

May 11, 2026

# Pioneering Precision Peptides for Endocrine and Metabolic Diseases

*Obesity Day*





# Introduction



**Kent Hawryluk**  
President & CEO

# MBX Obesity Day 2026 Agenda

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## Welcome/Introductions

Kent Hawryluk, MBX  
President & CEO

2

## Market Landscape & Opportunity

Katherine H. Saunders,  
M.D., Co-Founder,  
FlyteHealth; Faculty,  
Weill Cornell Medicine

3

## MBX PEP™ Platform Overview

Richard DiMarchi, Ph.D.,  
Distinguished Professor of  
Chemistry at Indiana  
University, MBX Co-founder

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Sam Azoulay, M.D.,  
MBX Chief Medical Officer

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Richard DiMarchi

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Kent Hawryluk

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Kent Hawryluk

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## Q&A/Lunch

All

# Disclaimer

This presentation includes forward looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding our product candidates, preclinical study and/or clinical trial timelines, including projected data announcements, future results of operations and financial position, strategy and plans, industry environment, potential growth opportunities, and our expectations for future operations, are forward looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “design,” “expect,” “could,” “plan,” “potential,” “predict,” “seek,” “should,” “would,” or the negative version of these words and similar expressions are intended to identify forward looking statements.

We have based these forward-looking statements on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, strategy, short- and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including but not limited to, our ability to develop and advance our programs and product candidates, our regulatory approvals and filings, and other risks, uncertainties and assumptions identified in our filings with the Securities and Exchange Commission.

Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time, and it is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this presentation may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. You should not rely upon forward looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations, unless required by law.

This presentation contains estimates and other information concerning our industry, our business and the markets for our product candidates. Information that is based on estimates, market research or similar methodologies, including prevalence studies which are extrapolated to broader populations, is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from our own internal estimates and research as well as from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. Industry publications and surveys generally state that the information contained therein has been obtained from sources believed to be reliable.

Although we believe the industry and market data to be reliable as of the date of this presentation, this information could prove to be inaccurate. Industry and market data could be wrong because of the method by which sources obtained their data and because information cannot always be verified with complete certainty due to the limits on the availability and reliability of raw data, the voluntary nature of the data gathering process and other limitations and uncertainties. While we are responsible for the accuracy of such information and believe our internal company research as to such matters is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source.

# MBX: Pioneering Precision Peptides for Endocrine and Metabolic Diseases



Multiple clinical-stage programs, each designed for differentiation in **multibillion dollar markets**

- Extended duration of action
- Consistent drug exposures
- Less frequent dosing
- Unique PK profile to simplify titration regimens



Once-weekly canvuparatide data support potential **best-in-class profile** in chronic hypoparathyroidism

- Results from Phase 2 trial accepted for oral presentation at ENDO in June 2026
- Phase 3 trial on track to initiate in Q3



Obesity pipeline designed for **once-monthly administration**, fewer titration steps and improved tolerability

- MBX 4291 PK shows potential for true once-monthly dosing
- 12-week Phase 1 MAD results on track for Q4
- MBX 5765 (amycretin) in IND-enabling studies
- Nomination of triple agonist on track for Q3



**Clinically validated** PEP platform unlocks vast potential of peptide therapeutics

**Catalyst-rich 2026** with substantial value inflection opportunities

Well capitalized with \$440 million in cash, expected to provide **runway into 2029**<sup>1</sup>

<sup>1</sup> Unaudited cash, cash equivalents and marketable securities as of March 31, 2026



# Obesity Market Landscape



**Katherine H. Saunders, M.D.**

Co-Founder, FlyteHealth

Faculty, Weill Cornell Medicine

# Worldwide Obesity Prevalence

According to World Health Organization and World Obesity Federation

1 in 8 people worldwide are living with obesity

2.5 billion adults worldwide overweight

890 million adults living with obesity

35 million children less than 5yrs are overweight

390 million children and adolescents overweight

160 million children living with obesity



**Obesity rates have doubled since 1990**

**25% of the World's Population is projected to have obesity by 2035**

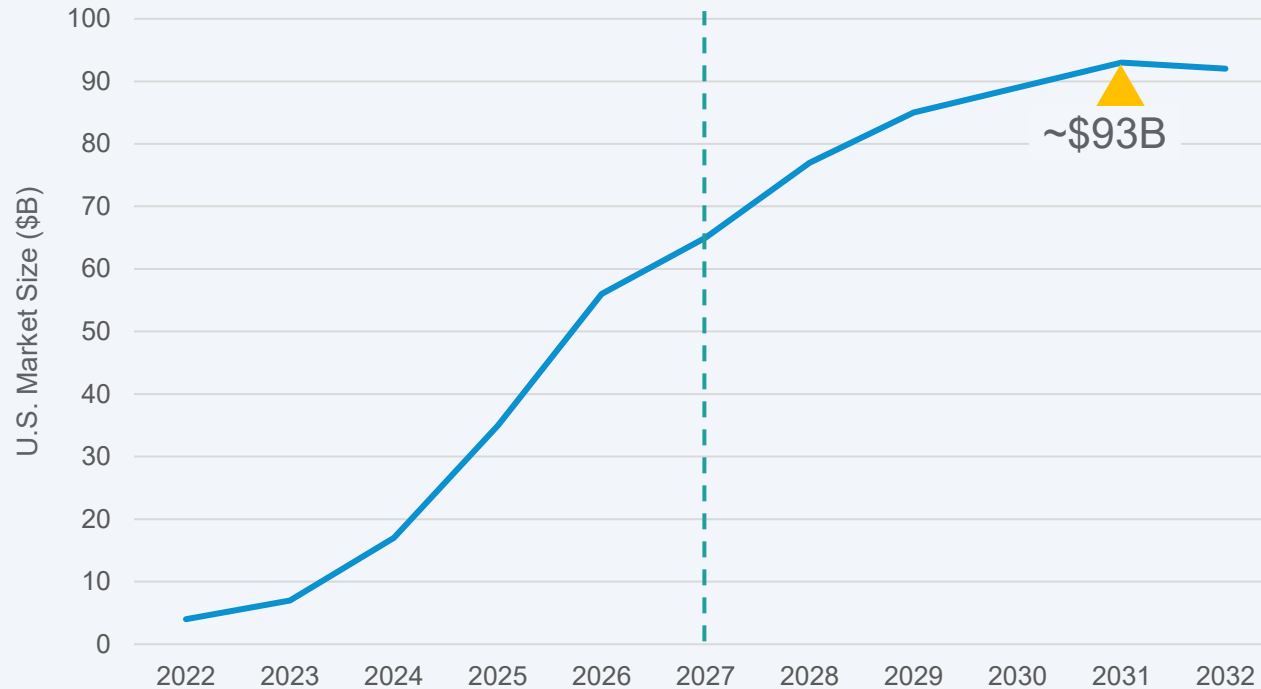
<https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>  
<https://www.worldobesity.org/about/about-obesity/prevalence-of-obesity>

Ahmed SK, Mohammed RA. Obesity: Prevalence, causes, consequences, management, preventive strategies and future research directions. Metabol Open. 2025 Jun 14;27:100375.

# Obesity Market Projected to Surpass \$90B Through 2031

Driven by novel GLP-1+ combos and broader access

## Analyst Reported U.S. Obesity Medication Market Size



## Drivers of Growth

- Investment in GLP-1+ next-gen treatment with improved efficacy/safety profiles and oral route of administration may drive uptake and improve adherence and persistence
- Improved access and affordability are expected to allow more patients to consider and utilize obesity medications
  - Expansion into Medicare population unlocks further upside
- Rising obesity prevalence and increased awareness of obesity drugs may increase the addressable population

Source Internal MBX market research; Goldman Sachs Report; Berenberg Report; Wolfe Research Report; Morgan Stanley Report;

# Obesity Market Growth Driven by Population with BMI >30

Estimated overweight and population with obesity over time<sup>1</sup> (U.S. adults, non-T2D)

		2025	2030	2035	2040
BMI 27-30 (≥1 comorbid.)	Prevalence	24 M	24 M	25 M	25 M
	CAGR	————— +0.3% —————→			
BMI 30-35	Prevalence	49 M	54 M	57 M	60 M
	CAGR	—— +2.0% —→		————— +1.0% —————→	
BMI 35+	Prevalence	40 M	46 M	51 M	56 M
	CAGR	—— +3.0% —→		————— +2.0% —————→	

Obesity prevalence is expected to continue to grow, with growth rates highest in the population with BMI 35+

Estimates indicate ~40% of the U.S. adult population will have obesity (BMI>30) without type 2 diabetes by 2030, with nearly half of the population with obesity expected to have class II obesity (BMI>35)

Source. Internal MBX market research. 1. Based on U.S. adult population, prevalence rates of BMI segments, prevalence of diabetes, and prevalence of weight-related comorbidities. 2. NCHS tracks population-level data and demographics CBO: Congressional Budget Office; NCHS: National Center for Health Statistics. Source CBO; Emmerich. NCHS Data Brief. 2024; Finkelstein. AJPM. 2012; Koliaki. Curr Obes Rep. 2023; Ogden. MMWR Morb Mortal Wkly Rep. 2017; Okunrintemi. J Gen Intern Med. 2019; Medhi. Cure. 2021; Mylona. Medicine (Baltimore). 2020; Pressman. Am J Manag Care. 2023; Sturm. Int J Obese (Lond). 2013; Ward. N Engl J Med. 2019; Cens.gov

# Unmet Needs Suggest Potential for Future Differentiation

1

## Response

Clinical data show weight loss plateau at ~20% at ~1 year, which may be insufficient for patients with class III obesity (BMI>40)

2

## Prevention of Weight Regain

Real-world studies indicate that patients discontinuing GLP-1 therapies are prone to rapid weight regain, highlighting a need for weight strategies

3

## Tolerability

Improved tolerability may enhance adherence, expand long-term use, and decrease discontinuations in real world settings

4

## Convenience

Less frequent and flexible dosing, simplified regimens and oral formulations can support long-term management and improve patient persistence

5

## Weight Loss Quality

Preserving muscle while reducing fat is still a key unmet need for improving health outcomes

6

## Outcomes

Developing treatments with proven benefits and safety in subpopulations (e.g., pediatric, comorbid, elderly) can improve health beyond weight loss and facilitate in enabling access to AOMs

Source: Internal MBX market research.

AOM: Anti-obesity Medication; ROA: Route of Administration. Source: Abdel-Bary. Obes Med. 2025; Aronne. JAMA. 2023; Wilding. Diabetes Obes Metab. 2022; Clearview Analysis

# Gastrointestinal Adverse Events Remain a Key Limitation of Incretin-Based Therapies

## What we see clinically

- GI-related tolerability is a well-known on-target side effect of incretin therapies (e.g., semaglutide, tirzepatide)
- Nausea, vomiting, diarrhea are most frequent (25-44% in Phase 3 trials)
- Requires lengthy titration regimen to allow adaptation before getting to optimal efficacious dose
- Events often emerge during initiation and dose escalation
- Mechanism linked to gastric emptying/GI motility

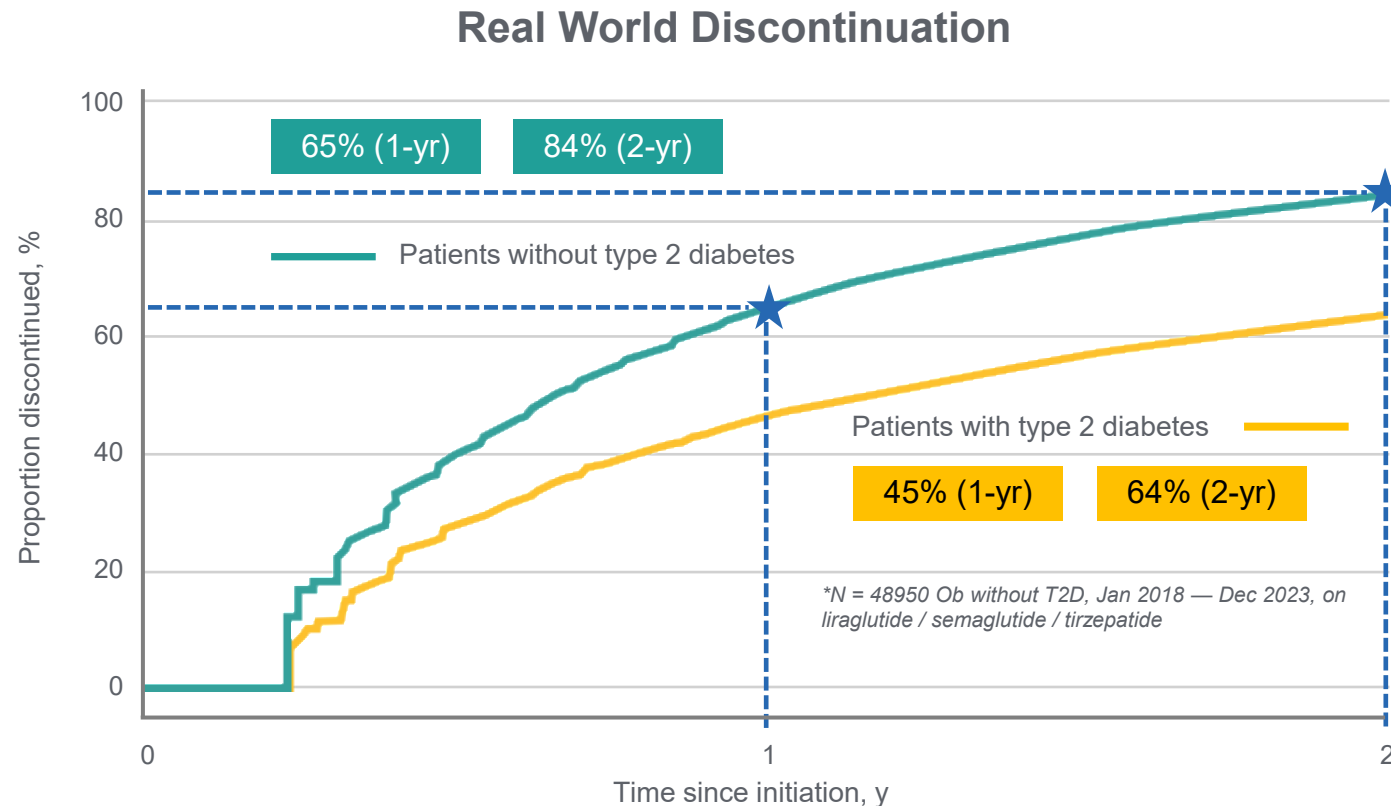
## Why it matters

- Symptoms are often mild, but can be persistent
- Repeated GI events may impact adherence
- Key driver of treatment discontinuation
- Requires lengthy and gradual titration to improve tolerability
- May impact reaching optimal therapeutic dose

Optimizing exposure may improve tolerability and decrease amount of required titration steps

Source: Ismaiel, A., et al. *Int J Obes* 2025 Oct;49(10):1946-1957; Jastreboff AM, et al. *N Engl J Med.* 2022;387:205–216; Wilding JPH, et al. *N Engl J Med.* 2021;384:989–1002.

# High Discontinuation Rates Underscore Need for Improved Tolerability



Significant proportion of patients discontinue within 1-2 years of treatment, implying greater need for **tolerable treatments** given rapid rebound of weight gain following discontinuation

Source: Market research data conducted by ClearView on behalf of MBX



# MBX Proprietary PEP™ Platform



**Richard DiMarchi, PhD**

MBX Scientific Co-Founder

Distinguished Professor of  
Chemistry and Gill Chair in  
Biomolecular Sciences at Indiana  
University

# Obesity: How We Got Here

## 1980s

- Nature: gene and peptide sequence for GLP-1 (1983, 1986/7)

## 1990s

- First Reports of GLP-1 lowering of appetite in rodents and body weight lowering in obese Type 2 diabetes patients (1996)

## 2000s

- First approved GLP-1 agonist for Type 2 diabetes (Exenatide, 2005)
- First GLP-1 co-agonist with glucagon prevents obesity in mice (2009)
- Victoza® injections approved for Type 2 diabetes (2010)

## 2010s

- First preclinical reports of GIP co-agonism (2013) and tri-agonism (2015)
- Saxenda® injections for obesity and Trulicity for Type 2 diabetes (2014)
- Ozempic® breakthrough report of weight lowering in obese subjects (2018)

## 2020s

- Wegovy® for weight loss (2021)
- Mounjaro® for Type 2 diabetes (2022)
- Zepbound® for weight loss (2023)

Diabetes-centric

Obesity-centric →

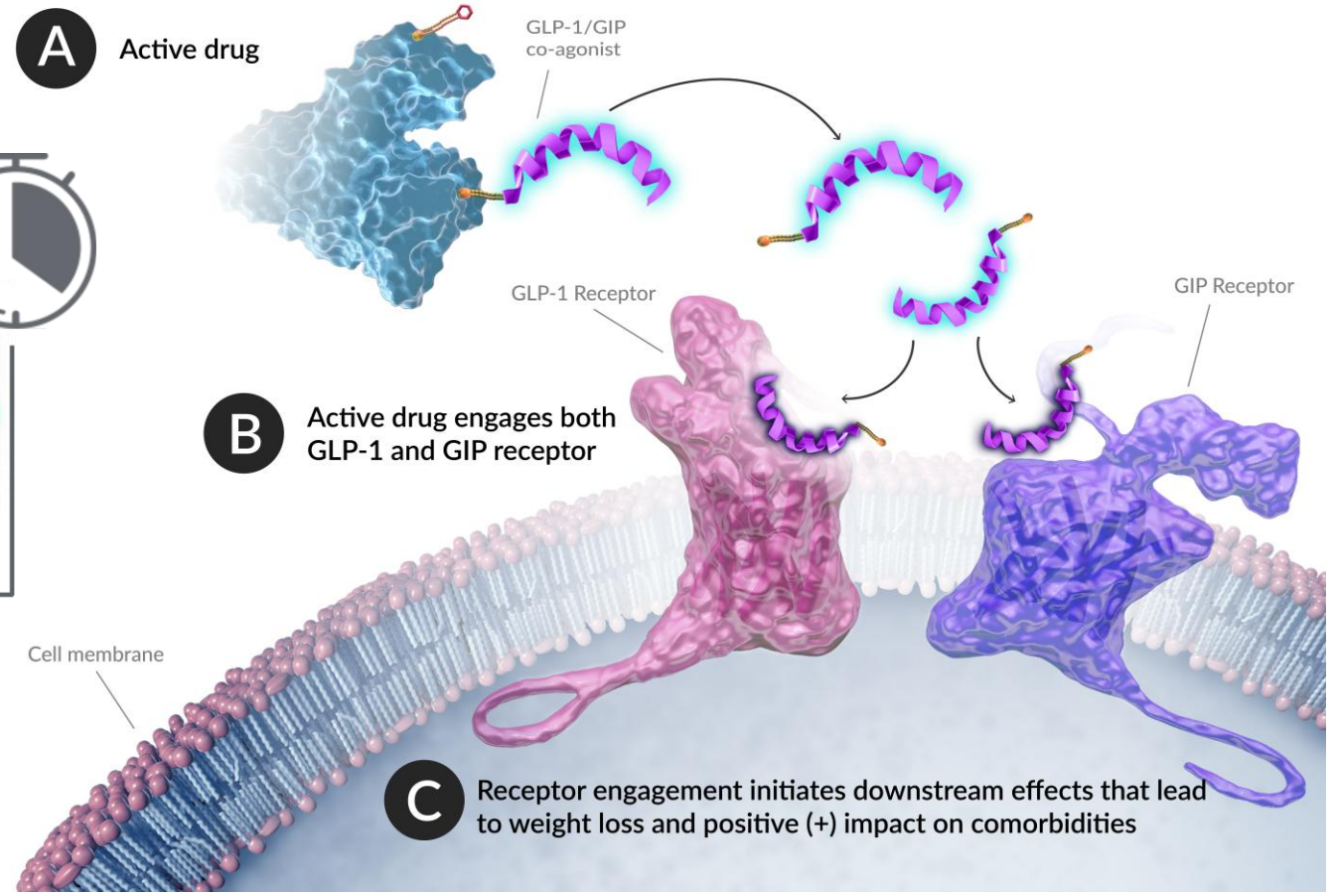
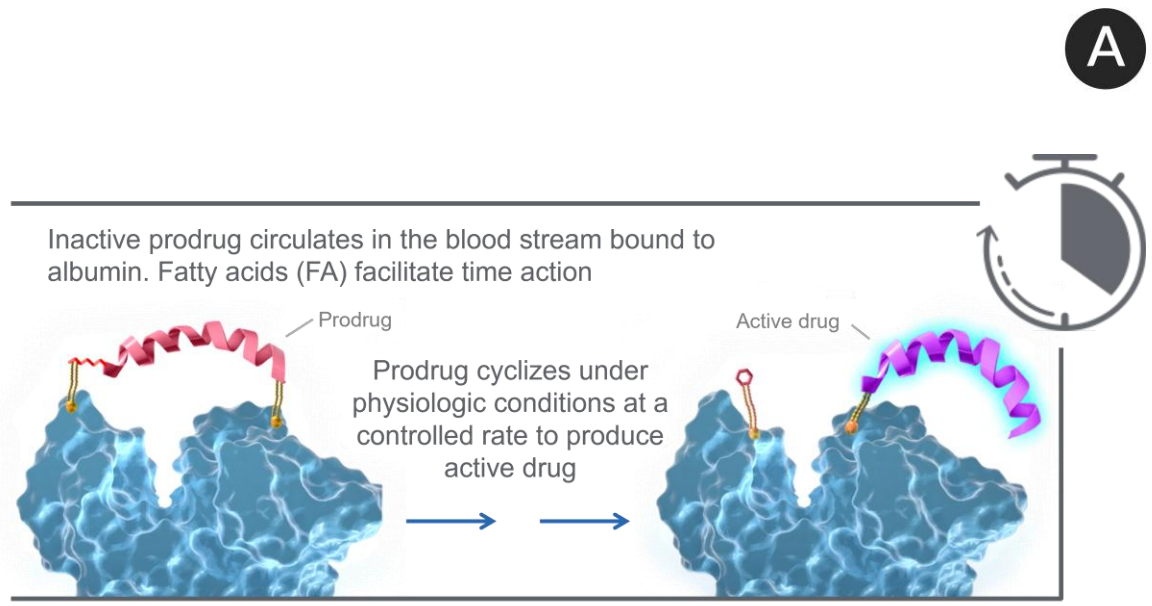
# Obesity: Next Generation Performance



Drug-centric

Patient-centric

# MBX 4291: Engineered for Gradual Release, Long Exposure and Dual GLP-1/GIP Agonism





**MBX 4291**

GLP-1/GIP Agonist

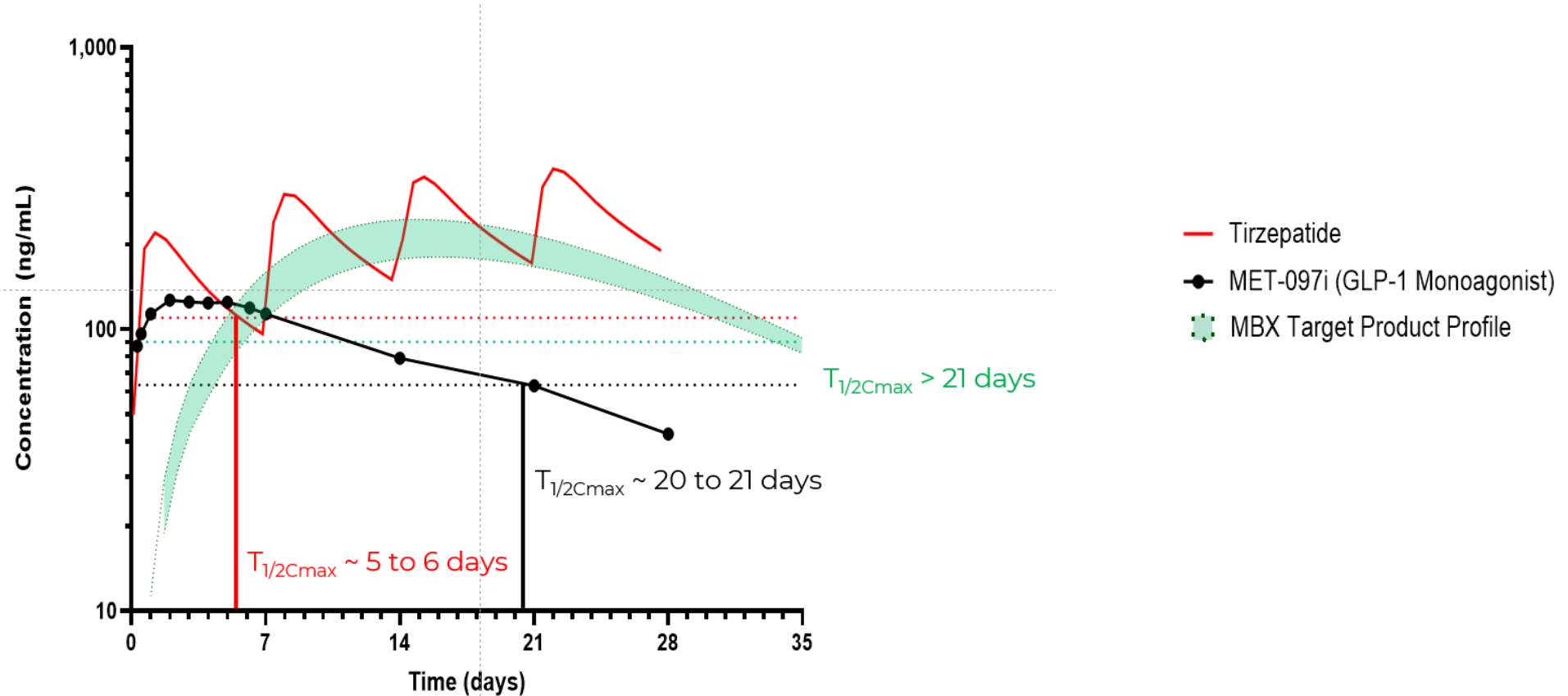


**Sam Azoulay, MD**

MBX Chief Medical Officer

# Obesity Opportunity: Once-Monthly Dosing with Improved Tolerability

MBX obesity candidates are designed using proprietary PEP platform for once-monthly dosing with the goal of more gradual, flattened and sustained exposure and improved tolerability



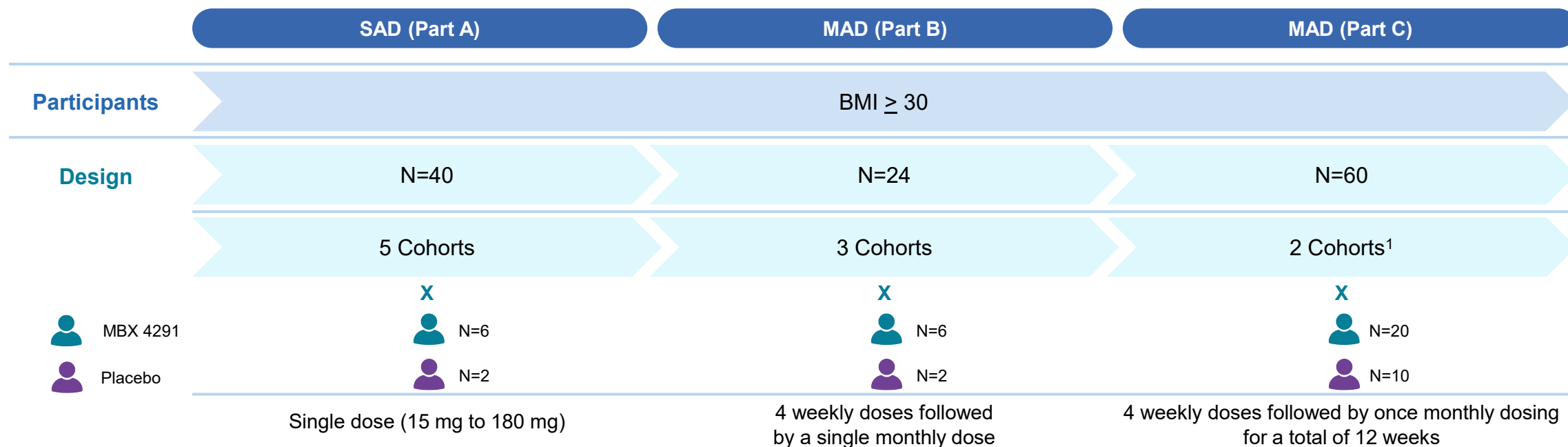
Source for tirzepatide concentrations: CPT Pharmacometrics Syst Pharmacol. 2024 Mar;13(3):494-503. Tirzepatide is the active ingredient in Zepbound.

Source for MET-0971i concentrations: Metsera, Inc. estimated from graphics presented in Form S-1, filed January 10, 2025.

$T_{1/2C_{max}}$  calculated as time to 50% of  $C_{max}$ . This figure represents different studies conducted at different points in time in different patients, and it is not intended to provide a head-to-head comparison.

Tirzepatide simulated for a mean BW of 88 kg; MBX 4291 active simulated for a range of 70 to 100 kg.

# MBX 4291 Ongoing Phase 1 Clinical Trial



## Study Objectives

### Primary:

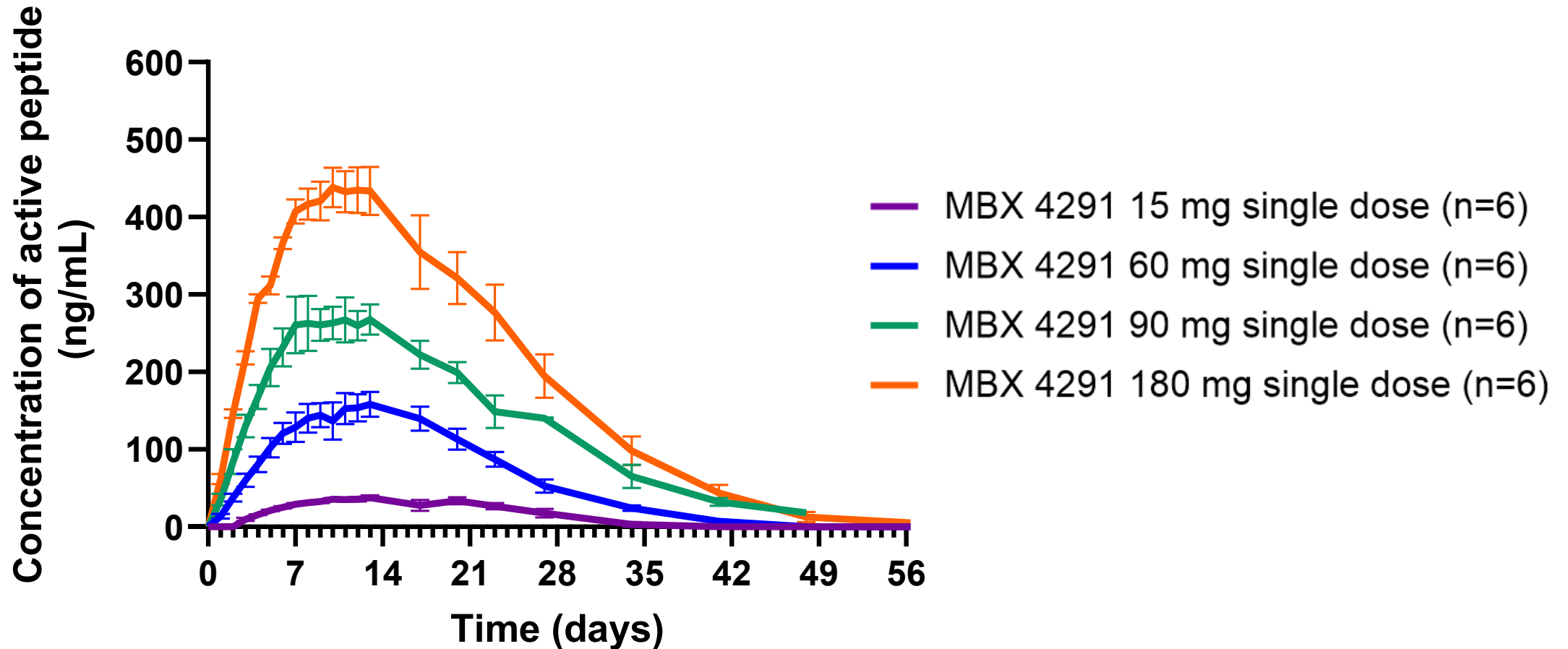
- Assess safety and tolerability focusing on competitive gastrointestinal tolerability and streamlined dose titration

### Secondary:

- Determine pharmacokinetics suitable for monthly injection schedule
- Evaluate pharmacodynamics (i.e., through assessment of weight loss)
- Identify doses and titration regimen for Phase 2

<sup>1</sup> Planned second cohort added to evaluate additional doses/dosing regimens

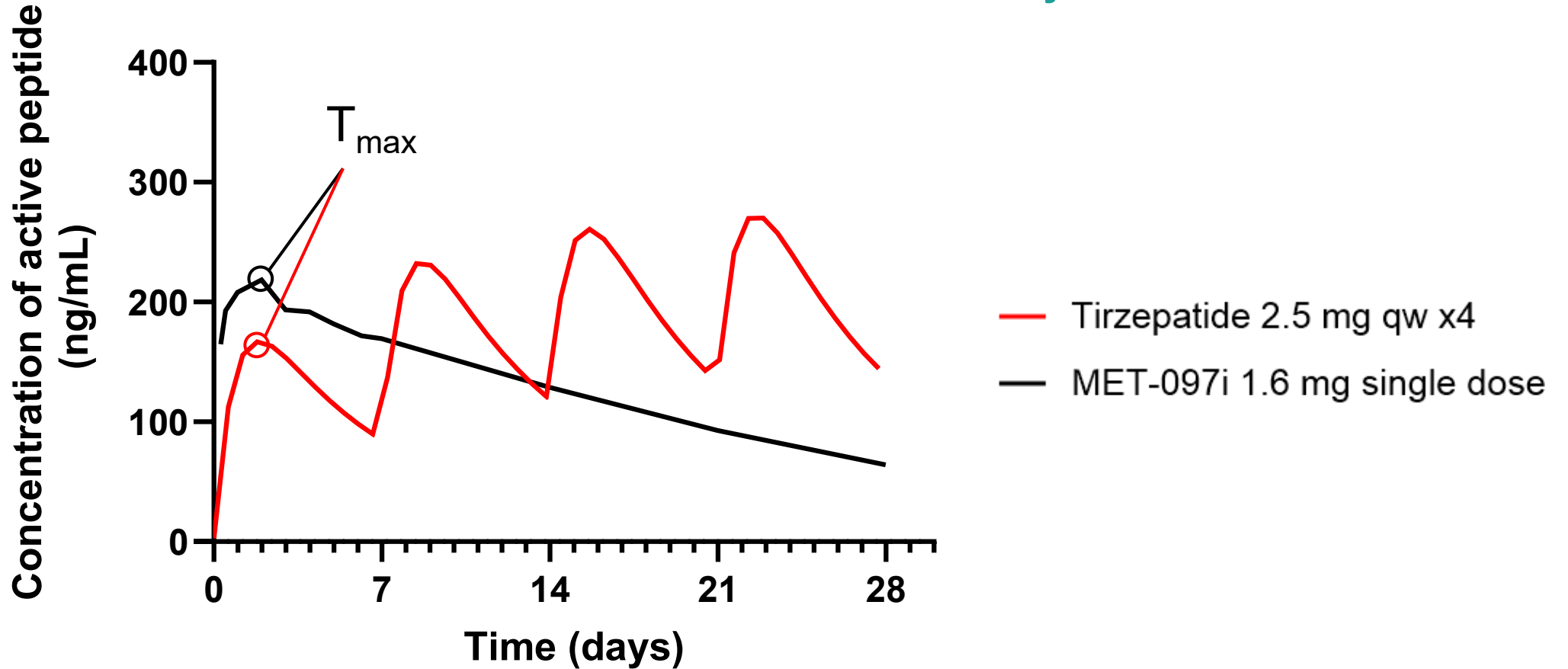
# MBX 4291 Phase 1 Preliminary SAD Data Demonstrates Dose-Proportional PK with Gradually Increasing and Sustained Concentrations of Active Peptide after a Single Dose



Source: MBX 4291 Phase 1 trial, ongoing and blinded  
120 mg cohort ongoing

# Tirzepatide and MET-097i Reached Maximum Concentration within Two Days of Dosing

## Burst Effect Linked to GI Intolerability



Source for tirzepatide concentrations: CPT Pharmacometrics Syst Pharmacol. 2024 Mar;13(3):494-503. Tirzepatide is the active ingredient in Zepbound.

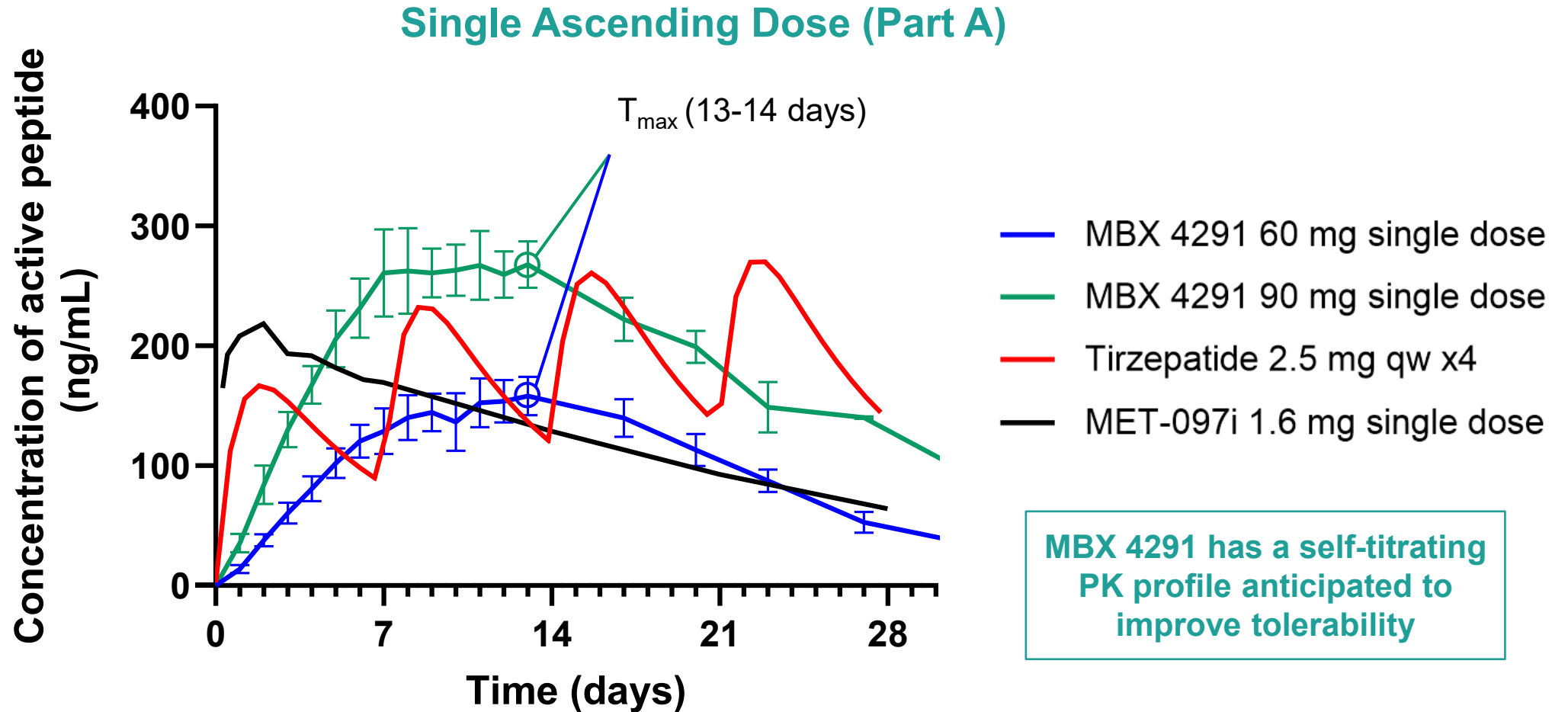
Source for MET-097i concentrations: estimated from graphics presented in Metsera, Inc. Form S-1, filed January 10, 2025.

Tirzepatide simulated for a mean BW of 97.1 kg

T<sub>1/2C<sub>max</sub></sub> calculated as time to 50% of C<sub>max</sub>

This figure represents different studies conducted at different points in time in different patients, and it is not intended to provide a head-to-head comparison.

# MBX 4291: Delayed Time to Maximum Concentration Anticipated to Improve Tolerability; Concentrations Sustained throughout Month



Source: MBX 4291 Phase 1 trial, ongoing and blinded  
This figure represents different studies conducted at different points in time in different patients, and it is not intended to provide a head-to-head comparison.

# MBX 4291: Dose-Dependent GI-Related Adverse Events Were Predominantly Mild

## Single Ascending Dose (Part A)

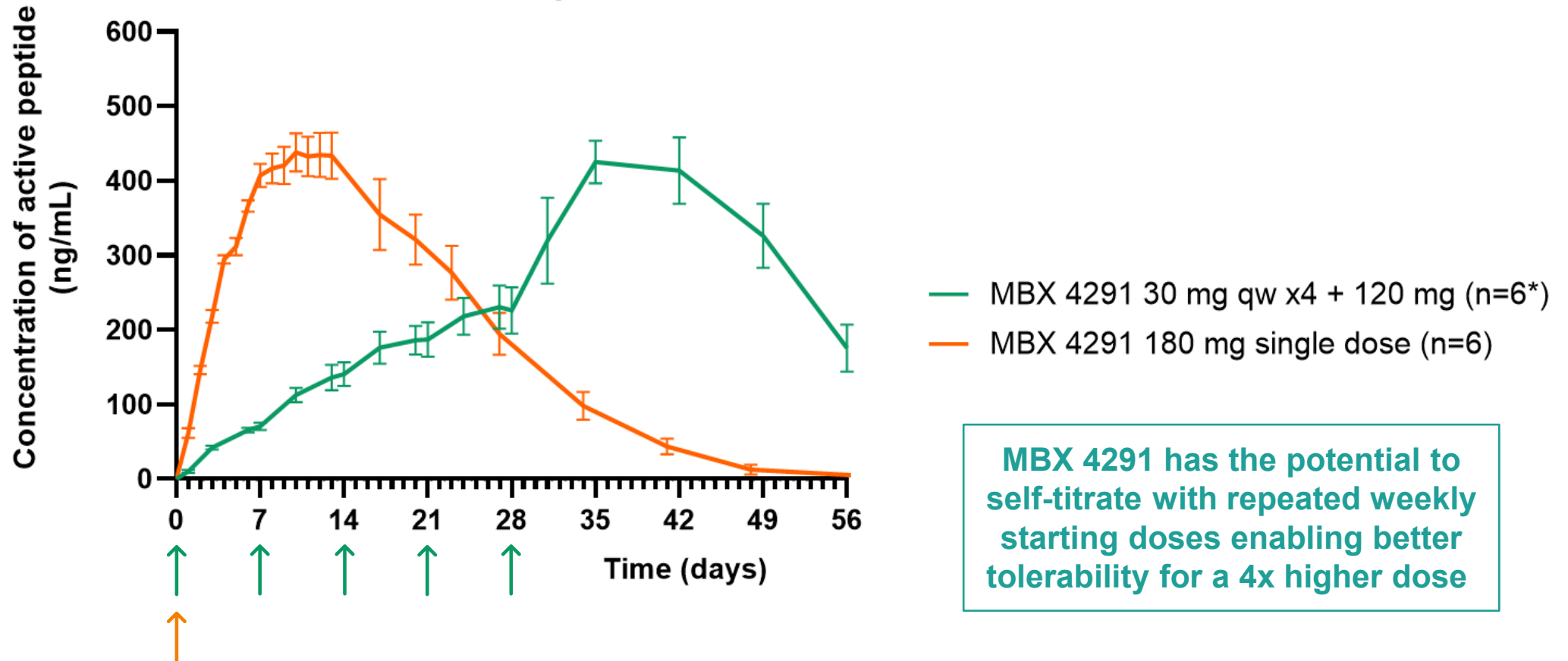
	SAD				All SAD
	15 mg (N=8, incl pbo)	60 mg (N=8, incl pbo)	90 mg (N=8, incl pbo)	180 mg (N=8, incl pbo)	N=32, incl pbo
Number of Subjects with Treatment-Emergent Events of Nausea, Vomiting or Diarrhea	1 (12.5%)	0	3 (37.5%)	7 (87.5%)	11 (34%)
<b>Nausea</b> (mild/moderate/severe)	0	0	1/1/0 (25%)	6/1/0 (87.5%)	7/2/0 (28%)
<b>Vomiting</b> (mild/moderate/severe)	0	0	1/0/0 (12.5%)	4/1/0 (62.5%)	5/1/0 (19%)
<b>Diarrhea</b> (mild/moderate/severe)	1/0/0 (12.5%)	0	2/0/0 (25%)	3/0/0 (37.5%)	6/0/0 (19%)

- 15 mg → 90 mg single doses were generally well tolerated, with low incidence of GI-related adverse events that were predominantly mild
- MTD reached with 180 mg single dose → associated with GI AEs in 7/8 participants, mostly mild
- 120 mg cohort ongoing

Source: MBX 4291 Phase 1 trial, ongoing and blinded  
pbo = placebo

# MBX 4291 Preliminary PK from First MAD Cohort Indicates Gradual Accumulation and Sustained Concentrations of Active Peptide

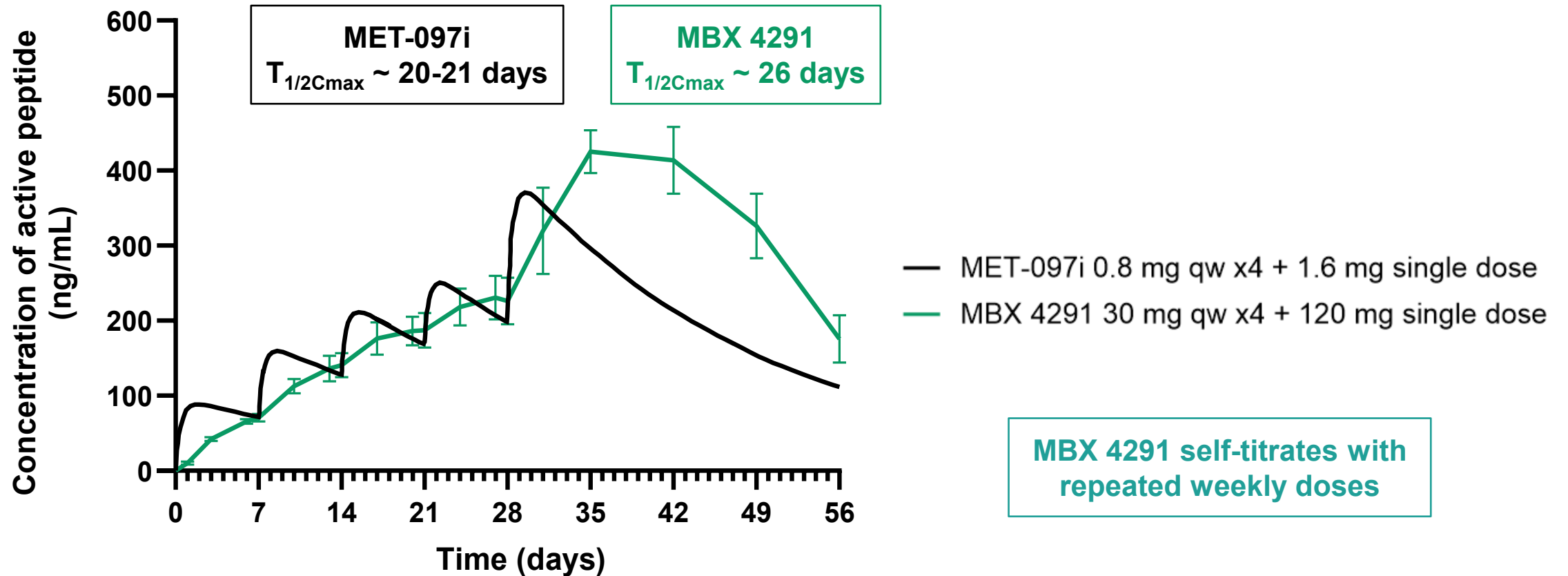
## 180 mg SAD vs. 1<sup>st</sup> MAD Cohort



Source: MBX 4291 Phase 1 trial is ongoing and blinded  
\*n = 6 through 28 days; n = 3 28 through 56 days (additional analysis pending)

# MBX 4291 PK Supports Potential for True Once-Monthly Dosing

## 1<sup>st</sup> Multiple Ascending Dose (Part B)



Source for MET-0971i concentrations: estimated from graphics presented in Metsera, Inc. Form S-1, filed January 10, 2025.

Source for MBX 4291: MBX 4291 Phase 1 trial, ongoing and blinded

$T_{1/2C_{max}}$  calculated as time to 50% of  $C_{max}$

This figure represents different studies conducted at different points in time in different patients, and it is not intended to provide a head-to-head comparison.

# MBX 4291 First MAD Cohort: Competitive Weight Loss and Tolerability with Potential for True Once-Monthly Dosing

30 mg qw x4 + 120 mg single dose

**Mean weight loss of 7% (range 0-16%) at 8 weeks (n=8, including 2 placebo)**

## Safety and Tolerability

Only 1/8 subjects experienced an event of diarrhea, nausea or vomiting through 8 weeks

- One event of mild diarrhea following the first administration
- No nausea
- No vomiting

No serious adverse events

# MBX 4291 Initial Phase 1 Data Summary

- MBX 4291 designed for once-monthly dosing with controlled, sustained concentrations and improved tolerability
- **Data from the Phase 1 SAD show a PK profile supporting a self-titrating weekly induction regimen and potential for a true once-monthly regimen, including:**
  - Dose-proportional PK
  - Sustained concentrations of active peptide for 28 days
  - Dose-dependent GI-related adverse events across 4 dose cohorts, ranging from 15 to 180 mg
- **Preliminary blinded data from the first Phase 1 MAD cohort following 4 weekly induction doses of 30 mg and a single 120 mg once-monthly dose indicates:**
  - Gradual accumulation of active peptide
  - Mean weight loss of 7% (range 0-16%) at 8 weeks (n=8, 6 active, 2 placebo)
  - Only one event of diarrhea, nausea or vomiting through 8 weeks
- 12-week Phase 1 MAD (Part C) results remain on track for Q4 2026



**MBX 5765**  
**Amycretin**



**Richard DiMarchi, PhD**

MBX Scientific Co-Founder

Distinguished Professor of  
Chemistry and Gill Chair in  
Biomolecular Sciences at Indiana  
University

# MBX 5765: Multi-Agonist Amycretin Prodrug Designed for Once-Monthly Dosing, Superior Efficacy and Improved Tolerability

## Multi-Receptor Agonist Profile

- Potency at the receptors equal to or greater than endogenous ligand except GCG

+ + GLP-1

+ + GIP

+ GCG

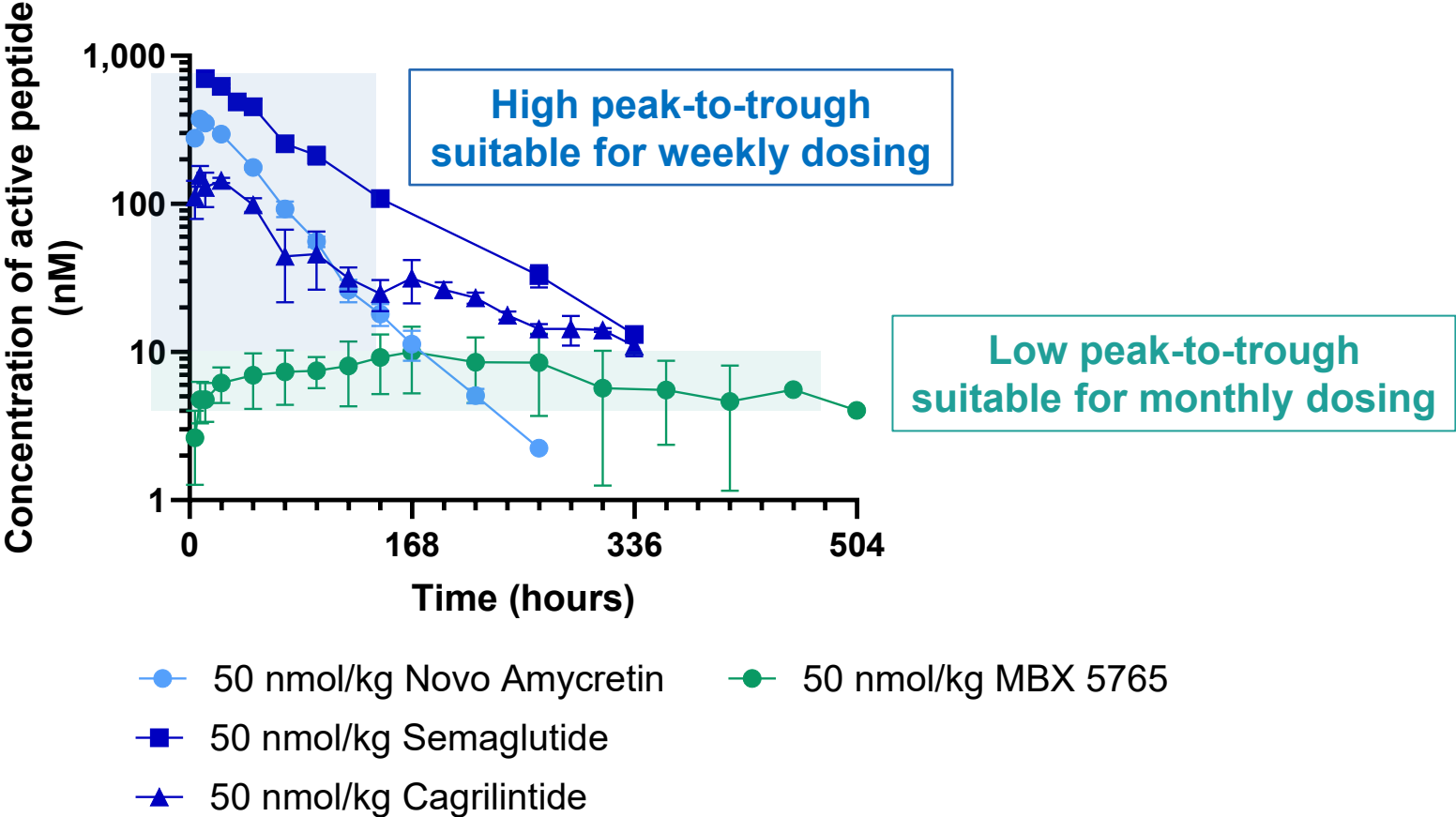
+ + DACRA (amylin + calcitonin)

## Enhanced Preclinical Potency vs. Benchmark

- Improved efficacy compared to CagriSema or Semaglutide, alone or as mix
- Improved tolerability; it's a prodrug
- Potential for a more simplified approval path compared to a mix of novel agonists

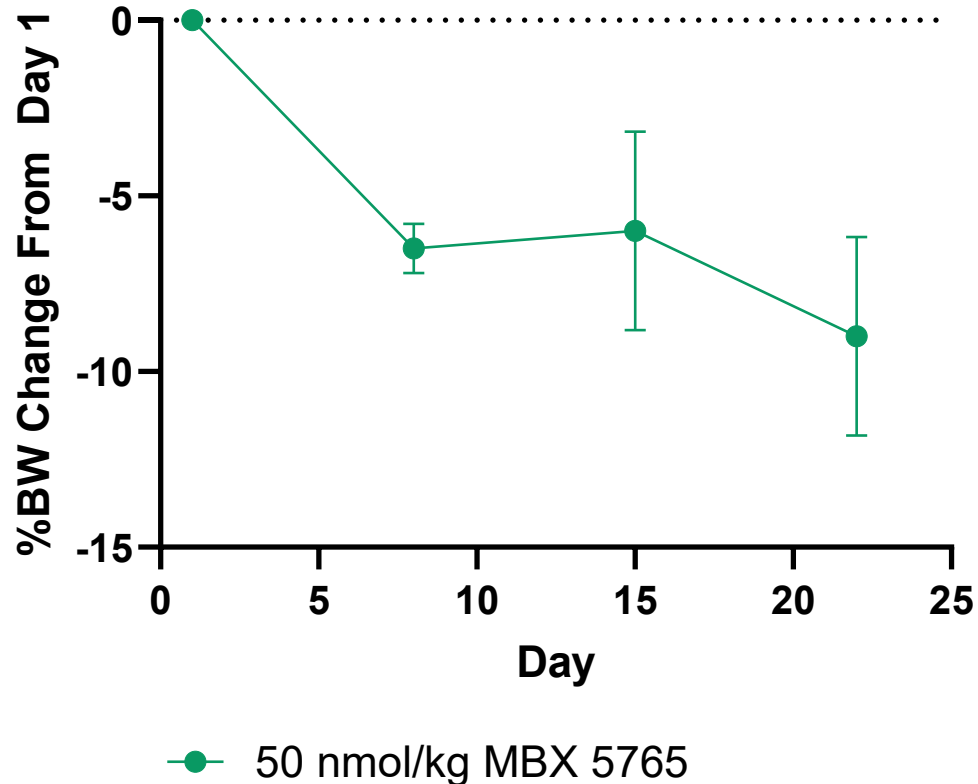
DACRA = dual amylin and calcitonin receptor agonist

# MBX 5765's Flat PK Profile Supports Potential Long Time Action and Minimized Concentration Variability



MBX 5765 single dose in non-human primates  
 Semaglutide data linearly scaled from a 10 nmol/kg dose; Novo amycretin data linearly scaled from a 30 nmol/kg dose.  
 Data shown in this figure represent different studies conducted at different times.  
 Third-party candidates used in these studies were internally-generated comparators.

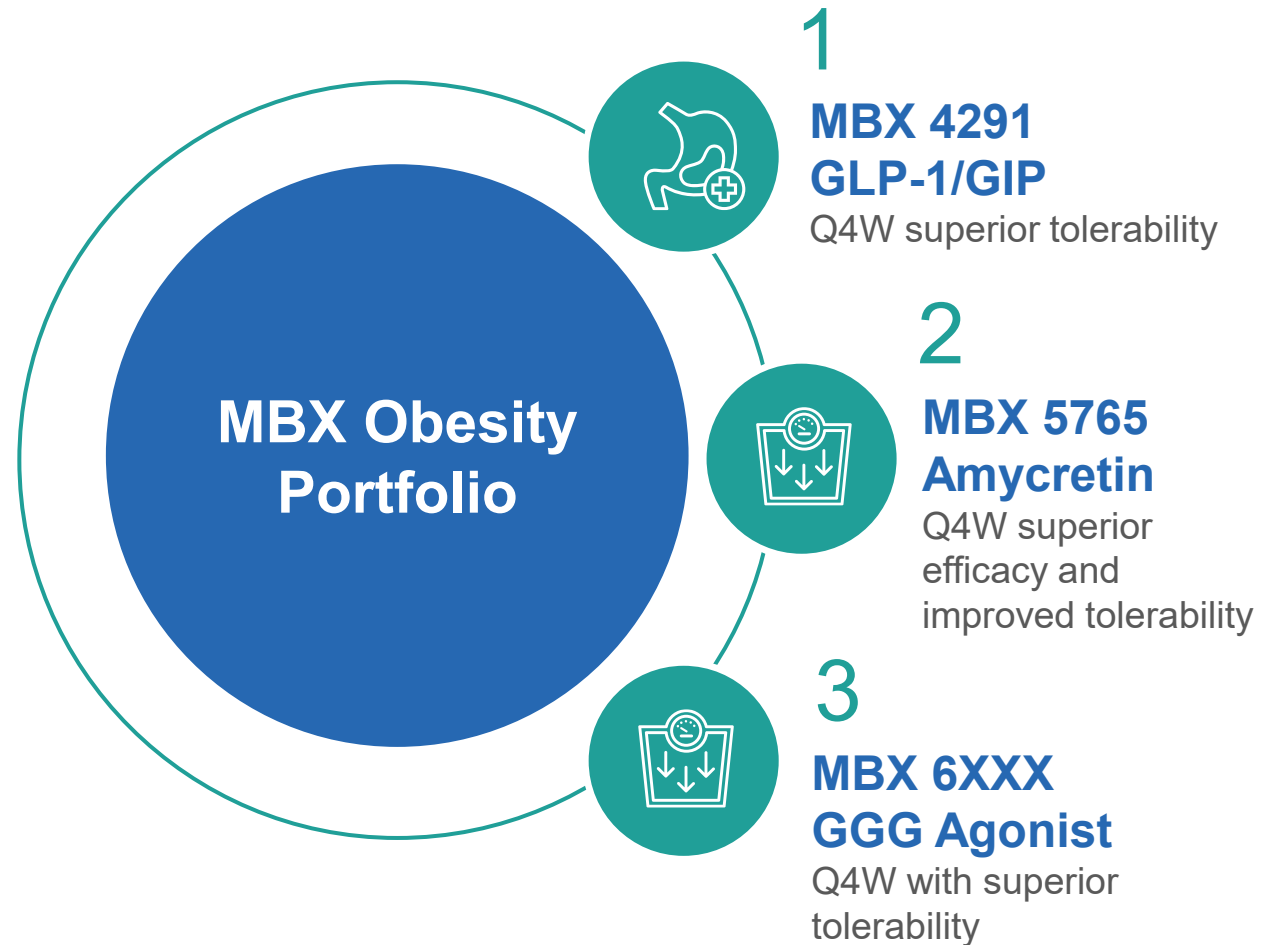
# MBX 5765: Observations and Body Weight Loss



- Expected PD effects seen for a single 50 nmol/kg dose consistent with other incretins and DACRAs but without vomiting
- Effects on body weight persisted the entire 3-week monitoring interval from a single dose whereas side effects consistent with incretins/DACRAs (dehydration, lethargy) recovered within the first week

# Pipeline Designed to Address Broad Range of Obesity Patient Needs

MBX is developing a robust obesity portfolio with potential to drive strong optionality across patient segments





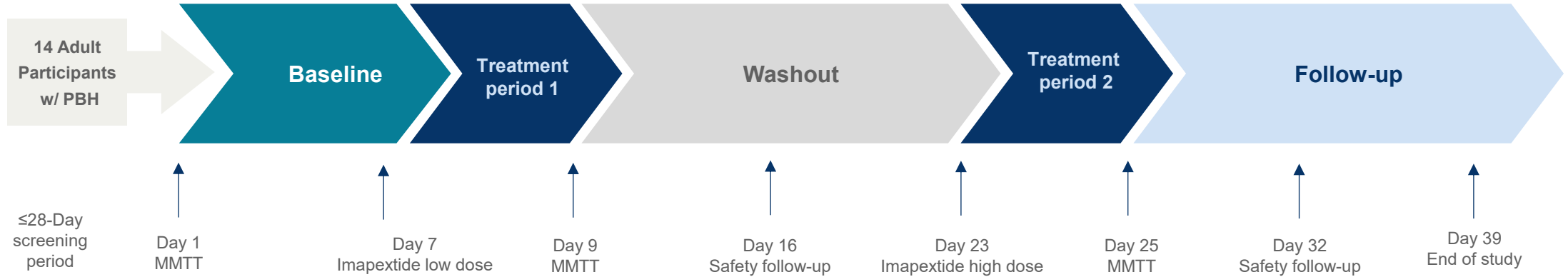
## Conclusion



**Kent Hawryluk**  
President & CEO

# Imapextide Phase 2a Study Design Overview

## Trial Design



## Endpoints

### Primary:

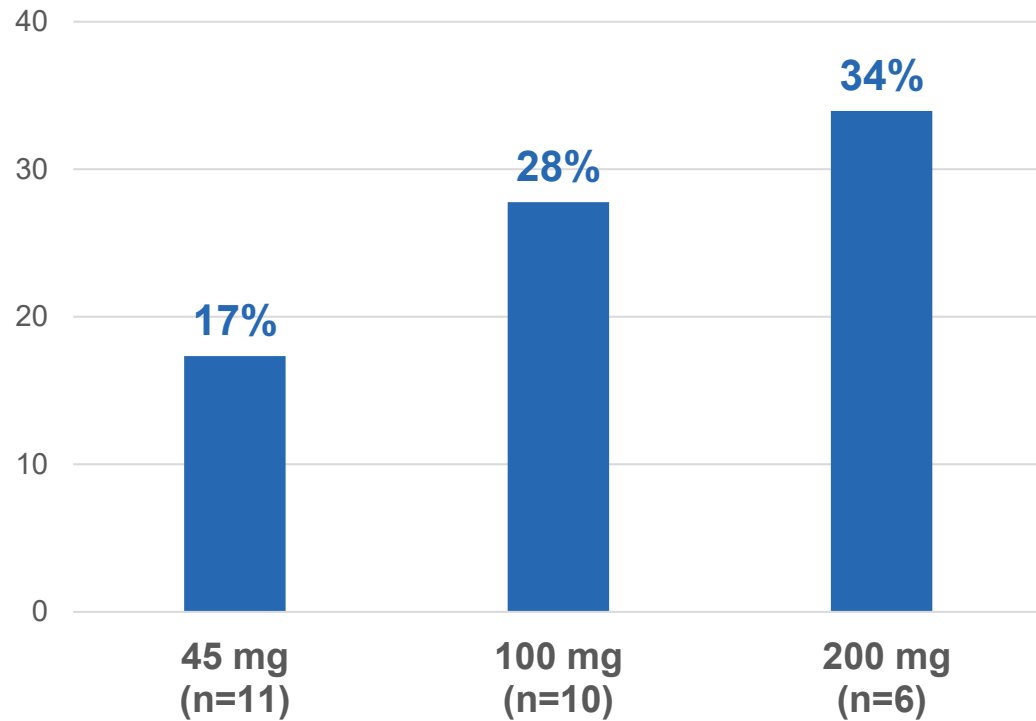
- Assess efficacy in increasing post-prandial glucose nadir (referring to the lowest point in blood glucose levels that occurs after a meal) during a standardized mixed meal tolerance test (MMTT)

### Secondary:

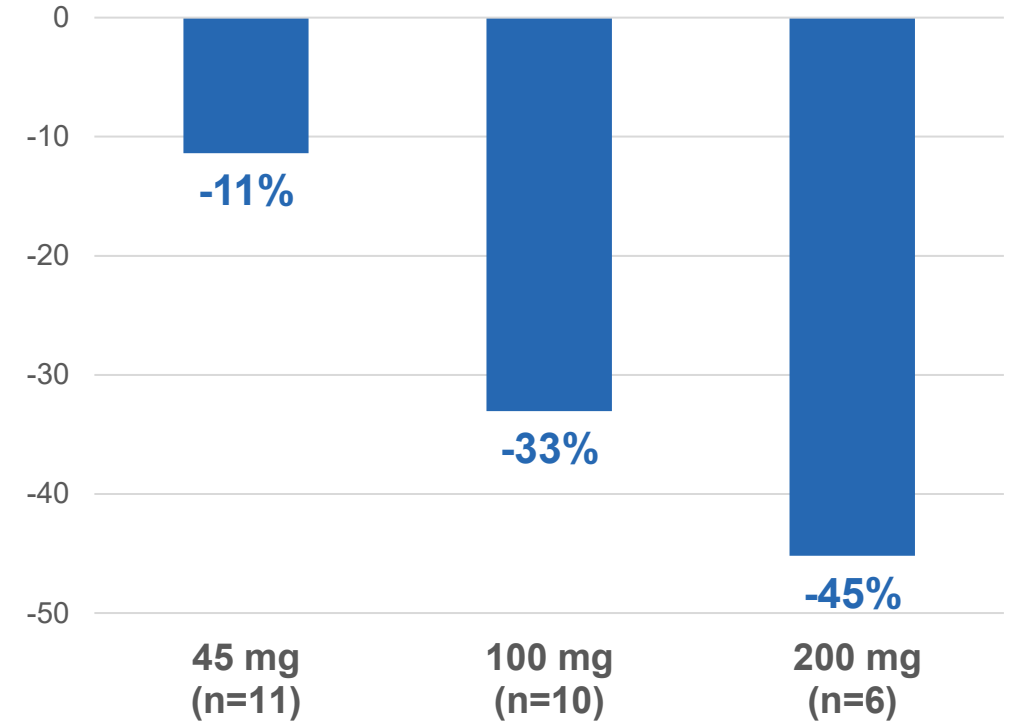
- Assess post-prandial insulin and C-peptide peaks
- Evaluate safety and tolerability
- Evaluate pharmacokinetic parameters

# Imapextide: Proof of Concept Achieved in Post-Bariatric Hypoglycemia (PBH)

### Average Glucose Nadir Increase from Baseline (%)



### Average Insulin Peak Decrease from Baseline (%)



## Expanding Pipeline of Novel Peptide-Based Drug Candidates

- Preliminary, blinded MBX 4291 data further demonstrate potential of PEP™ platform:
  - PK supports potential for true once-monthly dosing
  - Mean weight loss of 7% (range 0-16%) at 8 weeks in first MAD Part B cohort (n=8, including 2 placebo)
  - MBX 4291 generally well tolerated; only one event of diarrhea, nausea or vomiting in first MAD Part B cohort
- MBX 4291 12-week MAD Part C results remain on track for Q4 2026
- MBX 5765 nominated as amycretin prodrug development candidate designed for once-monthly dosing, superior efficacy and improved tolerability
- Prioritized resource and capital allocation to canvuparatide and obesity programs provides strongest opportunity to deliver long-term value

## MBX: Catalyst-Rich Year

Program	Milestone	Anticipated Timing
Canvuparatide (MBX 2109)	End-of-Phase 2 FDA Meeting	<input checked="" type="checkbox"/>
	Avail™ Phase 2 presentation and one-year OLE data	ENDO 2026
	Phase 3: Initiation	Q3 2026
MBX 4291 (GLP-1/GIP)	Phase 1: 12-week MAD results	Q4 2026
MBX 5765 (amycretin)	Nominate development candidate	<input checked="" type="checkbox"/>
MBX 6XXX (GLP-1/GIP/GCGR)	Nominate development candidate	Q3 2026
Imapextide (MBX 1416)	STEADI™ Phase 2a: Results	<input checked="" type="checkbox"/>

**\$440 million in cash expected to provide runway into 2029<sup>1</sup>**



Q&A

# Thank You