UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 18, 2023

Structure Therapeutics Inc.

(Exact name of registrant as specified in its charter)

Cayman Islands (State or other jurisdiction of incorporation) 001-41608 (Commission File Number) 98-1480821 (IRS Employer Identification No.)

601 Gateway Blvd., Suite 900 South San Francisco, California (Address of principal executive offices)

94080 (Zip Code)

(Registrant's telephone number, including area code): (628) 229-9277

Not Applicable (Former name or former address, if changed since last report)

Check	neck the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):				
	Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)				
	Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)				
	Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))				
	Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))				

Securities registered pursuant to Section 12(b) of the Act:

	Name Of Each Exchange	
Title of Each Class	Trading Symbol(s)	On Which Registered
American Depositary Shares (ADSs), each representing three ordinary shares, par value \$0.0001 per ordinary share	GPCR	Nasdaq Global Market
Ordinary shares, par value \$0.0001 per share*		Nasdaq Global Market*

^{*} Not for trading, but only in connection with the registration of the American Depositary Shares

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ⊠

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

Item 7.01 Regulation FD Disclosure.

On December 18, 2023, Structure Therapeutics Inc. (the Company) issued a press release and will be hosting a conference call and webcast to discuss the results of its Phase 2a proof-of-concept study of its oral GLP-1 agonist, GSBR-1290, in type 2 diabetes mellitus (T2DM) and obesity and provide a comprehensive program update.

Copies of the press release and investor presentation the Company intends to use during the conference call and webcast are attached as Exhibits 99.1 and 99.2 to this Current Report on Form 8-K, respectively.

The information set forth in this Item 7.01 and in the press release and investor presentation attached hereto as Exhibits 99.1 and 99.2, respectively, is deemed to be "furnished" and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act), or otherwise subject to the liabilities of that Section. The information set forth in this Item 7.01, including Exhibits 99.1 and 99.2, shall not be deemed incorporated by reference into any filing under the Exchange Act or the Securities Act of 1933, as amended, except to the extent that the Company specifically incorporates it by reference.

Item 8.01 Other Events.

GSBR-1290 - Phase 2a Study

The randomized, double-blind, 12-week placebo-controlled Phase 2a clinical trial has enrolled a total of 94 participants to date, including 60 participants randomized to GSBR-1290. The T2DM cohort enrolled 54 participants, randomized to GSBR-1290 45 mg (n=10) or 90 mg (n=26), or placebo (n=18), dosed once daily. The obesity cohort initially enrolled 40 individuals randomized to GSBR-1290 120 mg (n=24) or placebo (n=16), once-daily. An additional 24 participants are currently being enrolled in the obesity arm as previously announced and will also be randomized 3:2 to GSBR-1290 or placebo.

The primary endpoint of the Phase 2a study is safety and tolerability of GSBR-1290. Key secondary endpoints include reduction in weight for both cohorts, as well as reduction in HbA1c for the T2DM cohort.

Safety and Tolerability Results

GSBR-1290 demonstrated encouraging safety and tolerability following repeated, daily dosing for all doses studied (up to 120 mg) in the obesity and T2DM cohorts.

- The majority (88 to 96%, depending on study arm) of adverse events (AEs) reported were mild to moderate.
- There were no serious adverse events (SAEs) related to study drug.

 As expected for this mechanism of action, leading AEs were gastrointestinal-related. The two most common AEs were nausea and vomiting.
- There were no cases of elevated liver enzymes in the obesity cohort. One participant in the T2DM treatment group experienced an event of elevated liver enzymes without an increase in bilirubin initially at day 8 while receiving 5 mg of study drug. This participant was diagnosed with fatty liver disease while in the study.
- Of the 60 participants dosed with GSBR-1290, only one participant discontinued the study due to AEs related to study drug (none in the obesity cohort and one (2.8%) in the T2DM cohort).

Table 1: Summary of Treatment Emergent Adverse Events (TEAEs)

		Phase 2a TDM Cohort (12-week data)		Phase 2a Obesity Cohort (12-week interim data)	
Event, N (%)	GSBR-1290 45 mg (n=10)	GSBR-1290 90 mg (n=26)	Placebo (n=18)	GSBR-1290 120 mg (n=24)	Placebo (n=16)
Any TEAE	10 (100)	25 (96.2)	8 (44.4)	23 (95.8)	11 (68.8)
Any TEAE by maximum severity					
Mild	2 (20)	6 (23.1)	6 (33.3)	6 (25)	9 (56.3)
Moderate	7 (70)	17 (65.4)	2 (11.1)	17 (70.8)	2 (12.5)
Severe	0	2 (7.7)	0	0	0
Any SAEs	1 (10)	1 (3.8)	0	0	0
Any SAEs related to study drug	0	0	0	0	0

GSBR-1290 demonstrated clinically meaningful activity in both T2DM and obesity cohorts.

- In the T2DM cohort, there was a statistically significant HbA1c reduction (- 1.01 to -1.02%, placebo-adjusted) at Week 12 (Table 2). The study demonstrated a statistically significant and clinically meaningful reduction in weight at Week 12 (-3.26% to -3.51%, placebo-adjusted) (Table 3). Weight loss continued to decrease through Week 12.

 Results of the interim analysis in the obesity cohort, showed a statistically significant and clinically meaningful decrease in weight at Week 8 (-4.74%, placebo-adjusted) (Table 4). Weight loss continued to decrease throughout
- the eight weeks of treatment.

Table 2: Diabetes cohort least square means difference (LSM) change in HbA1C from baseline to 12 weeks (%)

	GSBR-1290 45 mg (n=10)	GSBR-1290 90 mg (n=26)	Placebo (n=18)
LSM HbA1C change from baseline (%)	-0.79	-0.84	0.18
% HbA1C change placebo-adjusted (LSM, 95% confidence	-1.01	-1.02	
interval (CI))	(-1.73, -0.29)	(-1.59, -0.44)	
P-value vs. placebo	p= 0.008	p= 0.001	

^{*} LSM, CI and p value from Mixed Model for Repeated Measures

Table 3: Diabetes cohort LSM change in weight from baseline (%)

	GSBR-1290 45 mg (n=10)	GSBR-1290 90 mg (n=26)	Placebo (n=18)
LSM weight change from baseline (%)	-3.32	-3.22	0.04
% weight change placebo-adjusted (LSM, 95% CI)	-3.51 (-5.58, -1.43)	-3.26 (-5.17, -1.36)	-
P-value vs. placebo	p= 0.0019	p= 0.0013	-

^{*} LSM, CI and p value from Mixed Model for Repeated Measures

Table 4: Obesity Cohort LSM change in weight from baseline (%) 8 week interim results

	GSBR-1290 120 mg (n=24)	Placebo (n=16)
LSM weight change from baseline (%)	-5.55	-0.82
% weight change placebo-adjusted (LSM, 90% CI)	-4.74 (-6.74, -3.10)	
P-value vs. placebo	p< 0.0001	

^{*} LSM, CI and p value from Mixed Model for Repeated Measures

Phase 1 Japanese Bridging Study

The 4-week Phase 1 Japanese ethnobridging study included healthy lean Japanese participants randomized to GSBR-1290 (n=9) and placebo (n=3), and healthy lean non-Japanese participants receiving GSBR-1290 (n=6). GSBR-1290 demonstrated a substantial weight reduction in Japanese participants (-3.91% on GSBR-1290 vs -1.67% placebo) and in non-Japanese participants (-5.13% not placebo-adjusted), with no discontinuations or dose reductions, and no SAEs. These data will be used for regulatory interactions in Japan in preparation for potential future global studies of GSBR-1290.

6- and 9-Month Toxicology Studies

In preparation for Phase 2b development with longer durations of treatment, the Company has completed 6-month (rodent) and 9-month (non-human primate) toxicology studies to evaluate the safety of GSBR-1290. No major findings were observed in either study, with no test article-related changes observed in the liver, including ALT/AST, at all doses, and a >100 fold safety window at the 120 mg therapeutic dose.

GSBR-1290 Next Steps

Full 12-week results from the Phase 2a obesity cohort (n=64), including data from the additional 24 participants currently being enrolled, are expected in the second quarter of 2024.

The Company plans to initiate a Phase 2b obesity study of GSBR-1290 in the second half of 2024. The study is planned to include at least 275 individuals across the United States and Europe and will include multiple modified dose titration regimens to optimize efficacy and tolerability. An additional Phase 2 study in T2DM is also planned for the second half of 2024 to optimize the efficacy and tolerability of GSBR-1290 in this patient population.

The ongoing formulation bridging and titration optimization study is evaluating capsule versus tablet pharmacokinetics (PK) and exploring different titration regimens. This study has completed enrollment (n=54), and data are expected in the second quarter of 2024. Pending supportive data from this bridging study, the tablet formulation would be used in future GSBR-1290 studies starting with the Phase 2b studies.

Forward Looking Statements

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 safety, efficacy or tolerability of GSBR-1290 and other candidates under development based on the topline and interim clinical data from the Phase 2a study of GSBR-1290 in patients with T2DM and obesity, including the potential for increased efficacy with longer duration of treatment, the ability of GSBR-1290 to treat T2DM, obesity or related indications, the planned initiation and study design of the Company's Phase 2b studies for GSBR-1290 and next generation combination GLP-1R candidates and expectations regarding a new tablet formulation GLP-1R. In addition, when or if used in this Form 8-K, the words 'may," 'could," 'should," '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 compre

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
<u>99.1</u>	Press Release, dated December 18, 2023.
<u>99.2</u>	Investor Presentation, dated December 18, 2023.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Structure Therapeutics Inc.

Date: December 18, 2023

/s/ Raymond Stevens Raymond Stevens, Ph.D. Chief Executive Officer



Structure Therapeutics Provides Comprehensive GSBR-1290 Program Update Including Clinically Meaningful Proof-of-Concept Data From Phase 2a Clinical Study

GSBR-1290 was generally well-tolerated with no treatment-related serious adverse events over 12 weeks; 2.8% study discontinuation rate due to adverse events related to study drug in diabetes and 0% study discontinuation rate due to adverse events in obesity

Topline Phase 2a data from first study in type 2 diabetes mellitus (T2DM) demonstrate significant reductions in hemoglobin A1c (HbA1c) and weight at 12 weeks

Interim Phase 2a data from obesity cohort demonstrate significant reduction in weight at 8 weeks; full 12-week obesity data expected in second quarter 2024 with Phase 2b study initiation on track for second half 2024

Program update includes results from Japanese bridging study and findings from 6- and 9-month toxicology studies demonstrating encouraging safety to support advancing into Phase 2b development

Company to host conference call today at 8:30 a.m. ET

SAN FRANCISCO – December 18, 2023 – Structure Therapeutics Inc. (NASDAQ: GPCR), a clinical-stage global biopharmaceutical company developing novel oral small molecule therapeutics for metabolic and cardiopulmonary diseases, today provided a comprehensive development program update for its highly selective oral GLP-1 receptor agonist, GSBR-1290.

"We are pleased that we have achieved the objectives of our first Phase 2a clinical trial of GSBR-1290 in T2DM patients which were to demonstrate favorable safety, tolerability and efficacy results and guide our plans to further optimize the already encouraging performance of GSBR-1290," said Raymond Stevens, Ph.D., Founder and CEO of Structure. "Our data demonstrated that once-daily GSBR-1290 has the potential to be a best-in-class compound and a backbone for future combinations that could address large cardiometabolic indications."

"GSBR-1290 has demonstrated proof of concept in individuals with both obesity and T2DM, with clear effects on both weight loss and HbA1c that has the potential to increase with longer duration of treatment," said David D'Alessio, M.D., Chief of the Division of Endocrinology and Metabolism at Duke University. "The unmet medical need for both T2DM and chronic weight management continues to be very large, and the GLP-1 receptor is a target with considerable potential. Safe and effective oral small molecule GLP-1 receptor agonists would be a significant advance in that they could expand access for many patients for whom this is not now possible."

Phase 2a Study in Diabetes and Obesity

The randomized, double-blind, 12-week placebo-controlled Phase 2a clinical trial has enrolled a total of 94 participants to date, including 60 participants randomized to GSBR-1290. The T2DM cohort enrolled 54 participants, randomized to GSBR-1290 45 mg (n=10) or 90 mg (n=26), or placebo (n=18), dosed once daily. The obesity cohort initially enrolled 40 individuals randomized to GSBR-1290 120 mg (n=24) or placebo (n=16), once-daily. An additional 24 participants are currently being enrolled in the obesity arm as previously announced and will also be randomized 3:2 to GSBR-1290 or placebo.

The primary endpoint of the Phase 2a study is safety and tolerability of GSBR-1290. Key secondary endpoints include reduction in weight for both cohorts, as well as reduction in HbA1c for the T2DM cohort.

Safety and Tolerability Results

GSBR-1290 demonstrated encouraging safety and tolerability following repeated, daily dosing for all doses studied (up to 120 mg) in the obesity and T2DM cohorts.

- The majority (88 to 96%, depending on study arm) of adverse events (AEs) reported were mild to moderate.
- There were no serious adverse events (SAEs) related to study drug.
- As expected for this mechanism of action, leading AEs were gastrointestinal-related. The two most common AEs were nausea and vomiting
- There were no cases of elevated liver enzymes in the obesity cohort. One participant in the T2DM treatment group experienced an event of elevated liver enzymes without an increase in bilirubin initially at day 8 while receiving 5 mg of study drug. This participant was diagnosed with fatty liver disease while in the study.

 Of the 60 participants dosed with GSBR-1290, only one participant discontinued the study due to AEs related to study drug (none in the obesity cohort and one (2.8%) in the T2DM cohort).

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Severe	0	2 (7.7)	0	0	0
Any SAEs	1 (10)	1 (3.8)	0	0	0
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Efficacy Results

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LSM HbA1C change from baseline (%)	-0.79	-0.84	0.18
% HbA1C change placebo-adjusted (LSM, 95% confidence	-1.01	-1.02	
interval (CI))	(-1.73, -0.29)	(-1.59, -0.44)	
P-value vs. placebo	p= 0.008	p= 0.001	

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% weight change placebo-adjusted (LSM, 95% CI)	-3.51 (-5.58, -1.43)	-3.26 (-5.17, -1.36)	-
P-value vs. placebo	p= 0.0019	p= 0.0013	-

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% weight change placebo-adjusted (LSM, 90% CI)	-4.74 (-6.74, -3.10)	
P-value vs. placebo	p< 0.0001	

^{*}LSM, CI and p value from Mixed Model for Repeated Measures

Results from Phase 1 Japanese Bridging Study

The 4-week Phase 1 Japanese ethnobridging study included healthy lean Japanese participants randomized to GSBR-1290 (n=9) and placebo (n=3), and healthy lean non-Japanese participants receiving GSBR-1290 (n=6). GSBR-1290 demonstrated a substantial weight reduction in Japanese participants (-3.91% on GSBR-1290 vs -1.67% placebo) and in non-Japanese participants (-5.13% not placebo-adjusted), with no discontinuations or dose reductions, and no SAEs. These data will be used for regulatory interactions in Japan in preparation for potential future global studies of GSBR-1290.

Results from 6- and 9-Month Toxicology Studies

In preparation for Phase 2b development with longer durations of treatment, Structure has completed 6-month (rodent) and 9-month (non-human primate) toxicology studies to evaluate the safety of GSBR-1290. No major findings were observed in either study, with no test article-related changes observed in the liver, including ALT/AST, at all doses, and a >100 fold safety window at the 120 mg therapeutic dose.

GSBR-1290 Next Steps

Full 12-week results from the Phase 2a obesity cohort (n=64), including data from the additional 24 participants currently being enrolled, are expected in the second quarter of 2024.

Structure plans to initiate a Phase 2b obesity study of GSBR-1290 in the second half of 2024. The study is planned to include at least 275 individuals across the United States and Europe and will include multiple modified dose titration regimens to optimize efficacy and tolerability. An additional Phase 2 study in T2DM is also planned for the second half of 2024 to optimize the efficacy and tolerability of GSBR-1290 in this patient population.

The ongoing formulation bridging and titration optimization study is evaluating capsule versus tablet pharmacokinetics (PK) and exploring different titration regimens. This study has completed enrollment (n=54), and data are expected in the second quarter of 2024. Pending supportive data from this bridging study, the tablet formulation would be used in future GSBR-1290 studies starting with the Phase 2b studies.

Conference Call and Webcast Information

Structure will host a conference call and webcast today, December 18, 2023 at 8:30 a.m. Eastern Time. A live webcast of the call will be available on the Investor Relations page of Structure's website at https://ir.structuretx.com/events-presentations/events. To access the call by phone, participants should visit this link (registration link) to receive dial-in details. The webcast will be made available for replay on the company's website beginning approximately two hours after the live event. The replay of the webcast will be available for 90 days.

About GSBR-1290 and Structure's Oral Metabolic Franchise

GSBR-1290 is an orally-available, small molecule agonist of the glucagon-like-peptide-1 (GLP-1) receptor, a validated drug target for the treatment of type 2 diabetes and obesity. GSBR-1290 was designed through the company's structure-based drug discovery platform to be a biased GPCR agonist, which selectively activates the G-protein signaling pathway. Beyond GSBR-1290, Structure is developing next generation combination GLP-1R candidates together with GIP, amylin, glucagon and apelin.

About Structure Therapeutics

Structure Therapeutics is a leading clinical-stage biopharmaceutical company focused on discovering and developing innovative oral treatments for chronic metabolic and cardiopulmonary conditions with significant unmet medical needs. Utilizing its next generation structure-based drug discovery platform, the company has established a scientifically-driven, GPCR-targeted pipeline, featuring two wholly-owned proprietary clinical-stage small molecule compounds. These compounds are designed to surpass the limitations of traditional biologic and peptide therapies and be accessible to more patients around the world. For additional information, please visit www.structuretx.com.

Forward Looking Statements

This press release 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 safety, efficacy or tolerability of GSBR-1290 and other to the topine and interim clinical data from the Phase 2a study of GSBR-1290 in patients with T2DM and obesity, including the potential for increased efficacy with longer duration of treatment, the ability of GSBR-1290 treat T2DM, obesity or related indications,, the planned initiation and study design of the Company's Phase 2b studies for GSBR-1290 in patients with T2DM and obesity and the timing thereof, the update from the PK/formulation study of GSBR-1290 and the planned timing thereof, the planned timing of the Company's data results and continued development of GSBR-1290 and next generation combination GLP-1R. In addition, when or if luxed in this press release, the words "may," "could," "should," "anticipate," "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

CONTACTS

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Media: Dan Budwick

Dan@1abmedia.com

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GSBR-1290 Comprehensive Program Update

CONFIDENTIAL

December 18, 2023

Attendees

- Raymond Stevens, Ph.D., Chief Executive Officer
- Mark Bach, M.D., Ph.D., Chief Medical Officer
- Blai Coll, M.D., Ph.D., VP Clinical Development
- Jun Yoon, Chief Financial Officer
- Danielle Keatley, Investor Relations



Forward looking statements

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Agenda

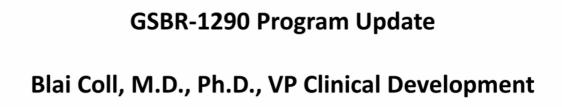
- Opening Remarks and Overview (Ray Stevens)
- GSBR-1290 Program Update (Blai Coll)
 - Phase 2a Safety and Tolerability Summary
 - Phase 2a Efficacy Summary
 - Phase 2b-enabling studies
 - Japanese Bridging Study
 - 6 and 9 month Toxicology Update
- Overall Profile and Next Steps (Mark Bach)
- GSBR-1290 Closing (Ray Stevens)
- Q&A



GSBR-1290 Program Update and Phase 2a Proof-of-Concept Data

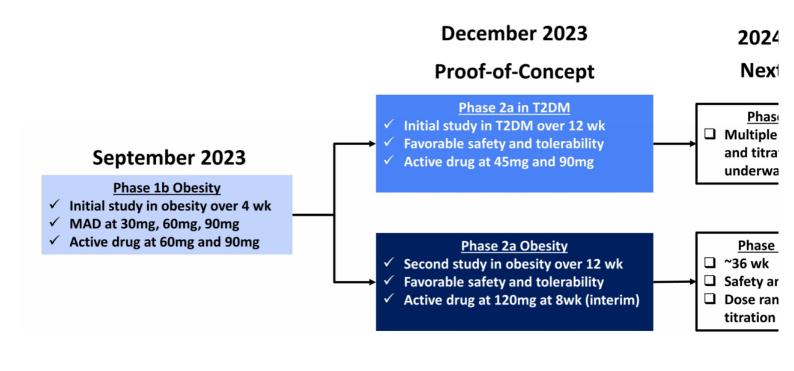
	Encouraging efficacy, safety and tolerability results
Summary of	 Generally well-tolerated with no serious adverse events (SAEs) related to drug up to 12 v discontinuations
Key Findings	 Results support once-a-day dosing in both Type 2 Diabetes Mellitus (T2DM) and Obesity
	 Majority of all reported adverse events (AEs) were mild or moderate
Safety and	 Generally well-tolerated with no SAEs related to study drug up to 120 mg
Tolerability	 No study discontinuations due to AEs in the Phase 2a Obesity cohort
	1 study discontinuation due to AEs related to study drug in the Phase 2a T2DM cohort
	Clinically meaningful Phase 2a Type 2 Diabetes Data (n=54, 12 weeks)
F60	 Statistically significant reduction in HbA1c and weight at 12 weeks
Efficacy	 Clinically meaningful Phase 2a Obesity Data (n=40, Interim 8 weeks)
	 Statistically significant reduction in weight at 8 weeks, study ongoing to 12 weeks
	Clinically meaningful Phase 1 Jananese Lean Healthy Volunteer Bridging Data (n=18, 4 we)
Phase 2b	 Clinically meaningful Phase 1 Japanese Lean Healthy Volunteer Bridging Data (n=18, 4 weels) Substantial reduction in weight at 4 weeks
Enabling Studies	 No major findings in 6-month rodent and 9-month primate study – enables longer term I
	The major manage in a month roading and a month primate stady chapter terms







Our Journey Towards a Potentially Best in Class Oral GLP-1RA



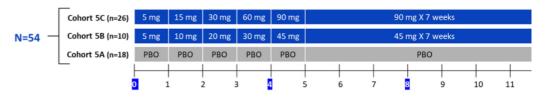


GSBR-1290 Phase 2a Study Design in T2DM and Obesity

Type 2 Diabetes

Key Eligibility Criteria

- T2DM of ≥ 6 months adult men and women
- BMI ≥27.0 and ≤40.0 kg/m2
- Stable dose of metformin
- HbA1c ≥7.0% and ≤10.5%
- Age ≥18 and ≤75 years



Top line data at 12 weeks

Primary endpoint: Safety and tolerability

Secondary endpoints: Demonstrate decrease in HbA1c

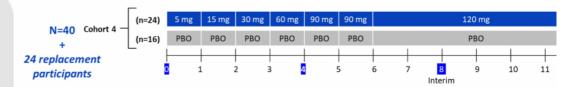
Demonstrate decrease in weight

Demonstrate changes in metabolic parameters after a Mixed Meal To

Healthy Overweight/Obese

Key Eligibility Criteria

- Healthy overweight/obese adult men and women
- BMI ≥27.0 and ≤40.0 kg/m2
- HbA1c ≤6.5%
- Age ≥18 and ≤75 years



Interim results at 8 weeks/12 weeks

Primary endpoint: Safety and tolerability

Secondary endpoint: Demonstrate decrease in weight



GSBR-1290 Phase 2a Study: Demographics and baseline characteristics

	Phase 2a (12 wk)			
Characteristics	T2DM			
N (%)	45 mg (N=10)	90 mg (N=26)	Placebo (N=18)	
Age, years	60.5 (7.5)	55.9 (11.0)	59.4 (9.3)	
Sex, female N (%)	4 (40)	12 (46)	7 (39)	
Hispanic or Latino, N(%)	8 (80)	19 (73)	12 (66)	
Weight, Kg	94.3 (13.7)	90.5 (13.6)	92.8 (15.8)	
BMI, kg/m²	33.7 (4.7)	32.6 (3.5)	34 (4.2)	
Duration of diabetes, years	12	11.6	12.7	
Dose of metformin, mg/day	1490 (561)	1796 (400)	1563 (611)	
HbA1c,%	8.08 (0.95)	7.98 (0.83)	7.96 (0.86)	
Fasting plasma glucose, mmol/L	9.61 (2.23)	8.76 (1.86)	9.43 (2.65)	
Heart rate, bpm	67.1 (9.2)	72.3 (13)	73.1 (11)	
Systolic blood pressure, mmHg	124.3 (14)	124 (11)	124 (11)	
Diastolic blood pressure, mmHg	75.4 (8.9)	76.3 (6.3)	76.7 (6.8)	

Phase 2a	a (12 w
Obesity wit	hout 1
120 mg (N=24)	P (
45.8 (14)	4
13 (54)	Š
10 (41)	
90.3 (11.4)	93
31.5 (3.4)	31
1	
1	
5.5 (0.3)	5
5.3 (0.4)	5
68.1 (9.3)	70
124.8 (10.7)	127
80.1 (7.6)	8





GSBR-1290 Phase 2a Study: **Participant disposition**

GSBR-1290 Phase 2a T2DM study Randomized (N=54)

GSBR-1290
Phase 2a Obesity
Randomized
(N=40) Interi

	Phase 2a (12 wk)		
	T2DM		
N (%)	45 mg (N=10)	90mg (N=26)	Placebo (N=18)
Discontinued study due to AEs	2 (20)*	0	0
Discontinued study due to AEs related to study drug	1 (10)**	0	0
Dose discontinuation, down titrated or hold	4 (40)	11 (42)	0
Completed study	8 (80)	26 (100)	17 (89.5)

Phase 2a Obesity wit	
120mg (N=24)	
0	
0	
9 (37)	
Study still	on g



^{* 1} subject discontinued due to COVID-19 and 1 subject discontinued due to GI-related AEs ** 1 subject discontinued study due to GI-related AEs

GSBR-1290 Program Update

Safety and Tolerability Summary

Phase 2a – Topline data from first study in T2DM

Phase 2a – Interim results in Obesity



GSBR-1290 Phase 2a Study: Safety and Tolerability Overview of Treatment Emergent Adverse Events (TEAEs)

- No SAEs related to study drug
- Majority of all reported AEs (88-96%) were mild or moderate

	Phase 2a (12 wk)			
Event	T2DM			
N (%)	45 mg (N=10)	90 mg (N=26)	Placebo (N=18)	
Any TEAE	10 (100)	25 (96.2)	8 (44.4)	
Any TEAE by maximum severity				
Mild	2 (20)	6 (23.1)	6 (33.3)	
Moderate	7 (70)	17 (65.4)	2 (11.1)	
Severe	0	2 (7.7)	0	
Any SAEs*	1 (10)	1 (3.8)	0	
Any SAEs related to study drug	0	0	0	

Phase 2a	a (12 ·
Obesity wit	hout
120 mg (N=24)	
23 (95.8)	
6 (25)	
17 (70.8)	
0	
0	
0	

^{*} SAEs were non-drug related and resulted from pulmonary embolism and a tenosynovitis event requiring surgery



Data are mean ± SD unless

GSBR-1290 Phase 2a Study: Safety and Tolerability Gastrointestinal-related AEs most common, as expected for GLP1-RAs

1 (2.8%) participant discontinued due to an AE related to study drug in the Phase 2a T2DI No study discontinuations due to AEs in the Phase 2a Obesity cohort

		Phase 2a (12 wk) T2DM			
Event					
N (%)	45 mg (N=10)	90 mg (N=26)	Placebo (N=18)		
Nausea	7 (70)	19 (73)	2 (11)		
Vomiting	4 (40)	13 (50)	0		
Diarrhea	6 (60)	9 (34)	3 (16)		
Decreased appetite	2 (20)	9 (34)	1 (5)		
Dyspepsia	2 (20)	5 (19)	2 (11)		
Constipation	0	4 (15)	1 (5)		
Headache	1 (10)	9 (34)	2 (11)		
Drug Induced Liver Injury	0	0	0		
Elevated Liver Enzymes ALT- AST (U/L) >3 ULN	0	1 (3.8)*	0		
Mean Change from Baseline to Day 84					
ALT, (U/L) Mean (SD)	-3.25 (5)	-0.4 (12)	0.4 (10)		
AST, (U/L) Mean (SD)	-4.28 (5)	8.15 (46)**	1.88 (12)		

_		_
	Phase	2
	Obesity	w
	120 mg (N=24)	
	21 (87)	
	15 (62)	
	14 (58)	
	8 (33)	
	6 (25)	
	9 (37)	
	11 (45)	
	0	
	0	
	-0.52 (12)	
	-1.14 (8)	



^{*}Female participant on aspirin and atorvastatin (40 mg). Diagnosed with fatty liver disease while in the study. Elevated ALT/AST identified during the first week (5 mg) and discontinued study drug on Day 21

** Male participant who experienced a significant increase in creatinine kinase after a workout (CK 6664, 10376, 11149 between Days 83-85 (Normal values for males :49-439 U/L), with associated elevations in AST (

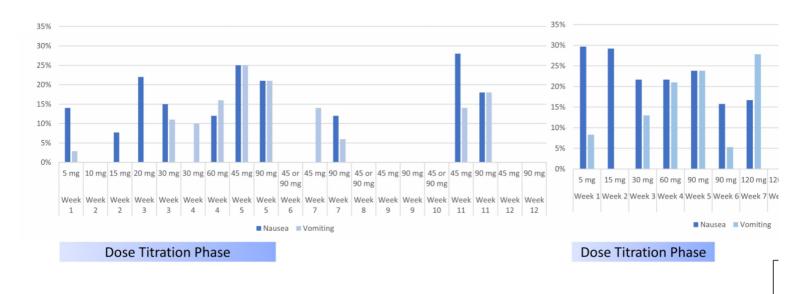
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GSBR-1290 tolerability over time- Most common GI-related TEAEs

Highest incidences of events during the titration phase with attenuation trend over t

GSBR-1290 in T2DM (12 wk)

GSBR-1290 in O





GSBR-1290 Phase 2a study (12 wk): Changes in heart rate



- Higher pulse rate observed with GSBR-1290 as expecte class
- Increases consistent with o 1RAs^{1,2}

^{1,2} Granhall C, Donsmark M, Blicher TM, et al. Clin Pharmacokinet. 2019;58(6):781-791. Pratt E, Ma X, Liu R, et al. Diabetes Obes Metab. 2023;25:2634–2641.



GSBR-1290 Program Update

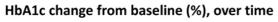
Efficacy Summary

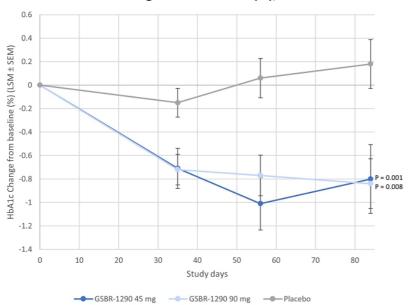
Phase 2a – Topline data from first study in T2DM patients
Phase 2a – Interim results in Obesity patients



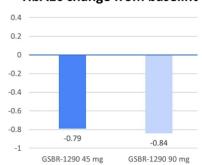
GSBR-1290 Phase 2a First Study in T2DM (12 wk)— Efficacy Endpoint HbA1c Reduction

Statistically significant reduction in HbA1c placebo-adjusted at day 84 (-1.01% Early separation observed at day 35





HbA1c change from baseline



	GSBR-1290 45 mg (N=6)	
Least Square Mean Difference (LSM), HbA1c change (%) vs placebo	-1.01	
95% CI	-1.73 to -0.29	
P-value vs placebo*	0.008	

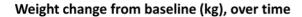
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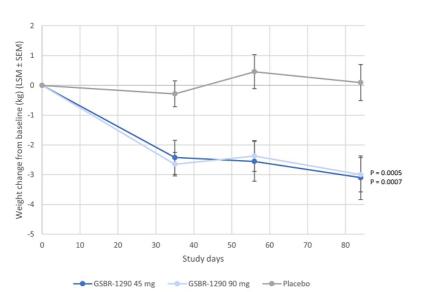
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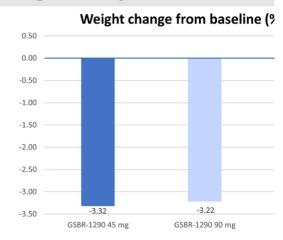
* LSM, CI and p value from Mixed N

GSBR-1290 Phase 2a First Study in T2DM (12 wk) – Efficacy Endpoin Weight Reduction

Statistically significant reduction in weight placebo-adjusted at day 84 (-3.269 Continuing decrease in weight at day 84







	GSBR-1290 45 mg (N=6)	
Least Square Mean Difference (LSM), Change in BW (%) vs Placebo	-3.51	
95% CI	-5.58 to -1.43	
P-value vs placebo*	0.0019	

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* LSM, CI and p value from Mixed Mode

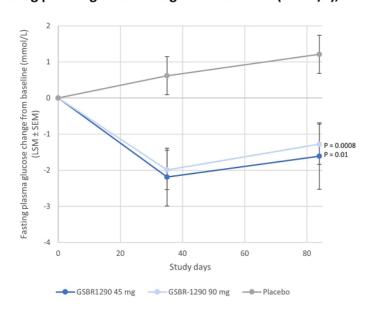


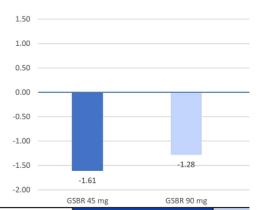
GSBR-1290 Phase 2a: First Study in T2DM (12 wk) – Efficacy Endpoi Fasting Plasma Glucose

Statistically significant reduction in fasting plasma glucose

Fasting plasma glucose change from baseline (mmol/L), over time

Fasting plasma glucose change from baseline





	GSBR-1290 45 mg (N=6)	
Least Square Mean Difference (LSM), Change in FPG (mmol/L) vs Placebo	-2.70	
95% CI	-4.82 to -0.56	
P-value vs placebo*	0.01	

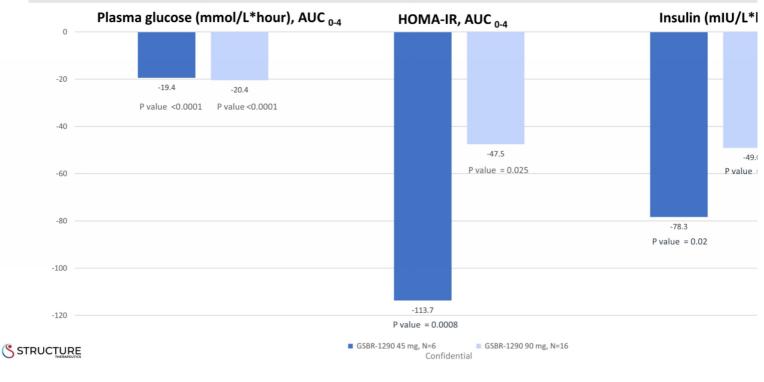




^{*} LSM, CI and p value from Mixed Mode

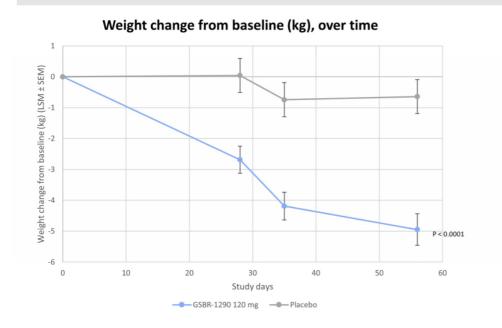
GSBR-1290 Phase 2a: First Study in T2DM (12 wk)— Efficacy Endpoil Mixed Meal Tolerance Test placebo adjusted change from BL at Day 84 (LSM)

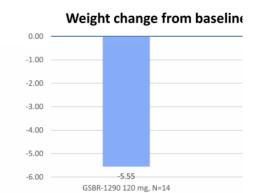




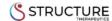
GSBR-1290 Phase 2a: Obesity Study – Interim Analysis (8 wk) Weight reduction

Statistically significant reduction in weight at day 56 (-4.74%) Continuing decrease in weight up to day 56 – study ongoing to day 8





	GS 120
% Change in BW placebo-adjusted	
95% CI	-6.7
P-value vs placebo*	<

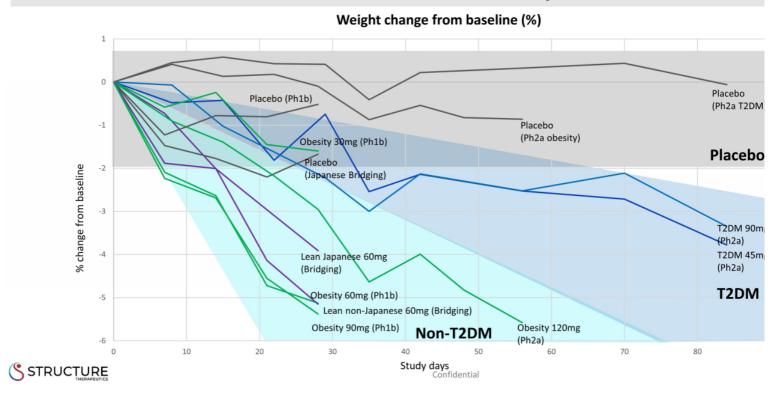


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* LSM, CI and p value from Mixed N

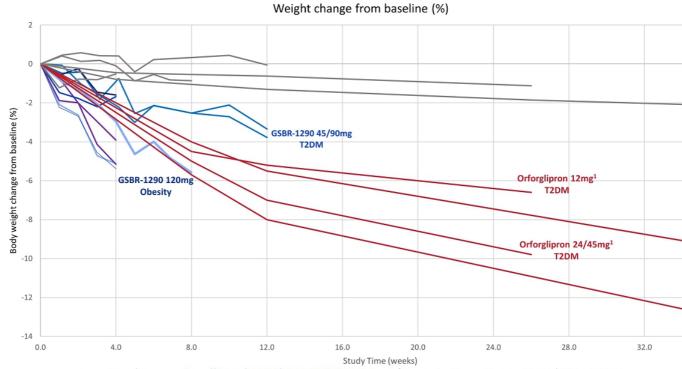
GSBR-1290 Summary of Weight Reduction

Clinically meaningful and statistically significant weight reduction obse in T2DM and Obesity



GSBR-1290 in Context of Oral Small Molecule GLP-1RA

GSBR-1290 120mg in obesity is competitive at 8 weeks vs Orforglipron in





Adapted from ¹The Lancet (https://doi.org/10.1016/S0140-6736(23)01302-8) and ²New England Journal Medicine 10.1056/NEJMoa2302392
*No head-to-head study has been conducted evaluating GSBR-1290 against Orforglipron included herein. Differences exist between study designs and conditions be excised when comparing data across studies

GSBR-1290 Program Update

Phase 2b-enabling Activities

Phase 1 – Japanese Bridging Study

Preclinical GLP-Toxicology Studies

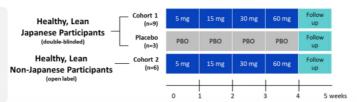


GSBR-1290 Phase 1 (4 wk):

Japanese and Non-Japanese Bridging Study

Participants

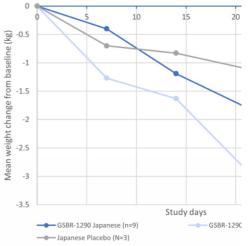
- Lean participants with baseline BMI~ 22 to 23 kg/m²
- Ages: 34 to 46 years
- Predominantly female (67%)



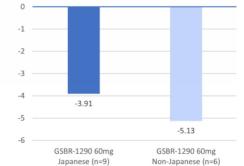
- · All participants completed the study
- · No discontinuations or dose reductions
- No SAEs

	Japanese cohort		Non-Japanese cohort
N (%)	60mg (N=9)	Placebo (N=3)	60mg (N=6)
Nausea	6 (66.7)	0	3 (50.0)
Decreased appetite	6 (66.7)	0	1 (16.7)
Early Satiety	3 (33.3)	0	1 (16.7)
Vomiting	3 (33.3)	0	0
Diarrhea	1 (11.1)	0	0
Elevated liver enzymes	0	0	0

Significant weight loss observed in healthy



Weight change from baseline







6/9 Month GLP-Toxicology Study Preliminary Results

√ 6-month study in rodents (N=216)

- · Daily oral dosing for 6-month (10, 100, 1000 mg/kg/day), plus 1 month recovery
- Animals per group (treatment + recovery): N=15+5/group/sex
- 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 healthy non-human primates (N=60)

- Daily oral dosing for 9-month (3, 10, 30 mg/kg/day), plus 1 month recovery
- Animals per group (treatment + recovery): N=5+4/group/sex (high dose) and N=4+2/group/sex
- Dose-dependent body weight reduction up to -20% vs baseline
- No increase in ALT/AST and no test-article related changes in the liver



NOAEL: No Observed Adverse Effect Level

GSBR-1290 Overall Profile and Next Steps

Mark Bach, M.D., Ph.D., CMO



GSBR-1290 - Overview of Phase 2a Clinical Data

Obesity:
Potentially best in class
as a once daily oral therapy

Type 2 Diabetes Mellitus: Encouraging HbA1c efficacy Evaluating further to optimize weight loss in T2DM **Efficacy:** Statistically significant weight reduction (4. weeks on 120 mg daily. Study ongoing to 12 weeks.

Safety: No SAEs; No discontinuations due to AEs up

Tolerability: Most AEs (96%) mild – moderate

Efficacy: Statistically significant reduction in HbA1c weight (3.51%) at 12 weeks

Safety: No SAEs; One discontinuation due to study $\mathfrak c$ up to 12 weeks

Tolerability: Most AEs (88 – 90%) mild – moderate

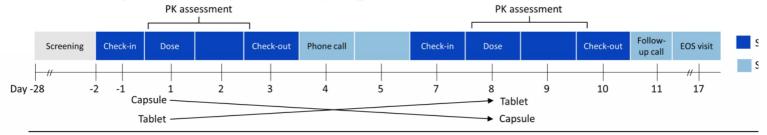
√ 6 and 9 month preclinical toxicology studies support higher doses and longer duration of treatments.



Next Steps: Formulation Bridging and Titration Optimization Study Capsule to Tablet Formulation and Explore Additional Titration Schemes

- **Enrollment completed**
- Top-line 12-week study results anticipated in Q2 2024

Part 1: To compare the PK of capsule to tablet (10 mg dose), N=16

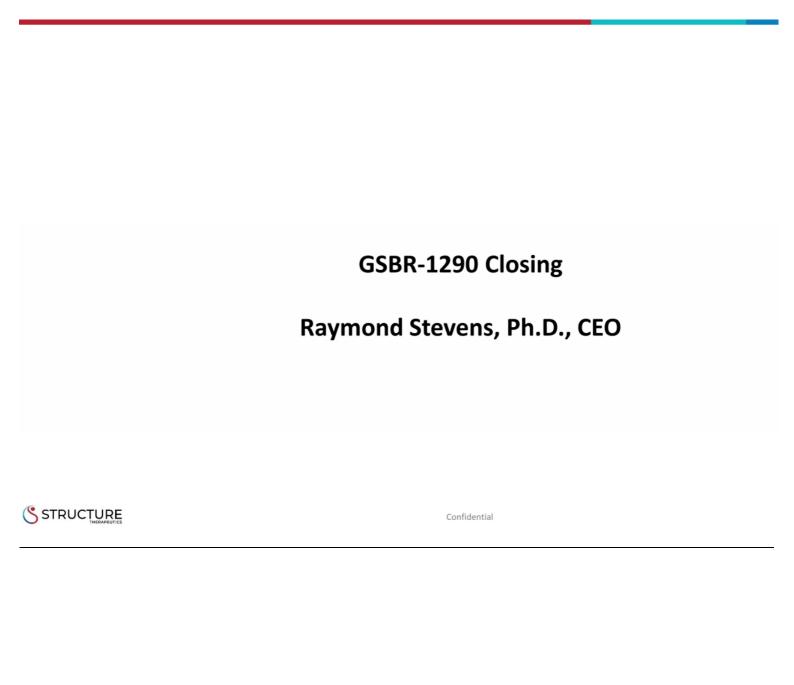


Part 2:

- To assess the tolerability at different titration schemes with the tablet
- To study the comparative bioavailability of capsules and tablets at a therapeutic dose (60 mg)







GSBR-1290: Program Progress and Anticipated Milestones

2023	2024
 Phase 1b/MAD data (4 wk) N=24, healthy overweight/obese participants, up to 90 mg No adverse event-related discontinuations up to 90 mg Statistically significant reductions in weight (up to 4.9% placebo-adjusted) at 60 and 90 mg 	 Phase 2a Obesity data (12 wk) N=64 participants, up to 120 mg Enrolling 24 replacement participants Completion anticipated in Q2 2024
✓ Phase 2a T2DM data (12 wk)	☐ Capsule to tablet PK/Formulation data (12 wk) • N= 54 participants, up to 120 mg
 N=54, T2D participants, up to 90 mg 1 study discontinuation (2.8%) due to AEs related to study drug 	Fully enrolled and completion anticipated in Q2 2024
 Statistically significant reductions in weight (up to 3.51% placebo-adjusted) at 45mg and 90mg 	 Obesity IND submission Submit IND for Chronic Weight Management to FDA in Q2 2
 Phase 2a Obesity data (interim 8 wk) N=40, healthy overweight/obese participants, up to 120 mg No adverse event-related discontinuations up to 120 mg Statistically significant reductions in weight (4.74% placebo-adjusted) at 120 mg at 8wks 	 Phase 2b Obesity clinical study (~36 wk) Modified dose titration regimens to optimize tolerability Approximately 275 participants in US and Europe Initiation planned in 2H 2024
 Japan PK/ethno-bridging data (4 wk) N=18 non-obese, healthy adult Japanese and non-Japanese participants, up to 60 mg No adverse event-related discontinuations up to 60 mg Substantial reductions in weight (3.91% to 5.13%, not placebo-adjusted) at 60 mg at 4wks 	 Additional Phase 2 T2DM clinical study Evaluate potential use of higher doses, longer titration to incon target dose, alternate formulations to optimize efficacy in Initiation planned in 2H 2024
✓ Clean 6/9 month GLP-Tox report	



Our Journey Towards a Potentially Best-in-Class Oral GLP-1R Agonis

Significant Opportunity to Increase Accessibility and Treat Type 2 Diabetes & Obesity

> 2024 - 2025 Dose-range finding/ **Optimization** Phase 2b Obesity (~36wk) Phase 2b Phase 2 T2DM T2DM (~26wk) **Including Additional** Formulations, Titrations, **Dosing Regimens**

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Chronic

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Adjacen

* Note: Represents Company's current anticipated future development plans, which are subject to change including based on study results

Dec 2023

Proof-of-Concept

Phase 2a Obesity

Phase 2a

(interim)

T2DM

(12wk)



Sep 2023

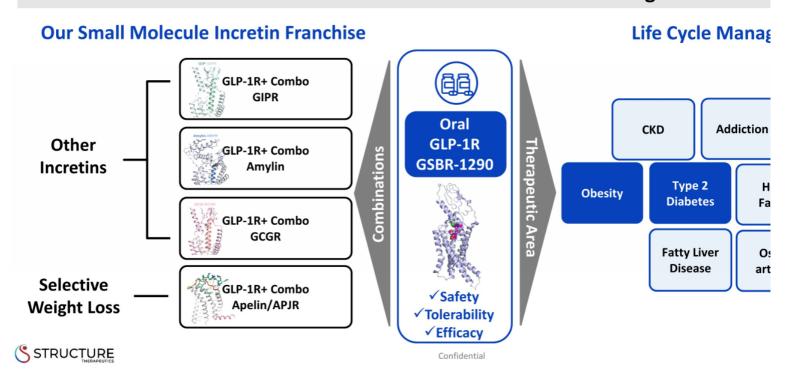
✓ Phase 1b

MAD

(4wk)

Next Steps: Continue To Execute On Oral Incretin Franchise Strategy

Oral GLP-1 agonists have the potential to be foundational and backbone for future combinations in significant mark



GSBR-1290 in context

- Significant future market opportunity for oral GLP-1 agonists to treat cardiometabolic diseases such as
 diabetes, chronic kidney disease, MASH and others
- Oral GLP-1 agonists have the potential to be foundational and a backbone for future combinations
 - Safety and tolerability are key requirements to combine with different mechanisms of action and allow optimizator efficacy, safety and tolerability
 - Promising mechanisms include other incretins and muscle maintenance targets
- Based on today's comprehensive update, GSBR-1290 appears to have the characteristics of a promising agonist in this important marketplace
 - ✓ Generally well-tolerated with no serious adverse events (SAEs) related to study drug up to 120 mg
 - ✓ No study discontinuations due to AEs in the Phase 2a Obesity Study
 - ✓ 1 study discontinuation (2.8%) due to AEs related to study drug in the Phase 2a Type 2 Diabetes Study
 - ✓ No major findings in 6-month rodent and 9-month primate study enables longer term evaluation in Phase 2b
 - ✓ Clinically meaningful and statistically significant weight reductions in Obesity and Type 2 Diabetes
 - ✓ Optimize promising safety, tolerability, and efficacy profile with additional dosing and titration regimens in future studies





Thank you!

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http://www.structuretx.com