Alaunos Reports Broad Metabolic Improvements with ALN1003 in Obese Mouse Studies

May 26, 2026

- *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 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.

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An investor presentation accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/fe440d54-0a16-4fc5-b638-d2f77f983574