



# **An Adaptive Study Design for the Assessment of the Safety, Tolerability, and Pharmacokinetics of Nimacimab after Repeat Dosing in Subjects with Metabolic Associated Steatotic Liver Disease (MASLD)**

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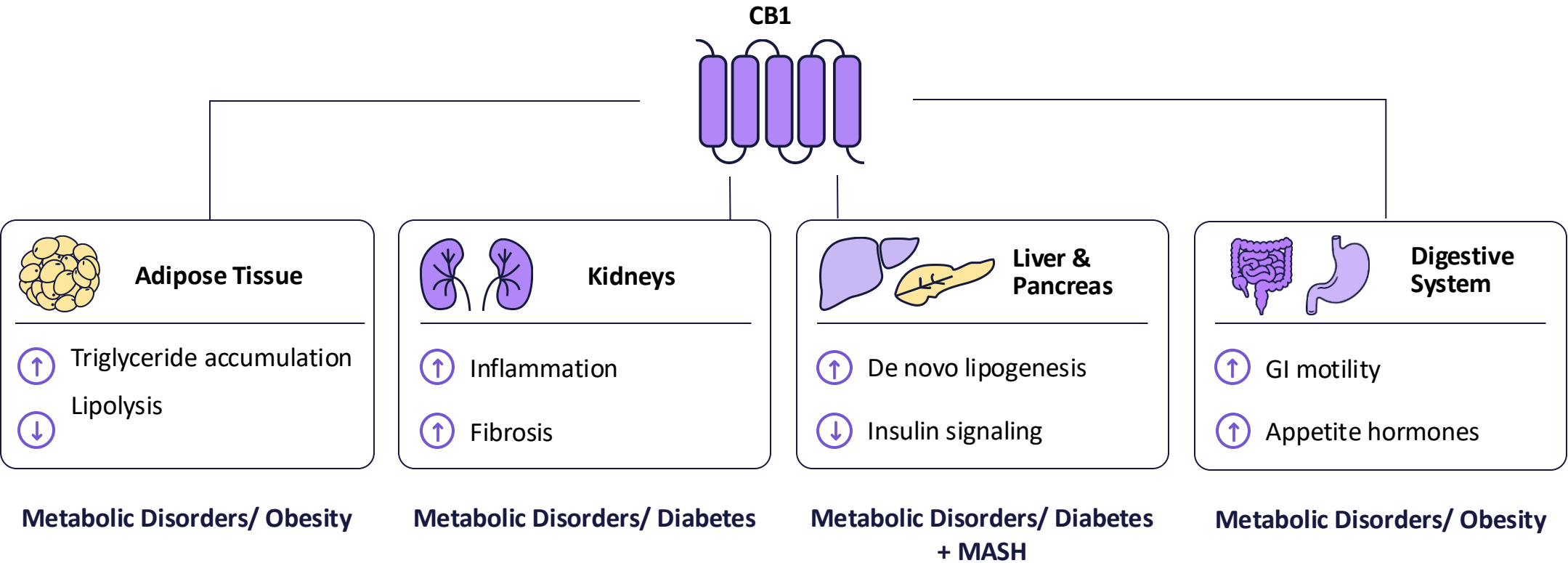
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# Overview and Study Design

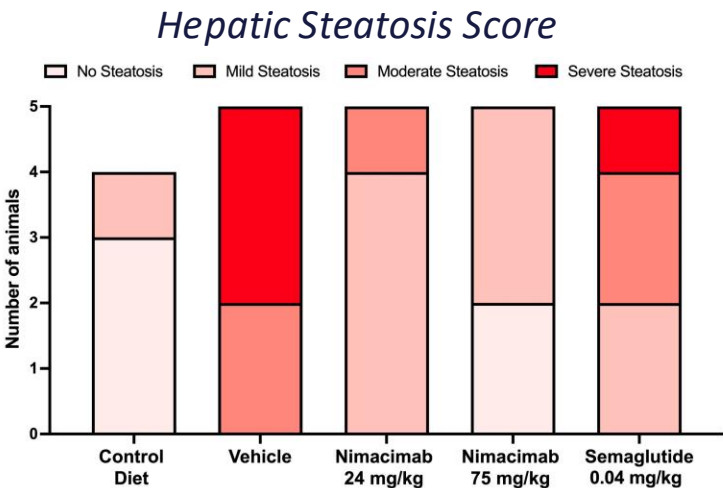
# CB1 Receptors Play a Significant Role in Metabolism and Energy Modulation

- Active CB1 engagement promotes inflammation, fibrosis, and metabolic dysfunction; blocking peripheral CB1 can reverse negatively-trending pathologies

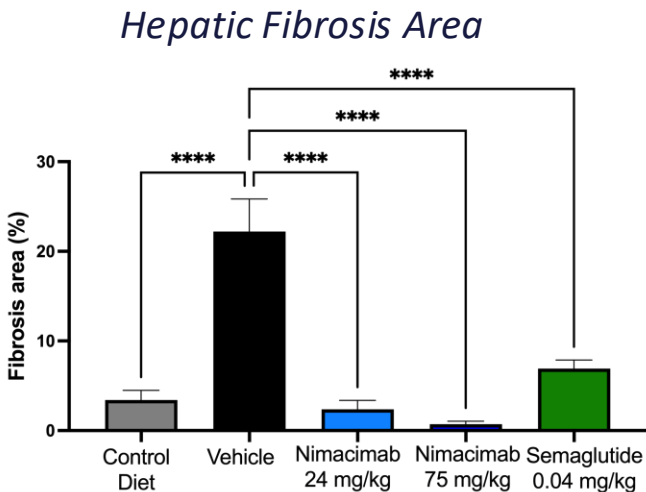


# Nimacimab Treatment Reduces Steatosis and Improves Obesity-Related Inflammation in a Murine Diet Induced Obesity Model

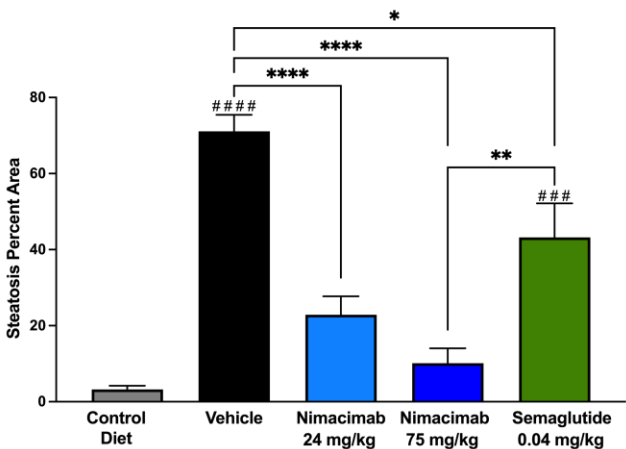
## Liver Steatosis Analysis



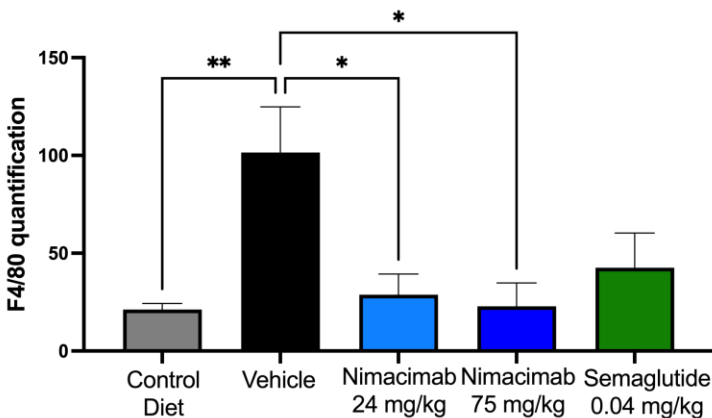
## Reduced Liver Fibrosis and Inflammation



## % Steatosis Area in Liver

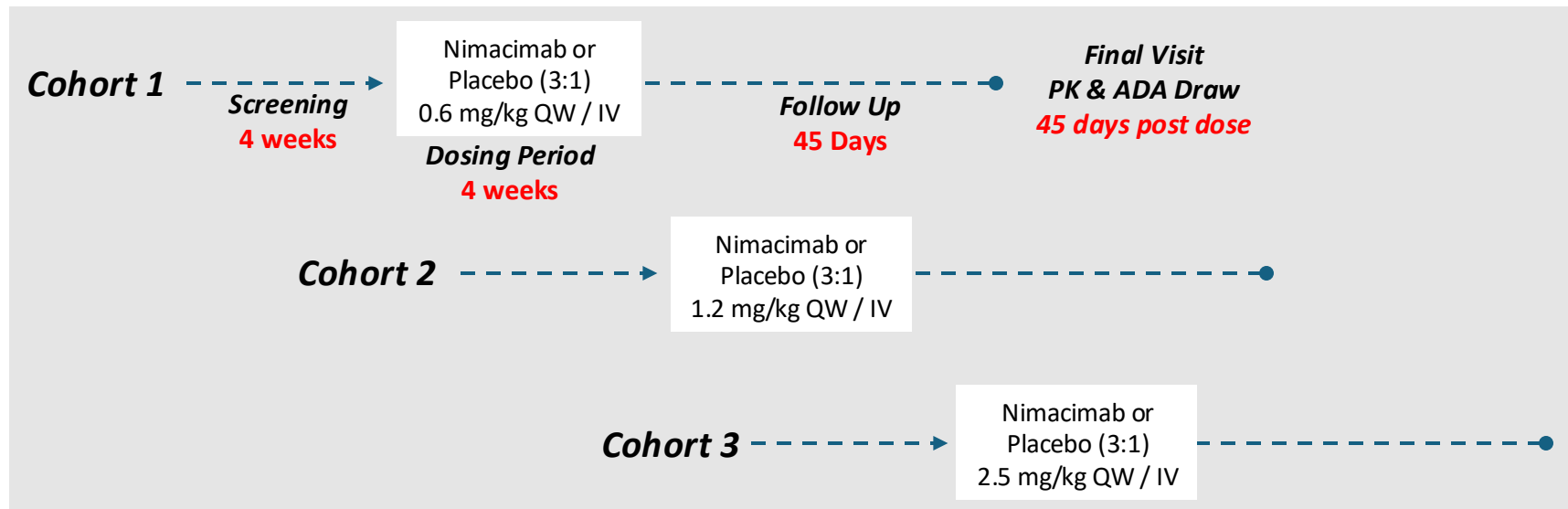


## Hepatic Macrophage (F4/80) Density



# Phase 1b MAD Study for the Assessment of the Safety, Tolerability, and Pharmacokinetics of Nimacimab – Study Design and Objectives

- **Primary Objective:** Evaluate the safety and tolerability of multiple doses of nimacimab in MASLD subjects
- **Secondary Objective:** Determine the PK of nimacimab and anti-drug antibody (ADA) after multiple doses
- 3 sequential cohorts of up to 28 subjects received 4 weekly IV infusions of nimacimab or placebo (3:1) and were monitored for 45 days after the final dose
- Randomization was stratified by percent liver fat ( $\leq 15\%$  and  $>15\%$ ) as determined by MRI-PDFF



# Study Eligibility, Disposition and Demographics

- **Eligibility and Disposition**

- Adult men and women, ages 18 to 65 years of age (inclusive) who had **pre-diabetes or diabetes** and **MASLD** with liver fat percentage by MRI-PDFF of at least 10% and a BMI  $\geq 25$  and  $\leq 40$  kg/m<sup>2</sup> were eligible for inclusion
- 64 subjects randomized to active treatment and 20 subjects were randomized to placebo
- The majority of subjects completed 4 weeks of treatment (82/84; 97.6%)

- **Demographics**

- The overall mean age of the subjects was 53 years (range 20 to 65) and ~50% were male
- The mean weight was 92.7kg and BMI was 33 kg/m<sup>2</sup>
- 68 Subjects (82%) identified as White and 49 (59%) identified as Hispanic or Latino
- 27 subjects (32%) had previously documented MASLD history; liver ultrasound and/or transient elastography was performed in 56 subjects who had no previous documentation of MASLD
- 69 subjects (83%) had a diagnosis of Type 2 diabetes and 14 (17%) a diagnosis of prediabetes



# Safety and PK Data



# Treatment Emergent Adverse Events (TEAEs)

Treatment	Placebo n=20	0.6 mg/kg n=21	1.2 mg/kg n=21	2.5 mg/kg n=21	Active Overall N=63
<b>Any TEAE</b>					
Number of subjects (%)	16 (80.0)	13 (61.9)	17 (81.0)	11 (52.4)	41 (65.1)
Number of events	41	45	46	25	116
<b>Any Serious TEAE</b>					
Number of subjects (%)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Number of events	0	0	0	0	0
<b>Any TEAE Leading to Study Discontinuation</b>					
Number of subjects (%)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

- 41 subjects (65%) assigned to receive nimacimab reported 116 TEAEs
- 16 subjects (80%) assigned to receive placebo reported 41 TEAEs
- No Serious TEAEs were reported in the study
- No TEAE led to study discontinuation

# Treatment Emergent Adverse Events

Treatment	Placebo n=20	0.6 mg/kg n=21	1.2 mg/kg n=21	2.5 mg/kg n=21	Active Overall N=63
<b>Any TEAE Related to Study Medication</b>					
Number of subjects (%)	4 (20.0)	5 (23.8)	3 (14.3)	2 (9.5)	10 (15.9)
Number of events	4	11	3	3	17
<b>AE Preferred Term in Descending Order of Frequency (Occurring in 3 or More Patients), n (%)</b>					
Diarrhea	8 (40.0)	7 (33.3)	13 (61.9)	6 (28.6)	26 (41.3)
Headache	3 (15.0)	5 (23.8)	3 (14.3)	0 (0.0)	8 (21.7)
Upper Respiratory Tract Infection	2 (10.0)	1 (4.8)	2 (9.5)	3 (14.3)	6 (9.5)
Dizziness	1 (5.0)	2 (9.5)	3 (14.3)	1 (4.8)	6 (9.5)
Nausea	2 (10.0)	2 (9.5)	0 (0.0)	2 (9.5)	4 (6.3)
Vomiting	2 (10.0)	1 (4.8)	2 (9.5)	1 (4.8)	4 (6.3)
Abdominal Pain	0 (0.0)	0 (0.0)	3 (14.3)	0 (0.0)	3 (4.8)

- 10 Subjects (15.9%) reported 17 TEAEs considered possibly related to nimacimab
- 1 subject reported diarrhea and none reported nausea or vomiting that were considered related to nimacimab

# GI Tolerability of CB1 Inhibitors

	Nimacimab <sup>1</sup>
Gastrointestinal disorders	4.8%
Nausea	0.0%
Diarrhea	1.6%
Vomiting	0.0%
Rate of discontinuation due to GI disorders	0.0%

- CB-1 inhibition appears to be better tolerated than GLP-1RAs, especially when comparing GI disorders, which are the most frequent adverse events related to GLP-1RAs
- The GI tolerability of nimacimab may further improve on that seen with the small molecule inhibitors rimonabant and monlunabant
- Less than 5% of patients receiving nimacimab reported GI related adverse events that were considered possibly attributable to the drug

# Related Neurological and Neuropsychiatric AEs

- No neuropsychiatric adverse events of concern, attributable to study drug, were reported in the study

Treatment	Placebo n=20	0.6 mg/kg n=22	1.2 mg/kg n=21	2.5 mg/kg n=21	Active Overall N=63
Dizziness	0 (0.0)	0 (0.0)	1 (4.8)	1 (4.8)	2 (3.2)
Headache	0 (0.0)	2 (9.5)	0 (0.0)	0 (0.0)	2 (3.2)
Lethargy	0 (0.0)	1 (4.8)	0 (0.0)	0 (0.0)	1 (1.6)
Initial insomnia	0 (0.0)	1 (4.8)	0 (0.0)	0 (0.0)	1 (1.6)
Insomnia	0 (0.0)	1 (4.8)	0 (0.0)	0 (0.0)	1 (1.6)
Panic attack	0 (0.0)	1 (4.8)	0 (0.0)	0 (0.0)	1 (1.6)

- There were no significant changes in the Cogstate Computerized Brief Battery Test Scores
- Columbia-Suicide Severity Rating Scale (C-SSRS) was Zero at baseline and Day 29 for all subjects

# PK and ADA Assessments

- **Pharmacokinetics**

- Nimacimab exposure as measured by mean AUC and  $C_{\max}$  increased with increasing doses
- At all dose levels, mean  $t_{1/2}$  ranged from approximately 18 to 22 days
- Clearance and volume of distribution were typical for an antibody therapeutic
- $T_{\max}$ ,  $t_{1/2}$ , clearance, and volume of distribution appeared to be independent of dose

- **ADA Response**

- Immunogenicity was assessed in all subjects throughout the study
- Only 2 subjects in the 1.2 mg/kg dose group had consistently elevated titers over multiple time points and no detectable ADA pre-dose
- No subjects with elevated ADA titers over multiple time points were identified in the 0.6 mg/kg or 2.5 mg/kg groups indicating overall a low immunogenicity of the drug over the course of this study



# Summary and Next Steps

# Nimacimab Phase 1: Summary and Conclusions

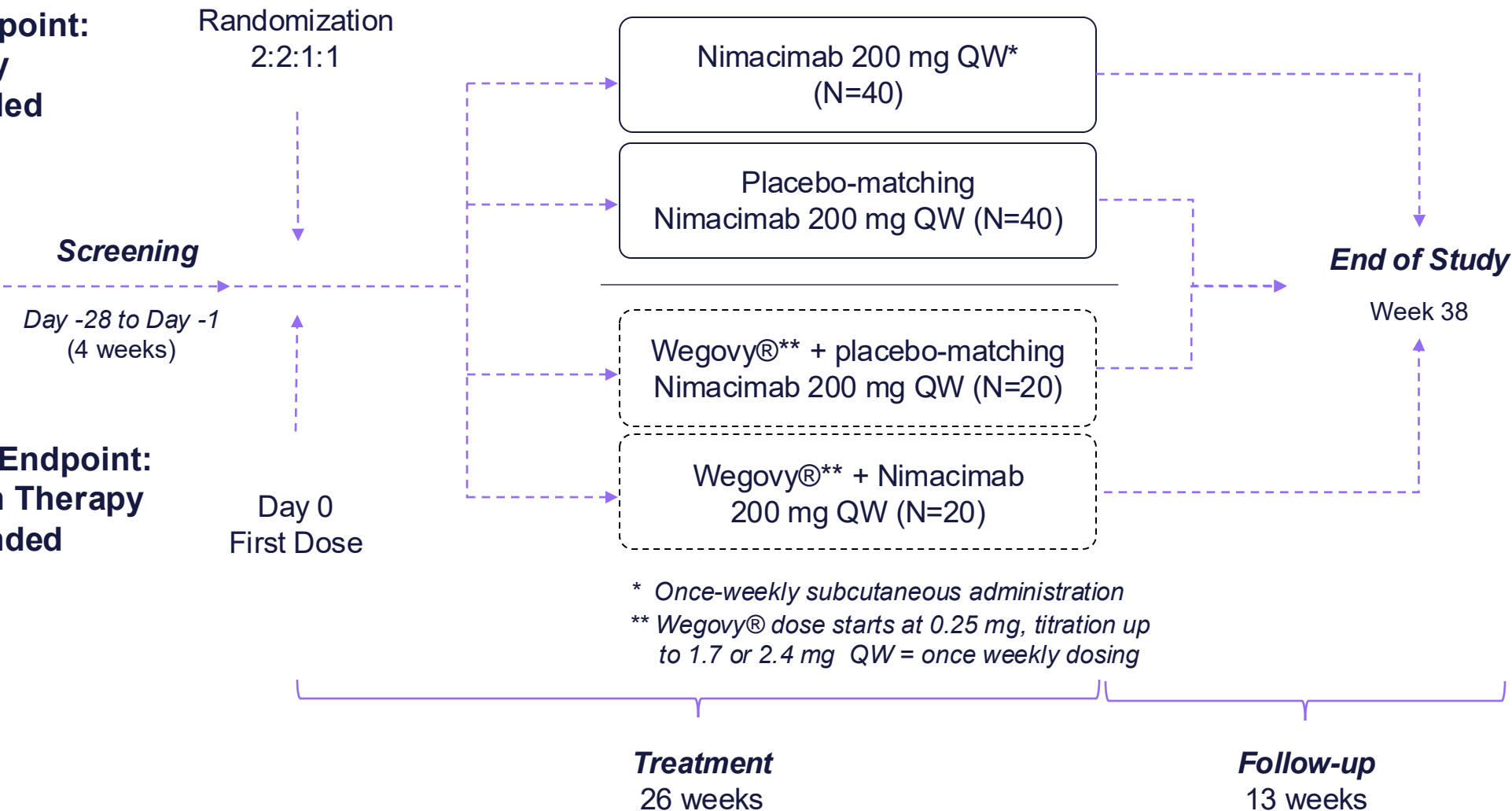
- **Favorable Safety & Tolerability**
  - No serious or severe adverse events reported
  - No neuropsychiatric adverse events, including on C-SSRS and cognitive assessments
  - GI-related AEs (e.g., nausea, vomiting), possibly attributable to nimacimab were rare (4.8%)
- **Consistent Pharmacokinetics**
  - Dose-proportional exposure observed
  - Half-life ~18–22 days, supporting up to monthly dosing
  - Low immunogenicity rates across all doses of nimacimab

# Phase 2a CBeyond™ Trial: Patients with Overweight or Obesity

Enrollment completed for initial 26-week treatment period

**Primary Endpoint:**  
**Monotherapy**  
**Double-blinded**

**Exploratory Endpoint:**  
**Combination Therapy**  
**Partially Blinded**





# Upcoming Clinical and Regulatory Milestones

Phase 1 MAD in Subjects  
with MASLD

**CBeyond<sup>1</sup>**

Phase 2a trial in progress  
Primary endpoint: weight loss  
Topline data expected late Q3/Q4 2025  
Topline extension data expected Q2 2026

**CBeyond<sup>1 2</sup>**

Phase 2b dose ranging study  
Expected to initiate Q2 2026  
Topline data Q2 2027



# Thank You!

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