

## Lexaria Bioscience Corp.

(LEXX - NASDAQ)

### 1Q:22 Results & Other Things that Came Up

Based on our DCF model and a 15% discount rate, Lexaria is valued at approximately \$15.00 per share. Our 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 (2/1/2022) **\$4.24**  
Valuation **\$15.00**

### OUTLOOK

Lexaria is a biotechnology company seeking to enhance the bioavailability of multiple drug agents with 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: substantial improvement in bioabsorption in terms of time to measurable plasma levels & AUC, brain permeation, taste masking & side effect reduction. As DHT does not employ a covalent bond, DHT is not a new molecular entity and can rely on 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 are pursuing both preclinical and clinical programs. The lead program is investigating CBD for the reduction of hypertension with four clinical trials. Other DHT candidates include antivirals, nicotine, PDE5 inhibitors, NSAIDS, hormones, colchicine & others.

We forecast penetration into global markets for hypertension, nicotine delivery and antiviral product categories. Our valuation assumes a 2024 regulatory approval and commercialization of DHT CBD in the US and developed markets.

### SUMMARY DATA

52-Week High **12.50**  
52-Week Low **3.78**  
One-Year Return (%) **-10.7**  
Beta **1.82**  
Average Daily Volume (sh) **313,379**

Shares Outstanding (mil) **5.95**  
Market Capitalization (\$mil) **25.2**  
Short Interest Ratio (days) **2.44**  
Institutional Ownership (%) **7.60**  
Insider Ownership (%) **14.4**

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 2020 Estimate **N/A**  
P/E using 2021 Estimate **N/A**

Zacks Rank **N/A**

Risk Level **Above Average**  
Type of Stock **Small-Growth**  
Industry **Medical**

### ZACKS ESTIMATES

#### Revenue

(In millions of USD)

	Q1	Q2	Q3	Q4	Year
	(Nov)	(Feb)	(May)	(Aug)	(Aug)
2021	\$0.3 A	\$0.2 A	\$0.2 A	\$0.0 A	\$0.7 A
2022	\$0.0 A	\$0.2 E	\$0.2 E	\$0.3 E	\$0.7 E
2023					\$1.2 E
2024					\$1.4 E

#### Earnings per Share

	Q1	Q2	Q3	Q4	Year
	(Nov)	(Feb)	(May)	(Aug)	(Aug)
2021	-\$0.24 A	\$0.10 A	-\$0.50 A	-\$0.26 A	-\$0.95 A
2022	-\$0.35 A	\$0.21 E	-\$0.27 E	-\$0.21 E	-\$1.04 E
2023					-\$1.04 E
2024					-\$0.89 E

## WHAT'S NEW

Over the last two months, Lexaria Bioscience Corporation (NASDAQ: LEXX) has advanced several new initiatives, reported first quarter earnings and outlined a bold plan for 2022 which includes the launch of multiple new studies. The most important effort is in hypertension where we expect the HYPER-H21-4 study to start in April, anticipated to enroll 60 patients in a six-week study. Two other studies for nicotine and pediatric seizures will also start. Investors were presented new information related to cannabinoids' impact on SARS-CoV-2 and the use of DehydraTECH (DHT) in sildenafil. Lexaria plans for 2022 also include investigational new drug (IND) work to prepare DHT-CBD for more advanced clinical work in hypertension.

### **1Q:22 Results**

Lexaria filed its first quarter fiscal year 2022 [10-Q](#) on January 14, 2022. The company reported first quarter fiscal year 2022 revenues of \$14,000, and total operating expense of \$2.0 million resulting in net loss of (\$2.0) million<sup>1</sup> or (\$0.35) per basic and diluted common share.

For the first quarter ending November 30, 2021 and versus the same ending November 30, 2020:

- Revenue totaled \$14,000, down 95% from \$296,000. Lexaria's primary customer in the B2B product revenue stream has been delayed in chain-store rollouts resulting in overstocked inventory and no manufacturing and sales of new inventory for this licensee for the quarter;
- Research and development expenses totaled \$459,000, increasing 139% from \$192,000 as Lexaria undertook several studies within its 2022 applied research and development program focusing on DHT-CBD to treat hypertension;
- Office and administrative expenses totaled \$1.6 million, up 107% from \$752,000 primarily comprising an unrealized loss on marketable securities of \$340,000 and non-cashed stock-based compensation on options granted and vested of \$121,000;
- Net loss including contributions from non-controlling interests was (\$2.0) million, or (\$0.35) per share, compared to (\$710,000) or (\$0.24) per share.

As of November 30, 2021, cash and marketable securities on the balance sheet totaled \$10.2 million. Cash burn for the quarter was approximately (\$1.2) million. Lexaria carries a \$7,800 in loan payable on its balance sheet.

### **Forward Looking Clinical and Operational Highlights**

2022 anticipated material events:

- Hypertension study (HYPER-H21-4) dosing – April 2022
- Animal study for pediatric seizures using CBD – Spring 2022
- Human sublingual (buccal) tissue study in nicotine – Spring 2022
- Hypertension study (HYPER-H21-4) results – 3Q:22
- Commercial client partners introducing DHT skin products – 3Q:22
- Pre-IND meeting with the FDA for CBD in hypertension – 2022
- Agreement with industry partner – 2022

Lexaria preclinical trials [planned](#) for 2022:

- HOR-A22-1
  - Estrogen delivery characteristics
  - Estrogen
  - PK study
  - April 2022

<sup>1</sup> Including non-controlling interest contributions of (\$159,000)

- DEM-A22-1
  - Dementia/Alzheimer's disease
  - July 2022
- RHEUM-A22-1
  - Rheumatoid disease
  - CBD
  - October 2022
- DIAB-A22-1
  - Diabetes
  - CBD
  - November 2022

#### *SRAX Media Outreach Agreement*

To increase investor visibility, Lexaria [announced](#) in December that it had entered into an agreement with SRAX, Inc. for advertising and media. Many material events are planned for 2022 including in-human trials for hypertension, oral nicotine, animal studies for seizure relief, as well as a number of early-stage pharmacokinetic work in potential indications. On behalf of Lexaria, SRAX will engage and manage media companies to create advertising materials and distribute them on internet platforms employing leading-edge analytical algorithms to maximize engagement.

#### *Cannabinoids and SARS-CoV-2*

On January 18, 2022, Lexaria [announced](#) and responded to an independent study that had been published in the *Journal of Natural Products* on January 10<sup>th</sup>, "[Cannabinoids Block Cellular Entry of SARS-CoV-2 and the Emerging Variants | Journal of Natural Products \(acs.org\)](#)", that found cannabinoid acids to be allosteric as well as orthosteric ligands with micromolar affinity for spike protein. Among the compounds with the highest affinity for spike protein were CBGA<sup>2</sup>, THCA-A<sup>3</sup>, and CBDA<sup>4</sup>. CBDA and CBGA were found to prevent infection of human epithelial cells by a pseudovirus expressing the SARS-CoV-2 spike protein and prevent entry of live SARS-CoV-2 into cells. CBDA and CBGA were also found to be equally effective against alpha variant B.1.1.7 and beta variant B.1.351. In an [interview](#) with vice.com, lead author, Dr. Richard van Breeman, commented that oral delivery was effective, and that smoking or vaping cannabis was likely not effective. Lexaria CEO, Chris Bunka, commented that, "Lexaria has led the conversation for years related to oral delivery of cannabinoids and is a world-leader through its pioneering drug delivery technology, DehydraTECH." Lexaria is currently conducting research with DHT-cannabinoid formulations across a range of indications, including an advanced oral DHT-CBD formulation that in manufacturing leaves the cannabinoids unaltered by high temperatures.

#### *HYPER-H21-4*

Lexaria [announced](#) this autumn that it would evaluate DHT-CBD in humans in 2022 with its HYPER-H21-4 study. HYPER-H21-4 will target 60 volunteers between the ages of 45-70 using three 150 mg doses of DHT-CBD every day for the 6-week duration of the study. The study will employ a double blinded, randomized cross-over design and utilize a placebo control. A subset of subjects will already be using standard of care hypertension drugs such as ACE inhibitors and diuretics. This will yield data relating to the efficacy of DHT-CBD in combination with hypertension treatments. Furthermore, the longer duration of the study compared with Lexaria's previous work will support acquisition of critical data regarding the extended use of DHT-CBD and capture any potential for longer term health benefits. Study protocols are being readied for submission to the Independent Review Board (IRB) and approval is anticipated by January 2022. HYPER-H21-4 will build on the findings of HYPER-H21-2. Results for HYPER-H21-2 were [announced](#) in December 2021 and only tracked the effects of dosing over a 24 hour period yet achieved statistically significant results. Success with HYPER-H21-2 is expected to provide the data necessary to enter regulatory pathways for DHT CBD to treat hypertension and other forms of cardiovascular disease. On December 29<sup>th</sup>, Lexaria [announced](#) that the Independent Review Board (IRB) had approved HYPER-H21-4 ahead of schedule, with dosing tentatively scheduled to begin by April 2022.

<sup>2</sup> Cannabigerolic acid

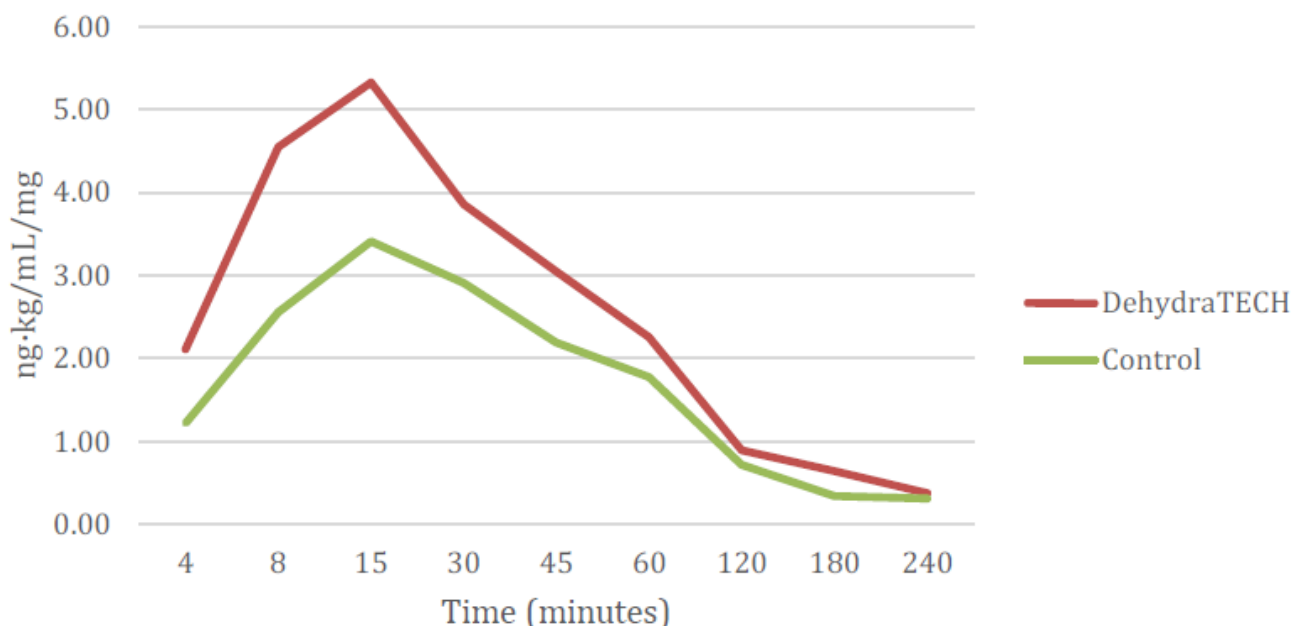
<sup>3</sup> Tetrahydrocannabinolic acid

<sup>4</sup> Cannabidiolic acid

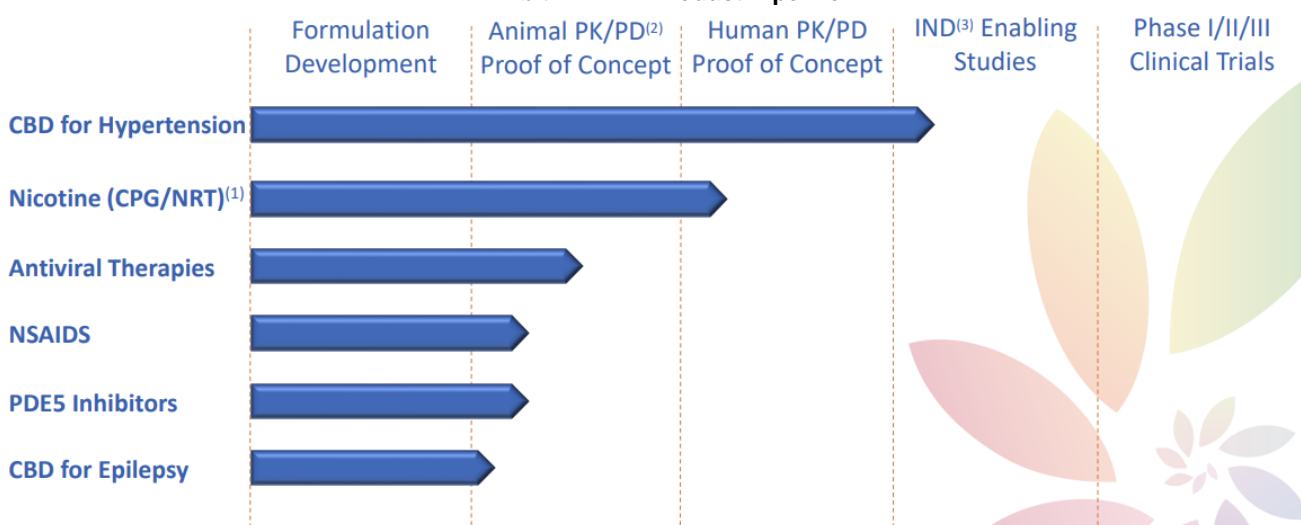
### Sildenafil Results

Lexaria conducted animal studies evaluating the leading phosphodiesterase inhibitor (PDE5 inhibitor), sildenafil, for erectile dysfunction. The February 2<sup>nd</sup> [release](#) identified a trend of higher overall delivery of sildenafil into the blood stream. Within four minutes of administration, the DHT formulation delivered materially higher levels of the drug in the plasma compared with the generic formulation of the same concentration. One of the shortcomings of current formulations of erectile dysfunction drugs is the extended time period between administration and response, which can make a difference depending on how fast you are. Below is the comparison of DHT sildenafil vs. control over a three hour period. It shows that the DHT-sildenafil formulation achieved a maximum concentration (C<sub>MAX</sub>) in the blood plasma that was ~70% higher as compared to the control formulation. The time to C<sub>MAX</sub> was achieved 25% faster (15.1 ± 5.9 minutes with the DehydraTECH-sildenafil versus 21 ± 7.74 minutes with the Control-sildenafil.)

**Exhibit I – DHT vs. Control Sildenafil Plasma Levels<sup>5</sup>**



**Exhibit II – DHT Product Pipeline<sup>6</sup>**



<sup>5</sup> Source: Lexaria February 2, 2022 Press Release

<sup>6</sup> Source: Lexaria [January 2022 Corporate Presentation](#)

## Upcoming Milestones (YTD)

- [Uplisting](#) to Nasdaq Capital Market - January 2021
- [Pricing](#) and [closing](#) of \$11M public offer - January 2021
- Al Reese, Jr. [appointed](#) to Board of Directors - January 2021
- CBD beverage shelf stability [results](#) - March 2021
- Gregory Downey [appointed](#) CFO - April 2021
- [Issuance](#) of warrants for 300,000 common shares - April 2021
- HYPER-H21-1 [launched](#) - April 2021
- First DHT patent [granted](#) in India - May 2021
- HYPER-H21-2 [starts](#) - June 2021
- 2021 Annual Meeting [results](#) - June 2021
- Voluntary [delisting](#) from CSE - July 2021
- [First](#) and [second](#) patents granted in Japan - July 2021
- HYPER-H21-2 dosing [complete](#) - July 2021
- Ibuprofen study results - 3Q:21
- Topline results from HYPER-H21-2 study - September 2021
- Oral nicotine study NIC-A21-1 [results](#) - October 2021
- Oral THC study THC-A21-1 [results](#) - October 2021
- EPIL-A21-1 [commenced](#) - November 2021
- HYPER-H21-4 [announced](#) - November 2021
- 2022 R&D program [plans](#) announced - November 2021
- HYPER-H21-3 [completion](#) of dosing & sample collection - December 2021
- Interviews ([one](#), [two](#), [three](#)) with Zacks' analyst John Vandermosten - December 2021
- HYPER-H21-2 [results](#) - December 2021
- HYPER-H21-3 [nears](#) completion - December 2021
- One-year media outreach [agreement](#) with SRAX, Inc - December 2021
- IRB [approval](#) for HYPER-H21-4 - December 2021
- Study [examining](#) cannabinoids and SARS-CoV-2 - January 2022

## Summary

Lexaria has started 2022 with a full slate of programs from in-human studies for hypertension and nicotine, to pre-clinical efforts in pediatric seizures, hormones, dementia, rheumatoid disease and diabetes. The most advanced effort the company is undertaking is the IND preparatory work for clinical hypertension studies which could open up a massive market if successful. We recently [initiated](#) on Lexaria, explaining its DHT technology platform and its wide applicability to enabling oral administration of products and therapies. DHT enhances bioavailability of active compounds via the digestive tract and topical administration and appears to be superior to other forms of administration including alternative types of oral delivery as supported by its studies.

In this report, we update Lexaria's progress on multiple fronts over the last two months and include an updated timeline. New information includes independent review board (IRB) approval for the fourth hypertension study, results from the in-human HYPER-H21-2 trial of DHT-CBD in hypertension, additional details on the relationship between cannabinoids and SARS-CoV-2 and sildenafil results. We maintain our price target of \$15.00.

Key reasons to own Lexaria shares:

- **Patent portfolio supporting DehydraTECH in multiple compositions**
- **DehydraTECH provides marked improvements over other methods of API delivery**
  - **Improved bioavailability**
    - **Fewer side effects**
    - **Lower drug cost**
  - **More rapid delivery to blood plasma**
  - **Able to cross the blood brain barrier**
  - **Flavor masking allows for use of fewer excipients**
  - **Allows select infused or injected drugs to be administered orally**
  - **Approaching infusion levels of drug bioavailability**
    - **Can generate substantial savings converting infused medicines to oral**
- **DehydraTECH can augment performance of numerous APIs**
- **Existing license and product revenues provide supportive cash flow**
  - **Relationships with several consumer packaged goods (CPG) manufacturers**
  - **Double digit revenue growth**
- **Low cost technology that can produce up to 400,000 CPG units per day at existing facility**
- **Collaborations with Fortune 100 companies Altria and British American Tobacco**

## PROJECTED FINANCIALS

### Lexaria Bioscience Corp. - Income Statement<sup>7</sup>

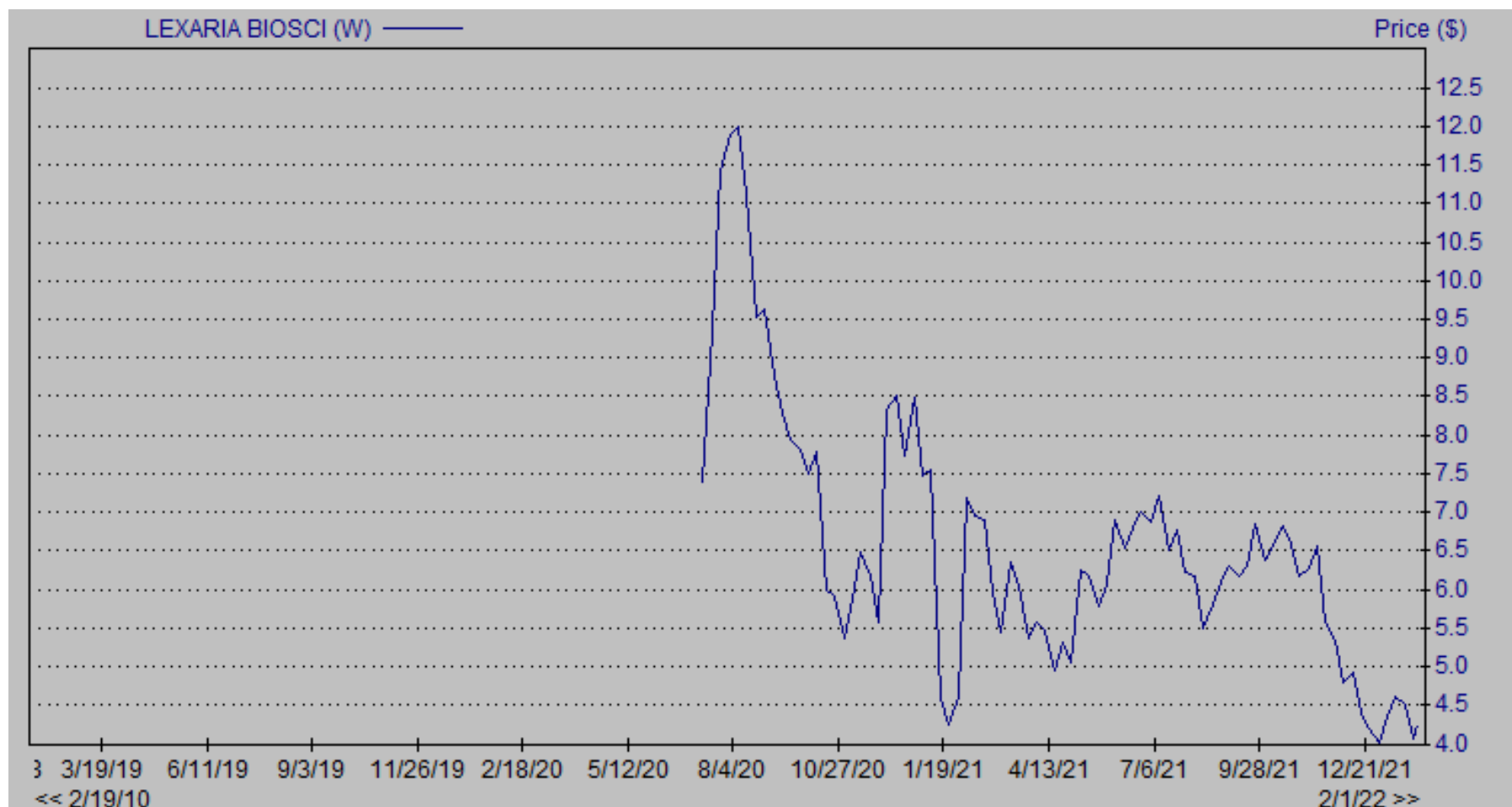
Lexaria Bioscience Corp.	2021 A	Q1 A	Q2 E	Q3 E	Q4 E	2022 E	2023 E	2024 E
<b>Total Revenues</b>	<b>\$723</b>	<b>\$14</b>	<b>\$150</b>	<b>\$220</b>	<b>\$270</b>	<b>\$654</b>	<b>\$1,155</b>	<b>\$1,386</b>
YOY Growth	88%	-95%	-22%	8%	770%	-10%	77%	
<b>Gross Profit</b>	<b>\$547</b>	<b>\$8</b>	<b>\$112.5</b>	<b>\$165.0</b>	<b>\$202.5</b>	<b>\$488.3</b>	<b>\$755</b>	<b>\$832</b>
Research & Development	\$1,263	\$459	\$700	\$1,100	\$741	\$3,000	\$3,500	\$3,605
General & Administrative	\$4,971	\$1,553	\$690	\$700	\$710	\$3,653	\$3,725	\$3,874
Other	(\$1,523)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Income from operations</b>	<b>(\$4,164)</b>	<b>(\$2,003)</b>	<b>(\$1,278)</b>	<b>(\$1,635)</b>	<b>(\$1,249)</b>	<b>(\$6,164)</b>	<b>(\$6,470)</b>	<b>(\$6,647)</b>
Operating Margin								
Discontinued operations	(\$22.0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Pre-Tax Income</b>	<b>(\$4,186)</b>	<b>(\$2,003)</b>	<b>(\$1,278)</b>	<b>(\$1,635)</b>	<b>(\$1,249)</b>	<b>(\$6,164)</b>	<b>(\$6,470)</b>	<b>(\$6,647)</b>
<b>Net Income</b>	<b>(\$4,186)</b>	<b>(\$2,003)</b>	<b>(\$1,278)</b>	<b>(\$1,635)</b>	<b>(\$1,249)</b>	<b>(\$6,164)</b>	<b>(\$6,470)</b>	<b>(\$6,647)</b>
Net Margin	-579%	-14434%	-852%	-743%	-462%	-943%	-560%	-480%
<b>Reported EPS</b>	<b>(\$0.95)</b>	<b>(\$0.35)</b>	<b>(\$0.21)</b>	<b>(\$0.27)</b>	<b>(\$0.21)</b>	<b>(\$1.04)</b>	<b>(\$1.04)</b>	<b>(\$0.89)</b>
Basic Shares Outstanding	4,391	5,727	5,950	6,012	6,090	5,945	6,200	7,500

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

<sup>7</sup> Financial statement information presents data as originally reported.

## HISTORICAL STOCK PRICE

Lexaria Bioscience Corp. – Share Price Chart<sup>8</sup>



<sup>8</sup> 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.