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): May 26, 2026

Alaunos Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-33038**	**84-1475642**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

501 E. Las Olas Blvd.,
Suite 300
Fort Lauderdale, FL 33301
(Address of principal executive offices, including zip code)

(346) 355-4099
(Registrant's telephone number, including area code)

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

Check 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:

☐ 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:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	TCRT	The Nasdaq Stock Market LLC

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. ☐

Item 8.01 - Other Events.

On May 26, 2026, Alaunos Therapeutics, Inc. (the "Company") issued a press release announcing an integrated preclinical readout for ALN1003, the Company's investigational oral, non-hormonal, non-incretin small-molecule candidate for obesity and related metabolic disorders. The release summarizes findings from two non-Good Laboratory Practice ("non-GLP") diet-induced obesity mouse studies, including results previously reported on March 2, 2026 and May 18, 2026, together with additional cross-study analyses included in an accompanying non-confidential investor presentation. The reported findings are based on non-GLP preclinical studies and should be interpreted with appropriate caution, as ALN1003 has not been evaluated in human clinical trials and its safety and efficacy in humans have not been established.

A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference. The information in this Item 8.01, including Exhibit 99.1, is being furnished and shall not be deemed "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, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01 – Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	**Description**
99.1	Press Release, dated May 26, 2026
99.2	Investor Presentation, dated May 26, 2026
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.

Alaunos Therapeutics, Inc.

Date: May 26, 2026

By: /s/ Holger Weis
Name: Holger Weis
Title: Chief Executive Officer

Alaunos Reports Broad Metabolic Improvements with ALN1003 in Obese Mouse Studies

- *ALN1003 demonstrated consistent, favorable effects across key drivers of metabolic disease, including reductions in body weight and fat mass, improved insulin sensitivity, enhanced adipose function, and improved liver health in diet-induced obese mice*
- *A non-confidential investor presentation summarizing the preclinical dataset is now available*

FORT LAUDERDALE, Fla., May 26, 2026 (GLOBE NEWSWIRE) — Alaunos Therapeutics, Inc. (Nasdaq: TCRT) today reported an integrated preclinical readout for ALN1003, the Company's investigational oral, non-hormonal, non-incretin small-molecule candidate for obesity and related metabolic disorders. The readout consolidates findings from two non-Good Laboratory Practice (non-GLP) diet-induced obesity (DIO) mouse studies previously reported on March 2, 2026 and May 18, 2026, together with newly assembled cross-study analyses presented in an accompanying non-confidential slide deck published today.

Viewed together, the data show treatment-associated improvements across key biological drivers of metabolic disease:

- **Body weight and food intake**
- **Body composition** — preferential reductions in fat mass with proportional gains in lean mass as a percentage of body weight
- **Insulin-resistance biology** — lower fasting insulin and lower HOMA-IR, after adjustment for adiposity
- **Adipose endocrine signaling** — significantly higher adiponectin and a higher adiponectin-to-leptin ratio
- **Hepatic biology** — lower liver weight, lower liver-injury and cholestatic enzymes, and qualitative liver histology findings consistent with lower hepatic steatosis

Metabolic syndrome involves interconnected dysfunction across multiple organ systems, including insulin resistance, adipose dysfunction, and hepatic lipid accumulation. The Company believes a profile that engages several of these systems may be important for future therapeutic approaches

"What we believe makes the ALN1003 preclinical profile distinctive is consistency of treatment-associated changes across several metabolic readouts," said Holger Weis, CEO of Alaunos. "ALN1003-treated animals showed improvement in body weight, body

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composition, insulin-resistance biomarkers, adipose endocrine markers, and selected liver pathology. These are early, non-GLP findings in a mouse model and must be interpreted with appropriate caution — but they support continued preclinical development of ALN1003 and further evaluation in controlled follow-up studies."

Two Complementary DIO Studies

The two DIO mouse studies that underlie this readout were designed to ask different questions and, taken together, describe a single multi-axis preclinical profile.

The longer-duration **48-day study (DIO Study 1)** evaluated ALN1003 administered orally, twice daily, at a single dose level. It is in this study that the fullest expression of the multi-axis profile was observed — the coordinated metabolic profile referenced above — with treatment-associated changes spanning body weight, insulin-resistance biology (lower fasting insulin and lower HOMA-IR after adjustment for body fat), adipose endocrine signaling (higher adiponectin and adiponectin-to-leptin ratio), and hepatic biology (lower liver weight, lower ALT/AST/ALP, and qualitative liver histology findings consistent with lower hepatic steatosis).

The shorter **18-day dose-ranging study (DIO Study 2)** evaluated ALN1003 administered in drinking water at low, medium, and high dose levels (middle and high doses were 3× and 9× the low dose, respectively). DIO Study 2 demonstrated dose-associated changes in body weight, body composition (preferential fat loss with higher lean percentage of body weight), liver weight, glucose, and total cholesterol. Interpretation of DIO Study 2 should consider dose-related reductions in water consumption and apparent dose aversion, which may confound attribution of effects solely to drug exposure in this administration paradigm; the Company is pursuing formulation optimization and dedicated PK/tolerability work.

Multi-Axis Findings, Across Both Studies

Body Weight and Food Intake

In DIO Study 1 (48 days, oral BID), mean percent change in body weight for ALN1003-treated mice peaked at -12.9% ($p<0.0001$) on Day 33 and was -10.3% ($p<0.0001$) at Day 48 relative to DIO controls. In DIO Study 2 (18 days, drinking water), mean percent change in body weight for ALN treated mice relative to DIO controls for the treatment period on Day 14 was -2.1%, -10.4% ($p<0.0001$) and -30.5% ($p<0.0001$) in the low, mid and high dose, respectively. In DIO Study 1, ALN1003 reduced cumulative food consumption versus DIO control (347.5 g/cage vs 425.0 g/cage; nominal $p<0.05$). In DIO Study 2 (18 days, drinking water), weight loss was dose-dependent across the three dose levels, with the caveats noted above regarding water intake.

Body Composition

In DIO Study 2, body composition assessed by Bruker Minispec™ LF90II showed dose-related shifts consistent with a metabolically favorable profile. At Day 17 in the high-dose group, fat as a percentage of body weight changed by -21.9% (nominal $p<0.0001$), lean as a percentage of body weight changed by +17.2% (nominal $p<0.0001$), and fat in grams declined by 44.6% (-8.9 g; nominal $p<0.0001$). Absolute lean and fluid decreases should be interpreted in the context of overall weight loss and reduced water intake.

Insulin-Resistance Biology

In DIO Study 1, ALN1003 was associated with lower fasting insulin and lower HOMA-IR (a fasting glucose/insulin index of insulin-resistance), including after adjustment for body fat (ANCOVA $p=0.0006$).

Adipose Endocrine Signaling

In DIO Study 1, ALN1003 was associated with numerically lower leptin, significantly higher adiponectin, and a significantly higher adiponectin-to-leptin ratio. These findings are consistent with favorable adipose endocrine biomarker changes in this preclinical model.

Hepatic Biology — Liver Weight, Enzymes, and Histology

In DIO Study 1, ALN1003 reduced liver weight by 43% ($p<0.0001$) relative to untreated controls. Long-term administration was associated with significantly lower ALT ($p<0.0001$), AST ($p<0.0001$), and ALP ($p<0.0001$), with a trend toward lower total bilirubin (nominal $p=0.058$). In DIO Study 2, end-of-study (Day 18) liver weight reductions versus DIO control were -6.8%, -20.5%, and -55.0% (nominal $p<0.01$) in the low, medium, and high dose groups, respectively.

In a blinded pathology review of selected liver samples from both studies (3 control and 3 treatment samples per study; high-dose group selected from the 18-day study), H&E-stained whole-slide images were evaluated for steatosis, lobular inflammation, ballooning degeneration, and NAS components, while Masson's trichrome-stained sections were used to assess fibrosis. Control samples evaluated in the selected pathology set had NAS scores of 5, consistent with more active steatotic liver disease-like histology, while ALN1003-treated samples had lower mean NAS scores of 2.7 in the 48-day study and 1.3 in the 18-day study. ALN1003-treated animals showed qualitative findings consistent with lower hepatic steatosis relative in selected evaluable samples. These limited pilot pathology findings do not establish MASLD resolution, fibrosis reversal, inflammation improvement, or clinical efficacy, but are consistent with a qualitative anti-steatotic effect in this preclinical model.

Glucose and Cholesterol-Related Measures

In DIO Study 2, the high-dose group showed lower blood glucose (197 vs 320 mg/dL in DIO control; p<0.0001), lower total cholesterol (162 vs 209 mg/dL; nominal p<0.05), and lower HDL-C (130 vs 165 mg/dL; nominal p<0.05). HDL-C is the dominant lipoprotein in DIO mice.

Tolerability

ALN1003 administration was completed in both studies, with important tolerability observations. In DIO Study 1, mild, short-term, reversible hypolocomotion was observed after dosing in approximately one-half of dose administrations, with no similar observations in DIO control animals. In DIO Study 2, no hypolocomotion was reported; however, drinking-water administration was associated with reduced water consumption and apparent dose aversion, and two mice in the high-dose group were noted to be slightly dehydrated during the PK portion of the study.

Accompanying Investor Presentation

In conjunction with this release, Alaunos has published a non-confidential investor presentation, *Obesity and Metabolic Disorders Program — Results of Studies of ALN1003 in Diet-Induced Obese Mouse Model* (May 2026), containing the integrated data summaries, statistical analyses, representative liver histology images, and study conclusions referenced above. The presentation is available on the Investors section of the Company's website at www.alaunos.com .

Development Roadmap

The findings from the Company’s recent non-GLP diet-induced obesity mouse studies support the Company’s plan to conduct additional preclinical studies and CMC activities for ALN1003. These planned activities are intended to further characterize ALN1003’s pharmacology, evaluate exposure-response relationships, optimize formulation approaches, and support future development planning.

The Company has completed initial non-GLP, single-dose pharmacokinetic studies in large animals. Based on this preliminary data, the Company believes the observed pharmacokinetic profile is consistent with further evaluation of a twice-daily (BID) dosing schedule. Additional studies are required to confirm dose, formulation, exposure, safety, and pharmacodynamic relationships.

The Company is also planning additional studies to further characterize ALN1003’s mechanism of action and its effects on metabolic pathways relevant to insulin resistance, adipose endocrine signaling, and hepatic lipid accumulation.

In parallel, the Company has initiated small-scale manufacturing activities intended to evaluate and refine production processes for ALN1003. Following completion and

assessment of these activities, the Company may pursue a larger-scale production run using the refined process, subject to available capital, technical feasibility, and development priorities.

The Company has also initiated a computational chemistry program to design, synthesize, and test ALN1003 analogs or related compounds. The objective of this program is to identify potential next-generation compounds and strengthen the Company's intellectual property position. The Company has synthesized its first next-generation compounds under this program and plans to evaluate additional compounds as resources permit.

Important Limitations

These findings are based on non-GLP preclinical studies and should be interpreted with appropriate caution. Limitations include limited sample sizes; histological analysis limited to a sample of available livers; single-timepoint biomarker assessments; known constraints of HOMA-IR interpretation in rodent models; qualitative/semi-quantitative pathology scoring; and, in the drinking-water study, dose-related reductions in water consumption and apparent dose aversion that may confound attribution of effects solely to drug exposure. Reported nominal p-values are unadjusted for multiple comparisons. ALN1003 has not been evaluated in human clinical trials, and its safety and efficacy in humans have not been established. Pilot pathology findings require confirmation in powered MASH-relevant studies.

Cash Position

As of March 31, 2026, the Company had cash and cash equivalents of approximately $0.354 million. The Company's current cash runway extends into the second quarter of 2026. The Company intends to pursue additional financing to support continued operations and advancement of its preclinical obesity and metabolic disorders program.

About ALN1003

ALN1003 is an investigational oral metabolic therapeutic being developed to target multiple drivers of metabolic dysfunction, including insulin resistance, adipose tissue signaling, and hepatic lipid metabolism. Preclinical studies to date suggest potential relevance across metabolic syndrome and related conditions, including obesity, metabolic dysfunction-associated steatotic liver disease (MASLD), and insulin resistance.

About Alaunos Therapeutics

Alaunos Therapeutics is a biotechnology company focused on developing novel therapeutics. The Company's obesity and metabolic disorders program is advancing

ALN1003, an oral small-molecule candidate designed to offer a differentiated, non-hormonal approach compared with currently available therapies.

Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements. Forward-looking statements are statements that are not historical facts, and in some cases can be identified by terms such as "may," "will," "could," "expects," "plans," "anticipates," "believes" or other words or terms of similar meaning. These statements include, but are not limited to, statements regarding Alaunos Therapeutics, Inc.'s ("Alaunos" or "the Company") business and strategic plans, the timing of the Company's research and development programs, including potential data read-out dates as well as any potential patent filings for the Company's obesity program.

These forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties, which could cause actual results to differ materially. Important factors that could cause actual results to differ materially include, but are not limited to: changes in the Company's operating plans that may impact its cash expenditures; uncertainties built into research and development such as preclinical mouse data not translating to human trials, or challenges in scaling up formulations, including the risk that early non-GLP study results may not be replicated in confirmatory studies or pose safety concerns in IND-enabling studies; delays or failures in future studies; whether Alaunos' product candidates will advance further in the clinical trial process, including getting approval by the U.S. Food and Drug Administration (FDA) or other foreign health authority to conduct clinical trials and whether and when, if at all, they will receive final approval from the FDA or equivalent foreign regulatory agencies and for which uses; challenges to the strength and enforceability of Alaunos' intellectual property rights (such as patent disputes); competition from other pharmaceutical and biotechnology companies (including in the crowded obesity treatment market); funding shortages or market changes affecting our cash needs; tolerability issues from drug administration; the inherent uncertainties in drug development, including potential failures optimizing formulations, mechanistic studies, or large-animal pharmacokinetics that could delay IND-enabling activities; manufacturing and supply chain disruptions related to CMC work; and other factors discussed in our latest Form 10-Q and Form 10-K filed with the Securities and Exchange Commission (SEC). Forward-looking statements may also be protected if they are immaterial.

We caution you not to place undue reliance on these forward-looking statements, which speak only as of the date of this press release. Except as required by law, Alaunos undertakes no obligation to update these statements to reflect events that occur or circumstances that exist after the date hereof.

Investor / Media Contact

ir@alaunos.com

An investor presentation accompanying this announcement is available at https://pr.globenewswire.com/FileDownloader/DownloadFile?source=pnr&fileGuid=fe440d54-0a16-4fc5-b638-d2f77f983574

ALAUNOS™
THERAPEUTICS

Obesity and Metabolic Disorders Program

Results of Studies of ALN1003 in Diet-Induced Obese Mouse Model, May 2026

NON-CONFIDENTIAL

Forward Looking Statements

This presentation contains forward-looking statements that are based on current expectations and assumptions that are subject to risks and uncertainties, which could cause actual results to differ materially. Important factors that could cause actual results to differ materially include, but are not limited to: changes in the Company's operating plans that may impact its cash expenditures; uncertainties built into research and development such as preclinical mouse data not translating to human trials, or challenges in scaling up formulations, including the risk that early non-GLP study results may not be replicated in confirmatory studies or pose safety concerns in IND-enabling studies; delays or failures in future studies; whether Alaunos' product candidates will advance further in the clinical trial process, including getting approval by the U.S. Food and Drug Administration (FDA) or other foreign health authority to conduct clinical trials and whether and when, if at all, they will receive final approval from the FDA or equivalent foreign regulatory agencies and for which uses; challenges to the strength and enforceability of Alaunos' intellectual property rights (such as patent disputes); competition from other pharmaceutical and biotechnology companies (including in the crowded obesity treatment market); funding shortages or market changes affecting our cash needs; tolerability issues from drug administration; the inherent uncertainties in drug development, including potential failures optimizing formulations, mechanistic studies, or large-animal pharmacokinetics that could delay IND-enabling activities; manufacturing and supply chain disruptions related to CMC work; and other factors discussed in our latest Form 10-Q and Form 10-K filed with the Securities and Exchange Commission (SEC). Forward-looking statements may also be protected if they are immaterial.

Looking Beyond Weight Loss in Metabolic Dysfunction

Oral, Non-incretin Approach to treat Metabolic Diseases

- **ALN1003** is a preclinical, non-incretin, oral candidate targeting metabolic dysfunction beyond weight loss that may address:
  - insulin resistance,
  - adipose signaling,
  - liver biology, and
  - body composition

Opportunity Across 3 Large Markets

- **Obesity:** Validated by GLP-1/GIP blockbusters, yet significant market share remains for next-gen therapies addressing high discontinuation rates, GI tolerability, and muscle mass loss.
- **MASH:** A rapidly emerging therapeutic area associated with metabolic dysfunction and liver-related morbidity.
- **Insulin Resistance / Type 2 Diabetes:** Insulin resistance is a shared feature of obesity- and MASH-relevant metabolic dysfunction and may represent an important area for further therapeutic evaluation.

Near Term Path to IND Enabling Studies

- Preclinical and CMC activities to prepare for IND enabling studies - 2026
- IND enabling studies – 2027

Subject to available capital, technical feasibility, and completion of additional preclinical work

ALN1003 is preclinical. Data are from non-GLP mouse studies. ALN1003 has not been evaluated in humans, and safety and efficacy have not been established. Findings may not translate to human disease.

ALAUNOS THERAPEUTICS

ALN1003 Shows Preclinical Metabolic Improvement across Multiple Axes in Diet-Induced Obese (DIO) Mouse Model

Non-hormonal Approach to treat Metabolic Diseases

- **ALN1003** is a preclinical, oral, non-hormonal metabolic therapeutic candidate

Being evaluated for:

- obesity-related metabolic dysfunction,
- MASH-relevant biology, and
- insulin resistance

Two non-GLP DIO studies demonstrate activity

- Weight/Body composition
- Insulin-resistance/Adipose signaling
- Liver/lipid biology

Next Steps: Path to IND Enabling Studies

- Additional preclinical development
- CMC scale-up and formulation activities
- PK optimization
- Confirmatory benchmark studies
- MASH-relevant histology
- IP expansion around ALN1003-related compounds
- MASH-relevant histology
- IP expansion around ALN1003-related compounds

Two DIO Mouse Studies Show ALN1003 Activity Across Weight, Metabolic, and MASH-Relevant Liver Measures

Two non-GLP studies completed in DIO mice:

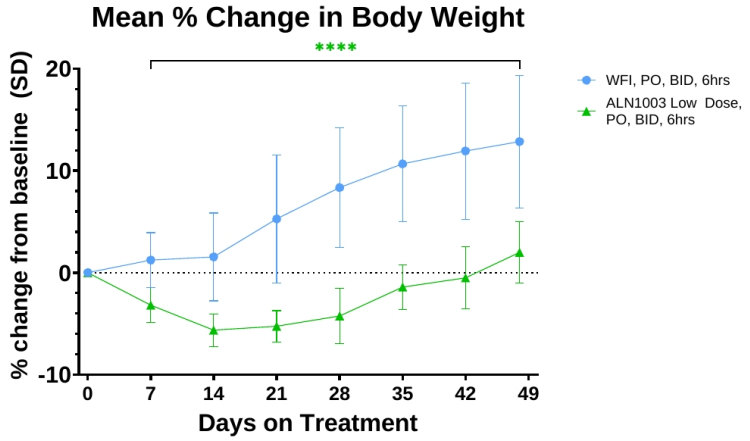
- **DIO Study 1:** ALN1003 administered PO, BID at Low dose for 48 days
- **DIO study 2:** ALN1003 administered via drinking water (DW) at Low, Mid and High doses for 18 days

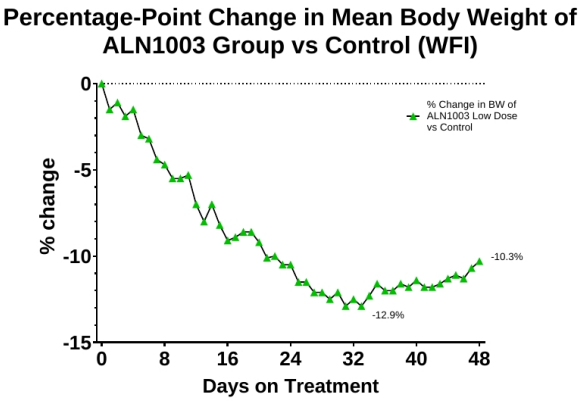
ALN1003 associated with a favorable metabolic profile change:

- Reductions in body weight and food intake
- Improvement in body composition
- Decreased HOMA-IR, a biomarker of insulin resistance
- Reductions in cholesterol related measures
- Favorable adipose endocrine biomarker changes
- Reductions in liver weight, liver injury markers (ALT, AST) and biliary dysfunction (ALP)
- Qualitatively improved liver histology consistent with lower hepatic steatosis in selected samples

DIO 1

DIO Study 1: ALN1003 Produced a 10.3 Percentage-Point Lower Body-Weight Change vs Control at Day 48

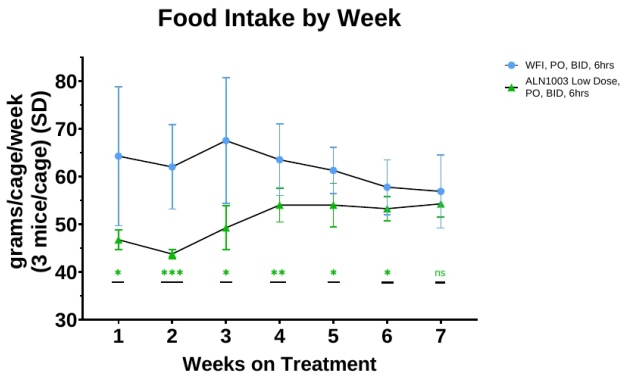




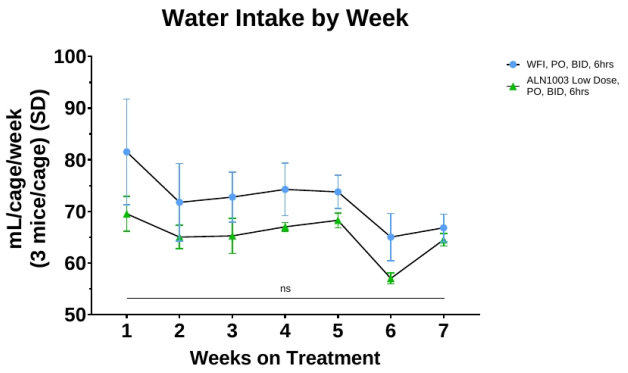
Linear mixed-effects model ****p<0.0001, n=12 per group

DIO 1

Significant reduction in Food Intake versus Control
Non-significant reduction in Water Intake versus Control



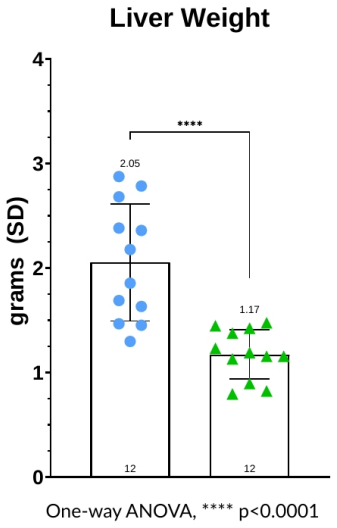
Linear Mixed-Effects; * p<0.05, ** p<0.01, *** p<0.001, ns - not significant
Final six day food intake in Week 7 normalized to a 7 day week.



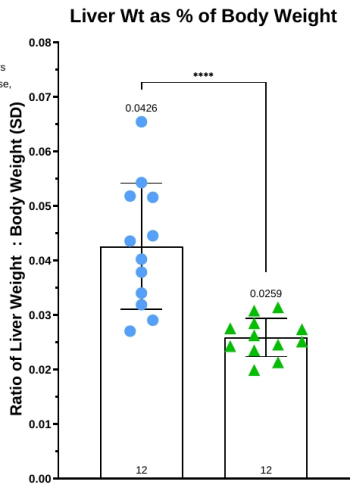
Linear Mixed-Effects, ns - not significant
Final six day water intake in Week 7 normalized to a 7 day week.

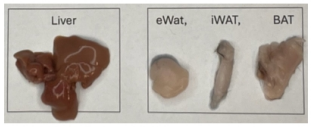
DIO 1

ALN1003 was associated with significantly lower liver weight, supporting further evaluation of hepatic effect



One-way ANOVA, **** p<0.0001





WFI (control)

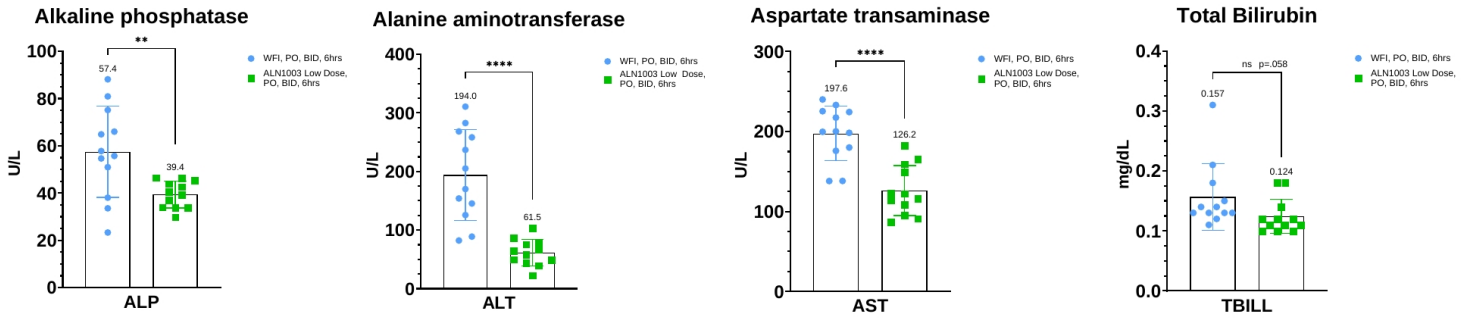
ALN1003

An unblinded de novo review of 24 macroscopic images (12 control and 12 ALN1003-treated animals) comparing the liver and adipose tissues of the DIO control to the ALN1003 treatment group demonstrated consistent treatment-related changes across liver, white adipose tissue (WAT), and brown adipose tissue (BAT). Relative to DIO controls, ALN1003-treated animals exhibited smaller, deep reddish-brown livers; reduced epididymal white adipose tissue (eWAT) and inguinal white adipose tissue (iWAT) depots consistent with decreased adiposity; and darker interscapular BAT with appearance consistent with reduced "whitening" of BAT. These visual differences were hypothesis-generating and supported further histology analyses.

Representative images selected for illustration; not a blinded quantitative image analysis

DIO 1

ALN1003 Improved Liver Injury / Cholestatic Markers



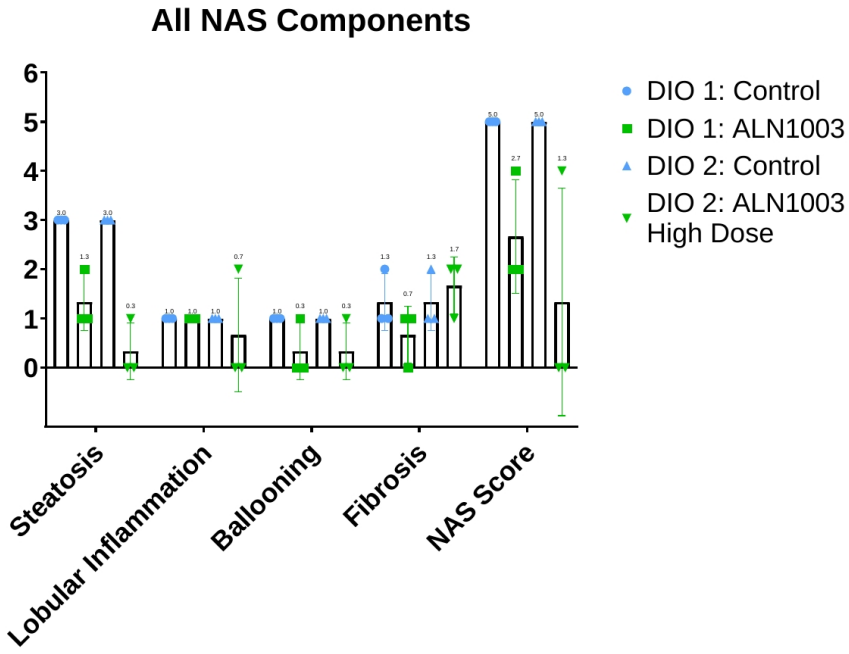
Two-way factorial ANOVA, ** p<.01, **** p<0.0001, ns – not significant

ALAUNOS THERAPEUTICS

DIO 1 & 2

Histology; Blinded Pilot Pathology Readout

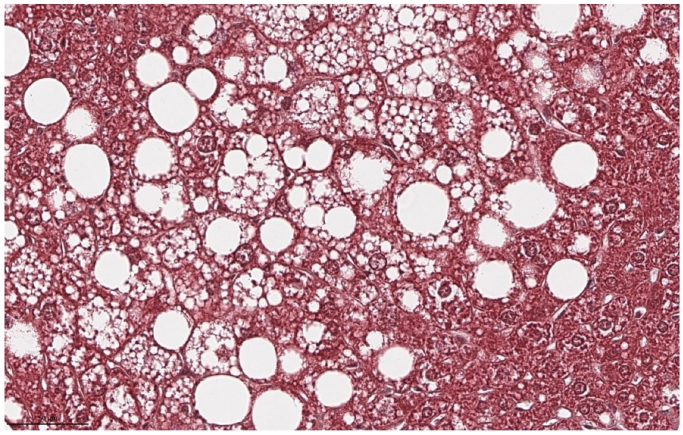
- H&E stains of liver tissue from DIO1/DIO2 were evaluated for NAS components and Masson's trichrome for fibrosis. **Three (3) control and 3 treatment samples per study, quantitatively selected.**
- Controls were reported at NAS 5, while ALN1003 samples averaged NAS 2.7 in DIO1 and 1.3 in DIO2
- Selected evaluable samples showed qualitative/semi-quantitative findings consistent with lower hepatic steatosis, concordant with liver weight findings
- Encouraging trends in other NAS components
- These pilot pathology findings require confirmation in a powered MASH-relevant model



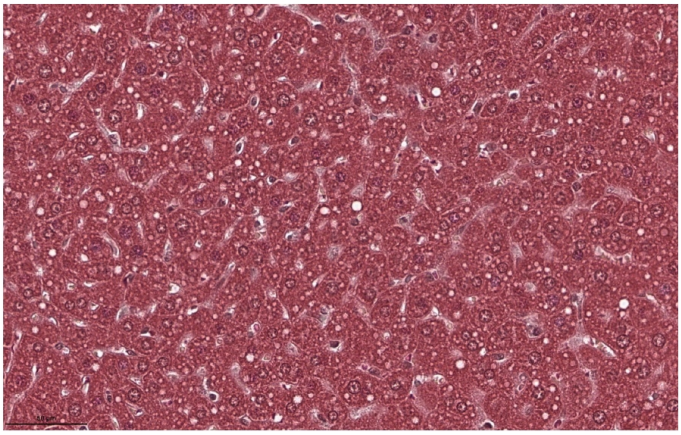
NAS scoring system: Kleiner et al., *Hepatology* 2005, 41:1313–1321

ALAUNOS THERAPEUTICS

DIO 1: Representative Images of Liver Histology

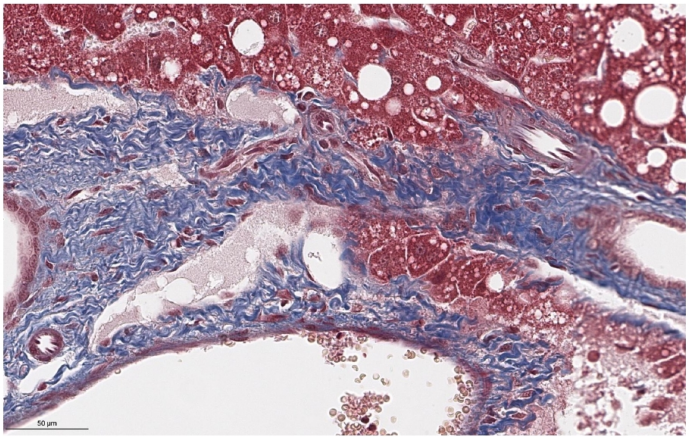


Representative image from HistoWiz pathology report, selected control sample 2507101-08EL, with pathologist-reported NAS score 5 / steatotic liver disease-like activity. NAS components were assessed on H&E whole-slide images; Masson's trichrome was used for fibrosis assessment.

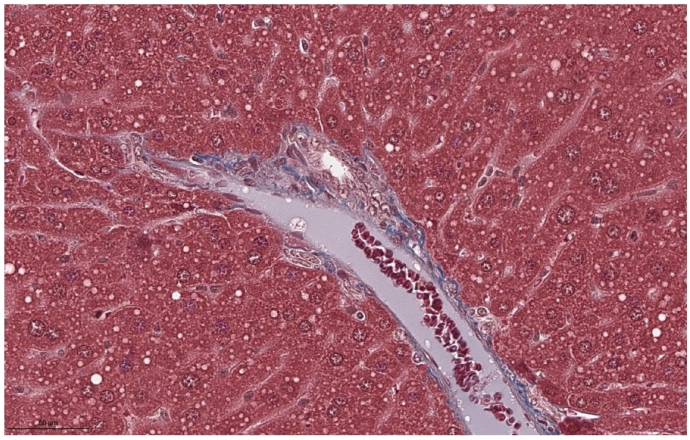


Representative image from HistoWiz pathology report, selected ALN1003 low dose-treated sample 2507101-29EL, pathologist report label: normal liver. Representative selected sample only; pilot pathology findings require confirmation in a powered MASH-relevant study.

DIO 1: Representative Images of Liver Histology - Fibrosis



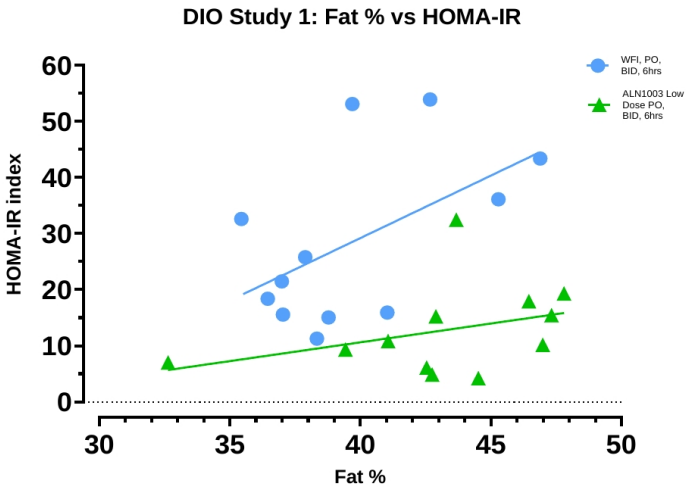
Control (WFI) (sample 2507101-06EL) Masson's Fibrosis grade 2, 40x magnification, 50um



ALN1003 Low Dose, PO, BID (sample 2507101-29EL) Masson's Fibrosis grade 0, 40x magnification, 50um

Representative pathologist selected samples; these images are hypothesis generating only and not evidence of fibrosis reversal. Pilot pathology finds require confirmation in a powered MASH study.

ALN1003 was associated with lower HOMA-IR after adjustment for percentage body fat, suggesting effects on insulin-resistance-related biology not fully explained by adiposity alone



WHY IT MATTERS

- **HOMA-IR** is a calculated fasting glucose/insulin index commonly used as an insulin-resistance-related biomarker. Lower HOMA-IR is consistent with improved insulin-resistance-related biology in this model.
- Because adiposity can influence HOMA-IR, the analysis **adjusted for % body fat** — ALN1003 had lower HOMA-IR after this adjustment, supporting a biomarker signal not fully explained by percentage fat differences alone.

Statistical Analysis

ALN1003 Low Dose PO, BID for 48 days had significantly lower HOMA-IR index scores than Control (WFI) after adjustment for percentage fat (standard ANCOVA (p=0.0006), confirmed by the heteroscedasticity-robust HC3 standard errors sensitivity analysis (p = 0.0014)).

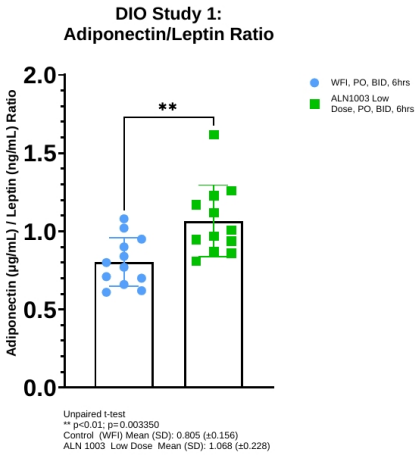
The interaction (treatment x percentage fat) was not statistically significant (p=0.2128), supporting the homogeneity-of-slopes assumption.

Regression plot of Homeostasis Model Assessment of Insulin Resistance (HOMA-IR) index and percentage body fat. HOMA-IR is a calculated index derived from fasting glucose and insulin commonly used as an insulin-resistance-related biomarker. HOMA-IR formula: [Fasting Glucose (mg/dL) x Fasting Insulin (µU/mL)]/405. Insulin values (pg/mL) were converted to molar concentrations (pmol/L) based on the molecular weight of mouse insulin and subsequently converted to activity units (µU/mL) using a conversion factor of 35. Percentage fat was measured on Day 46 using Bruker LF90II.

DIO 1

ALN1003 showed significantly higher adiponectin-to-leptin ratio, suggesting improved metabolic profile

- Adiponectin and leptin are adipose-derived endocrine markers associated with metabolic health and adipose tissue biology. In DIO Study 1, ALN1003 was associated with numerically lower leptin, significantly higher adiponectin, and a significantly higher adiponectin-to-leptin ratio



WHY IT MATTERS

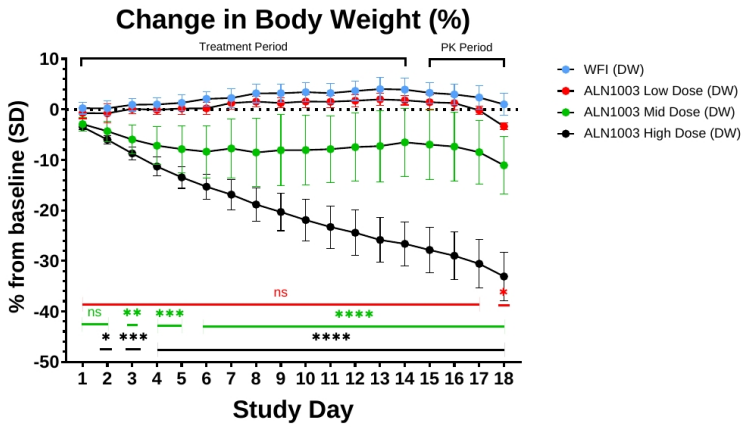
- **Leptin** rises with excess fat and drives inflammation. Lower leptin means the body is responding better to weight loss.
- **Adiponectin** protects against insulin resistance and fatty liver disease. Higher levels signal healthier metabolism.
- The **adiponectin-to-leptin ratio** is a key marker of metabolic health. A higher ratio means the body is shifting from fat storage toward fat burning.
- These biomarkers are associated with adipose endocrine biology and metabolic health. The findings are consistent with favorable adipose endocrine biomarker changes in this preclinical model.

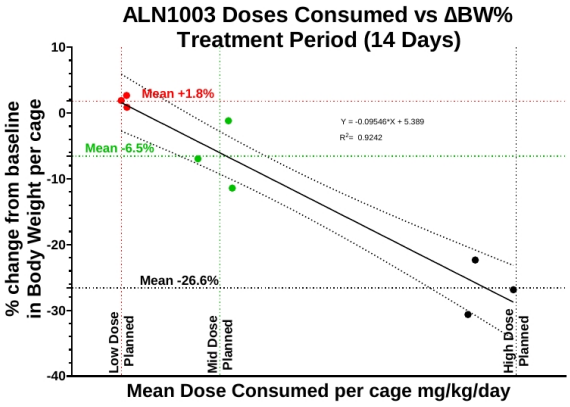
DIO Study 1 Conclusions

- ALN1003 was tolerated throughout the study period, although mild, transient, reversible hypolocomotion was observed after dosing in approximately one-half of dose administrations. There were no similar observations in DIO control animals.
- ALN1003 resulted in significant liver weight reduction, improvement in liver injury markers (ALT, AST) and qualitatively improved liver histology findings consistent with lower hepatic steatosis in selected samples
- ALN1003 was associated with significantly lower HOMA-IR, a biomarker of insulin resistance, compared to controls after adjustment for percentage body fat
- ALN1003 may influence multiple components of metabolic syndrome biology in DIO mouse models, including insulin-resistance-related biomarkers, adipose endocrine signaling, and hepatic lipid accumulation

DIO 2

ALN1003 administered via drinking water produced dose-dependent weight loss in DIO mice; interpretation should consider reduced water consumption in treatment groups



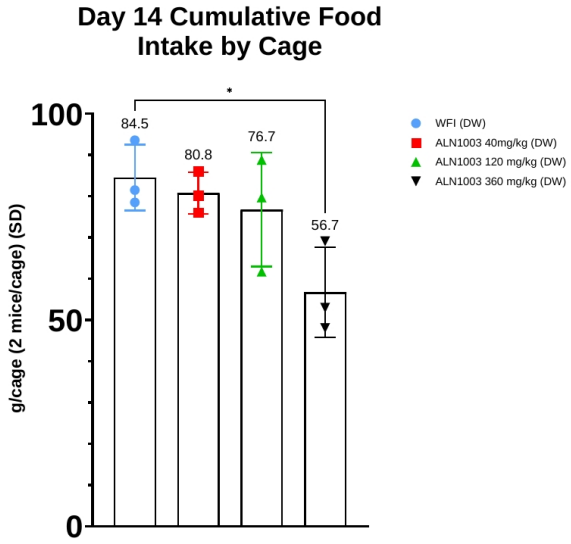


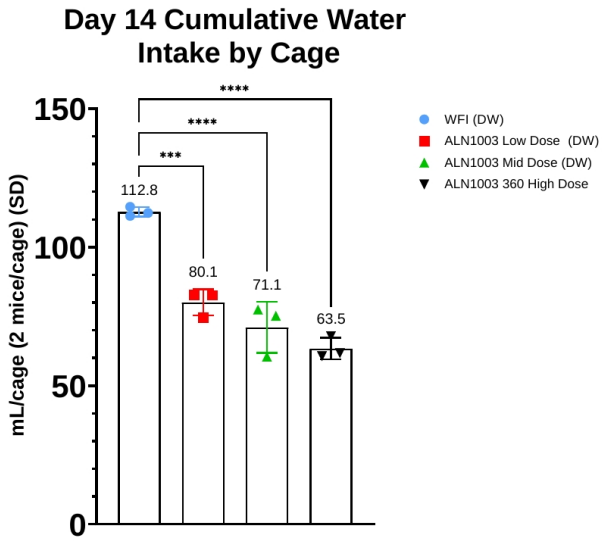
Linear mixed model; *p<0.05, **p<0.01, ***p<0.001, ****p<0.0001, ns - not significant; n=6 per group

ALAUNOS THERAPEUTICS

DIO 2

Dose-dependent reductions in water consumption indicate administration-related limitations that should be addressed through optimized formulation and PK studies



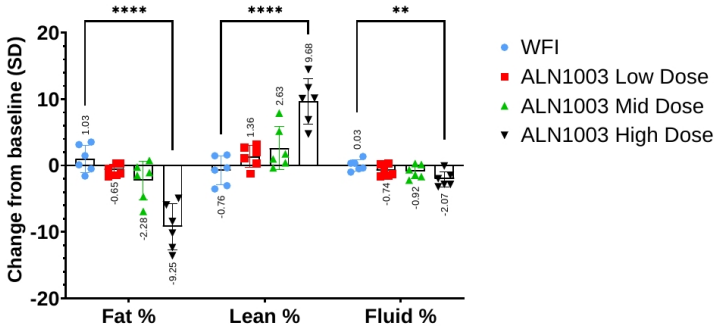


One-way ANOVA, * p<0.05, *** p<0.001, **** p<0.0001

Significant Improvement in Body Composition

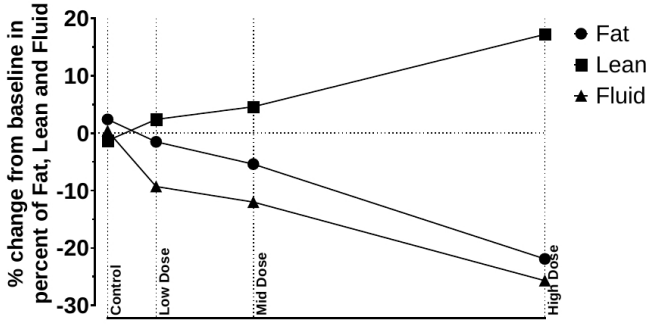
- After 17 days of ALN1003, changes in Body Composition using Bruker LF90II:
  - Dose-dependent decrease in Fat%
  - Dose-dependent increase in Lean%
  - Dose-dependent decline in Fluid%
- While lean percentage increased as a proportion of body weight, absolute lean and fluid decreases should be interpreted in the context of overall weight loss and reduced water intake

Day 17 Change in Body Composition



One-way ANOVA, ** p<0.01, **** p<0.0001

DIO Study 2: Change in Body Composition

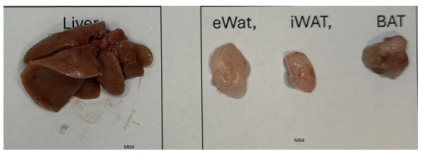


DIO 2

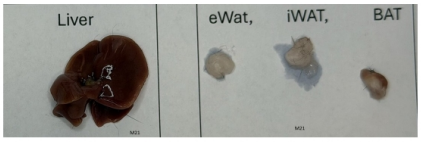
ALN1003 Treatment Reduced Weight of Liver in Dose-Dependent Manner, significantly at High Dose

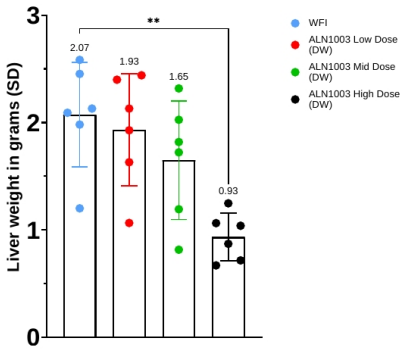
Representative images selected for illustration; not a blinded quantitative image analysis

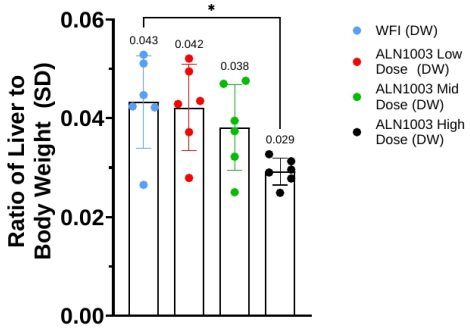
WFI/Control: Mouse 4



ALN1003 High Dose: Mouse 21



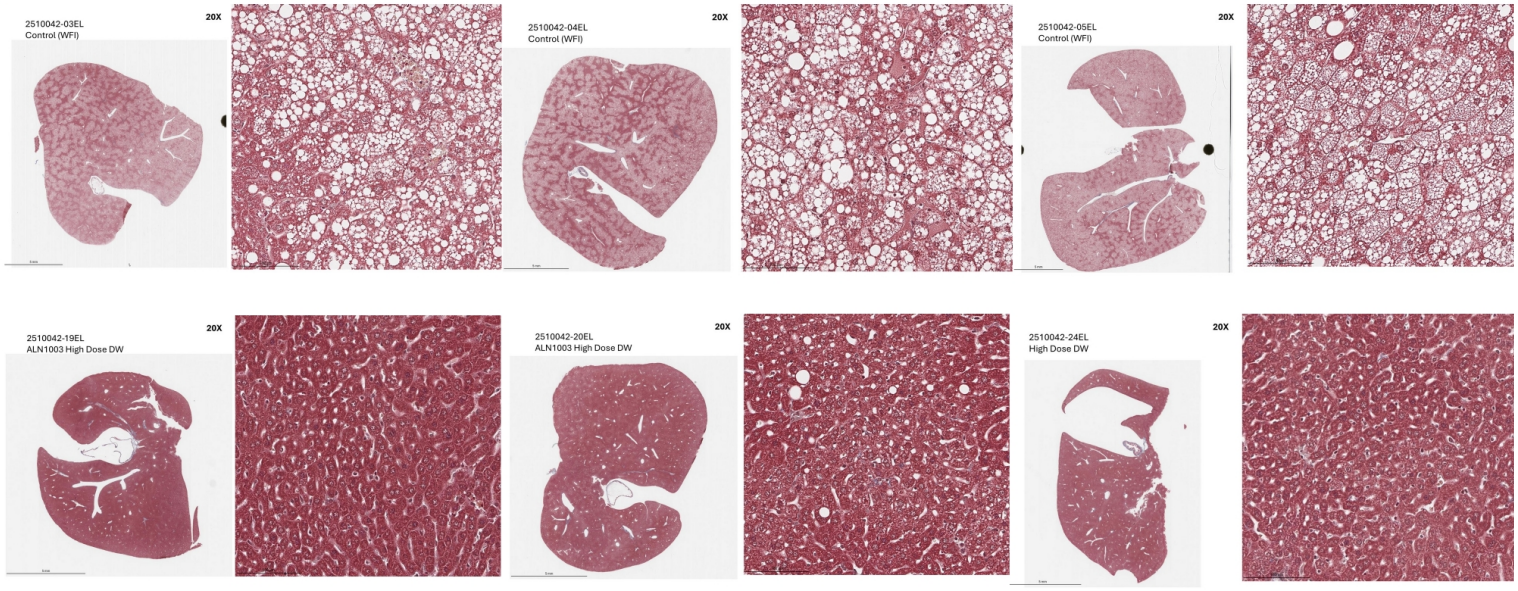




One-way ANOVA, * p<0.05, ** p<0.01

An unblinded macroscopic visual review of organ morphology was conducted comparing the liver and adipose tissues of the DIO control to the High Dose group. This analysis showed reductions in white fat depots (such as epididymal white adipose tissue, or eWAT, and inguinal white adipose tissue, or iWAT) and an interscapular BAT appearance consistent with reduced “whitening” in the ALN1003 tissues vs DIO control. Review of liver images suggested less visible fat accumulation and smaller, deep red-brown livers compared to DIO control.

DIO 2: Masson's Trichrome Stain

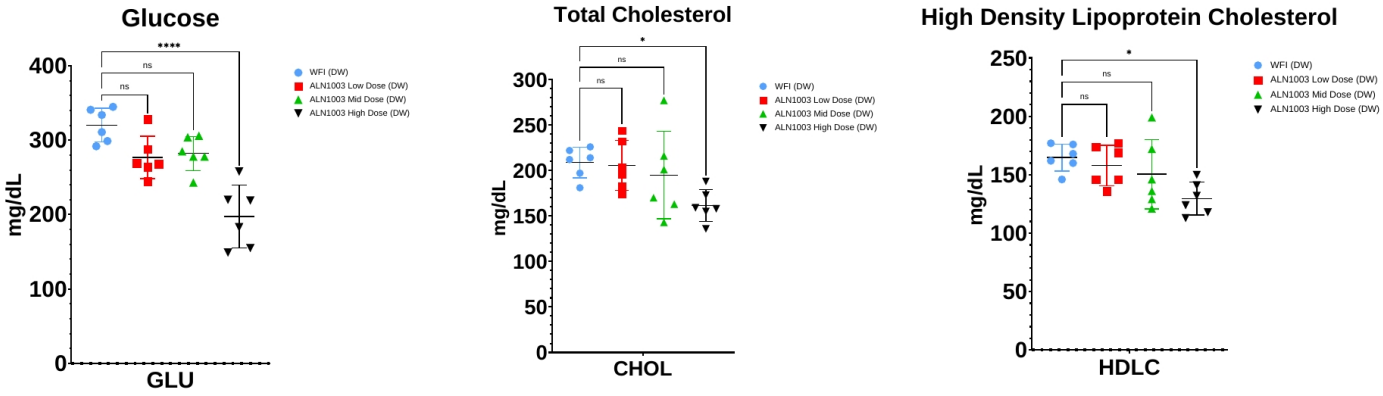


Pilot pathology findings require confirmation in a powered MASH study.

DIO 2

High-dose ALN1003 was associated with lower glucose, total cholesterol and HDL-C in DIO Study 2

- High-dose ALN1003 was associated with lower glucose, lower total cholesterol, and changes in HDL-C, the dominant lipoprotein in DIO mice



One-way ANOVA, * p<0.05, **** p<0.0001

DIO Study 2 Conclusions

- ALN1003 dosed via drinking water was feasible and well tolerated during the treatment period; although interpretation is limited by reduced water consumption and apparent dose aversion. Slight dehydration observed starting on Day 2 of PK period (D16) in 2 animals.
- No hypolocomotion observations were reported in DIO Study 2. Drinking-water administration may have reduced peak-associated activity findings, but additional PK/tolerability studies are needed; Maximum daily dose in High Dose group was up to ~18x higher than Low dose
- DIO Study 2 showed favorable dose-associated changes in body weight, body composition, liver weight, qualitative liver histology, glucose, and cholesterol-related measures in DIO mice.
- Interpretation is limited by reduced water consumption and dose aversion in treatment groups, including slight dehydration observed in two high-dose animals during the PK period.
- These findings support further formulation optimization, PK/tolerability assessment, and controlled benchmark studies.

ALN1003 Shows Preclinical Metabolic Improvement across Multiple Axes in Diet-Induced Obese (DIO) Mouse Model

Non-hormonal Approach to treat Metabolic Diseases

- **ALN1003** is a preclinical, oral, non-hormonal metabolic therapeutic candidate

Being evaluated for:

- obesity-related metabolic dysfunction,
- MASH-relevant biology, and
- insulin resistance

Path to IND Enabling Studies

- Additional preclinical development
- CMC scale-up and formulation activities
- PK optimization
- Confirmatory benchmark studies
- MASH-relevant histology
- IP expansion around ALN1003-related compounds

ALN1003 is being developed to address multi-organ, adiposity-associated disease state characterized by insulin resistance, dysfunctional adipose tissue, chronic low-grade inflammation, and hepatic lipid accumulation.