A 12-WEEK, RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED PHASE 2A STUDY WITH FACTORIAL DESIGN TO EVALUATE SAFETY, EFFICACY, PHARMACOKINETICS, AND PHARMACODYNAMICS OF TERN-501 ALONE AND IN COMBINATION WITH TERN-101 IN PATIENTS WITH NASH



SCAN ME!

DUE!

TEDNIC

TERNS

PHARMACEUTICALS

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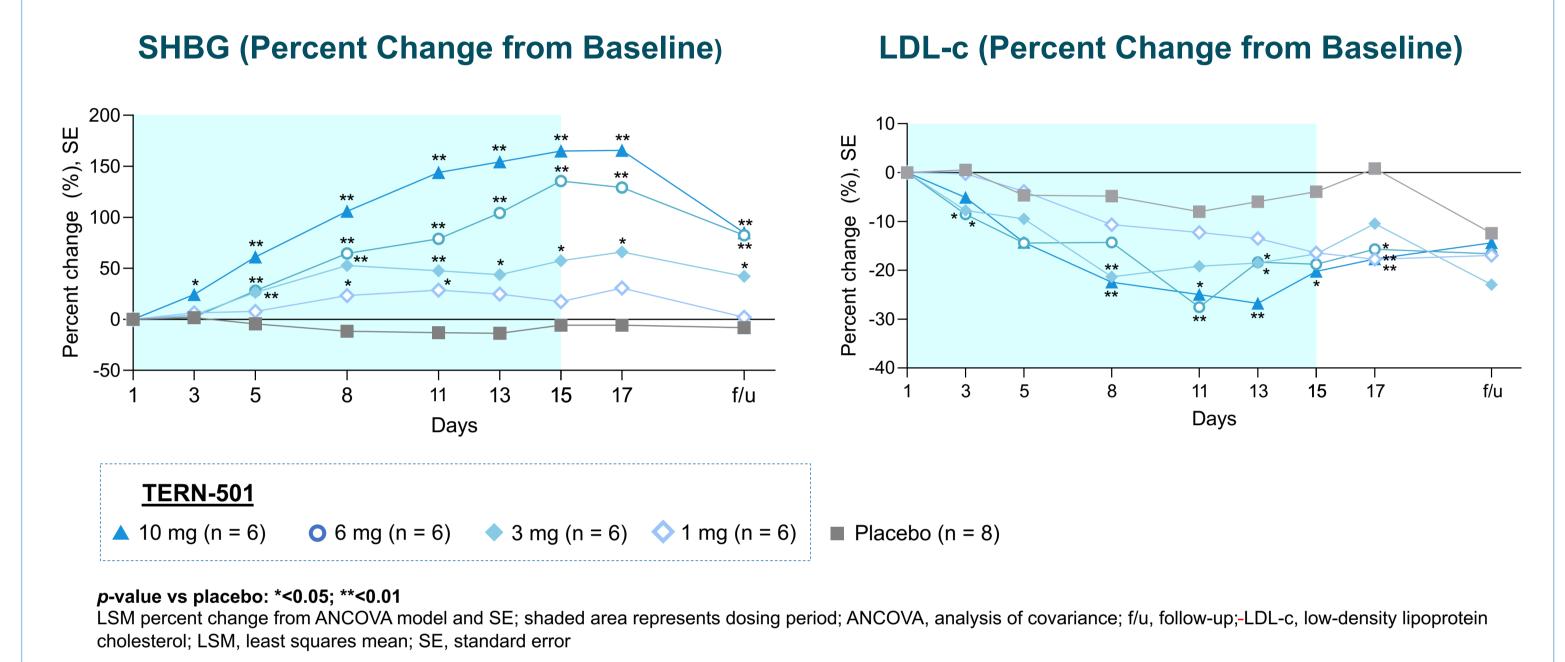
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# 1 BACKGROUND •

### **TERN-501**

- TERN-501 is a potent, highly selective THR-β agonist
- In a first-in-human (FIH) study<sup>1</sup>, once daily dosing of TERN-501 at 1, 3, 6, and 10 mg for 14 days was overall safe and well-tolerated:
- No clinical signs or symptoms consistent with hypo/hyperthyroidism or THR-α agonism and no dose limiting stopping criteria met
- Nonvariable, dose proportional TERN-501 PK was observed from 1 mg to 6 mg with overlapping PK at 6 mg and 10 mg
- Significant increases in sex hormone binding globulin (SHBG) were dose proportional between 1 and 6 mg with less than dose proportional SHBG increases between 6 and 10 mg (Figure 1)<sup>1, 2</sup>
- TERN-501 resulted in atherogenic lipid decreases (Figure 1)<sup>1, 2</sup>

Figure 1: 14-day Once Daily Administration of TERN-501 Led to Significant Increases in SHBG and Decreases in LDL-c<sup>1</sup>

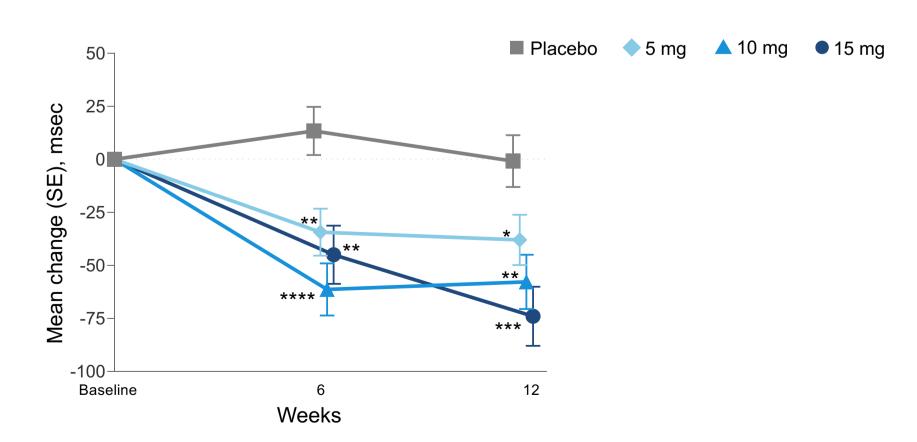


#### **TERN-101**

- TERN-101 is a potent, nonsteroidal FXR agonist with enhanced liver distribution
- TERN-101 was overall safe and well-tolerated in a phase 2a study with no discontinuations due to AEs including pruritus or treatment-related SAEs
- No differences from placebo in LDL-c and HDL-c percentage change from baseline to Week 12 were observed at 5 and 10 mg
- Significant decreases in cT1 as early as Week 6 and through Week 12 suggest that TERN-101 decreases fibro-inflammation (Figure 2)<sup>3</sup>

Figure 2: TERN-101 LIFT Study cT1 Results: 12-Week Phase 2a Study in NASH Patients<sup>3</sup>

### cT1 Mean (SE) Change from Baseline [msec]



\*p-value < 0.05; \*\*p-value<0.01; \*\*\*p-value<0.001; \*\*\*\*p-value<0.0001

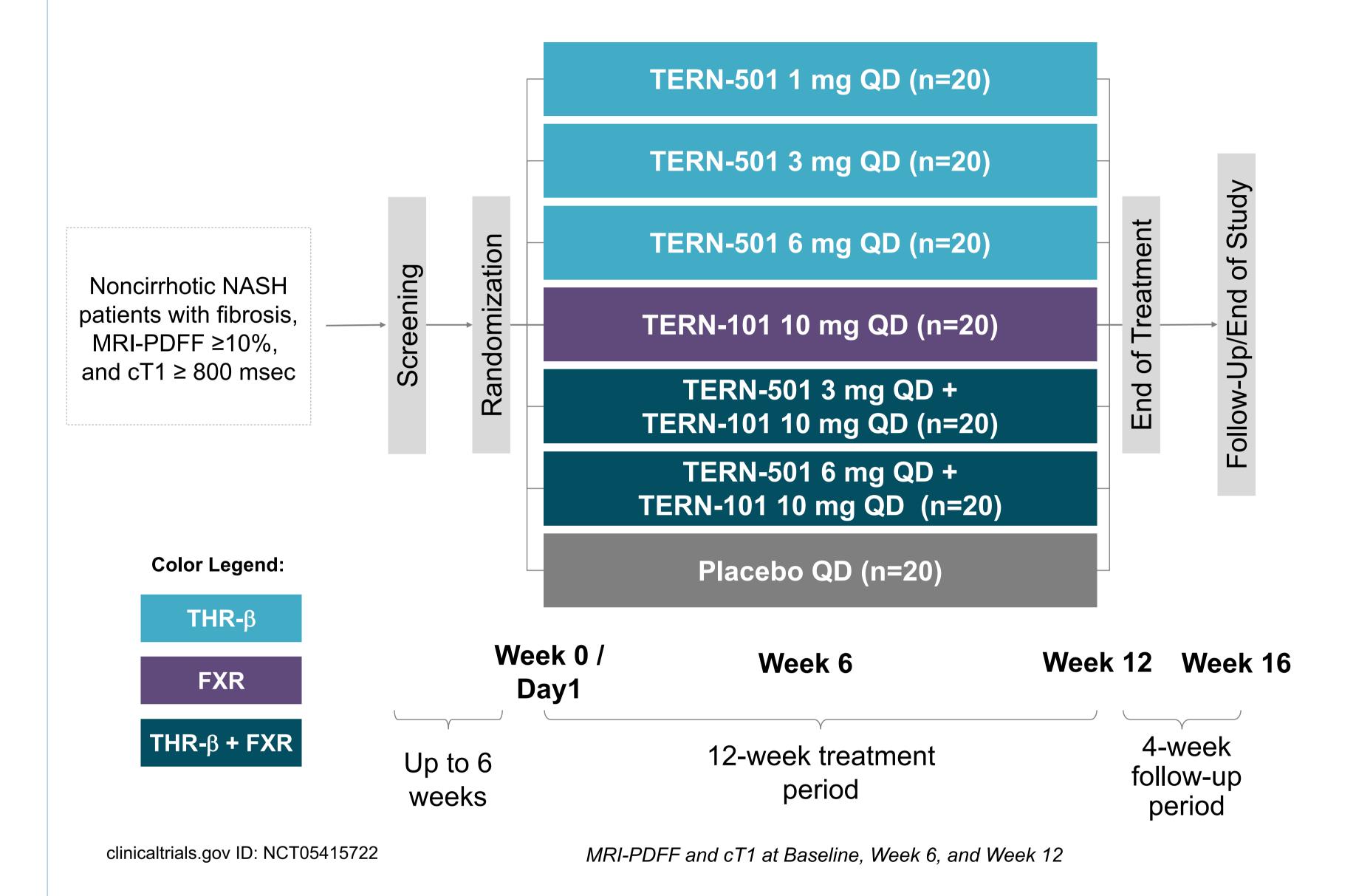
#### **DUET Study Rationale**

- DUET is the first NASH trial evaluating a THR-β agonist and an FXR agonist Combination
- Combining TERN-501 and TERN-101 with their complementary mechanisms of action may produce greater efficacy over either agent alone, as demonstrated in a NASH mouse model (a mouse diet-induced obese + CCl<sub>4</sub> NASH model following 28-day treatment)<sup>4</sup>, and warrants investigation in NASH patients.

## • DUET – STUDY DESIGN •

Figure 3: DUET Study Schema - First NASH trial Evaluating a THR-β agonist and an FXR agonist Combination

Randomized, Double-Blind, Placebo-Controlled, Factorial Design, Phase 2a Study (N=~140)



- This study is a 12-week, phase 2a, randomized, double-blind, placebo-controlled, multicenter trial
- Approximately 140 noncirrhotic patients with presumed NASH as determined based on prior liver biopsy and/or imaging and clinical criteria will be randomized into one of the 7 treatment groups (Figure 3)
- Factorial design evaluates TERN-501 and TERN-101 as monotherapies and in combination with each other with a placebo comparator arm
- Efficacy will be assessed based on noninvasive biomarkers including MRI-PDFF and cT1

# 3 DUET - STUDY OBJECTIVES

#### **Primary objective**

 To evaluate the effect of TERN-501 monotherapy on liver fat content as assessed by MRI-PDFF compared to placebo

#### Secondary objectives

- To evaluate the effect of TERN-501 monotherapy on cT1 relaxation time compared to placebo
- To evaluate the effect of TERN-501+TERN-101 on liver fat content as assessed by MRI-PDFF and on cT1 relaxation time compared to placebo

# 4 ELIGIBILITY CRITERIA •

### **Key Inclusion Criteria**

- ✓ Male or female, 18 to 75 years of age on the day of consent
- ✓ Overweight or obese with a body mass index (BMI) ≥ 25 kg/m²
- ✓ Presumed NASH diagnosed by prior biopsy and/or imaging criteria

### **Key Exclusion Criteria**

- ✓ History or clinical evidence of chronic liver diseases other than NAFLD
- ✓ History or known clinical evidence of cirrhosis, esophageal varices, hepatic decompensation or other severe liver impairment
- ✓ History of liver transplant, or current placement on a liver transplant list
- ✓ Current diagnosis or history of pituitary or thyroid disorders except for patients with primary hypothyroidism on a stable dose of thyroid hormone replacement therapy
- ✓ Abnormal TSH or free T4 levels
- ✓ Weight loss of > 5% total body weight within 3 months prior to Screening
- ✓ Uncontrolled diabetes or hyperlipidemia; unstable cardiovascular disease
- Excessive alcohol consumption

Enrollment is underway with data expected in the 2nd half of 2023

# • REFERENCES •

- 1) Nelson C, et al. Oral presentation at EASL International Liver Congress. Jun 22-26, 2022. Abstract OS123
- 2) Jones C, et al. Poster presented at AASLD The Liver Meeting. Nov 12-15, 2021. Poster 1889 3) Loomba R, et al. AASLD 2021 Oral Presentation
- 4) Jones C, et al. Poster presented at AASLD The Liver Meeting. Nov 13-16, 2020. Poster 0517



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