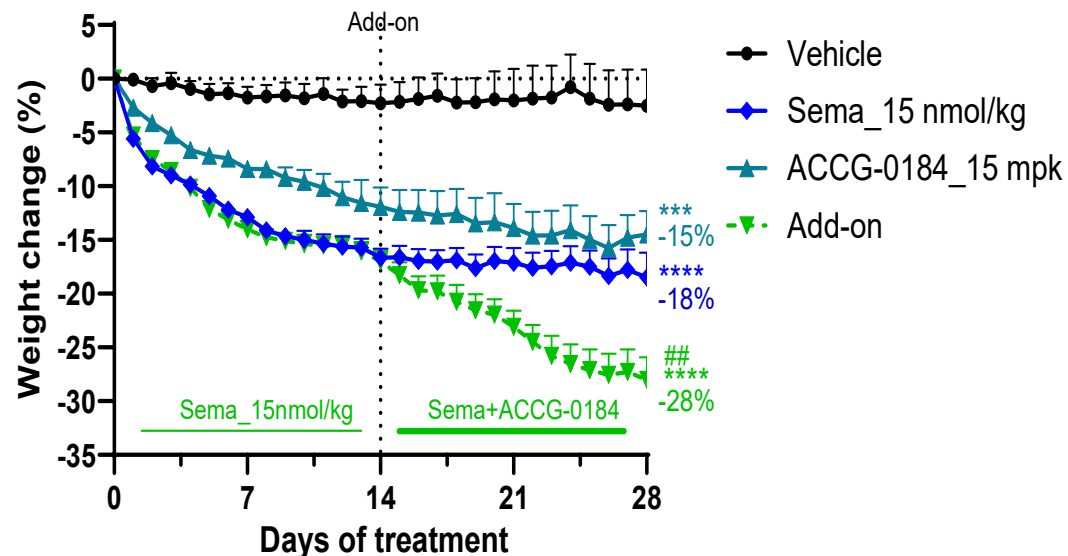
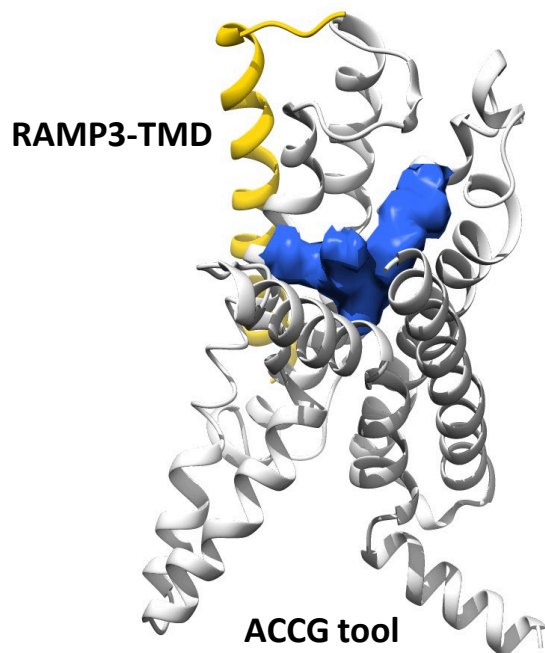


LIFECYCLE MANAGEMENT



Promising Oral Small Molecule Amylin Receptor Agonist in Lead Optimization

Development Candidate Selection in Q4 2024



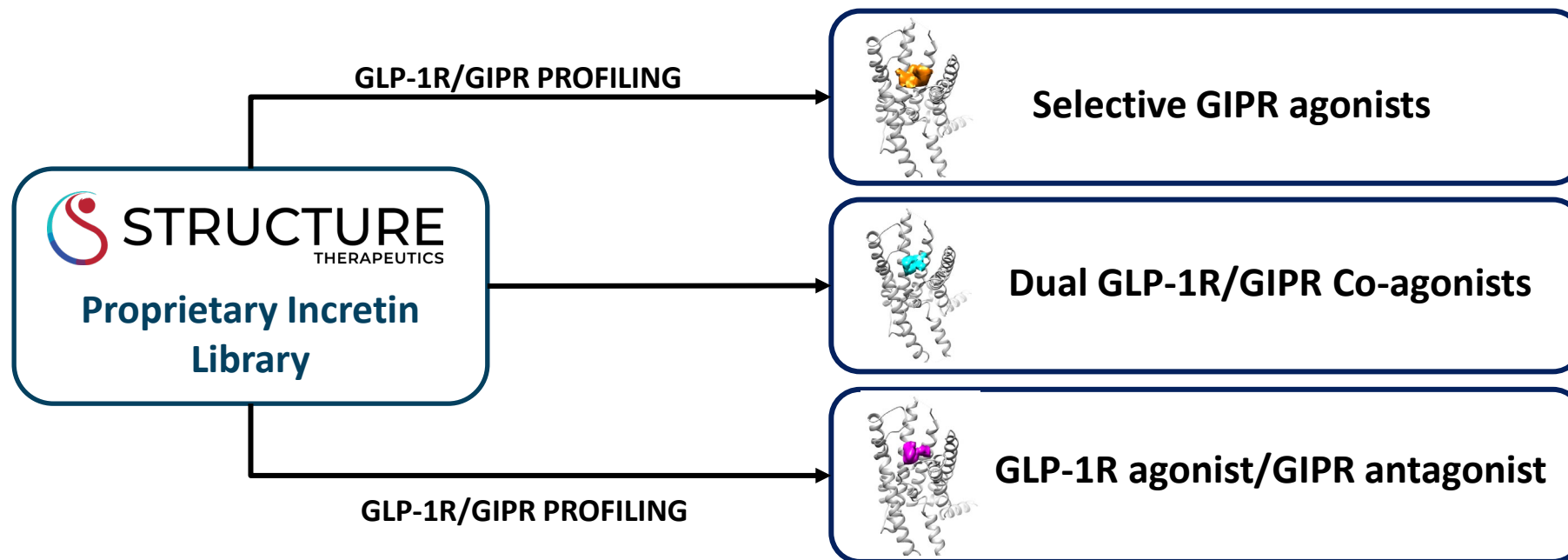
** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$ vs vehicle group by one-way ANOVA test; ## $p < 0.01$, #### $p < 0.0001$ combo vs Sema group by one-way ANOVA test

LEAD OPTIMIZATION UNDERWAY

DEVELOPMENT CANDIDATE SELECTION ANTICIPATED IN Q4 2024

- Small molecule Amylin Receptor Agonist (ACCG-0184) demonstrated proof-of-concept activity
- Current small molecules leads achieve sub nM potency and good bioavailability

Oral GIPR Agonists in Parallel Approaches Toward DC Selection



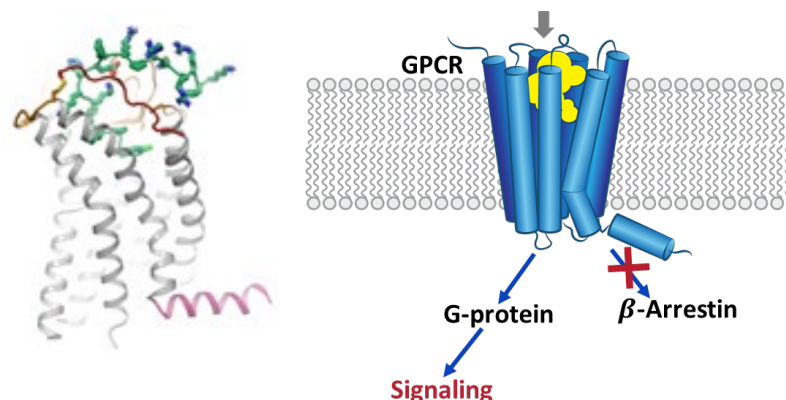
DEVELOPMENT CANDIDATE SELECTION ANTICIPATED IN 1H 2025

Lead Optimization underway

- Initial hits derived from GSBR proprietary library
- nM range potency with high-resolution binding pose insight
- Current focus on physical chemical property optimization

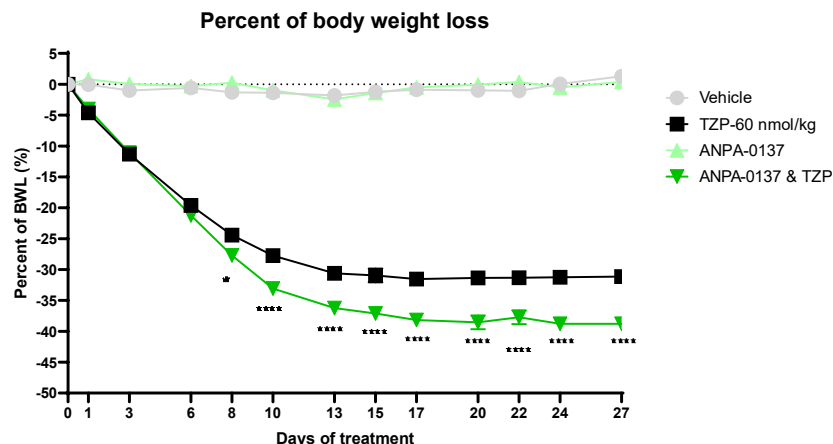
ANPA-0073 (APJR Agonist) for Selective Fat Loss and Muscle Preservation

BIASED APJR AGONIST

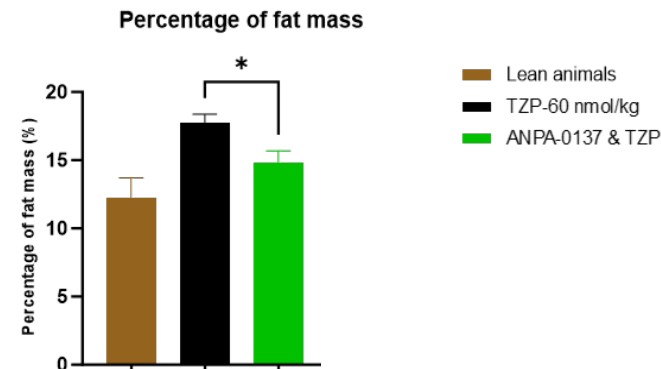


ANPA-0073/0137

APJR preclinical validation underway in DIO mouse model



Two Way ANOVA analysis followed by Tukey's multiple comparison test.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, **** $p < 0.0001$ compared to TZP group;



One Way ANOVA analysis followed by Dunnett multiple comparison test., * $p < 0.05$ compared to TZP group;

EVALUATE AND INITIATE POTENTIAL CLINICAL POC STUDY WITH ANPA-0073

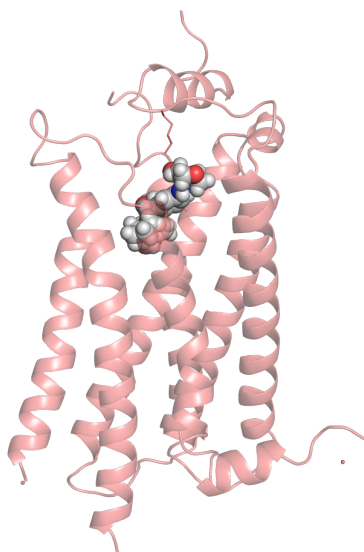
Preclinical evidence and clinical plan

- Combination ANPA-0137 (ANPA-0073 analog) + Incretin led to additional selective weight loss and fat content decrease

ANPA-0073 Phase 1 study completed in healthy participants (n=96)

- Evaluated up to single ascending dose of 600 mg and multiple ascending doses of 500 mg QD x 7 days
- Dose proportional PK from 75 mg to 500 mg
- No SAEs and no adverse changes in laboratory tests were observed

Oral LPA1R Antagonist on track for First-in-Human Phase 1 Study Initiation in June 2024



“Structure Based Discovery and Anti-fibrotic Activity of Novel Antagonists of Lysophosphatidic Acid Receptor 1 (LPA1R)”
ATS 2023

Potentially differentiated profile¹

 Bristol Myers Squibb

BMS-986278

 **AMGEN**

HZN-825
Fipaxalparant

 **STRUCTURE**
THERAPEUTICS

LTSE-2578

Status		Phase 3	Phase 2	Preclinical
Activity	In vitro IC ₅₀	222 nM	>200 nM	<10 nM
	PK/PD IC ₈₀	201 ng/mL	Not determined	<10 ng/mL
Efficacy	Bleomycin model	Effective in mice and rats	Not determined	Effective in mice and rats
Safety	BSEP IC ₅₀	>100 µM	< 10 µM	>50 µM
Clinical dose (BID)		120/60 mg ^{##} (Phase 3)	300 mg QD, BID (Phase 2)	<30 mg (Projected)

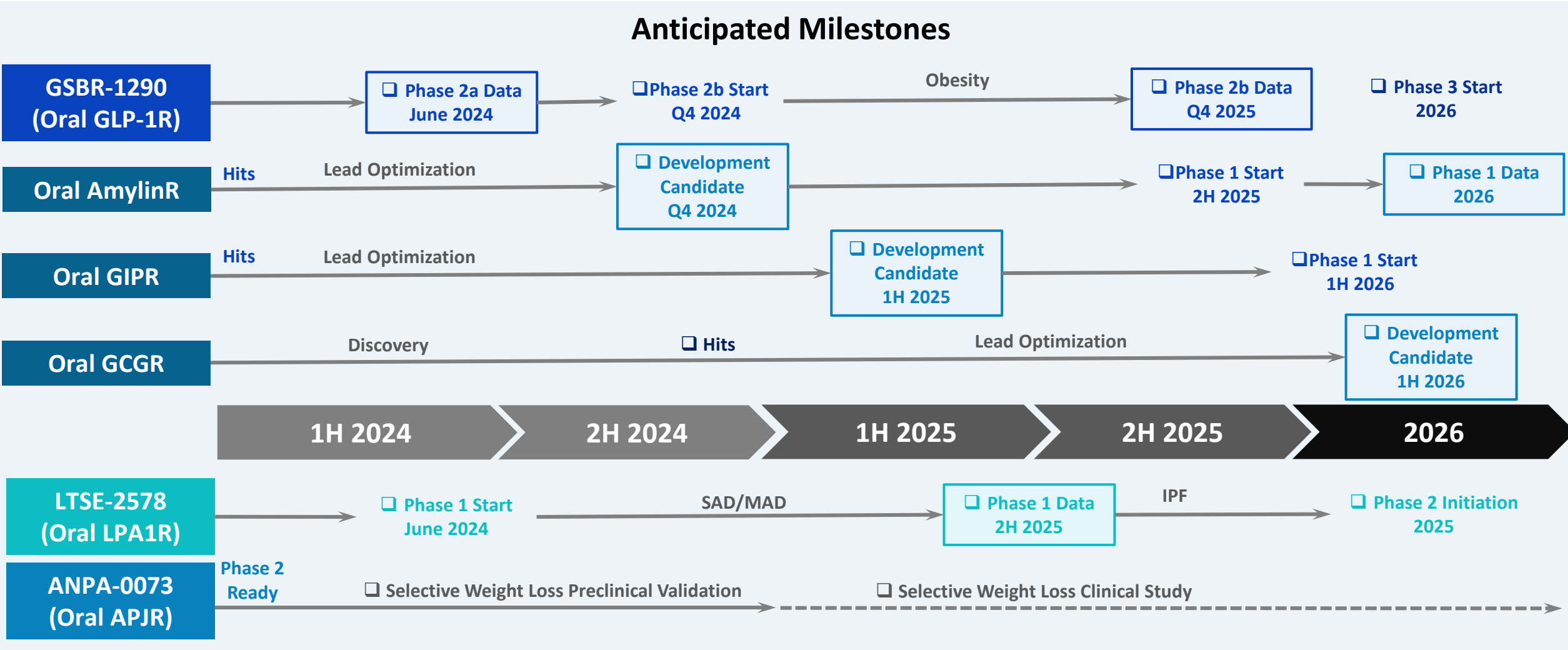
FIRST-IN-HUMAN PHASE 1 STUDY INITIATING JUNE 2024

- Completed IND-enabling studies including 28 day GLP-toxicology studies in dogs and rats
- Leverage LPA1R structure with cutting edge computational techniques to rapidly identify LPA1R antagonist lead molecule (<400 compounds and 12 months) in partnership with Schrödinger
- Substantial anti-fibrotic activity of our LPA1R antagonists in preclinical models of fibrotic lung disease

¹ No head-to-head study has been conducted evaluating LTSE-2578 against the other product candidates included herein. Differences exist between study designs and conditions, and caution should be excised when comparing data across studies.
NCT01766817 CHEST 2018
##NCT06003426 <https://www.clinicaltrials.gov/study/NCT06003426?intr=BMS-986278%20&rank=3#study-overview>; BMS R&D Day September 14, 2023

Strong Momentum with Multiple Potential Catalysts in 2024 – 2026

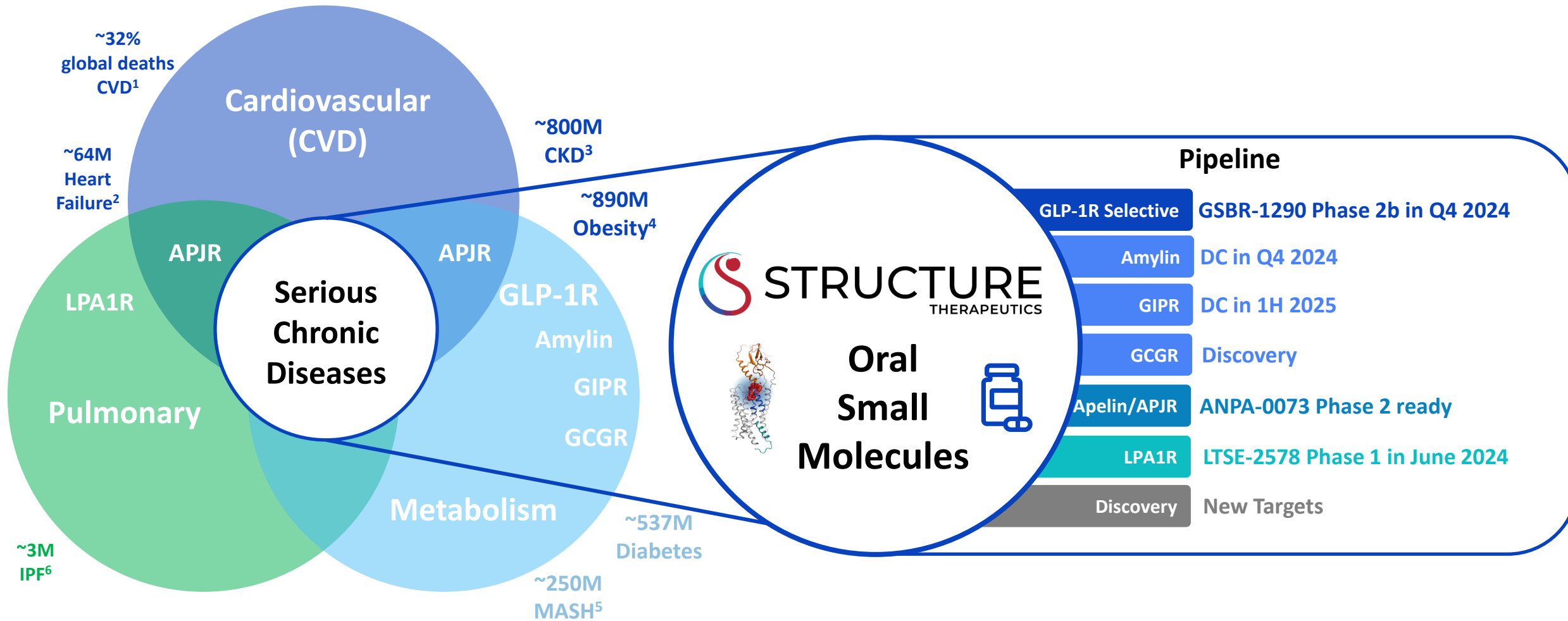
~\$436.4 million in cash¹ as of 3/31/2024 expected to fund operations through 2026



1. Cash includes cash, cash equivalents and short-term investments

Exciting Pipeline of High Value GPCRs to Deliver Oral Small Molecules to Address Unmet Needs and Reach More Patients

>\$100B TAM*



* TAM: Total Addressable Market

1. 2023 World Health Organization Cardiovascular Diseases [https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-\(cvds\)](https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds))

2. <https://www.cfrjournal.com/articles/epidemiology-clinical-characteristics-and-cause-specific-outcomes-heart-failure-preserved>

3. <https://pubmed.ncbi.nlm.nih.gov/35529086/>

4. 2022 World Health Organization <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

5. <https://pubmed.ncbi.nlm.nih.gov/36626630/>

6. <https://pubmed.ncbi.nlm.nih.gov/37156412/#:~:text=IPF%20affects%20%E2%88%BC3%20million,activation%2C%20and%20deposition%20of%20matrix.>



Thank you

CONTACT US FOR ADDITIONAL INFORMATION:

Email: ir@structuretx.com

<http://www.structuretx.com>