Zacks Small-Cap Research
Sponsored – Impartial – Comprehensive

October 2, 2025
John D. Vandermosten
312-265-9588 / jvandermosten@zacks.com

scr.zacks.com
101 N. Wacker Drive, Chicago, IL 60606

Lexaria Bioscience Corp. (LEXX: NASDAQ)

LEXX: Biodistribution Study Results

Our valuation methodology employs a DCF model and a 15% discount rate. The model applies a weighted average 13% probability of ultimate approval and commercialization of products employing DehydraTECH. The model includes contributions from the United States and Rest of World.

Current Price (10/1/2025)	$0.98
Valuation	**$6.00**

OUTLOOK

Lexaria is a biotechnology company seeking to enhance the bioavailability of multiple drug agents using DehydraTECH (DHT), its technology using oral and topical delivery. It combines lipophilic APIs with specific fatty acid and carrier compounds followed by dehydration.

DHT offers several attractive features: 1) substantial improvement in bioabsorption in terms of time to measurable plasma levels & AUC, 2) brain permeation, 3) taste masking & 4) side effect reduction. As DHT does not employ a covalent bond, it is not considered a new molecular entity and can rely on an API's previously conducted safety and efficacy data to obtain regulatory approval.

Lexaria receives revenues from licensing & product sales which can in part fund R&D operations. R&D activities pursue both preclinical and clinical programs. The lead program is investigating GLP-1 agonists for weight loss and diabetes. Other DHT candidates include antivirals, CBD, nicotine, PDE5 inhibitors, NSAIDs, hormones, colchicine & others.

We forecast penetration into global markets for weight loss, diabetes, hypertension, nicotine delivery and antiviral product categories.

SUMMARY DATA

52-Week High	**3.39**
52-Week Low	**0.78**
One-Year Return (%)	**-69.1**
Beta	**0.8**
Average Daily Volume (sh)	**523,012**
Shares Outstanding (mil)	**22.2**
Market Capitalization ($mil)	**21.8**
Short Interest Ratio (days)	**2.3**
Institutional Ownership (%)	**10.3**
Insider Ownership (%)	**6.3**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2025 Estimate	**N/A**
P/E using 2026 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**Above Average**
Type of Stock	**Small-Growth**
Industry	**Med-Biomed/Gene**

ZACKS ESTIMATES

Revenue

(In millions of USD)

	Q1 (Nov)	Q2 (Feb)	Q3 (May)	Q4 (Aug)	Year (Aug)
2024	$0.1 A	$0.1 A	$0.0 A	$0.1 A	$0.5 A
2025	$0.2 A	$0.2 A	$0.2 A	$0.2 E	$0.7 E
2026					$1.2 E
2027					$1.4 E

Earnings per Share

	Q1 (Nov)	Q2 (Feb)	Q3 (May)	Q4 (Aug)	Year (Aug)
2024	-$0.13 A	-$0.06 A	-$0.13 A	-$0.14 A	-$0.47 A
2025	-$0.16 A	-$0.15 A	-$0.21 A	-$0.14 E	-$0.65 E
2026					-$0.34 E
2027					-$0.33 E

© Copyright 2025, Zacks Investment Research. All Rights Reserved.

WHAT'S NEW

As we step into fall, Lexaria Bioscience Corporation (NASDAQ: LEXX) continues to work on multiple GLP-1 trials. Most notably, it reported the last patient-last visit for the Phase Ib study designated GLP-1-H24-4 and reported data from its rodent biodistribution study. It also closed a $4.0 million capital raise earlier this week. Activity in the obesity and GLP-1 agonist space has been robust in 2025 with a number of deals and new trial data announced. In this report we will bring investors up to date on recent activity and update near term milestones.

Lexaria View on GLP-1 Agonists

In the fall of 2023, Lexaria began its efforts to evaluate members of the GLP-1 agonist class formulated with DehydraTECH to determine if the new formulation could improve bioavailability, cost-effectiveness, tolerability, weight-loss potential, management of diabetes and other health conditions. Since then, the company has launched five human studies along with other non-human work to answer this question. Over the last two years, Lexaria has reported the data from these trials showing reduced levels of side effects, comparable levels of glucose reduction and insulin increase, less semaglutide necessary than in Rybelsus to achieve similar effects. In an August 6th press release, management penned a missive reviewing GLP-1 agonist market activity highlighting the primary players (Eli Lilly and Novo Nordisk), the number of drugs in development (39) and number of sponsors advancing them (34). The note from management also addressed the dealmaking environment around the class, underlining the collaboration between Novo Nordisk and Septerna, Roche's asset acquisition from Zealand Pharma, Regeneron's licensing deal with Hansoh Pharmaceuticals and Merck and Cyprumed, which we discussed in our previous report.

In late August, Eli Lilly announced data from its Phase III trial evaluating its oral GLP-1 receptor agonist, orforglipron. The study met all of its primary and secondary endpoints. With the completion of the study, Lilly has all the clinical data necessary to submit orforglipron for approval globally. Availability of an oral for Eli Lilly could raise the stakes for having an oral version of this class of drug and benefit Lexaria as others find other oral solutions for GLP-1 agonist delivery.

Lexaria's data comparing Rybelsus, tirzepatide, semaglutide and liraglutide with DHT-formulated versions of these compounds now spans five human studies. With this trove of supportive information, the company seeks the interest of a major player in the industry who recognizes the value of an oral version of these injectable drugs.

GLP-1 Agonist Rodent Biodistribution Study

In November 2024, Lexaria announced that it had signed a contract for a GLP-1 agonist biodistribution study with an unidentified contract research organization. The research fluorescently tagged DHT formulated semaglutide and tracked its biodistribution in rodents. Understanding the distribution of the drug in subject tissue will help researchers understand the binding properties and receptors that are targeted by the drug. It can also help understand in which areas or tissues the drug concentrates and potentially lead to unwanted side effects. The work will also help researchers understand how orally delivered DHT-semaglutide differs from the infused formulation of the drug. Last month, Lexaria announced results from this study in a press release.

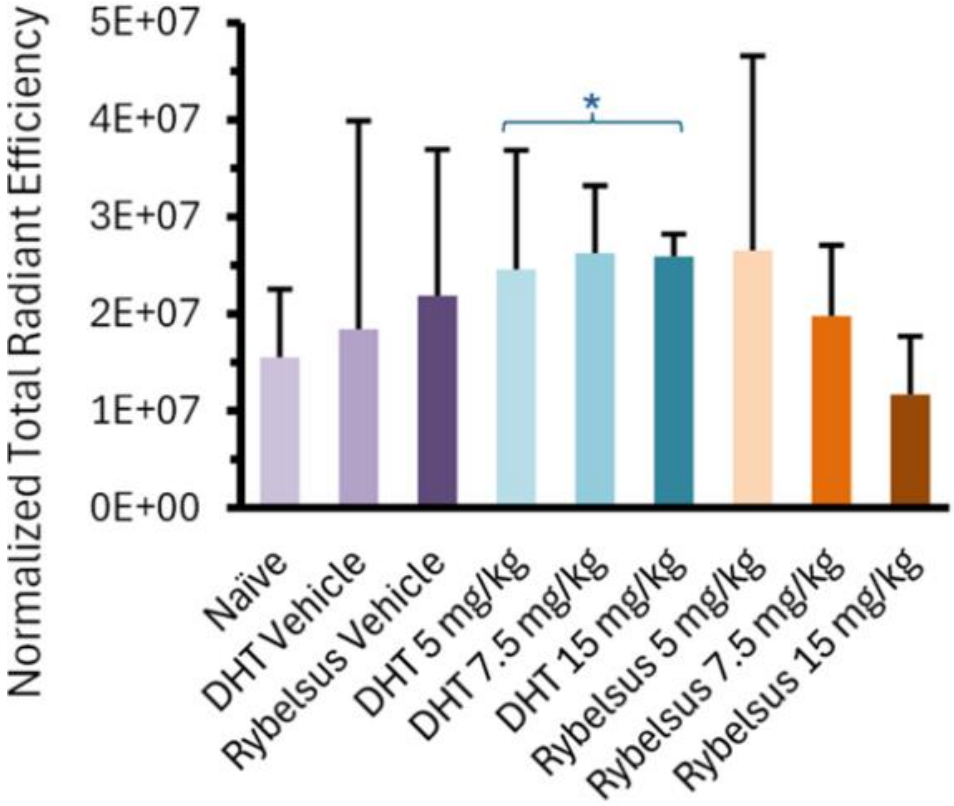
Study Design
Details were tracked via fluorescent imaging detection to show how and where the semaglutide distributes and localizes following oral ingestion by Sprague-Dawley rats. After the initial evaluation, the animals were euthanized and various key tissues were examined including those from the brain, pancreas, lung, kidney, liver and heart for more detailed fluorescent imaging detection showing very specific tissue localization patterns and concentrations. The analysis includes DHT and non-DHT formulated Rybelsus orally administered product.

Efforts also included measurement of certain GLP-1 receptor specific antibodies detectable through an immunofluorescence methodology. This was done to allow the analytical laboratory to confirm the extent of GLP-1 receptor binding of the two formulations in the tissue samples taken from the animals, providing a detailed measure of fluorescence distribution and localization patterns. The fluorescent tagging of the two variations of semaglutide (Rybelsus and the DHT formulation) will show the biodistribution differences between the two.

Study Results
A September 19th press release shared results from the study. It noted that DHT-fluorescently tagged semaglutide (FTS) demonstrated a predominantly higher apparent trend in brain biodistribution than the Rybelsus equivalent composition and all study controls. The determination was made based on fluorescent signal intensity using whole

brain imaging. Below, the DHT performance can be seen in the middle light blue, aqua and turquoise bars in the center of the exhibit.

Exhibit I – FTS Fluorescent Signal Intensity in the Brain[1]



Lexaria September 19th Press Release

Following the whole-organ imaging of the rat model, the brain was further sectioned via sagittal slices (2-3 mm thickness) into two and then four pieces to better visualize the brain regions in which semaglutide is binding and stimulating a response. These regions of interest include the brainstem, known for direct semaglutide interaction; the paraventricular nucleus of the hypothalamus, involved in energy homeostasis; and the circumventricular organs, which lack a blood-brain barrier, such as the area postrema, subfornical organ and median eminence. Upon measurement, investigators noted that all three DHT doses tested displayed fluorescence above that of the naïve and vehicle groups, while only the highest dosage (15mg/kg) of the Rybelsus equivalent composition surpassed the naïve and vehicle groups.

Lexaria believes that findings from the study suggest that the DHT-FTS composition, absent all of the Rybelsus composition excipients, may enable unique delivery and distribution enhancements in brain tissue possibly supporting improved pharmacodynamic performance. Complementary biodistribution benefits may be derived by using a similar DehydraTECH semaglutide composition combined with the Rybelsus excipients. Future testing to show this would be required to measure this and potential safety and efficacy improvements.

This type of study helps researchers further understand the pharmacokinetics and mechanism of action of DHT-formulated semaglutide and will be part of the conversations with large pharma partners.

GLP-1-H24-4 Interim Results (Fourth Study)

At the end of July, Lexaria provided an interim look into its GLP-1-H24-4 study highlighting the reduction in side effects for the DHT formulated GLP-1s vs. approved versions of the drug. At eight weeks, the DHT-semaglutide arm saw a 36.5% reduction in overall side effects and 43.5% lower gastrointestinal (GI) side effects compared to results in the Rybelsus arm. Our report reviewing 3Q:25 results provided a summary of adverse events from the trial.

[1] Total radiant efficiency (TRE) is a measure of the summation of flux (i.e., measured fluorescence) within a given tissue region of interest (ROI). For the brain analyses in this study, an ROI was drawn around the excised brain tissue samples to quantify the total fluorescence within that region in each case. To account for the variability in ROI size, the TRE was divided by the area of the ROI to "normalize" the value. In short, Normalized TRE = TRE/ROI area.

Lexaria's press release documented at least one adverse event (AE) for each of the 25 subjects in the Rybelsus arm. Five subjects in the DHT arm (5/24) experienced no AEs (referenced as a 20.8% reduction in Lexaria's press release). A study cited by Lexaria (Bergmann, *et al*. 2022) found just under 90% of semaglutide patients in the study experienced an AE. The press release compares this to DHT-semaglutide's AE rate of 79.2%. However, the comparison must be placed in the context of the Lexaria data at the 8-week mark and including 24 people compared to the greater than 1,000 subjects assessed for injected semaglutide. Lexaria reviewed several tirzepatide studies and found a similar incidence of AEs as they did for semaglutide in a meta-analysis (Mishra *et al*. 2023). The study noted a positive correlation between dose level and incidence of AEs. Another remarkable takeaway from the meta-analysis is the high rate of GI-related AEs which comprised up to 50% of the total AEs for injectable tirzepatide. Lexaria compared this hurdle to the 22% rate achieved with DHT-semaglutide in the 8-week study.

GLP-1-H24-4 was conducted with 24-25 overweight, obese, pre- or type 2 diabetic patients in each of the five study arms (n=126), of which 4 arms evaluated various DehydraTECH formulations with the 5th being the Study control arm. Arm 1 evaluated DHT-CBD, Arm 2, DHT-semaglutide and Arm 3, DHT-semaglutide and DHT-CBD. Arm 4 evaluated Rybelsus tablets and Arm 5 examined DHT-tirzepatide.

Changes in glycated hemoglobin (HbA1c) and weight were other measured endpoints in the GLP-1-H24-4 study. Lexaria extracted these same metrics from Novo Nordisk's Pioneer studies[2,3]. DHT-semaglutide was able to reduce HbA1c and weight over the eight weeks, but at a lesser magnitude than what was achieved by Rybelsus. While DHT-semaglutide achieved lower levels of weight loss and HbA1c reduction compared to Rybelsus, it also is associated with reduced side effects, especially those that are GI-related. We think that 8-week data is insufficient for making significant comparisons. The primary takeaways are that the trend in endpoints is moving in the right direction and that reduced adverse events will allow for a greater number of patients to continue on a therapy so they can obtain its benefit. Lexaria also brought attention to the focus on adverse events with a quote[4] from Martin Hoist Lange, who was promoted to Chief Scientific Officer of Novo Nordisk earlier this week: "We want to win the weight loss [battle] but we also want to have a gastrointestinal adverse event profile that is attractive and competitive."

On August 14th, 2025 Lexaria announced that the last patient-last visit had been completed. Study work accelerates with full sample and data analyses underway with the goal of reporting data prior to the end of 2025. The company's CRO is managing the laboratory analysis phase of the work and management is blinded until the work has been completed.

Exhibit II – GLP-1 Agonist Human Studies

Study	n	Control	DehydraTECH Formulations	Study Results
Human Pilot Study #1 GLP-1-H24-1	7	Rybelsus® (7 mg oral semaglutide)	DehydraTECH-semaglutide (7 mg oral semaglutide reformulated from Rybelsus®)	• 47% higher AUC throughout the duration of the Study • Lower blood glucose levels • Marked improvements in patient tolerability
Human Pilot Study #2 GLP-1-H24-2	7	Rybelsus® (7 mg oral semaglutide)	DehydraTECH-semaglutide (7 mg oral semaglutide reformulated from Rybelsus®)	• Sustained higher blood semaglutide levels throughout the duration of the study • Marked improvements (zero adverse events) in patient tolerability
Human Pilot Study #3 GLP-1-H24-3	9	Zepbound® (2.5 mg injectable tirzepatide)	DehydraTECH-tirzepatide (20 mg oral tirzepatide reformulated from Zepbound®)	• Achieved a more consistent accumulation of drug in the bloodstream throughout the duration of the Study • Reached drug level parity to the injectable control by the end of the study • Marked improvements in patient tolerability
Registered Phase 1b Human Study #4 GLP-1-H24-4	126	Rybelsus® (3 and 7 mg oral semaglutide)	DehydraTECH-CBD (250 mg) DehydraTECH-semaglutide (3.5 and 7 mg) DehydraTECH-CBD (250mg) /semaglutide (3.5 mg) DehydraTECH-tirzepatide (20 and 40 mg) (all oral using pure API inputs)	8 Week Interim Analysis Tolerability Findings: • Marked improvements in patient tolerability with DehydraTECH-semaglutide and DehydraTECH-tirzepatide • Final reporting from Study expected around end of 2025 calendar year
Human Pilot Study #5 GLP-1-H25-5	10	Saxenda® (0.6 mg injectable liraglutide)	DehydraTECH-liraglutide (45 mg oral liraglutide using pure API input)	• Marked improvements in patient tolerability • Pharmacokinetic data is still pending

Source: Lexaria Bioscience September 2025 Corporate Presentation

[2] Aroda, V.R. *et al*. A new era for oral peptides: SNAC and the development of oral semaglutide for the treatment of type 2 diabetes. Reviews in Endocrine and Metabolic Disorders. October 2022.
[3] Husain, M. *et al*. Oral Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. New England Journal of Medicine. June 2019.
[4] Novo Nordisk R&D Investor Event, June 22, 2025

$4.0 Million Offering

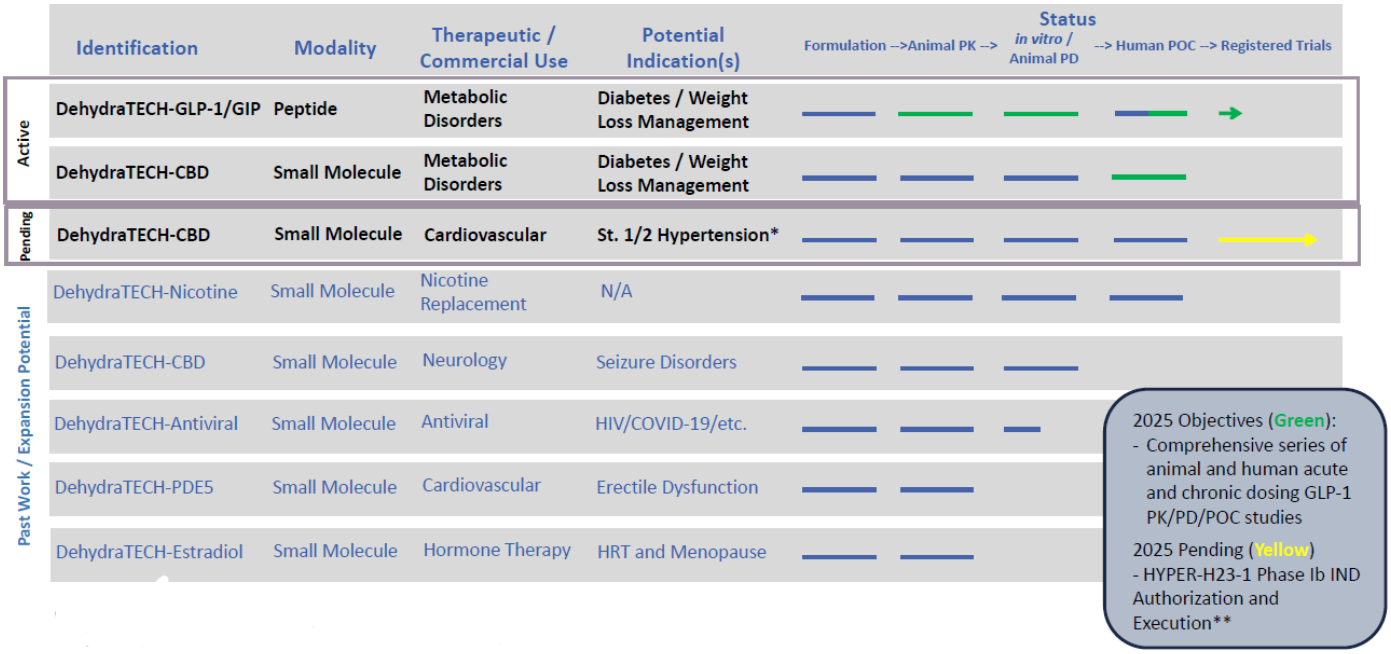
On September 26th, Lexaria announced a $4.0 million registered direct offering priced at the market. 2,666,667 shares of Lexaria common stock were offered at $1.50 per share along with the same number of warrants with a $1.37 exercise price. Gross proceeds are estimated to be approximately $4.0 million and we forecast net proceeds to be about $3.6 million after deducting the placement agent fees and other offering expenses. The offering closed on September 29th.

Valuation

We update our valuation to reflect the $4.0 million offering in late September and additional shares which we expect to be issued over the next 12 to 18 months. Our enterprise value as determined by our DCF model does not change. The result of our recalculation generates a target price of $6.00 per share.

Pipeline

Exhibit III – DehydraTECH Pipeline



Source: Lexaria Bioscience July 2025 Corporate Presentation

Milestones

- Annual CEO Letter – January 2025
- Management updates investors on GLP-1 industry developments – April 2025
- Attendance at BIO – June 2025
- GLP-1-H24-4 interim readout – July 2025
- Attendance at HC Wainwright Conference – September 2025
- Biodistribution study readout – September 2025
- Registered direct stock offering – September 2025
- Results from Human Pilot Study #4 – 4Q:25
- Results from long term stability and mode of action characterization - 2025
- Completion of testing by global pharmaceutical company (MTA) – 2025
- PK data readout from Human Pilot Study #5 – 2H:25/1H/26
- DHT-CBD hypertension study – 2H:25

Summary

Lexaria is at the point where it has enough data to carry on meaningful conversations with prospective partners. DehydraTECH offers improved speed of onset, better bioavailability, reduced adverse events and a favorable regulatory pathway via 505(b)(2). The reduced level of adverse events, especially GI tolerability, as shown in all of Lexaria's human studies is a particularly attractive feature.

Data from Lexaria's multiple studies gives us further confidence that its formulations have a viable pathway towards FDA registration. They also provide further evidence of DHT-formulated GLP-1 products' better safety profile. The value of DHT has been indirectly increased through a broader understanding that next generation GLP-1 products must sidestep the adverse events present in earlier generations and provide more convenient dosing. The importance of the indication and class of drug are even further emphasized by recent transactions and reported clinical data from competitors.

PROJECTED FINANCIALS

Lexaria Bioscience Corp. - Income Statement

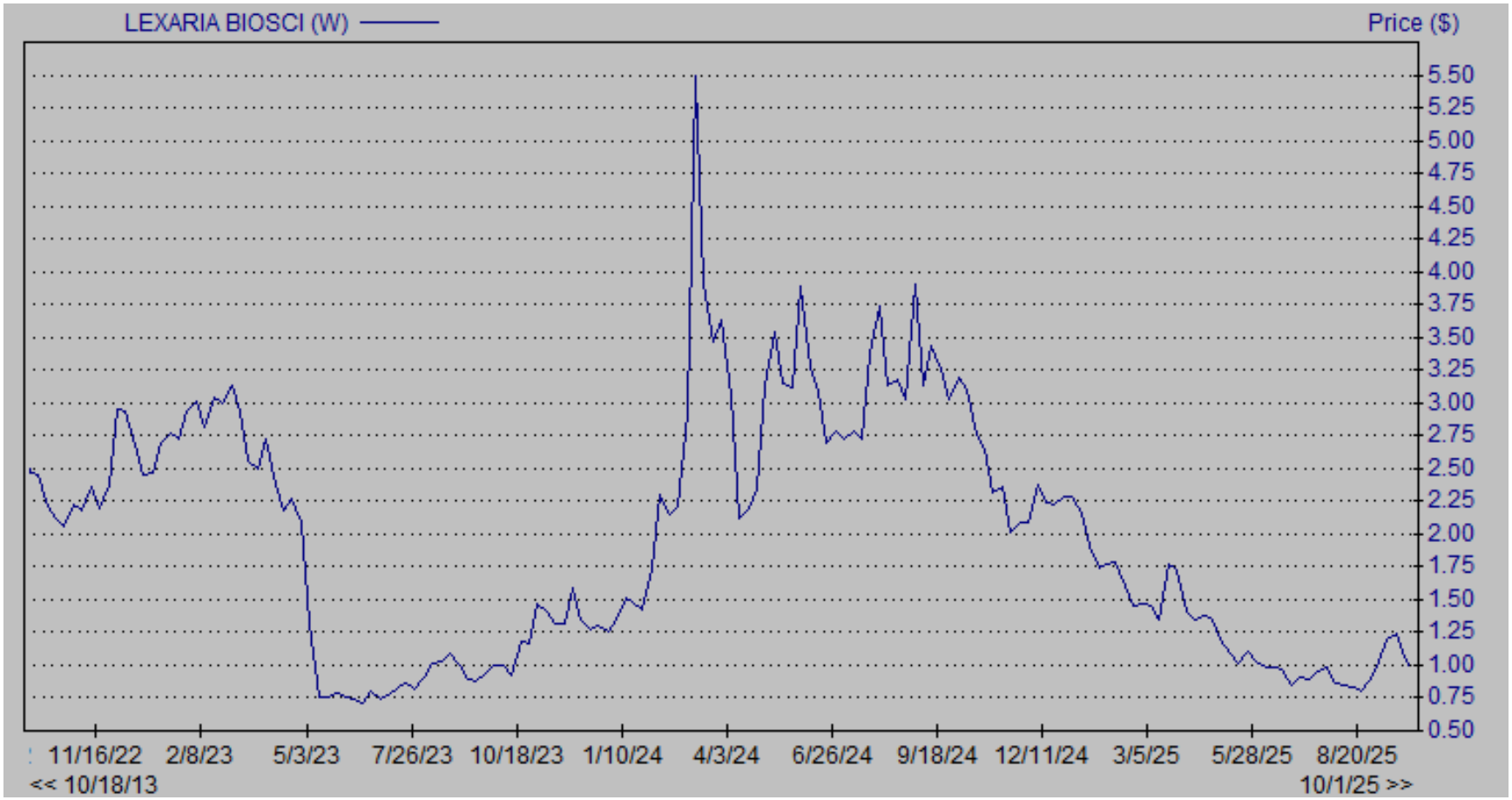
Lexaria Bioscience Corp.	2024 A	Q1 A	Q2 A	Q3 A	Q4 E	2025 E	2026 E	2027 E
Total Revenues	**$464**	**$184**	**$174**	**$174**	**$174**	**$706**	**$1,169**	**$1,403**
YOY Growth	105%	22%	20%	107%	107%	52%	66%	20%
Gross Profit	$459	$181	$174	$174	$174	$703	$1,169	$1,403
Research & Development	$2,361	$1,953	$1,686	$2,718	$2,000	$8,357	$5,700	$6,500
General & Administrative	$3,852	$919	$1,239	$1,207	$1,200	$4,565	$4,100	$4,350
Income from operations	($5,753)	($2,691)	($2,751)	($3,750)	($3,026)	($12,218)	($8,631)	($9,447)
Non Controlling Interest	($13)	($3)	($4)	($2)	$0	($38)	($40)	$0
Pre-Tax Income	($5,795)	($2,704)	($2,713)	($3,789)	($3,026)	($12,180)	($8,591)	($9,447)
Net Income	**($5,795)**	**($2,704)**	**($2,713)**	**($3,789)**	**($3,026)**	**($12,180)**	**($8,591)**	**($9,447)**
Net Margin	*-1248%*	*-1470%*	*-1559%*	*-2178%*	*-1739%*	*-1725%*	*-735%*	*-673%*
Reported EPS	**($0.47)**	**($0.16)**	**($0.15)**	**($0.21)**	**($0.14)**	**($0.65)**	**($0.34)**	**($0.33)**
Basic Shares Outstanding	12,384	16,669	17,512	18,298	22,276	18,689	25,000	28,500

Source: Company Filing // Zacks Investment Research, Inc. Estimates

© Copyright 2025, Zacks Investment Research. All Rights Reserved.

HISTORICAL STOCK PRICE

Lexaria Bioscience Corp. – Share Price Chart[5]



[5] Source: Zacks Research System

DISCLOSURES

The following disclosures relate to relationships between Zacks Small-Cap Research ("Zacks SCR"), a division of Zacks Investment Research ("ZIR"), and the issuers covered by the Zacks SCR Analysts in the Small-Cap Universe.

ANALYST DISCLOSURES

I, John Vandermosten, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report. I believe the information used for the creation of this report has been obtained from sources I considered to be reliable, but I can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice.

INVESTMENT BANKING AND FEES FOR SERVICES

Zacks SCR does not provide investment banking services nor has it received compensation for investment banking services from the issuers of the securities covered in this report or article.

Zacks SCR has received compensation from the issuer directly, from an investment manager or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer. The non-investment banking services provided to the issuer includes the preparation of this report, investor relations services, investment software, financial database analysis, organization of non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR. The fees for these services vary on a per-client basis and are subject to the number and types of services contracted. Fees typically range between ten thousand and fifty thousand dollars per annum. This research report was prepared under the aforementioned engagement.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business.
SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover.
SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

Additional information is available upon request. Zacks SCR reports and articles are based on data obtained from sources that it believes to be reliable, but are not guaranteed to be accurate nor do they purport to be complete. Because of individual financial or investment objectives and/or financial circumstances, this report or article should not be construed as advice designed to meet the particular investment needs of any investor. Investing involves risk. Any opinions expressed by Zacks SCR Analysts are subject to change without notice. Reports or articles or tweets are not to be construed as an offer or solicitation of an offer to buy or sell the securities herein mentioned.

CANADIAN DISCLAIMER

This research report is a product of Zacks SCR and prepared by a research analyst who is employed by or is a consultant to Zacks SCR. The research analyst preparing the research report is resident outside of Canada and is not an associated person of any Canadian registered adviser and/or dealer and, therefore, the analyst is not subject to supervision by a Canadian registered adviser and/or dealer, and is not required to satisfy the regulatory licensing requirements of any Canadian provincial securities regulators, the Investment Industry Regulatory Organization of Canada and is not required to otherwise comply with Canadian rules or regulations.

© Copyright 2025, Zacks Investment Research. All Rights Reserved.