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Lexaria Bioscience Corp. (LEXX: NASDAQ)

LEXX: Introducing DehydraTECH 3.0

Research Note

Absorption Results for Amycretin and Retatrutide

Lexaria Bioscience Corp. (NASDAQ: LEXX) announced absorption data from its 2026 Animal Study #2 (GLP-1-A26-2). The canine study examined amycretin and retatrutide bioavailability using oral delivery compared to reference formats. 18 different study arms were evaluated, measuring tablets and capsules as well as DehydraTECH (DHT) 2.0 and 3.0 formulations. The study demonstrated greater area under the curve (AUC) of blood plasma concentration. This was the first mention of DHT 3.0, which includes improvements and advancements within DHT's oil phase processing steps and employs sodium caprate as a permeation enhancer. It also includes other enhancements that Lexaria has not disclosed. Management highlighted the 5-fold improvements in absorption for the Alternative (ALT) 2 DHT 3.0 tablet formulations for amycretin compared to reference DHT 2.0 tablets. We additionally note the best performing 0.26% absolute bioavailability for retatrutide capsules, which outperformed the DHT 2.0 formulation. Tablets were the better delivery form for amycretin, but capsules won out for retatrutide. The reference tablets use Sodium N-[8-(2-hydroxybenzoyl) amino] caprylate (SNAC)[1] technology. There is limited data for amycretin or retatrutide relative bioavailability for oral forms of these drugs from Novo Nordisk or Eli Lilly.

Exhibit I – Amycretin Formulation Bioavailability

Amycretin	AUC D (hr*ng/mL) /(mg/kg)	Absolute Bioavailability	DHT Formulation Ratio vs. Reference ("REF") Capsule/Tablet
Pure API (I.V.)	301,814.92	100.00%	–
REF DHT2.0 Tablet	1,032.57	0.34%	100.00%
ALT 1 DHT3.0 Tablet	1,580.23	0.52%	153.05%
ALT 2 DHT3.0 Tablet	4,967.78	1.65%	481.14%
ALT 3 DHT3.0 Tablet	3,011.19	1.00%	291.46%
REF DHT2.0 Capsule	0.00	0.00%	N/A
ALT 1 DHT3.0 Capsule	280.79	0.09%	N/A
ALT 2 DHT3.0 Capsule	403.11	0.13%	N/A
ALT 3 DHT3.0 Capsule	117.06	0.04%	N/A

Source: Lexaria August 24th, 2026 Press Release

[1] SNAC is a technological innovation that allows the protein-based medication semaglutide to be taken orally rather than by injection. Proteins and peptides (like semaglutide) are typically broken down in the digestive system before they can be absorbed, which is why most similar medications must be injected. SNAC works by creating a localized increase in pH around the drug molecule, protecting semaglutide from enzymatic degradation in the stomach, enhancing the permeability of the gastric mucosa and facilitating absorption of semaglutide through the stomach lining into the bloodstream. This technology was developed by Emisphere Technologies (later acquired by Novo Nordisk) and represents a significant advancement in oral delivery of peptide medications.

Other formulations that were used in the GLP-1-A26-2 study include potentially complementary commercially available gastrointestinal absorption enhancer compounds such as salcaprozate sodium (SNAC) and sodium caprate. In both the amycretin and retatrutide arms, the DHT 3.0 tablet version outperformed the DHT 2.0 formulations of the respective drug. In the prior exhibit, Lexaria emphasized the ALT 2 and 3 DHT 3.0 tablets which produced almost 5-fold and 3-fold improvements compared with the reference formulation.

Exhibit II – Retatrutide Formulation Bioavailability

Retatrutide	AUC D (hr*ng/mL) /(mg/kg)	Absolute Bioavailability	DHT Formulation Ratio vs. REF Capsule/Tablet
Pure API (I.V.)	384,324.68	100.00%	–
REF DHT2.0 Tablet	8.18	0.00%	100.00%
ALT 1 DHT3.0 Tablet	127.59	0.03%	1,559.78%
ALT 2 DHT3.0 Tablet	372.37	0.10%	4,552.20%
ALT 3 DHT3.0 Tablet	43.67	0.01%	533.86%
REF DHT2.0 Capsule	244.69	0.06%	100.00%
ALT 1 DHT3.0 Capsule	999.48	0.26%	407.74%
ALT 2 DHT3.0 Capsule	1,000.72	0.26%	408.21%
ALT 3 DHT3.0 Capsule	558.99	0.15%	227.93%

Source: Lexaria August 24th, 2026 Press Release

Lexaria investigated the relative bioavailability of oral retatrutide compared with the reference DHT 2.0 tablet with results shown in the previous exhibit. In its press release, management highlighted the almost 46-fold improvement in bioavailability for the ALT 2 DHT 3.0 tablet relative to the DHT 2.0 SNAC-formulated reference product. However, on an absolute basis, the DHT 3.0 capsule performed better, generating over 4 times the absolute bioavailability as the reference DHT 2.0 capsule in the retatrutide example.

Lexaria's goal with the new formulations is to support existing and future business development initiatives for GLP-1 and multi-hormone receptor agonists for use in weight loss, diabetes and potentially other indications. The company has two active MTAs in this area and is seeking others.

Tax Rebate

Lexaria conducted its GLP-1-H24-4 study in Australia which began in late 2024. On September 1st, 2026, the company announced that it had received a tax rebate of AUD$3.67 million from the Australian government related to these study expenditures. This is equivalent to $2.6 million in US currency. The payment follows Lexaria's completion of the GLP-1-H24-4 study, a Phase Ib, 12-week chronic human study evaluating the use of DHT-formulations of GLP-1 agonist and cannabidiol (CBD) medicines for weight loss. The funds will support the company's FY:27 research and development program.

Material Transfer Agreement (MTA) with PegBio

Lexaria announced an MTA with PegBio (HKEX: 2565) in mid-August. It is a commercial and clinical stage biopharmaceutical company based in China that is developing a portfolio of therapies for chronic metabolic diseases, with a primary focus on endocrine and liver disorders. The company's pipeline includes two GLP-1 agonists, an opioid receptor antagonist, as well as GLP-1/GIP and GLP-1/GIP/glucagon receptor agonists for a broad spectrum of diseases. It specializes in PEGylation technology to create long-acting therapeutics that reduce dosing frequency. PegBio was the subject of an initial public offering (IPO) in May 2025 when it was added to the Hong Kong Stock Exchange. It is trading at a market cap of HKD$2.1 billion which is about $274 million.

This marks the second MTA for Lexaria. Both arrangements are evaluating assets in the metabolic space, but are not related. PegBio will supply Lexaria with a proprietary GLP-1 molecule which will then be processed with DHT technology and evaluated for pharmacokinetic performance in animal studies. Lexaria's introduction to PegBio came from its consultant Liberi Group. When the studies are complete, an update will be provided.

Exhibit III – PegBio Pipeline

Drug candidates	MoA/Target	Indications	Progress	Current status/Future Milestones
Visepegenatide Injection (PB-119)	GLP-1R	T2DM (Monotherapy)	Approved	Launched in China in November 2025
Visepegenatide Injection (PB-119)	GLP-1R	T2DM (+Metformin)	Approved	Launched in China in November 2025
Visepegenatide Injection (PB-119)	GLP-1R	T2DM	Phase II (US)	Phase I and II clinical trials completed in July 2016 and July 2019, respectively, in the United States. Phase III clinical trial plan is to be finalized
Visepegenatide Injection (PB-119)	GLP-1R	Overweight or obesity	Phase I/II (China)	Phase Ib/IIa clinical trial is being initiated in China, participant enrollment completed in June 2024
Visepegenatide Injection (PB-119)	GLP-1R	T2DM (Cardiovascular benefits)	IND (China)	IND approved by the NMPA in August 2021 and Phase III clinical trial is to be initiated in 2026 in China
Visepegenatide Injection (PB-119)	GLP-1R	T2DM (+Basal insulin)	IND (China)	To prepare IND and commence a Phase III clinical trial in China in 2026
Visepegenatide Injection (PB-119)	GLP-1R	T2DM (+SGLT-2 inhibitor)	IND (China)	To prepare IND and commence a Phase III clinical trial in China in 2026
PB-718	GLP-1R/GCGR	Overweight or obesity	Phase I/II (China)	Completed participant follow-up for a Phase Ib/IIa clinical trial in China and Phase IIb clinical trial is expected to commence in China following a communication with the NMPA to be conducted in 2026
PB-718	GLP-1R/GCGR	MASH	Phase I (US)	Phase I clinical trial has been completed in May 2022 in the United States, and IND for a Phase II clinical trial in China is expected to be submitted in 2026
PB-1902	μ opioid receptor	OIC	Phase I (US)	Phase I clinical trial completed in January 2022 in China, and Phase II clinical trial is expected to commence in China in 2026
PB-722	GCGR	CHI	IND (China)	IND approved by the NMPA in May 2023 and Phase I clinical trial is to be initiated in China in 2026
PB-2301	GLP-1R/GIPR	T2DM Overweight or obesity MASH	Preclinical	NDA submission in China expected in 2026
PB-2309	GLP-1R/GIPR/ GCGR	T2DM Overweight or obesity MASH	Preclinical	NDA submission in China expected in 2026

Source: PegBio Website

Summary

Lexaria demonstrated significant oral bioavailability advancements in its GLP-1-A26-2 animal study through the debut of its DHT 3.0 technology. It achieved a nearly 5-fold absorption improvement for DHT 3.0 amycretin tablets and reached 0.26% bioavailability for DHT 3.0 retatrutide capsules compared to the same SNAC-based DHT 2.0 formulations. Designed to advance business development initiatives across GLP-1 and multi-hormone receptor agonists for weight loss and diabetes, these pharmacokinetic results support Lexaria's strategy as it executes its second MTA, a strategic partnership with PegBio. The relationship with the Hong Kong-listed company will process and evaluate a proprietary GLP-1 candidate using DHT technology. Additionally, Lexaria's capital position was reinforced for its FY2027 research and development program with the receipt of an Australian government tax rebate following the completion of its Phase Ib GLP-1-H24-4 human study.

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