



# Let's Toke Business



The Commerce of Cannabis

Ted Ohashi MBA, CFA

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Week Ended February 10, 2023

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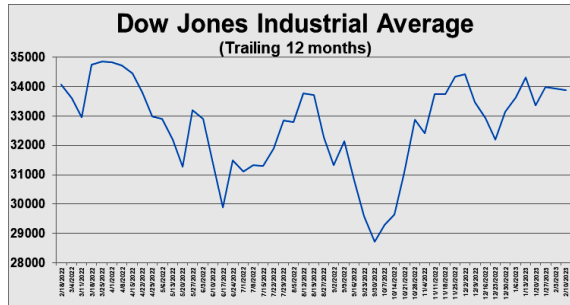
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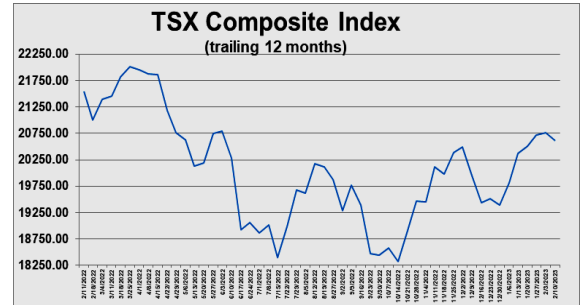
## Stock Market Review & Outlook

**LTB MARIJUANA INDEX: 1wk -2.9% 1 mo -0.3% 3 mo -15.0% 6 mo -29.1% 1 yr -54.1%**

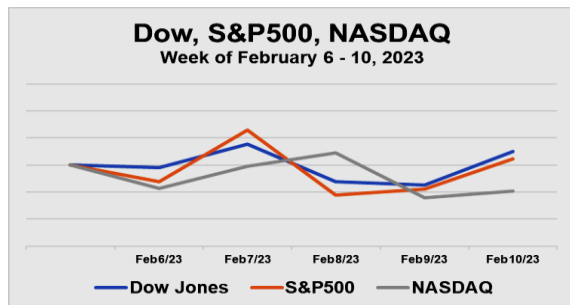
After a week in which the FOMC behaved as expected and the labour markets demonstrated supernatural strength, I expected the market to trade cautiously awaiting the next Consumer



**Price Index report.** That is pretty much what happened as the Dow Jones fell a fractional -0.2% and the Toronto Stock Exchange



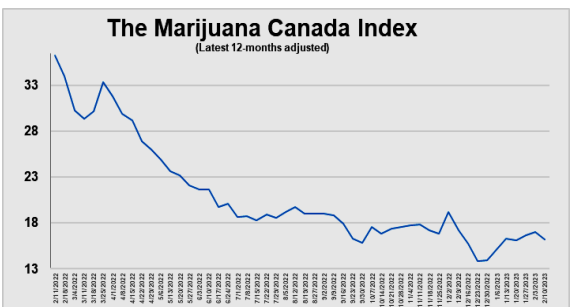
dipped -0.7%. The chart below gives an even more revealing picture of trading last week. It shows the percentage change of the three major Wall Street indexes last week. I can't imagine a tighter market



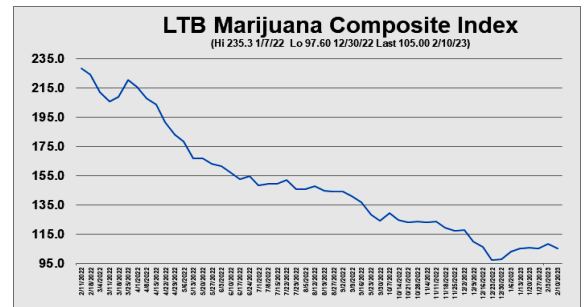
action. Investors worried that the unexpectedly strong jobs report would force the Federal Reserve to turn more hawkish on interest rate policy. The Dow Jones Industrials and the Standard & Poor's 500 posted fractional gains on the week while the NASDAQ, which is off to its strongest start to a new year since 1991, recorded a fractional loss.

The Consumer Price Index will be reported on Tuesday next week. As readers know, the U.S. CPI has declined for seven consecutive months and all eyes will be on the report on February 14<sup>th</sup>. If Headline Inflation rises "significantly," or more than 0.25% to pick a number. I think stock prices will head lower. The opposite will likely be the case if the CPI stays flat to lower.

**After getting off to a strong start in 2023, the cannabis stocks paused last week.** However, as we will see below, the U.S. operators bucked the trend and posted gains. But on the Canadian side, the



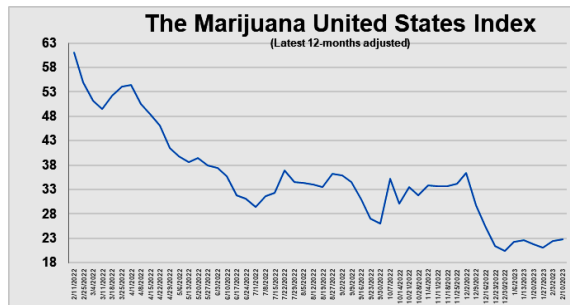
Marijuana Canada Index fell -4.9% and the Let's Toke Business Marijuana Composite dropped -2.9%. There is no reason to panic at this



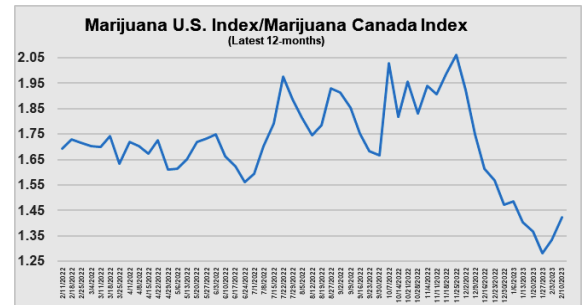
stage. In fact, I have been very comfortable with the way the cannabis stocks performed in January. There are no blaring headlines in the financial press. There is no speculative investor excitement. There

is no panic buying on the part of those who suffer from Fear of Missing Out (FOMO). It is a more suitable environment to nurture the start of a cannabis stock bull market. New bull markets don't start with investors celebrating like it was New Year's Eve. Quite the opposite. One way to know if it is a new bull market getting underway is if you have your doubts. If you're nervous. If that's the case, then you know it is probably for real.

**The U.S. cannabis operators had another strong week posting a gain of +1.5% on the Marijuana United States Index while most of the other cannabis indexes drifted lower.** I guess hope springs



eternal that the Democrats will be able to pass some form of pro-cannabis legislation in the not too distant future. The reason I am



a little skeptical is it's the same old names: Schumer, Booker and Wyden that I watched block pro-cannabis legislation sent to them from the House. This was after watching the Republicans do the same for many years. I guess I can only join the "hope springs eternal" crowd and see what happens.

**Conclusion: Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) should start to issue news at any time, as I summarize below. The fact of the matter is I expect the hypertension application and FDA approval in 2023 and quite likely in the third quarter. Based on the recent experience of Kala Pharmaceuticals, this is potentially a 4X to 10X event. That's one reason I am so bullish on LEXX. **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)) is offering a significant trading opportunity in my opinion. With the stock consolidating back to around \$0.11 per share and the warrants jumping to \$0.04 per warrant, I think a switch out of the warrant and into the stock looks profitable. This is what I have done for The Cannabis Report Model Portfolio recently which I explain in more detail below. **Jushi Holdings Inc.** ([CSE: JUSH](#)) ([OTCQX JUSHF](#)) had a very positive week as the American operators outperformed their Canadian counterparts based on the expectation that the Senate is working to pass a pro-cannabis bill, probably in the form of a SAFE Banking Plus bill. Meanwhile, **Organigram Holdings** ([NASDAQ: OGI](#)) ([TSX: OGI](#)) has sagged but I am carefully considering adding to the holding at today's lower price. **1933 Industries** ([CSE: TGIF](#)) ([OTCQX: TGIFF](#)) shares continue to show signs of accumulation. The stock has been trading in the \$0.02 to \$0.025 range which I think is an excellent level to be a buyer. **Kiario Holdings Corp.** ([TSXV: KO](#)) continues to work through a change in ownership and senior management. **Speakeasy Cannabis Club** ([CSE: EASY](#)) looks worse and worse as my latest report on the company shows. It appears Marc Geen is trying to scoop assets away from Speakeasy to his own company RC Frontier. I trust the Court, the court appointed Monitor and the B.C. Securities Commission will stop him.

If you would benefit from additional input on timing your buys and sells, subscribe to the Cannabis Report by InvestorsHub. For a monthly subscription, [\(Ctrl-Click here\)](#) For a discount on an annual subscription [\(Ctrl-Click here\)](#).

## Question of the Week

Thank you for sending in your questions and I hope you will keep them coming. It's your questions that keep this feature interesting and useful. Send your questions to: [ltbletter@gmail.com](mailto:ltbletter@gmail.com) Include your initials or a pen name we can use along with your city and country of residence. Questions will be edited for clarity and brevity.

The objective of the 'Question of the Week' feature is to allow readers to ask questions about investing. Things you are wondering about and not what I think you're thinking about. Here is this week's question:

"Hi Ted. You recently mentioned the Super Bowl Indicator that was used to predict the market. As your next letter will be out right after this year's game, I'd be interested to know what the indicator claimed to do and how."

### D. D., United States

"First, a little background, The long established National Football League (NFL) merged with the comparatively new American Football League (AFL) in June 1966 and the first Super Bowl was played the following January 1967. The game was to feature the best team of the NFL against the best team of the AFL.

The Super Bowl Indicator said that if the team representing the NFL or a team that was originally an NFL team won the Super Bowl the stock market would go up and if the team representing the AFL or a team that was originally an AFL team won, the stock market would go down.

The Super Bowl Indicator was first introduced in 1978 by Leonard Koppett, a sportswriter with the New York Times. But Koppett had to "cheat" to make the indicator work better. Note in the definition of the indicator, it says "...a team representing the NFL **or a team that was originally an NFL team...**" This is probably because the Pittsburgh Steelers have won six Super Bowls and is an original NFL team. However, it won all of its Super Bowls as an AFC. So this little twist had to be included to give the indicator a perfect record when Koppett first wrote about it.

When Koppett first introduced the indicator in 1978, it had never been wrong. That accuracy fell gradually to 90% and through 2022 it had fallen to 73%. If you restrict the definition to teams that played for the NFL against teams that played for the AFL, the score is now NFL 29, AFL 28.

The game played on February 12, 2023 featured the Philadelphia Eagles (NFL) against the Kansas City Chiefs (AFL). Since the Kansas City Chiefs won the game, the Super Bowl Indicator predicts that 2023 will be a down year in the market.

However, there is no reason to believe the Super Bowl Indicator will add value to your portfolio because:

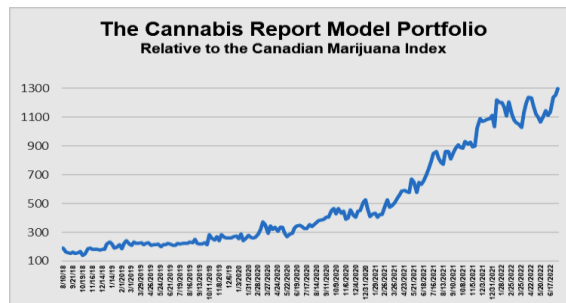
- (a) There is nothing to link the outcome of the Super Bowl game with the direction of the stock market. As I have said repeatedly, correlation does not mean causation. For example, initial jobless claims are often considered a leading indicator. This makes sense because an increase in initial jobless claims are linked directly to the economy that is linked to the stock market.
- (b) When the leagues merged it was generally felt that the senior NFL had stronger teams than the AFL and therefore it is logical to expect they would have won more of the early Super Bowls. In addition, the stock market rises approximately three out of four years. So it makes sense that the NFL winners would correlate with rising markets. Over time, the football teams have equalized and today the won-lost record is virtually even.

In today's world, where media is so influential in driving public opinion, it is important to remember that statistics don't lie but statisticians do. There are instances in which television news media have shown charts with the vertical axis reversed so that when the chart is going down, the data is actually going up and vice versa. As the anchor speaks, the chart is shown on the screen and seems to support his words when in fact, it shows what he is saying is wrong. But the numbers along the side are too small to read or are only shown briefly. So even though the Super Bowl Indicator cannot be relied upon for accurate market forecasts, understanding that correlation does not mean causation can help you in your regular everyday life.

## **The Cannabis Report Model Portfolio**

Here's the bottom line as far as I'm concerned and it shows up in the model portfolio which is down in value in such a difficult market for cannabis stocks. The Cannabis Report Model Portfolio is structured and monitored to be as close to an actual portfolio as possible. Rules are in place so that changes to the portfolio are first sent to the administrator who posts the changes on the Internet to subscribers. Each change with my reasons is reported in writing to subscribers before the market opening on the same day the trade is made.

The chart to the right shows this portfolio plotted relative to the MJ Canadian Marijuana Index. By rising to the right, this chart shows the portfolio has consistently outperformed the MJCMI, good markets and bad. The portfolio is benefitting from diversification as different holdings deliver at different times. The two largest holdings are **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)) and **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)). The smallest positions are **Kiaro Holdings Corp.** ([TSXV: KO](#)) that has undergone a major overhaul of ownership and senior management and **Speakeasy Cannabis Club** ([CSE: EASY](#)) that is in court now trying to transfer ownership of assets to an individual member of the Geen family. The most recent addition to the portfolio is **Organigram Holdings** ([NASDAQ: OGI](#)) ([TSX: OGI](#)). **Jushi Holdings Inc.** ([CSE: JUSH](#)) ([OTCQX JUSHF](#)) remains on path toward their revenue and income guidance numbers and **1933 Industries** ([CSE: TGIF](#)) ([OTCQB: TGIF](#)) is, in my view, a turned around company. Cash is around 25%.



If you believe as I do that legal medical and recreational cannabis are here to stay and the industry will continue to grow much faster than the economy as a whole, I recommend you subscribe to the model portfolio report. ([click here to subscribe](#))

## Special Report

### The Perfect [Economic] Storm?

The movie titled “The Perfect Storm” tells the story of a confluence of two storms spawned by completely, separate oceanic weather systems and the disastrous impact on the men fishing the waters below. There may be a perfect storm brewing in the economy that could produce equally catastrophic results.

As you may be aware, the Federal Reserve Board (FRB) is attempting to lower inflation by raising interest rates and selling bonds into the market. So far, the FRB’s goal of a “soft landing,” that is, an economy that slows enough to bring down inflation but not so far as to create a recession, seems to be in sight. But there is one problem. The labour sector has stubbornly resisted the tightening credit conditions. As I reported to you last week, in January 2023, the economy added 517,000 jobs which was more than double the number forecast by economists and the unemployment rate fell to 3.4%, an improvement from the month earlier when the consensus forecast was an increase in the unemployment to 3.5%. At the same time, there are two jobs for every one person looking for work.

The problem is the pandemic appears to have set off a massive change in attitude about jobs and work that might render the existing jobs data less meaningful than it was before. The FRB, in an attempt to



quell the perceived strength in the jobs market, might keep rates high and unwittingly plunge the economy into a severe recession.

**What has the pandemic done to warp the value of work?** I think there may be a few of things stemming from the pandemic. Different strata of the population was impacted differently. Here are some changes that impacted different parts of the economy:

1. The pandemic made people realize how economically and financially vulnerable they are. Exposure to a previously unknown virus has killed over a million Americans and seven million people worldwide. I think this may have resulted in people questioning why they should sacrifice in the present for the future when they may not be present in the future. It might be a kind of Personal Post Traumatic Stress Disorder.
2. COVID made people question their loyalty to a government or corporate employer when there was little evidence of loyalty coming in the other direction. Governments ordered citizens to stay at home. Employers told employees not to come to work. Then in short order employers asked employees to work remotely before finally asking them to return to work. Of course, there were many variations of working remotely known as hybrid, that is, some combination of working at the office and at home. Long stretches of working and living at home altered lifestyle choices including where and when to work.
3. “The land of the free...” proved not to be as free as people thought. Vaccines are a good example. The Biden Administration and their medical advisors tried to force people to get vaccinated. The information used to “encourage” vaccinations was misleading at best and outright lies at worst. Exercising the choice not to be inoculated resulted in people losing jobs and established careers.

**Note:** I opted to be vaccinated on the advice of my doctor and it was my personal choice. I contracted a relatively mild version of COVID in the fall of 2022 and I remain convinced vaccinations contributed to my ability to survive the disease. For me it was a few days of extreme discomfort and a few weeks of gradual recovery. For a family member that got COVID in the spring of 2020 before vaccines had been developed, it was a life-or-death battle that fortunately he won.

4. Here’s another factor. Every January the Bureau of Labor Statistics (BLS) adjusts its labor count for changes in the population. In calculating the status of those included in a population increase, it assumes they will all be fully employed. To the extent that the U.S. population increased between January 1, 2022 and January 1, 2023 which I think it probably did, the number of employed increases not because of job creation but by a stroke of the BLS pen. Suddenly we have a one-time increase in the number of jobs created.
5. Along these lines, the labour force participation rate has also declined sharply since COVID. The participation rate measures the percentage of working age people who are looking for work. If the participation rate is low, it means people aren’t looking for jobs. If there are fewer people looking for work, the unemployment rate will be lower. It may be, and some economists will make this argument, that the unemployment rate is artificially low because the participation rate is low. In other words, the labour sector is not as strong as it looks.

6. Then there were the COVID-related government payments. Starting in March 2020, the Coronavirus Aid, Relief and Economic Security (CARES) Act provided direct cash payments of up to \$1,200 per adult and \$500 per child. This provided up to \$3,400 of direct financial relief for a family of four. The Tax Relief Act of 2020 enacted in December of 2020, provided further payments of up to \$600 per adult and \$600 per child. The American Rescue Plan (ARP) enacted in March 2021 provided Economic Impact Payments of \$1,400 per individual, \$2,800 per couple plus \$1,400 for each dependent. In addition, unemployment benefits were increased and extended. Because there were no immediate economic consequences, those would come later, it gave some people the impression that you can work for money or not work and receive money. Given that option, many decided to take the money and not work.
7. Finally, we may be working with outdated data. The basic formula for calculating unemployment is to take the number of residents in an area without a job but looking for work and divide it by the number of people in the region in the labour force. This has been the basic formula since the 1930's and while changes have been made along the way, perhaps a retooling of this approach needs to be updated. I'm just asking the question: given the massive change in attitudes toward jobs and work in the past few years, perhaps we should be looking at a change in the way we measure unemployment. Otherwise, we might find ourselves in a situation where policy makes such as the Federal Reserve are led to the wrong conclusion.

Somehow, the shift in worker priorities led to The Great Resignation in July 2021 when the Bureau of Labor Statistics says that 4 million or around 2.5% of working Americans quit their jobs. The resignation rate is at a 20-year high and one study showed that 95% of workers would consider a job change. An August 2022 Gallup Poll revealed: 60% of Americans feel emotionally detached at work and 19% say they are miserable. Another 50% say they feel stress at work daily, 41% are worried, 22% are sad and 18% are angry. Other survey results indicated the dissatisfaction is deep rooted and there is no single reason to explain it. Whatever is happening with workers is significant.

Pre-COVID, only 6% of workers provided services remotely. By May 2020, that number had risen to 30% as a kneejerk reaction to the COVID. Even so, by 2025 it is forecast that somewhere between one in five and one in four workers will be working from home. This could be as significant as the Industrial Revolution (1750-1840) that saw jobs and workers move from farms to factories. Another crucial problem is the speed at which change is taking place. If the Industrial Revolution was 90 years, the move from centralized workplaces to remote or hybrid working has a much higher velocity and extent of change. It will be driven by Artificial Intelligence, robotics such as autonomous vehicles, 3-D printing, nanotechnology, biotechnology and quantum computing to name a few.

**Conclusion:** nothing of this magnitude is going to change in the short term. So the jobs market is going to influence Fed monetary policy toward a continuation of tightening credit. This will ultimately slow the economy to the point where the jobs numbers turn down and hopefully all of that can happen without creating a severe recession. Unfortunately, based on the Fed's record, I wouldn't count on it.



## Marijuana Matters

I think this is an appropriate time to provide an update on **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)).

The most important development in LEXX's history is and will be the **development of the DehydraTECH-CBD hypertension program** and the next step in the process is expected to happen in the next six months or so. This is Investigational New Drug (IND) application and the Food and Drug Administration's (FDA) response that I expect will come shortly thereafter. These two events should move LEXX to a new level of valuation in the market substantially higher than the market cap it is accorded right now.

If this was the only potential development ahead for LEXX, it would be a very attractive investment opportunity in my opinion. However, as management has said from the very outset, DehydraTECH™ has additional potential applications.

LEXX's **exploration of the potential application of DehydraTECH™ to the delivery of nicotine** pre-dates its interest in hypertension. As evidence mounted that smoking was linked with cancer, the tobacco companies have been investigating different ways to deliver nicotine without combusting the tobacco. One way is the use of oral nicotine pouches that is projected to be a nearly \$22 billion by 2027. In December 2022, LEXX commenced a 36-person randomized, double blinded crossover study to compare a DehydraTECH-nicotine oral pouch to ON! and Zyn, two of the world's leading oral pouch brands. If LEXX can show DehydraTECH-nicotine delivers improved delivery of orally absorbed nicotine than the current leading brands, it will be on the way to establishing a beachhead in this rapidly growing segment of the tobacco industry.

LEXX has a longer standing research relationship with Altria, the fifth largest tobacco company in the world with sales of over \$25 billion and a more recent agreement with British American Tobacco, the second largest tobacco company in the world with annual sales of approximately \$35 billion. Although some investors have been disappointed with the lack of information from these agreements, I am not. I have worked in the past with micro-cap companies dealing with large cap companies in the past. Large cap companies do not like having micro-cap associates talking about what is going on and they abhor promoting micro-cap companies.

LEXX recently completed an animal study that indicates DehydraTECH-CBD is more effective than Epidiolex® at reducing and eliminating seizure activity at lower doses. Investors are familiar with GW Pharmaceuticals that, in 2018, developed Epidiolex® as the first and still only plant-derived, purified pharmaceutical-grade cannabidiol (CBD) medication that is FDA-approved. In 2021, Jazz Pharmaceuticals acquired GW Pharmaceuticals for \$7.2 billion.

There are other potential applications for the DehydraTECH platform such as dementia and diabetes, both of which have strong links to hypertension. People with hypertension are at greater risk of developing diabetes and people with diabetes are far more likely to suffer from hypertension. Similarly, high blood pressure is a key risk factor in developing vascular dementia.

LEXX recently announced an important addition to its management team with the appointment of the former President of GW Pharmaceuticals USA, Julian Gangolli, as a strategic advisor. Gangolli oversaw the successful FDA approval process of Epidiolex® and prior to that, he was a senior member of the Allergan management team and, as a member of the Executive Committee, was part of the select team that executed the sale of Allergan to Actavis for \$66 billion.

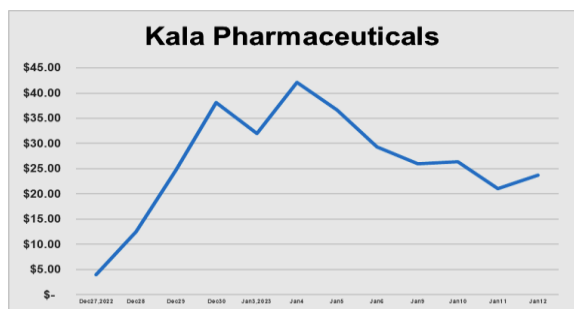
**Conclusion:** potential I have just laid out for **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ:](#)

[LEXXW](#)) is almost too much to absorb. As a result, I will focus on the prospects for hypertension that I think will occur in 2023,

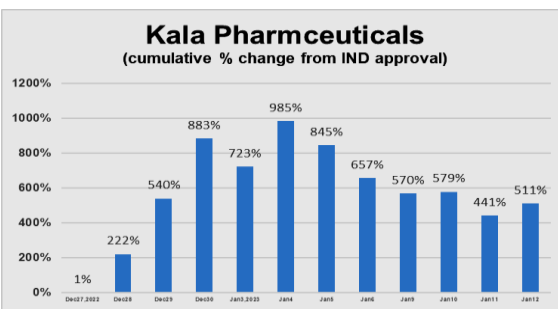
maybe as early as the first half of the year.

I reported on this transaction earlier but it happened in December 2022. Just last Christmas. On December 27, 2022, Kala Pharmaceutical (NASDAQ: KALA), a clinical-stage biopharmaceutical operator dedicated to the research, development and commercialization of therapies for rare eye diseases, announced the receipt of approval for their IND application from the U.S. Food and Drug Administration (FDA) for the treatment of Persistent Corneal Epithelial Defect (PCED).

As these two charts show, when Kala received its IND approval, the response in the market was explosive. Kala shares went from \$3.92 per share the day before the announcement to over \$40 per



share in just five trading days. It was a ten-bagger and even today after the initial speculation has been washed out of the market, it is still almost a four-bagger from the day before the news was issued. It should be noted that Kala



announced the submission of its FDA IND application on November 28, 2022, less than a month before FDA acceptance.

KALA and LEXX on a hypertension only basis are reasonably comparable. KALA is a recent example of a company that did what LEXX is in the process of doing, that is, submitting an Investigational New Drug (IND) application to the FDA and having it approved. From a market cap perspective, the two were similar and now KALA is now substantially larger. I would argue the commercial potential of the hypertension is much greater but it might be more competitive so I'm not going to argue the point. Let's just say they are similar. Finally, I conclude that KALA is running some three to six months ahead of LEXX right now based on the IND application and approval time. In any case, I think the two are close enough to take the KALA example as an approximation of what might be possible in the case of LEXX.

**Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) is at a critical point in its development. The market is still valuing LEXX far below its true value, in my opinion. With the submission of its IND application and FDA approval that I expect will come shortly after, LEXX is going to attract many new eyes of the professionals in the pharmaceutical industry. If they see what I see, my worry is they may try to buy the whole company at today's bargain basement prices. If someone offered US \$5.00 per share for LEXX, my concern is many shareholders might jump at the opportunity. It's been a tough market and two-baggers haven't been seen that often. While such an offer may look attractive in the short term to shareholders, warrant holders would be left out in the cold. The exercise price on the warrant is US \$6.58 per share. If you pay \$0.50 per warrant, you need a price of US \$7.08 to break even. That is why for The Cannabis Report model portfolio, I have switched from owning the warrants to owning the stock while maintaining my overall position in the portfolio. So I would concentrate buying in the shares and not the warrants right now.

## Cannabis Quickies

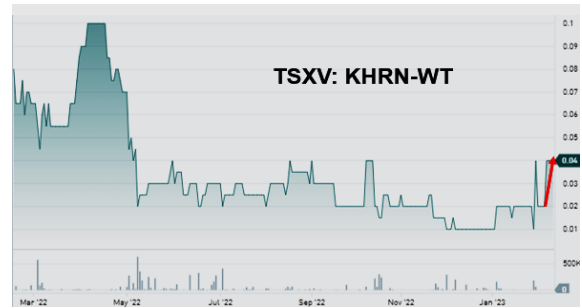
I would like to draw your attention to a trading opportunity in **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)). As many of you know, I write The Cannabis Report which involves running a cannabis model portfolio.

In early February, the **Khiron Life Sciences** ([TSXV: KHRN-WT.V](#)) that had been trading at \$0.01 per warrant suddenly jumped to \$0.04 per warrant – a one day increase of 4X! For the model portfolio, I issued a special alert and sold the warrants at \$0.04 and put the money into the common shares at \$0.155 per share. I wasn't "selling" KHRN because the portfolio actually ended up with a little more money allocated to KHRN after the trade. It was just that the holding was now common shares.

There are two reasons I made the switch when I did. First, I was looking for an opportunity to sell the warrants and buy the stock. A one-day quadruple in the warrants was the perfect reason. Second, I



became increasingly concerned about the warrants. We know KHRN is operating in a bit of a cash crunch that it is trying to work its



way through. I am not concerned that KHRN won't survive because I believe their business plan, assets, intellectual property and management team is too valuable for someone not to step to form a partnership or acquire the company to resolve their liquidity needs. If someone with cash were to come along and offer, say, \$0.50 per share, I am concerned many shareholders might jump at the chance. I wouldn't suggest accepting what I would consider a lowball offer but a 5X offer might be too much to turn down. This would be a very positive return for shareholders from current levels but the exercise price of the KHRN warrants is \$0.75 per share. Add to that what you pay for the warrant, say, \$0.04 each and you need \$0.79 per share to breakeven. Anything below that means a loss and anything below \$0.75 per share means a wipeout. I continue to like KHRN, it is the largest holding in The Cannabis Report Model Portfolio, but for now I prefer the common shares over the warrants.

As the charts above show, **Khiron Life Sciences** ([TSXV: KHRN](#)) has been in a bit of a consolidation phase in recent sessions while the **Khiron Life Sciences** ([TSXV: KHRN-WT.V](#)) have again bounced from \$0.02 per warrant to \$0.04 per warrant. I would take advantage of this circumstance to trim or sell the warrants at \$0.04 and buy the stock at \$0.11 per share.

## Applications Watch

Health Canada issued one new license this week for an adjusted total number of licenses of 949. This week, a license was issued to 13420400 CANADA of Quebec for micro-cultivation. Over 40 public companies are LPs or own an interest in one or more LPs. For a complete list of LPs and related information, Ctrl-Click [\(here\)](#)

## Selected Archived Articles

January 13, 2023: **Is there something happening with Lexaria Bio?** In the investment business, so much of the activity is reaction. We react to economic news, acquisitions, earnings reports and so on. The nice thing about an extended holiday period such as Christmas to New Years is the time it gives you to think and act; not react.

It was during one of these pensive moments over the holidays that I realized there was something to think about with respect to **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)). As regular readers know, I have continuously followed LEXX the longest of any cannabis related company in The Cannabis Report model portfolio and the Let's Toke Business newsletter. I have been through the many market disappointments over the past six years as LEXX reported very significant accomplishments that investors basically ignored. I remember so well in 2020 when I learned that LEXX was going to go for a NASDAQ listing and saying at the time this was a brave decision that might prove to be the pivotal event in the history of LEXX. Despite a US \$11 million financing, by far the largest in LEXX's history and the research this capital financed, the market continued to disappoint even as LEXX did not.

The one thing I did know from my many decades looking investment opportunities is that small companies on the road to becoming large companies must, in the collective wisdom of the market, attain a critical mass. Once that happens, the response of the market is totally different. Before critical mass, investors don't seem to care. Good news is ignored and bad news triggers an overblown sell off. After critical mass, investors jump on good news sometimes giving too much incremental valuation; overestimating the positives while ignoring bad news. Attaining critical mass is an important milestone in the history of any public growth company.

I have gotten to know Chief Executive Officer Chris Bunka very well during this time. I have also gained an appreciation for President John Docherty's role and skills but Chris Bunka has been my major contact. I have learned, for example, when Bunka issues a Press Release it is for a specific reason. Also, I absolutely know Bunka is very skilled in managing and publicizing small cap companies having an extensive background in venture capital. Bunka knows news releases from microcap companies published in the second half of December have less impact because investor minds are focused elsewhere. In fact, one popular strategy is to "save" news from late December for publication in the initial trading days of the new year. With all of that in mind, I ask myself, why did LEXX issue Press Releases on:

- December 20<sup>th</sup> - **Lexaria's Human Oral Nicotine Study Begins Dosing** ([read here](#))
- December 21<sup>st</sup> - **Lexaria's DehydraTECH-CBD Achieves Superior Human Blood Absorption Levels** ([read here](#))
- December 29<sup>th</sup> - **Lexaria Receives First Granted Patent in Canada** ([read here](#))

Nothing I mused about was new. In fact, I have reported on all of these issues since LEXX's NASDAQ listing in early 2021 ranging from the facts of the press releases in December to my qualitative assessment of Chris Bunka and other non-quantitative matters. What I am doing is taking each little factoid and a few non-factoids as if they were beads and I put them on a string in the order of my choosing. Someone else might take the same beads and end up with a different necklace.

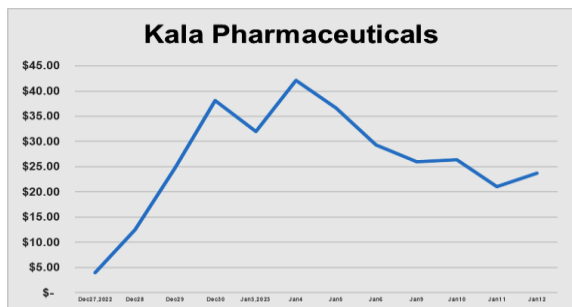
**Bead #1** – I thought LEXX attained critical mass in early 2021 when the NASDAQ listing and financing were completed. I speculate that Bunka has reached the same conclusion and consciously or subconsciously, he is delivering that message. Despite the lackluster markets keeping LEXX stock depressed while even while on the verge of making its hypertension investigational new drug (IND) application, don't forget LEXX has many other important things going for it. The hypertension IND application is not the end of the story, it's the beginning.

**Beads #2, #3 and #4** – the December 2022 press releases covered the start of human dosing for NIC-H22-1 that was important but not critical for publication on December 20, 2022; the December 21, 2022 release “announced” superior CBD absorption using DehydraTECH-CBD™ something that had been generally known for three or four; and the receipt of the first patent in Canada on December 29, 2022, again important news it was not mission critical on December 29, 2022. However, for some reason, Bunka chose to make these releases in December although it seems to me they could have been put out in January. I suggest Bunka feels he is running out of time. We know their hypertension IND application is coming up in the near future and I have been pounding home the point for at least 3 – 6 months. This is a major milestone for LEXX. It’s going to attract eyes to their technology and the other potential applications. This could be critical mass time.

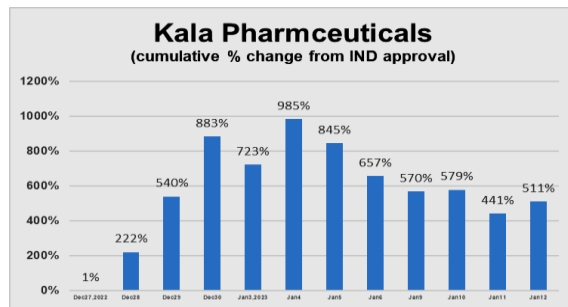
**Bead #5** – If these press releases did not contain factual, mission critical information in the last two weeks of December, then why would a market savvy guy like Bunka put them out? If you assume I am correct and the messages wouldn’t reach a news hungry retail investor market, they must have been directed to the biopharmaceutical scientific community or institutional investors as a reminder that DehydraTECH™ has this and other significant, potential applications. Whatever market result they get out of hypertension, and I am sticking to my expectation of an “explosive” result, there are at least one or two more possible uses, such as nicotine delivery, where they have very strong evidence of a potential application.

**Bead #6** – Why is it worth the time and effort for LEXX to publish those press releases over the Christmas holidays? I think the events surrounding Kala Pharmaceutical (NASDAQ: KALA), that happened about this time, might have been a factor. KALA is a clinical-stage biopharmaceutical operator dedicated to the research, development and commercialization of therapies for rare eye diseases. On December 27, 2022, just a little over two weeks ago, KALA announced the receipt of approval for their IND application from the U.S. Food and Drug Administration (FDA) for the treatment of Persistent Corneal Epithelial Defect (PCED).

As these two charts show, when Kala received its IND approval, the response in the market was explosive. Kala shares went from \$3.92 per share the day before the announcement to over \$40 per share in just



five trading days. It was a five-day, ten-bagger. And eleven days after the news was released and some of the



emotion was washed out of the market, the chart on the right shows KALA was still holding on to a five-



fold gain. It should be noted that Kala announced the submission of its FDA IND application on November 28, 2022, less than a month before FDA acceptance.

KALA and LEXX are reasonably comparable. KALA is a recent example of a company that did what LEXX is in the process of doing, that is, submitting an Investigational New Drug (IND) application to the FDA and having it approved. From a market cap perspective, the two were similar. Before the news broke KALA was actually a little smaller than LEXX and is now a little over double. I would argue the commercial potential for hypertension is much larger but it might be more competitive so I'm not going to argue the point. Let's just say they are similar. Finally, I conclude that KALA is running some six months ahead of LEXX right now based on the IND application and approval time. In any case, I think the two are close enough to take the KALA example as general guidance to what might be possible in the case of LEXX.

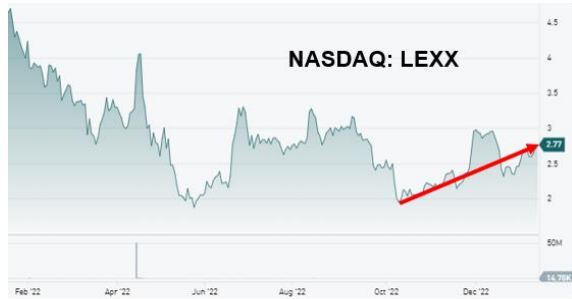
**Bead 7 –** I always try to have my brain tuned to the investment opportunity and with LEXX, this is the most exciting time in their history and it is also the scariest time. Scary in a good way. In the six years I have been following LEXX, about 90% of the time, I thought the shares were greatly undervalued. Today, I think they are the most undervalued they have ever been. I also know that LEXX's original plan was to take the hypertension application to FDA phase 2 and look for a bigger pharma company to carry it through to final approval. I expect them to be at that point in the next 3 to 6 months.

- **Most exciting:** within the next few months, I expect LEXX to submit its IND application. When this is done, the stock should respond positively. KALA rose 20% when this was announced. Then within a month or two of submission, I anticipate LEXX will receive FDA approval. In KALA's case, the gain has been in the range of 5X to 10X. For LEXX that would mean a stock price in the US \$13.50 – US \$27.00 range using the example of KALA. LEXX is sticking to its six-month approval time but based on KALA, it could be as little as a month. My own forecast would lean toward the KALA experience because LEXX spent extra time and money in preparation for this event and the initial response from the FDA was excellent.
- **Scariest:** what is frightening to me is that the cannabis sector has been in a bear market for approximately four years that has pushed LEXX to what I judge to be its most undervalued position in all six years I have been following the company. LEXX's market cap is just shy of US \$20 million. In the biopharmaceutical sector, \$20 million is a pittance. Pharma licensing deals are often \$20 million to \$80 million or more in combined upfront and milestone payments. Assuming LEXX makes its IND application to the FDA in the next six months or so, a number of large, biopharmaceutical companies will look at LEXX, or may already be looking and think why bother with licensing a DehydraTECH™ application when we can buy the whole the company for, say, \$40 million. In the kind of market we have been through, an offer for the company at double its recent market price would tend to be looked on as attractive and acceptable to many shareholders. But I think a successful acquisition of LEXX in the \$40 - \$50 million market cap range would be tragic. Equivalent to highway robbery with patient and loyal investors the losers..



**Conclusion:** if I string my beads together, here is the bracelet I end up with.

- First, an IND application in the first half of 2023, most likely toward mid-year and FDA approval within a month or two after based on the Kala Pharma example last month around Christmas. This not only



promises a significant return on LEXX for investors, I think it will be the tipping point at which time **Lexaria Bioscience**



**(NASDAQ: LEXX) (NASDAQ: LEXXW)** bursts into the consciousness of the international pharmaceutical industry. I'm not ruling out the possibility that it has already begun which is why I have been urging readers to make sure they have LEXX in their portfolios. In the Cannabis Report for ADVFN that I produce, LEXX is always in spirited competition to be the largest position in the portfolio.

- Second, the December press releases I discussed above might have been management's response to pharmaceutical industry interest and intended as a heads up that LEXX is reaching critical mass. When I put my investment hat on, stop thinking as a retail investor and imagine I am a multi-billion dollar pharmaceutical company, here is what comes to mind. Why waste my time and an amount of money that doesn't represent a decimal point of my balance sheet to formulate an offer for a licensing agreement that involves negotiating an upfront cash payment, milestone payments, the need to publish a news flow for a microcap company and if it all works out, an ongoing royalty payment? The licensor's (eg. LEXX) market cap is under \$20 million. We could offer them double their current stock price and given the depressed level of the markets, their shareholders might jump at the chance to have a winner in their portfolio after such a discouraging time. For us, it would be a steal. Absolute highway robbery.

This is a scenario that I said above, scares me. Great opportunities like LEXX are hard to find and I don't want readers to miss out on this opportunity.

### **Outlook for the large cap and cannabis stocks in 2023 (December 30, 2022)**

**Historical Review** – when COVID hit and was accepted as a serious problem, the Dow Jones Industrials dropped 13.7% in March 2020, the worst month in over 30 years and dropped -23.2% in the first quarter of 2020, the worst first quarter for the Dow on record. At that time, most inexperienced investors were in a state of shock and many professionals were not much better. As often happens, the market then began an extended advance starting from the bear market low in March 2020 and running until December 2021. This set up 2022 as an extension of the bull market or a transition from the bull market to a bear market. As the table below shows, 2022 was a bad stock market year. It was not quite as bad in Canada. In 2022, the Dow Jones Average was down -8.8%, the Standard & Poor's 500 was down -19.4% and the NASDAQ

|                                  | 2022   | Recent |
|----------------------------------|--------|--------|
| Large Cap Stocks                 | Return | Hi/Lo  |
| <b>United States</b>             |        |        |
| Dow Jones Industrial Average     | -8.8%  | -21.5% |
| Standard & Poor's 500            | -19.4% | -24.8% |
| NASDAQ Composite                 | -33.1% | -36.4% |
| <b>Canada</b>                    |        |        |
| Toronto Stock Exchange Composite | -8.7%  | -18.3% |

Composite dropped -33.1%. In so doing, each of the indexes also met the -20% threshold used to define a bear market although the Dow and S&P 500 are just barely across the line. The Toronto Stock Exchange has not yet produced a correction of bear market proportions primarily due to the fact that high inflation goes hand in hand with higher commodity prices and Canada is a resource-oriented economy.

The cannabis sector experienced a fourth consecutive dismal year. The various cannabis stock indexes produced by either Let's Toke Business or New Cannabis Ventures show 2022 returns of between a

|  | 2022   | Bear    |
|--|--------|---------|
| Cannabis Sector                                    | Return | Market  |
| <b>Canada</b>                                      |        | Return* |
| LTB** Marijuana Composite Index                    | -57.8% | -92.3%  |
| NCV*** Canadian Cannabis LP Index                  | -62.9% | -94.6%  |
| <b>United States</b>                               |        |         |
| NCV American Cannabis Operator Index               | -65.2% | -86.3%  |
| * the cannabis "recent" highs go back 2 - 4 years. |        |         |
| ** LTB = Let's Toke Business                       |        |         |
| *** NCV = New Cannabis Ventures                    |        |         |

decline of -57.8% and a drop of -65.7%. As explained in the footnotes, the cannabis sector has been in a sharp decline for up to five years. The 2022 decline relates, in my opinion, to the fact that the Democrats went into the Biden administration's first midterm without passing any pro-cannabis legislation. In fact, Senators Schumer, Booker and Wyden blocked every attempt by the Democrat controlled House to pass SAFE Banking plus or minus the Harnessing Opportunities by

Pursuing Expungement Act (HOPE) Act late in the session. I said over a year ago, when Schumer et al promised to bring forward their Cannabis Administration and Opportunity Act (CAOA) it wouldn't pass. When they missed deadlines and didn't bring forward the bill until just before the June 2022 summer break, I said it had no chance to pass. And when Booker said they could pass some pro-cannabis legislation during the lame duck session after the midterms, I expressed the strong opinion that wouldn't happen. As each of these expectations failed to come through, the cannabis indexes continued to decline.

**The Let's Toke Business Stock Market Model** – is a hypothetical model for a complete stock market cycle I have developed over time. It breaks a complete stock market cycle into three parts: (1) The Dynamic Phase of a Bull Market, (2) the Trading Phase of a Bull Market and (3) the Bear Market. This is not a predictive model, that is, I am not trying to forecast where the market is going. Over the years, it has been established that market forecasting does not add value to the portfolio management process. In my approach, I try to identify the phase I am in. Since each leg has some duration, if I can identify the stage I am in, I can set up portfolios for what is likely to prevail over the immediate future. The most difficult parts to identify are the transition points where the market is moving from one phase to the next.

- Three Phase Market Cycle: as shown in the chart below left, the typical cycle moves from the Dynamic Phase of a bull market, to the Trading Phase of the bull market, to the bear market



and back to the Dynamic Phase. The chart to the right breaks the cycle into a clearer three parts. The bull market that includes both the Dynamic and Trading phases last longer while Bear markets are shorter. Since 1928, the average stock market cycle from the start of a

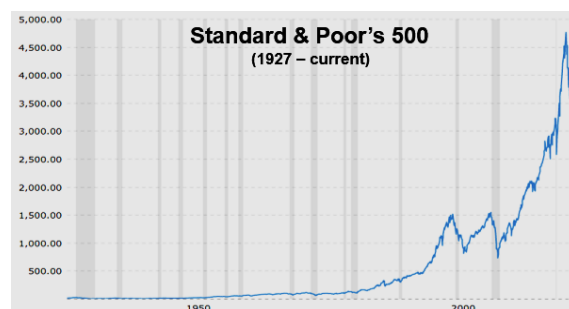


bull market to the end of a bear market has been 3.5 year. Bull markets have averaged 32.6 months or 2.7 years while bear markets have averaged 9.5 months or 0.8 years. This means, on average, we are a bull market 77% of the time and we are in a bear market 23% of the time. On a rule of thumb basis, a typical stock market cycle is 4 years long made up of a 3-year bull market and a 1-year bear market. Or put another way, the stock market is three steps forward and one step back.

- The average bull market has seen stock prices rise +114% on average while the average bear market has witnessed a -36% decline in stock prices. Because bull markets last longer and rise faster than bear markets that are shorter and decline less, the stock market as measured by the Standard & Poor's 500 Index has risen, on average, by 10% per annum with dividends included.
- The next chart illustrates some of the different characteristics of the three phases. The Dynamic Phase is a more rapidly advancing period with corrections averaging between 3% and



5%. The Trading Phase will generally have corrections in the 5% to 15% range. Bear markets are often defined by a correction in excess of 20%. Here is how that looks on a long-term chart of the Standard & Poor's 500 index. As the chart above left shows, the main difference



between the Dynamic and Trading Phases of a bull market is in the volatility and size of corrections in stock prices both up and down during each phase. In the Dynamic Phase of a bull market, stock prices are generally rising strongly. Because the Dynamic Phase is the longest of the three phases, there may be more corrections but, as I explained above, they tend to be smaller, typically in the 3% to 5% range. As the cycle transitions from the Dynamic to the Trading Phase, the volatility increases. In fact, this is the defining characteristic of a Trading Phase compared to the Dynamic Phase. In the Trading Phase, the

corrections become much larger; generally, in the 5% to 10% range which tends to moderate the rate of increase in stock prices.

Finally, as we move into the Bear Market, the pattern changes again and becomes almost the direct opposite of the Dynamic Phase. In other words, in a Bear Market stock prices tend to decline relentlessly with very minor and occasional rallies of 3% to 5%. But bear markets are volatile as half of the best one day returns on the S&P 500 have happened during bear markets. A sign of the end of a bear market is an unexpected disaster such as a high-profile bankruptcy. At some point, investors capitulate by first ignoring good news then ignoring bad news.

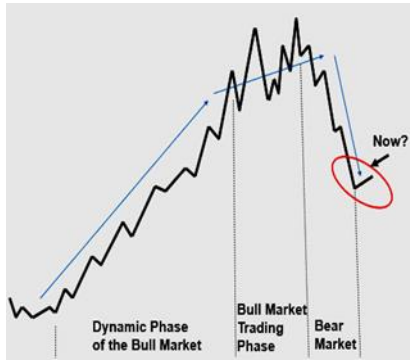
The summary looking forward from August 2022, was that it seemed too soon to call the bear market ended and I suggested we might be heading for a double bottom which now appears much clearer. I said then and I reiterate now, "This makes sense if we also assume the economy recovers in the third quarter and falls into a clear recession in 2023 as many economists expected. Based on the economic data, however, I think weakness will be drawn out. After two lackluster quarters, (Q1 and Q2 of 2022) the third quarter could be better. After that, however, I would not be surprised to see the economy moved into an uncontested recession and the market make a double bottom. If this happens, we will be looking at stagflation that is very difficult to deal with because if you raise interest rates to fight inflation, the economy will suffer even more. On the other hand, if you reduce interest rates to stimulate the economy, you will also be promoting higher inflation."

I was also waiting for the market to confirm its direction. "The characteristic to watch for now is whether the next correction makes a higher or lower low. A lower low will confirm we are still in a Bear Market. A higher low will indicate a change in trend from down to up."

As often happens the message from the market is unclear. In the intervening months, the market made a high low that suggests a change in trend from down to up but that was followed by a lower high which is indicative of a continuation of a downtrend.

- A factor that become of specific interest today is the relationship between bear markets and recessions. Based on the data we are looking at, there have been 26 bear markets but only 15 recessions. This prompted economist Paul Samuelson to say, "The market has predicted nine of the past five recessions." Samuelson's point was over the past 100 years, roughly two out of three bear markets followed by a recession while one out of three has not. Therefore, it is also possible and to have a bear market in stocks and not an economic recession.

At the end of my previous review, here is where I thought we were. At the time of our last market update,



two out of the three major U.S. indexes had declined more than the bear market defining decline of -20%. Both the Standard and Poor's and NASDAQ Composite had exceeded the -20% hurdle but the Dow

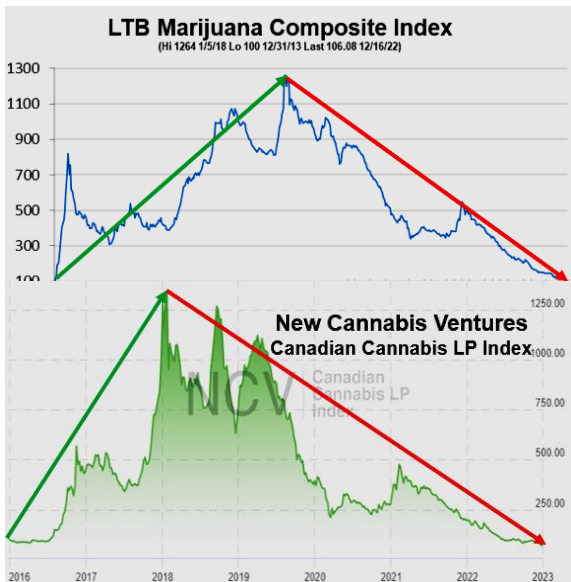


Jones Industrial Average had not. So, we were very close to being in a bear market as far as the Dow and S&P were concerned while the NASDAQ were well into bear market territory as were the cannabis stocks. I thought this might lead to a double bottom in the stock market and a recession 2023.

## The Cannabis Sector – 2022

For the cannabis group, it was a fourth consecutive year of dismal results. Here is a smattering of indexes that show just how bad it has been.

This chart is the LTB Marijuana Composite Index from December 2013 to December 2022. It shows in the first four years, this sector increased 12.5-fold and has virtually given it all back in the ensuing five years. This is a broadly based index having representation of between 50 – 100 companies at different points along the way. In addition, it includes representatives of the very largest and smallest cap cannabis companies. It is very indicative of the sector.



This chart is the New Cannabis Ventures Canadian Licensed Producer's Index. It has a shorter time frame starting in January 2016 and its content is probably higher cap on average than the LTB Marijuana Composite above. However, the indicated price moves are alike. This index rose 11.8-fold in the first two years followed by an ensuing almost five years in which it gave it all up plus a little. Each index confirms the other's results as very similar.

I think it is fair to conclude that the cannabis sector is depressed. In both Canada and the U.S., the cannabis industry has its problems. From an operating point of view, the underground market remains a major negative for operators. Illegal operators do not have the costs of staying within the government mandated regulations and do not have to pay taxes, which means legitimate operators have a difficult time competing. From a regulatory point of view, governments have ignored cannabis operator needs, have been slow to enact regulations and, in some cases, are handicapping those companies trying to

comply with the law. With leftist governments in both the U.S. and Canada, politicians seem more concerned with correcting historical wrongs than they are with correcting current issues. But there is hope for improvement on the regulatory front.

### **Looking Ahead to 2023 – The larger cap, blue chip sector**

Several things were clarified in 2022, particularly later in the year. I expect these will have an impact on the markets moving forward.

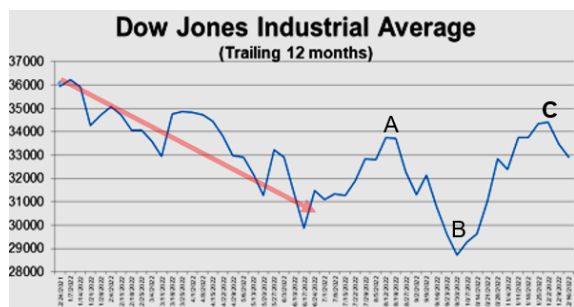
- **Interest rates:** are going to continue to rise in 2023 although the pace might be slower. On the back of five consecutive months of declines in the Consumer Price Index, the Federal Reserve Board reduced the rate of increase in the Federal Funds rate to 0.5% from a series of 0.75% hikes. Chairman Jerome Powell said unequivocally that interest rates may not rise as fast in 2023 but the Fed's forecast showed no interest rate declines next year and 17 of 19 officials believe rates will go above 5%.
- **Inflation:** the Fed funds rate reached a 15-year high last year but inflation reached a 40-year high. Powell stated that the 2% target for inflation would not change so despite recent improvements, there is still a long way to go. Consumers in the economy know inflationary pressures still exist. Investors remain skittish which suggests there will be financial volatility moving ahead.
- **Labor markets:** Chairman Powell also made it clear that persistent strength in the labor market is a problem. In fact, economists enter 2023 with the sense that the labor market has become the key to shaping Fed policy moving ahead.
- **Recession:** economists and investors remain focussed on the economy and the ability of the Fed to bring down inflation without producing a recession, the so-called "soft landing." The Fed's record with soft landings is not particularly good. In fact, it is terrible. The best Powell can point to is that in the case of a recession, it will be short and shallow. But that reminds me of the Fed statement just over a year ago that the rise in inflation will be transitory implying it will go away on its own. That didn't happen with inflation and I doubt a short and shallow recession is in the future either.

**Conclusion:** looking ahead to 2023, I think we will have a year in which the economy gradually weakens. The Fed will be watching the labor data and inflation to determine their response. If this data remains as strong as it is, interest will continue to rise. As we see these numbers in the months ahead, we must keep two factors in mind:

1. The current labor numbers, such as the unemployment rate, is still at the levels that prevailed in the full employment days just prior to the pandemic. A bump up in the unemployment rate to 4.2% from its current 3.7% simply represents a return to the rate that prevailed one year ago. Again, we must avoid the temptation of becoming overly optimistic over relatively small changes in the labor market statistics.
2. Even if the Consumer Price Index continues to decline, the Fed's target growth rate is 2% and that will not change. I think it would be a mistake to get too excited because inflation has dipped below, say, 5% or 6%. This is still 2½ - 3 times higher than the target range and the Fed has emphasized inflation must provide evidence of staying at 2%. This is not likely to be attained during 2023.

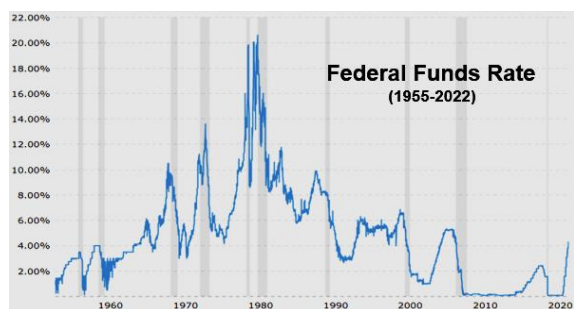


- The stock market during 2022 painted a fairly accurate picture of what was going on. In the first half of the year as the Fed began to ramp up its battle with inflation and interest rates started to rise, stock prices trended lower. Then investors turned their attention to when the Fed would begin to ease back on interest rate hikes, the stock market made a higher, high shown on the chart as point “A” indicating a possible change in trend from down to up. But the Fed not only persisted with higher rates, it indicated this was not going to change and the market fell to a lower, low indicated as “B” on the chart. This meant the stock market trend was not going to changing to up but the

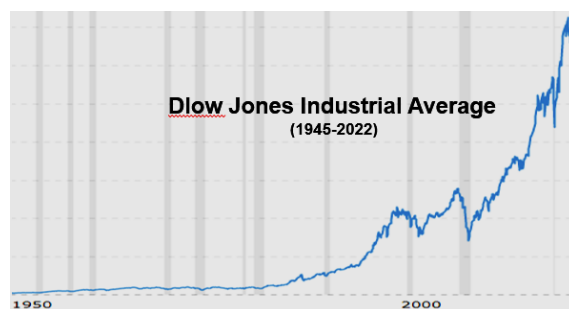


previous downtrend was going to continue. But then investors moved to a position that interest rates would peak, perhaps by mid-2023 and this created enough optimism to drive stock prices up to a higher, high shown as “C” on the chart. This indicated the possibility that interest rates would be declining by the second half of 2023. “Just a minute,” said the Fed in their December report that showed no declines in the Fed Funds rate in 2023. This triggered a sell-off in stocks that continues into 2023.

3. For most people, inflation and rising interest rates are a slow and relatively painless process. In comparison, unemployment is quick and painful. So far, the U.S. recession has been a financial recession



emphasizing inflation and interest rates. In 2023, I think the recession will be felt on Main Street and as that happens, we



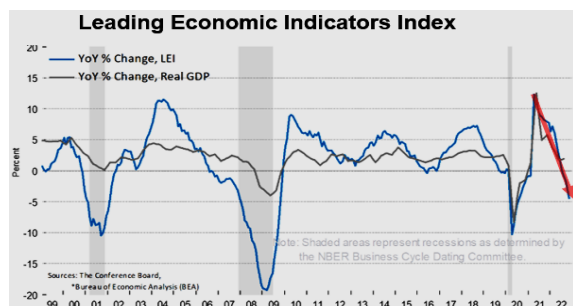
will begin to see more pessimism from the average American.

4. The following two charts show the history of the Federal Funds rate and the Dow Jones Industrials compared to recessions. Here I am focussed on the timing. The charts below show that the Fed Funds rate tends to turn up and down ahead of the economy while the Dow Jones is a recognized leading economic indicator. The Fed Funds rate has been rising for some six months, it has been pointing toward a slowdown in economic activity. Similarly with stock prices and depending on which index you choose, a bear market has already been identified.
5. The Conference Board of the United States has assembled The Conference Board Leading Economic Index® (LEI) to help forecast economic conditions. This is a diffusion index that combines the impact of each of the ten leading indicators which are are:
  1. The [United States Department of Labor](#)’s monthly report on the unemployment rate, average hourly earnings and the average workweek hours from the Employment Situation report
  2. The [United States Department of Labor](#)’s weekly report on first-time claims for state unemployment insurance



3. The [United States Census Bureau](#)'s monthly consumer goods and materials report from the Preliminary Report on Manufacturers' Shipments, Inventories, and Orders
4. The [United States Census Bureau](#)'s monthly non-defense capital goods report from the Preliminary Report on Manufacturers' Shipments, Inventories, and Orders
5. The [United States Census Bureau](#)'s monthly report on building permits from the Housing Starts and Building Permits report
6. The spread between the interest rates of 10-year [United States Treasury notes](#) and the [federal funds rate](#)
7. The Federal Reserve's inflation-adjusted measure of the M2 [money supply](#)
8. The [Institute for Supply Management](#)'s monthly ISM Index of Manufacturing including: supplier deliveries, imports, production, inventories, new orders, new export orders, order backlogs, prices and employment.
9. The [S&P 500](#)
10. The [University of Michigan Consumer Sentiment Index](#)'s consumer expectations.

Here is the message has been delivering in recent months. The LEI recorded a sharp decline of -1.0% for November following a drop of 10.9% in October. In November, nine of the ten leading indicators declined.



Only stock prices, as measured by the Standard & Poor's 500 index rose. Over the preceding six months, the LEI has dropped -3.7%. The Conference Board concludes that the decline in the LEI in recent months indicates the tightening by the Federal Reserve Board is having an impact on the U.S. economy. This leads to the conclusion that a "...U.S. recession is likely to start around the beginning of 2023 and last through mid-year."

Of course, the LEI, like any other forecasting tool, is not perfect. One reason is the relationship between each leading indicator is not perfect. Any individual indicators may not produce the expected result in a given cycle. Another consideration is that economic data is always subject to revisions which the Conference Board does monthly if the source data is revised. An annual revision is done with the report published in January that will be the case with next month's report.

My conclusion is the larger cap, blue chip stocks will face some strong headwinds in 2023. Certainly, the Federal Reserve Board seems to be intent on keeping interest rates high all year and, at this point in time, there is no sign that interest will decline in the next twelve months. At best, rates might plateau at a historically high level. This pressure will remain until the last holdout in the economy, the labor sector, gives in. The process will be a difficult one for the Democrats who count labor as an important part of their support. But with the railway workers, Biden was forced to step in and when he thought he had a settlement, four out of twelve unions rejected it. This forced Biden and the Democrats to impose a settlement on the union. This will be a contentious issue in 2023. As I have said, interest rates look to remain high in

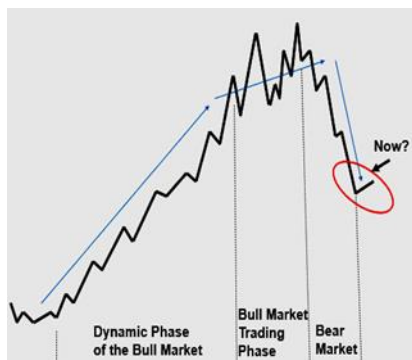
2023 and the Fed has said the problem of inflation will not be beaten until it returns to a permanent level near the 2% per annum target level.

The midterm elections did not go as well for the Republicans as they hoped. However, they did reclaim control of the House and that will make it much harder for the White House to pass their inflationary borrow and spend projects. This promises a little more fiscal stability and less inflationary pressures on the U.S. economy.

What does that mean for the large cap sector in 2023?

- (1) Although Federal Reserve policies have triggered many recessions, rarely has the Fed provided such clear guidance of their intentions. At this point we can expect higher interest rates in 2023, no declines in interest rates in 2023 and the Fed intends to keep upward pressure on interest rates until they are convinced inflation is likely to hold at the 2% per annum level.
- (2) Clearly, we are headed for an economic slowdown and quite likely a recession. Bearing in mind that the stock market has forecast 9 of the past 5 recessions, there is a chance that a recession can be avoided. The Fed is focussed on labor markets so we can expect increases in the unemployment rate in 2023.
- (3) Looking at the major indexes such as the Dow Jones, Standard & Poor's 500 and NASDAQ Composite, the Dow and S&P have met the lower end of the -20% definition of a bear market while the NASDAQ has fallen well into bear market territory. There is still downside for stock prices but the decline has already started. Expect markets to be choppy to lower as they have been recently.
- (4) At some point ahead, perhaps in the second half of 2023, there will be strong evidence that the economy is weakening and might be entering a recession, the prevailing sentiment will be negative and stock prices will begin to rise. Meanwhile, pundits will be predominantly bearish and question how the market can rise when the economy is so soft. At that time, it will be important for investors to remember the stock market is a leading indicator of the economy and it should turn up before the general economy is in recovery.

**Conclusion:** my expectations for the blue chip sector are little changed from early August 2022. I think we have already experience some downside in stock prices and there may be more to come. However,



as investors we are always looking ahead but my model is not based on forecasts that are normally inaccurate at best and wrong at worst. Instead, I focus on where we are in the market cycle and use that to determine what we should be doing with portfolios. As the chart to the left shows we are currently in a bear market

but we are not at the beginning but nearer the end. The chart above right shows the Dow has barely

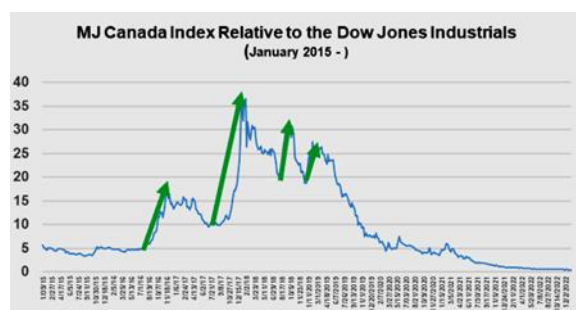


penetrated the definition of a bear market while the cannabis sector is beyond almost any level of decline that anyone might have reasonably expected.

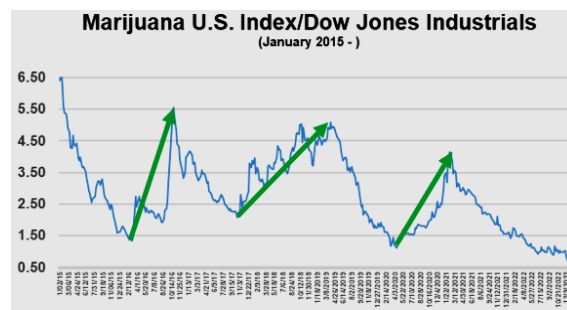
- **On the cannabis side, the markets were let down by the regulators/politicians.** In fact, if I think the greatest mistake that was made by investors in the cannabis sector would be overlooking the regulated nature of the business that would evolve and the ineptitude that politicians would demonstrate in putting regulations in place. Not only that, the Senate has refused to consider any pro-cannabis legislation sent to them by the House because of Charles Schumer, Cory Booker and Ron Wyden's desire to jam through their Cannabis Administration and Opportunity Act. (CAOA) They did this with the knowledge that CAOA had virtually no chance to pass before the midterm election.
- In 2023 and into 2024, this might prove to have an unintended positive consequence of helping cannabis investors by helping the cannabis industry. There are some pieces of legislation that failed to pass in the last Congress because Schumer, Booker and Wyden that have a much better chance in the new setting. These would include:
  - (a) **The Safe and Fair Enforcement Act (SAFE Banking Act):** In the U.S. at the present time, 39 states and the District of Columbia have legalized the medical use of cannabis and 21 states and the District of Columbia have legalized recreational or adult-use cannabis. Federally, however, marijuana is still listed as a Schedule 1 drug which is defined as a drug or other substance that has a high chance of being abused or causing addiction and has no Food & Drug Administration (FDA) approved medical use in the United States. While you can argue parts of the definition, in June 2018, the FDA approved Epidiolex® as a cannabidiol (CBD) based prescription drug used to treat certain seizures. So marijuana does not even fit the definition of a Schedule 1 drug. However, a Schedule 1 drug is illegal under U.S. federal law and most U.S. banks are federally regulated so bankers have been reluctant to offer services to state-legal cannabis companies. SAFE Banking does nothing more than pave the way for federal banks to offer the normal banking services that are available to any other legal business operating in the United States. But Schumer, Booker and Wyden have blocked SAFE Banking from reaching the floor of the Senate for consideration.
  - (b) **Section 280E of the U.S. Internal Revenue Code:** over 40 years ago when Ronald Reagan was President, a convicted cocaine, amphetamines and marijuana trafficker argued in tax court that under Federal tax law, he should be allowed to deduct ordinary business expenses such as rent, packaging, telephone and car expenses for his illicit drug business. This was the well-known *Edmondson v. Commissioner* case which the trafficker won. In 1982, Congress enacted Section 280E to prevent businesses engaged in certain illegal activities from recovering costs or claiming related business deductions in calculating taxable income. Section 162(a) allows taxpayers to deduct ordinary and necessary expense incurred to carry on business in arriving at a taxable income. Section 280E specifically prevents a business that involves trafficking in Section 1 and Section 2 drugs from Section 162(a). Schedule 1 drugs are marijuana, heroin, lysergic acid diethylamide (LSD), ecstasy and magic mushrooms while Section 2 includes cocaine, methamphetamine and oxycodone. Marijuana, as a Schedule 1 drug, is federally illegal and since the Internal Revenue Service (IRS) is federal jurisdiction, it taxes state-legal cannabis businesses as if Section 280E applies. The result is that state-legal cannabis businesses pay effective taxes of 70% up to 100% in cases where the business is not properly tax

structured. Although SAFE Banking has a much higher public profile, U.S. operators will tell you that Section 280E is the more important problem.

- (c) **SAFE Banking Plus** is a reference to passing SAFE Banking with some provisions appended for dealing with social issues such as the release of people in prison for minor, non-violent cannabis charges. The idea has strong support but the “Plus” side of such an act haven’t been specified.
- **Even if legislation is passed, can the cannabis sector ignore bear-ish trends in the major markets?** I think so. As the charts below suggest, the cannabis sector has strongly outperformed and



underperformed the large cap sector in the past. The chart to the left shows the relative performance of the MJ Canada Index relative to the Dow and the chart



above right shows the Marijuana U.S. Index relative to the Dow. Both charts show there have been notable periods of outperformance in the past by the cannabis sector. The other factor that comes into play is the fact that the prime driver I expect will move the cannabis stocks upwards in the first half of 2023 is not dependent on a strong economy or lower inflation and interest rates. Finally, SAFE Banking simply levels the playing field for state-legal industries giving cannabis operators access to the same level of banking services as any other legal business. Similarly, correcting the application of Section 280E again simply taxes state-the punitive 70% to 100% rates that could apply. After all, the impact of Section 280E is tax your gross income instead of your net income.

- My general expectation is that pro-cannabis legislation will be enacted by the middle of 2023. This means the market will begin to discount such an event around the middle of the first quarter. My best guess is that it will be a form of SAFE Banking Plus.
- As a result, I expect the cannabis sector to experience the first up year following five down years. If the cannabis market improvement is prompted by pro-cannabis legislation passing through Congress, I think the multistate operators (MSO) will be the market leaders but the sector in general will improve.

### **Khiron’s problems in Colombia resolved very much in their favour – January 6, 2023**

Last week, I alerted you to the fact that the Colombian Government had approved medical cannabis products for approval under the national health care plan and the positive impact this would have on **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)). That information was acknowledged in a Press Release by KHRN on Thursday January 5, 2023. The market responded favorably but I think it was a reaction to some additional information KHRN included in their press release.

On January 5, 2023, KHRN highlighted these four points and I have shown in bold italics the news I think was most important to investors. As there was no public information prior to this release, it constitutes a “positive surprise” from an investment point of view.

- (a) On December 30, 2022, the Ministry of Health of Colombia reaffirmed the inclusion of plant-based medical cannabis products, i.e., Khiron products, in the mandatory insurance coverage system
- (b) *Starting January 1st, 2023, every insurance provider in Colombia, is mandated to cover the costs of medical cannabis prescriptions for patients***
- (c) Khiron will immediately start filling backlogged orders of insurance-covered prescriptions in Colombia
- (d) *New Contract Awarded: Additionally, in December 2022, Zerenia™ Colombia entered into a contract with the largest Government-owned insurance company in the city of Bogota with over one million people under coverage, to provide healthcare services with medical cannabis for its patient population***

Here are my comments on (a) to (d) above:

- (a) In a market driven by a high degree of pessimism, anything that might raised the possibility of medical cannabis being dropped by from the health insurance plan by a new government would attract an overly negative market response. But I don't think this was a likelihood. New President of Colombia, Gustavo Petro, is more pro-cannabis than his predecessor. What was important is how long it would take for things to return to normal. For KHRN, the timing of events in Colombia and Germany was unfortunate as it overlapped the planned switchover to Pharmadrug in Germany meaning there has been a period of time when revenue from two major markets were at near zero levels. **The fact that both Germany and Colombia are back to “normalized” conditions at the beginning of KHRN’s first quarter of 2023 is very important.**
- (b) The insurance coverage for medical marijuana in Colombia was not a question of “if” but “when.” With a new government, it was hard to estimate but most went from weeks to months. Resolution 2808 of 2022 was signed by the Ministry of Health on December 30, 2022. clearing the way for it to be in effect on January 1, 2023. This was a positive outcome that continued the practice of the former government. Furthermore, there had been some ambiguities whether plant-based magistral preparations from medical cannabis were included in the insurance coverage. This is now once and for all clearly confirmed. The new government is fully committed with the use of medical cannabis as a covered treatment under the Colombian health system.
- (c) In addition, it was not known if past prescriptions would be honored but Torres has said KHRN will tackle the backlog of orders. I estimate the revenue loss was between two and four months of revenue. With CEO Alvaro Torres saying that **KHRN would attempt to deal with the backlog means there will likely be some recovery of lost business carried forward**

**from the third and fourth quarters of 2022 into the first quarter of 2023. Certainly not all but some.**

- (d) Additionally, in December 2022, Zerenia™ Colombia entered into a contract with the largest Government-owned insurance company in the city of Bogota with over one million people under coverage, to provide healthcare services with medical cannabis for its patient population. In addition, Zerenia™ Colombia (Khiron's wholly owned medical cannabis clinic network), has entered into a contract to provide "Integrative Health Services and Pharmacotherapeutic Treatment with Medical Cannabis" with the largest Government-owned insurance company in the city of Bogota, with more than 1.2 million insured individuals. This is the first time an insurance company in Latin America is contracting medical cannabis specific services and products. This represents an opportunity for Khiron and Zerenia to expand its client and patient base within Colombia, while continuing to differentiate itself with its unparalleled expertise in medical cannabis and proprietary scientific evidence.

I hope this announcement is not lost in the positive response to the news that the government has reaffirmed medical cannabis for inclusion in the medical insurance plan but, in this version, coverage is mandated. With this agreement, Khiron and Zerenia™ has contracted with the largest Government-owned insurance company in Bogota with 1.2 million insured individuals to provide "Integrative Health Services and Pharmacotherapeutic Treatment with Medical Cannabis." This provides Khiron and Zerenia™ a marketing and branding advantage and opportunity to a extremely large number of people.

**Conclusion:** this was certainly good news that I reported last week was on the way. While the news did not reach the broader international markets until the January 5, 2023, it was widely publicized in Colombia



earlier in the week. Here is a screenshot of a Spanish-language news report on the leading news channel in Colombia on January 4, 2023. You will note that the background shot is of Khiron/Zerenia™ products. You can't buy that sort of publicity. In my opinion, the Khiron/Zerenia™ brand for medical cannabis is already well established in Bogota and Colombia but the recently announced agreement with the largest government-owned health insurer in Bogota will solidify its standing.

These charts show the share price of **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#))

([Frankfurt: A2JMZC](#)) responded well to the positive news which hasn't always been the case. In my





opinion, this means KHRN had reached a rock bottom price and KHRNW the stock have developed a small but growing market following that is watching them and will respond to good news. This has not always been the case.

As regular readers know, in the financial markets there is always the next issue to think about. What worries me at this time is investors will see the recent jump in the stock price as an opportunity to sell. I think this would be a tragic error. Although the recent bump up in the price of the shares and warrants



looks substantial (and it was in terms of recent stock prices), it is really nothing in the context of the longer term. Here is the four-year chart of KHRN. From this perspective, last week's market was very important in the short term but almost immaterial in the long term. As I like to remind people, to recover a 50% decline, you need a 100% advance. I first brought KHRN to the attention of readers on the other side of that early 2019 peak so I am looking for a lot more than \$0.10 per share on the stock. Certainly a dime is better than a nickle but it is far short of a dollar or two.

I certainly think you should hold on to **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)), following its recovery move last week. In fact, I think it is still a hot buy. KHRN is not out of the woods yet but I believe the risk/reward ratio is very attractive. As founder and Chief Executive Officer, Alvaro Torres said with respect to the affirmation of medical cannabis for Colombia's health insurance plan and the agreement with the largest government-owned insurer in Bogota, **"These two achievements, will allow us to revert to predictable recurring revenues, shorter collection periods and improved cashflow."**

### Special Report: May 2, 2022

#### Khiron Life Sciences Shareholder Conference Call

**Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#))

had their conference call recently to review fiscal 2021 annual and fourth quarter results. As usual, it made me realize once again what an amazing job Alvaro Torres and his team have done and are doing. This is my summary of a one-hour call. I have identified some added observations that confirm KHRN's success added at the end. Enjoy!

#### **Alvaro Torres, CEO, Khiron Life Sciences:**

The results for 2022 so far begin to show how unique and strong we are. We are growing in each market we are in. We have a unique way of capturing and retaining patients in Latin America and Europe. We have very high margins.

#### **2021 Milestones:**

- Revenue was \$12.8 million up 60% in 2021
- \$4.6 million in cannabis revenue or 36% of total 2021 revenue
- 79% growth rate over past five quarters.



- It appears medical cannabis revenue will exceed health services revenue in 2022
- Gross margins from the medical cannabis revenue stream of over 73% for the year
- Colombian gross margins of 85% and European gross margins of 55%.
- Gross margins in the health services division increased to 20.5% In 2021.
- Gross profits reached \$4.9 million, up 230% YoY
- Europe now accounts for over 30% of our cannabis sales
- Europe will be an increasingly important driver of our growth in 2022
- These overall results were accomplished under very difficult circumstances
- We are looking at revenue of \$4.5 million in Q1 2022.
- In March we exceeded \$1 million in cannabis sales worldwide which is just getting started
- We had 140,000 patient interactions in 2021, an increase of over 40%.
- In the first quarter of 2022, patient interactions were already at 41,000
- In March and April we were running around 16,000 per month
- Directors and Officers Insurance costs will decline from \$2.2 million to \$350,000 in 2022.
- In 2021, general and administrative expenses declined 15% YoY
- We do not need a cultivation license and operation in Uruguay. We export from Colombia
- Similarly, we stopped selling the Kuida wellness line so we took a write-off there as well
- Expect to be cash neutral by the end of the current fiscal year (December 2022) due to expense reductions and high margins.

We are selling medical cannabis in Colombia, Peru, the U.K., Germany and Brazil and have high expectations that we will be selling in Mexico very soon. We are just completing construction our first clinic in Rio de Janeiro, Brazil. We have shown we can grow during very difficult circumstances. Our brand is one of the leaders in Latin America and the U.K. Our revenue stream is made up of:

1. **Health services:** we offer medical services to people with chronic pain, mental pain, sleep disorders and other health conditions. This is a funnel that enables us to introduce sales of high margin medical cannabis products.
2. **Medical cannabis:** focus is on educating doctors, producing and sourcing high quality medical cannabis products and creating brand loyalty. In Q1 of 2022, medical cannabis sales exceeded the revenue to our health services division and represented 55% of sales.

In 2022, we expect leading markets to be Colombia and the U.K. and total sales of medical cannabis to exceed revenue from health services.

Medical insurance coverage is an important factor and we operate in two countries that have health plans covering medical cannabis: Colombia and Germany. In 2021, we sold 52,000 oil-based cannabis units and over 68% of those were covered by insurance. Today, over 80% of units sold are covered by insurance. Also in 2021, 60% of all patients with medical cannabis were returning patients and in March 2022, 75% were returning patients. The key toward building sustainable growth is having a brand and returning patients because they see the value of using medical cannabis. Also, the cost of retaining a patient is less than acquiring a new one. We have strong patient flow and high conversion rates to medical cannabis and we're just getting started. This is also helping us develop a lot of data that we are now taking to other

countries and regions to help us there. With the right data and product mix, doctors are assured we can help them treat their patients.

Peru accounts for around 5% of medical cannabis sales but it is even more important because it is the first country where we have been able to register a finished CBD medical cannabis product and very soon we will have our first registered THC medical cannabis product. Our next step is to export those products for sale throughout the rest of Latin America. We are also working on being able to import high THC product into Peru. All of this will become increasingly important in the second half of 2022.

In Mexico, we have always had a major opportunity and we are about to realize on this potential. We have already been educating doctors and medical professionals, so we have people who are ready to prescribe. We have made a partnership with Teleton that has 24 clinics and 600,000 patients. We have to deal with regulatory matters in Mexico that are out of our control but we are ready to get started.

**Franziska (Franzi) Katterbach, President Khiron Europe:**

Khiron entered the European market in 2019 with a strategy combining our clinics and a high quality and agile supply chain allowing us to make an impact on the European cannabis market as well as diversifying our revenue stream and providing more growth opportunities. In 2021, we made an important contribution to Khiron's operating results. In the fourth quarter of 2021, we were 40% of Khiron's medical cannabis revenues and in 2022 we will continue to grow. We have an understanding of medical cannabis based on our knowledge gained in Latin America plus the incredible amount of historical evidence from our clinics that we add to every day combined with our strong local team.

2021 was a challenging year for everyone but we were able to build a presence in the U.K. and Germany that are two of the largest markets in Europe. Our Khiron 20/1 flower (18% – 22% THC and <1% CBD by weight) is the most prescribed in the U.K. and our Khiron 114 is the most popular CBD dominant flower in the German market. We can take advantage of this momentum to increase our market share and expand our medical sales with additional flower and extracts.

Germany has a progressive medical cannabis law that includes coverage by statutory health insurance and is undoubtedly the largest and most mature cannabis market in Europe. But the true potential for cannabis patients remains untapped and that is opportunity for us. In 2021, we launched Khiron 114 that enjoyed great popularity among prescribers and patients and that allowed us to positively influence the discussion in the German public on the topic of medical cannabis. We also have a strong focus on constantly educating medical prescribers on our product. This will continue in 2022.

Khiron has a comparatively long history in the U.K. market that we entered in 2019 as a founding member and exclusive Latin American supplier for Project 2021. As we have in Germany, Khiron has a focus on educating doctors and we continue to build out our medical training for health care professionals using our fully digital education platform – Khiron Academy. We opened the first Zerenia™ clinic there in

November 2021 which was a major milestone. With the popularity of our Khiron 20/1 product and our growing team of experts there, the outlook remains very positive.

**Question: Margins:** **Answer Torres:** We made some changes with our auditors on the way we record our revenue in certain regions as principals and not agents which had an impact. But in the first quarter of 2022, our Latin America gross margin was 85% and our European gross margin was between 55% and 65%. We are currently negotiating with suppliers on price and we are not seeing any price decreases in our top line sales.

**Question: Patients/Retention:** **Answer Torres:** Our patient interactions will always have a slight seasonal effect because in the fourth quarter a lot of people are on holiday. In the first quarter of 2022, we had 41,000 patient interactions but in March and April we were already running around 16,000 per month. Our patient interactions will grow with new clinics and the expansion of the number of services for patients in the clinics. As these figures show we are already seeing this happen. It is always cheaper for us to be able to retain a patient than get a new one but our cost of attracting a new patient is also declining as we make it easier for the patients to get to our clinics. Also, as more insurance companies are available to our patients in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters, I think we will see that number continue to grow.

**Question: Costs:** **Answer Torres:** one of the big issues was our Directors and Officers insurance costs that were around \$2.2 million last year where we have been able to negotiate a much better rate of around \$350,000 this year. Also, we did have some sales and marketing expenses for the Kuida line which we have stopped, at least for now.

**Question: Europe – U.K. or Germany:** **Answer Katterbach:** Germany was our largest European market in 2021 but by the fourth quarter we could see a trend developing with the U.K. picking up. In the fourth quarter I would say the clinic opening and the popularity of our high THC flower drove sales. I would describe our position in the U.K. as dominant. In Germany we are seeing a pickup in health insurance reimbursements which is a good sign. It means our internal group educating doctors is starting to have an effect. This should continue in 2022 and beyond. For the year, I think we will probably see a close to 50/50 sales relationship continue.

**Question: Growth vs Capital:** **Answer Torres:** We are not looking at much more capex in Colombia because we have just had a couple of major openings. The other thing we are working on is to shorten the 90-day period it takes to get reimbursements from the insurance companies in Colombia. We are also looking for ways to fund our working capital needs without creating dilution. The more we can point out to finance companies that we are an international operator and not just a small, Colombian company, the better our chances. If we are able to make an agreement, it will help us greatly.

**Question: How long to reach potential in Germany:** **Answer Katterbach:** Cannabis is not self-selling. Sales depend on educating the doctors and this takes some time and money. We see the results every

day. Looking at the pharmacies and the insurance reimbursements, there is constant growth. The key is to “own” the doctors with our training and our data. Once you do that, you end up with a very loyal prescriber base. We are currently around 100,000 patients in Germany and the potential is in the millions if you project from the experience with the number of medical cannabis users in a legalized jurisdiction like Canada.

**Question: Other countries in Europe: Answer Katterbach:** There are other open markets that we are watching very closely like Poland or Czechoslovakia. There is also France which launched a trial over the next couple of years. Italy could be interesting. For Khiron, we first look at revenue potential. For example, the French pilot project requires the dispensation of cannabis for free so this is not a fit for us at this time. Another market with great potential is the United States. They have an unusual model because you can cultivate medical cannabis but you can’t sell it. However, they are looking at changing their regulatory framework.

**Question: Sales guidance: Answer Torres:** We are looking at \$22 to \$28 million of revenue this year driven mostly by cannabis sales in Colombia, Germany and the U.K. with Mexico projected to make a top line contribution in November. We are seeing growth continue so there is nothing exceptional that has to happen to achieve these levels. We are very comfortable with that kind of top line expectation. Katterbach added the coalition government in Germany has already said they plan to legalize adult use cannabis. We don’t know how and when this is going to happen but it would be a major opportunity for us. We have the product and we have the supply chain so this could be very important for Khiron.

**Here are a couple of questions I asked Alvaro Torres after the conference call.**

**Can your cash last until you break even?** We face the challenge of continuous growth and to have the working capital that is required. In Colombia and Germany, most of our sales are covered by government health insurance and it takes 90 – 120 days to get reimbursed. We have to be able to reduce that time or finance our receivables for that period of time. I’ve been working on this for three months or so and it is taking time to get it done. We are actually creating our own problem because of our high growth. If our sales through government health plans in Colombia and Germany double, the amount we have to finance for 90 days or more also doubles.

**How is the clinic in Brazil coming along?** We have to coordinate getting our product into Brazil when the clinic opens. Right now we can meet the sales guidance from Colombia, the U.K. and Germany. So the Zerenia™ clinic in Rio is under construction and we will try to time the completion for when we are able to have the product ready.

But we are in such a unique position. We have the number one selling brand of medical cannabis in Colombia where we have a really, really dominant market share. We have the top selling brand in the U.K. Who would have thought that we would ever be in this position? And we are in a very good place in

Germany. So that is our real focus right now because these markets produce revenue and a high gross margin. That is why it is so important to get that cash flow in.

In this quarter, sales in Europe will exceed sales in Latin America which is unbelievable if you were looking ahead from 2 – 3 years ago. Of course, things will swing back in 2023 when we expect to be operating in Mexico and Brazil but no one is doing what we are doing.

We are like all investors and shareholders. I am disappointed in the stock and the financial markets. But Khiron is not the stock and the stock is not Khiron. Cannabis is not going to go away any time soon. The Colombian people want more medical cannabis. The German people want more medical cannabis and so do the people in the United Kingdom. We are a small company based in Colombia that has been able to dominate these three markets and we will keep doing it. Every day we sell more medical cannabis than the day before. Nobody else can make such a claim. No one can do what we are doing the way we are doing it. When we publish our first quarter report, everyone will see our growth continued and this is still early days for the industry so the growth will keep going. Our challenge is getting our receivables turned into cash faster. Don't forget we have no debt. We don't owe anyone, anything.

**Conclusion:** For the umpteenth time in a row, **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)) Chief Executive Officer Alvaro Torres explained how the company is able to execute its business plan over and over. Franzi Katterbach expressed it in a slightly different way when she said, "Medical cannabis isn't self-selling." Time after time, both Torres and Katterbach reiterated how important it was to educate doctors or prescribers to be successful in selling medical cannabis. With their evidence-based model, KHRN continues to demonstrate high rates of sales growth coupled with high gross margin on medical cannabis sales.

The markets have always had a problem fairly reflecting KHRN's achievements, in my opinion. However, I see the major reduction in D&O insurance costs as a third party upgrading and re-evaluation of KHRN and its business. Travellers Insurance says, "Directors and Officers (D&O) liability insurance protects your organization's directors and officers from personal financial loss that may result from allegations and lawsuits of wrongful acts or mismanagement carried out in their appointed capacity. Wrongful acts may include...misrepresentation to shareholders, creditors and others...."

Many small cap companies cannot attract qualified Directors or Officers without such protection. Clearly, the liability insurance companies have sharply upgraded their view of Khiron; their business and risks. I suggest the markets will be next.

KHRN also makes the more difficult decisions. During the pandemic, KHRN moved their Kuida line of CBD infused skin products to the back burner. Now they have turned off the heat. Kuida will still be there but for the foreseeable future they will not be spending any money on the project. In addition, they no

longer need their cultivation license and assets in Uruguay because they can outsource product. KHRN has taken steps to clean up the balance sheet by writing off items related to the above.

Torres also provided sales guidance for fiscal 2022 of between \$22 - \$28 million assuming business as usual in existing markets and revenue from Mexico starting in November. The number is not a great revelation. If first quarter sales are approximately \$4.5 million, that's \$18 million annualized without any growth. Annual sales of \$22 million is a growth of 22% in the final three quarters and \$28 million is growth of 55% over the balance of the year. These targets are comfortably in range.

What is important to me is that up until now, management has not considered it prudent to provide revenue guidance and now they do. This means in management's eyes the revenue streams are large enough, strong enough and assured enough to make a revenue projection. Again, this is another indication of how KHRN's business is changing and becoming more sustainable and, therefore, more predictable. They are not generating one-off sales. Their revenue stream has become reproduceable with a 75% patient retention rate. To me, this is an important sign of positive growth in the business.

With a market cap of \$31 million based on Yahoo Finance, KHRN looks very undervalued trading at around 1.1 to 1.4 times a conservative estimate of 2022 sales.

As an analyst/investment advisor/portfolio manager for many years, in my eyes **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)) is a large cap company



in small cap clothing. They have a well thought out business plan that is working. They have a data base that is a valuable intellectual property that is cur-



rently adding 16,000 patient interactions per month and growing. They have substantial growth potential in the markets they are in and they expect to add Mexico later this year with other new markets available if they choose. Management is telling us in an indirect manner that their business has matured to the point where they can issue sales guidance for investors. Their Directors and Officers insurer has made a major upgrade in their assessment of certain risks involving KHRN leading to a substantial reduction in insurance premiums this year. The market assessment will catch on eventually and when it does, in my view the results will be spectacularly rewarding. The beating handed out by the markets last week carried KHRN to price levels that make current prices seem like an extremely attractive buying opportunity. Alvaro Torres has put together an excellent team to carry out the plan they have developed over time. KHRN is a stock you can buy for your grandchildren and they will thank you.

**Khiron Life Sciences ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#))** announced it has formed a partnership with Fundación Teletón, the world's largest non-profit organization for children with physical disabilities, cancer and autism. In Mexico, Teletón has 22 Rehabilitation Centers, 1 Autism Center and 1 Children's Hospital for Cancer and has treated 454,000 people since 1999. According to a March 9, 2021 article by Emilia Acevedo in Winter 2021 Digital Print – Sana Sana titled 'Fundación Teletón: A Makeshift Mexican Hero During COVID,' "Fundación Teletón has been a national hero in Mexico and a source of pride for Mexican society, earning recognition from many Latin American countries since its foundation in 1997."

The partnership between Khiron Life Sciences and Fundación Teletón includes:

- Establishment of Khiron's Zerenia™ medical cannabis clinics within Teletón's network in Mexico.
- Distribution of Khiron's medical cannabis products in Teletón's pharmacies.
- Training of Teletón's Health Care Practitioners on delivery of medical cannabis.

The news was well received and when you read and appreciate the backstory, you will understand why KHRN is able to accomplish things beyond the reach of most other cannabis companies.

To put those times into perspective, cannabis had been illegal in Mexico since 1920 but personal possession of small amounts was decriminalized in 2009 and low THC cannabis was legalized for medical purposes in 2017. This was back when the recently minted cannabis stocks were still soaring high. Licensed producers such as Canopy Growth, Aphria and Aurora Cannabis were drowning in cash. Mexico was touted as the next big thing in cannabis with a population over three times as large as Canada that made it prospectively the largest cannabis market in the world.

As a result, when KHRN announced the appointment of Mr. Vicente Fox, former President of Mexico, as a director on July 17, 2018, it was a real feather in their cap. President Fox was an internationally recognized cannabis advocate and the word on the street was there had been other major cannabis companies recruiting him. Three months later, on October 31, 2018 when the Supreme Court of Mexico declared the prohibition of cannabis was unconstitutional and ordered the Congress of Mexico to formally legalize cannabis within 90 days, it appeared there were no hurdles left.

Then we learned lessons about the Mexican government as they missed the Supreme Court deadline several times with the court extending its deadline each time. As 2018 turned into 2019 that became 2020 and eventually 2021, the Chamber of Deputies, effectively the lower house of the Mexican government, passed a bill legalizing adult use marijuana on March 10, 2021 but when it was not voted on by the Senate (upper house), the Supreme Court legalized adult use cannabis on June 28, 2021.

Early on as these delays continued, KHRN remained interested in Mexico and President Fox stayed committed to KHRN but everyone realized there might be a delay. KHRN maintained an interest in Mexico but focussed on other regions and we now know. However, with the Mexican Supreme Court action, in July 2021, KHRN CEO Alvaro Torres travelled to Mexico and held several days of meetings with the largest hospitals in Mexico City. Torres and the team still had to do the work but President Fox made introductions



at the highest levels to people that Torres refers to as “the decision makers.” In fact, Fundación Teletón was their first meeting of that week.

Since that time, KHRN’s Mexico team has been working quietly but steadily with the people at Teletón. Of course, it helped that KHRN had their proprietary data to show how much cannabis had benefitted patients in Colombia and how. But it should be no surprise that it was also very important to Teletón to be sure they weren’t going to be embarrassed by this entry into the emerging medical cannabis field and partnership with KHRN. The cherry on top was the statement by Arturo Pichardo, Corporate Medical Director of Teletón who said, “ Teletón and Khiron's Zerenia™ clinic network complement each other perfectly with our strong patient focus, as we share the same values about our common mission. This partnership is good news for patients with various medical conditions throughout Mexico.” As a result, when the partnership was announced, KHRN’s stature in Mexico was immediately and dramatically elevated and that can only lead to additional acquisitions/agreements to come.

As Torres said in our earlier interview, KHRN is still waiting for a license to import their medical cannabis products into Mexico. When that happens, KHRN will probably be the first or at least one of the first granted the necessary approvals. In the meantime, they will have been busy educating doctors. It shouldn’t be overlooked that the press release reminded everyone, “Khiron has also partnered with Mexico's top university Tecnológico de Monterrey to provide medical cannabis training to doctors across the country, based on Khiron's education programs and real-world evidence from its Zerenia™ clinics across Latin America.”

**Summary:** I have spoken to CEO Alvaro Torres and been in touch with Board Chair Chris Naprawa and I could sense their excitement. Of course, I am also very optimistic about the partnership with Fundación Teletón that has 24 centres in Mexico compared to the 16 clinics currently operated by KHRN globally. If by the end of 2023, KHRN has added a Zerenia™ clinic associated with each Teletón centre, that will not only keep KHRN extremely busy in Latin America, it could also mean half of KHRN’s Zerenia™ clinics will be in Mexico in some 21 months. This probably won’t happen, not because Mexico this growth wasn’t accomplished in Mexico but because KHRN plans to open a Zerenia™ clinic in Brazil next month which has a population over 60% larger again than Mexico.

The growth potential of Brazil is also exciting.

As I think about what KHRN has accomplished in Mexico, I feel confident in saying no one else could have done it as well in that timeframe. Not only that I don’t think anyone else can do it starting today. No one else has the intellectual property in the form of real-world data on cannabis. No one else has the ability to educate doctors on prescribing cannabis. Finally, no one else has the team of people with the leadership abilities of Alvaro Torres supported by senior management including Chris Naprawa and Juan Diego Alvarez, to name a couple and a strong team with boots on the ground to work with.

If I look back over the previous two years and see what KHRN has accomplished in Mexico from a medical cannabis perspective, I think their accomplishments over the next two years will be just as impressive because I understand KHRN plans to expand rapidly in Mexico. Even without taking into account Brazil that is coming up next, Mexico converts KHRN's hold on Latin America into a stranglehold. And at the same time as Torres told us in the previous interview, things are going extremely well in Europe.

**Conclusion:** the news on Mexico appears to have gained some traction with investors as both the stock price and the warrants moved strongly higher as shown and not only held but continued to build on those gains. Perhaps it is because Mexico is one of the largest Latin American markets. If that is so, you will be interested to know that the first Zerenia™ clinic is expected to open in Brazil next month. By population, Brazil is the largest addressable market in Latin America with a 60% larger population than Mexico. On the other hand, it might be because KHRN Director Vicente Fox is a former President of Mexico and has played in active role in KHRN's activities there.

Although it is difficult to match being a former country President, let's not forget Dr. Eduardo Faveret has been the Medical Director for KHRN in Brazil since July 2021. In 2013, Dr. Faveret was one of the first Brazilian physicians to prescribe medical cannabis and has treated over 3,000 patients since.

Dr. Faveret's introduction said he "...will lead patient prescriptions, physician outreach and education, and data-driven product development for Khiron in Brazil, leveraging relationships and deep medical cannabis expertise developed throughout 30-year career." In discussions with KHRN CEO Torres, I know the company is will positioned to expand Zerenia™ clinics in key cities following the addition of Dr. Faveret and initial sales in Brazil in July 2021.

This means in the very near term, **Khiron** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) will



be expanding its Colombian base into two of the largest markets in LatAm, that is, Mexico and Brazil. In addition, the Company is enjoying



strong growth in Europe in the U.K. and German markets. I think the financial markets are about to give KHRN the respect that has been lacking for several years and shareholders will be the winner. I believe a reappraisal of KHRN is just getting started so it's not too late to establish a new position or to add to existing holdings.

**April 1, 2022: How might the market value Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#))? I think I can give you some guidance toward an answer to your question.

I will do this by explaining the FDA drug approval process, indicate where LEXX is on that timeline and what its prospective valuations might be.

A company seeking FDA approval to sell a new prescription drug must complete a five-step process: discovery/development, preclinical research, clinical research, FDA review and FDA post-market safety monitoring.

### **1. Discovery and development:**

- (a) Discovery: there are many ways a new drug is discovered. There may be thousands of compounds that are potential candidates but only a small number are promising and warrant further study.
- (b) Development: the promising compounds are experimented on to gather information about:
  - How it is absorbed, distributed, metabolized, and excreted.
  - Its potential benefits and mechanisms of action.
  - The best dosage and delivery such as orally or by injection.
  - Side effects or adverse events that is often referred to as toxicity.
  - How it affects different groups of people such as by gender, race, or ethnicity.
  - How it interacts with other drugs and treatments.
  - Its effectiveness as compared with similar drugs.

### **2. Preclinical Research**

- Before testing a drug on people, researchers must find out whether it has the potential to cause serious harm, also called toxicity. The two types of preclinical research are In Vitro, that is, tests done with molecules sometimes referred to as test-tube experiments, and In Vivo which is in living biological entities such as animals or humans.
- FDA requires researchers to use good laboratory practices (GLP) as defined.
- Usually, preclinical studies are not very large but these studies must provide detailed information on dosing and toxicity levels.
- Researchers review their findings and decide whether the drug should be tested on people.
- Drug developers, or sponsors, must submit an Investigational New Drug (IND) application to FDA before beginning clinical research. In the IND application, developers must include: animal study data and toxicity data, manufacturing information, clinical protocols for studies to be conducted, data from any prior human research and Information about the investigator.

### **3. Clinical Research**

- Clinical research refers to studies or trials done on people.
- Developers design the clinical study starting the Investigational New Drug Process (IND) that involves each of the different Clinical Research Phases.
- Phase 1: The first stage in clinical trials. The main goal of phase 1 is to establish the new drug's side effects as well as its metabolic and pharmacologic action. Researchers perform detailed research and analysis on various aspects of the drug, including the body's response to it, the method of absorption, how it is metabolized and excreted, and safe dosage levels.

A Phase 1 study is frequently done with 20 – 100 healthy volunteers over several months to establish safety and dosage. Approximately 70% of cases move to Phase 2.

- Phase 2: the focus of this phase is drug effectiveness, that is, does the drug actually work in treating a disease or condition. These trials typically involve hundreds of patients who have the disease or condition. Testing is done over several months to test the efficacy and side effects. Approximately 33% of drugs advance to Phase 3.
- Phase 3: These trials are used to obtain additional information about the new drug's effectiveness and safety to assess the benefit versus risk of the therapy and to use this information in the drug's labeling, if it is approved by the FDA. These trials are large-scale studies involving 300 to 3,000 or more volunteers who have the disease or condition in various locations over a period of 1 to 4 years. Some 25% to 30% of tested medications make it through this final stage of testing.
- Phase 4: Several thousand volunteers with the disease/condition to test for safety and efficacy.

#### 4. FDA Drug Review

- If a drug developer has evidence from its early tests and preclinical and clinical research that a drug is safe and effective for its intended use, an application to market the drug can be filed.
- The FDA review team thoroughly examines all submitted data on the drug and makes a decision to approve or not to approve it.
- **New Drug Application (NDA)** tells the full story of a drug. Its purpose is to demonstrate that a drug is safe and effective for its intended use in the population studied. A drug developer must include everything about a drug—from preclinical data to Phase 3 trial data. Developers must include reports on all studies, data, and analyses. Along with clinical results, developers must include:

- Proposed labeling
- Safety updates
- Drug abuse information
- Patent information
- Any data from studies that may have been conducted outside the United States
- Institutional review board compliance information
- Directions for use

- Once the FDA receives an NDA, the review team decides if it is complete. If it is not complete, the review team can refuse to file the NDA. If it is complete, the review team has 6 to 10 months to decide whether to approve the drug.
- In cases where FDA determines a drug has been shown to be safe and effective for its intended use, it is then necessary to work with the applicant to develop and refine prescribing information. This is referred to as “labeling” that accurately and objectively describes the basis for approval and how best to use the drug.
- Around 80% of drugs that reach the NDA stage are approved.

## 5. FDA Post-Market Drug Safety Monitoring

- The true picture of a product's safety evolves over the months and years that make up a product's lifetime in the marketplace. FDA reviews reports of problems with prescription and over-the-counter drugs, and can decide to add cautions to the dosage or usage information, as well as other measures for more serious issues.

### How does a public company's shares respond?

A successful example of a company going through this process is GW Pharmaceuticals. From start to finish, the GW Pharma story took over ten years but if you consider the investment value went from \$0 to \$7.6 billion that Jazz Pharmaceuticals paid for it, it was well worthwhile.

Where does **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) sit on this timeline? Here are the steps in the FDA approval process above (1) discovery/development (2) preclinical research (3) clinical research (4) FDA review and (5) FDA post-market safety monitoring.

LEXX is looking at several ways to commercialize its DehydraTECH™ technology. One is to use the technology in an application that does not require FDA approval. This could be the case for a cannabis infused edible or for an alternative to smoking, for example. Another is to interest other companies into using the LEXX technology in applications that do not require additional FDA approval. For example, the owner of a drug that is already FDA approved that delivers improved bioavailability or speed of delivery into the bloodstream using DehydraTECH™ without creating a new molecular entity (NME) might be able to receive an extension of its FDA granted exclusive period which would be very valuable. A third might be to interest companies into using DehydraTECH™ to pursue a new FDA drug approval.

The most exciting opportunity for LEXX right now is in the application of DehydraTECH™ with cannabis and its impact on hypertension and possibly heart disease. In this case, LEXX is preparing to advance an FDA application to Phase 1/Phase 2. Today, LEXX has not entered the FDA process but I am confident that LEXX believes they have the information to substantially complete Phase 1 and as Bunka said in his recent interview with me, they are proceeding with all the analysis that would be required for Phase 2 of an FDA registered clinical study. The next step is to assure themselves that their findings are conclusively positive for this stage and then to make a New Drug Application (NDA) with the FDA. At this time, I believe LEXX will pass off the FDA approval process to a larger company with the scientific and medical people needed to follow through.

According to a report by Biomedtracker titled ([Clinical Development Success Rates 2006-2015](#)) "Once a drug reaches the NDA stage, the probability of it receiving FDA approval and being marketed in the U.S. exceeds 80%."

LEXX is intends to take hypertension development further into the FDA approval process on its own account because the indications that have been shown to date from the combination of CBD and

DehydraTECH™ are unique and promising and hypertension is a huge market. In addition, the further into the process they can advance the potential drug, the easier it will be to interest a much larger company into developing it and the more it would be worth.

For an investor the question is what will it be worth at each step along the way?

To help us in this case, I will refer to an article by 2019 Bay Bridge Bilo, LLC entitled ([How to calculate the value of drugs and biotech companies](#)) and their drug valuation calculator. It is important to remember this calculation provides an approximate estimate of the values involved. In FDA drug approval there are so many variables that the projection can easily be off by 100% or more. Of course, in statistical analysis such as this errors will tend to offset each other as well.

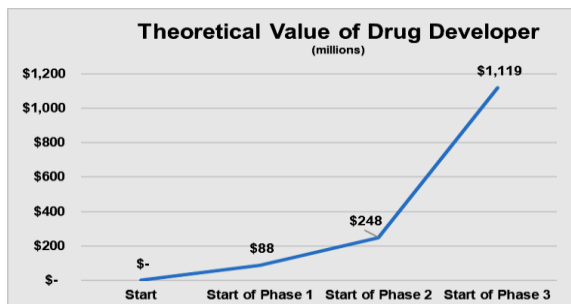
It is important to also bear in mind as this article says, in other industries investment value is often driven by revenue and profit growth. In drug development, value is driven by de-risking that is accomplished by science and clinical experiments. “The more rigorous the experiment, the more value is created if the experiment is successful.”

This report goes on to say that risk is often ‘binary,’ that is, value is linked to risk reduction that is accomplished through experimentation and study. As a result, a company’s value can change substantially when data from a successful experiment is released. Because experiments are often blinded, information from a study must be withheld from volunteer/participants so as to avoid influencing the outcome. As a result, all the information tends to be released at the end of the experiment. To quote from this report, “So big swings in value can happen literally overnight.”

Finally, drugs really gain value at around Phase 2. This report states that venture capitalists prefer to fund companies that develop their own drugs rather than generate new hits or targets. LEXX has been generating hits but it makes more sense in their case because all of the hits are generated from their proprietary and multi-patented technology DehydraTECH™ at the base.

With hypertension, however, LEXX is replicating an FDA Phase 1 and Phase 2 in a non-FDA setting. This is part of the de-risking process described above. Each bit of scientific data collected de-risks the development and increases the value to LEXX. As Bunka has said, in the non-FDA setting they are currently in, LEXX is trying to minimize the risk by the time they apply for a New Drug Application (NDA) with the FDA and are positioned to embark on the three-phase process. Depending on what happens between now and then will determine how LEXX proceeds.





Here are the values indicated by the Drug Valuation Calculator on a theoretical case:

**Value at start of program - \$ 0**

**Value at start of Phase 1 - \$ 88,000,000**

**Value at start of Phase 2 - \$ 248,000,000**

**Value at start of Phase 3 - \$1,119,000,000**

**Conclusion:** The market cap of **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) is currently around \$20



million. What this valuation indicates is if LEXX is able to attain a milestone such as a New Drug Application for hypertension that is essentially the start



of Phase 1, the return to investors is substantial. But I warn against simply dividing \$88 million by \$20 million and projecting a 4.4 times return or if they get to the end of an FDA Phase 1 and the start of a Phase 2 that the potential is \$248 million divided by \$20 is a 12.4 times return. But I do advocate a less precise, generalized conclusion that when it comes to hypertension, the potential returns are enormous and LEXX has the potential to achieve somewhere between a value at the start of a program which I think they have already achieved to possibly a start of Phase 2 position which I think is attainable.

I think the **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)) recent announcement elevates the Company to an entirely new level in terms of investment potential. The announcement is that effective January 1, 2022, high and low THC medical cannabis to its list of mandated covered medications for every health insurance provider in the country. It resulted from the Colombian government including all concentrations and pharmaceutical forms of THC and CBD as part of adding 654 medical procedures and 564 medicines to the list. The inclusion of medical cannabis is the result of many, many months of hard work on the part of KHRN people with the insurance companies and the government.

Here are some things to think about:

- Colombia is a country of over 50 million people. For comparative purposes, Canada has a population of under 40 million. Of course, Canada is a developed country and member of the G7 and is the ninth largest economy in the world. Colombia, on the other hand, is a developing country that ranks near the top of the list of its peers. So you can't make a one-on-one comparison but you can be very successful being in a dominant role in Colombia and Latin America and if you can transfer the intellectual property from Colombia and Latin America to Europe as KHRN is in the process of doing, so much the better.

- Based on IMS Quintiles, Colombia has some 6 million potential medical cannabis patients and now 97% of them are covered by health insurance. Last year, KHRN had 16,000 patients and wrote 52,000 medical cannabis prescriptions of which 60% were insured making KHRN the unchallenged leader in medical cannabis in Colombia, in my opinion.

- The benefits of this development for KHRN include:

1. It makes medical cannabis treatment immediately more affordable for virtually all Colombians.
2. It helps to break down any remaining stigmas toward cannabis as an authentic medicine.
3. It continues to add to the credibility of KHRN's business plan, that is, the medical clinic approach.

➤ The average salary in Colombia is around US \$1,200 per month or US \$14,400 per year. Here are a couple of things to consider:

1. The average medical cannabis patient spends around US \$55 to US \$60 per month. Having health insurance coverage makes a significant difference for the average Colombian when it comes to ability to pay for cannabis treatment.

2. From a financial point of view, KHRN has raised equity mainly in Canadian dollars through the Toronto Stock Exchange Venture Exchange. This means all of their operating costs, including salaries are also very low in Canadian dollars. This is a natural currency hedge and works well.

- Colombia is not one of the largest opportunities in Latin America. For example, two markets that KHRN will likely enter in 2022 are Mexico (population almost 130 million) and Brazil (population over 210 million). There is also the potential for Europe where KHRN already has a presence. The U.K., where KHRN opened their first European clinic, has a population of 67 million and Germany has 83 million people and universal health insurance coverage.

- In Colombia and Latin America, there is no one approaching the medical cannabis market in the same way as KHRN. Opening and staffing clinics, educating doctors, the 50,000 points of data to analyse to help them improve what medical cannabis product has provided the best results for a particular ailment and branding the medical cannabis products are all significant barriers to entry that grow stronger with each passing day. Each development such as covering medical cannabis under the Colombian health insurance companies cements the approach Khiron has developed.

- Khiron started in Colombia and it is the country in which they are furthest advanced. But the clinic model is being expanded in Latin America and Europe. The first European clinic located in the U.K. is now gaining traction.

- Using the average numbers of patients spending CA\$75 per month of medical cannabis in 2021, Colombia represents a CA\$4.5 billion market opportunity. Based on population, the other markets listed above have up to 10X the potential of Colombia.

- High quality cannabis is obviously important to the proof of Khiron's medical cannabis clinics concept in the same way that coffee beans are important to Starbucks and tobacco quality is important to Philip Morris. But in most agricultural industries, the farmer is the low man on the totem pole. That will be true for cannabis cultivators in my opinion. From Day One, KHRN Chief Executive

Alvaro Torres told me that instead of being a seller of coffee beans for \$4 a pound, his goal is to be like a seller of coffee for \$4 a cup. That is how he is positioning KHRN in the cannabis industry – not as a cultivator but a seller of value added, higher margin branded medical products.

○ This week's questioner, D. F., makes the additional point of the potential for legalization of adult use cannabis in Germany. Here are a couple of points:

1. Medical cannabis is already legal in Germany and it is covered under their national health care plan. Adult use cannabis is of interest to KHRN but not in the near term when their focus is expected to remain on their clinical model for medical cannabis.
2. In Canada, cannabis was legalized on October 17, 2018. Germany will have the benefit of learning from those coming before but legalization doesn't happen overnight. It takes time to write the legislation and to balance the interests of all parties. Canada is over three years into it and we are still working out issues.

**Conclusion:** I believe this is a milestone outcome for **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)). In recent years, management has been criticized



regularly, unfairly in my opinion. KHRN was almost verbally abused when they equity financed in February 2019. But when COVID hit later in



the year, KHRN was one of few small cap cannabis companies that was able to continue its growth while competitors struggled to keep their doors open. When KHRN started a program to educate doctors on the benefits of prescribing medical cannabis, one analyst went so far as to say it would never make money when the point of it was to educate doctors. Now that the important role of doctors in the prescription of medical cannabis is clear, it is evident that KHRN has always been one or two steps ahead of the pack. I think this latest development is important for many reasons:

➤ At a time the markets are emphasizing revenue and margins, covering medical cannabis through the Colombian health insurance plans should accelerate revenue growth because:

1. A Colombian citizen's personal financial circumstance is no longer a factor in the decision to receive medical cannabis treatment. This will produce improved health care for the population. By the way, I believe in the medium term, the government will also be a financial beneficiary as medical cannabis often replaces other conventional forms of treatment that are far more costly.
2. Colombia is now one of the largest, fully insured medical cannabis markets in the world and KHRN is well positioned to service the market with the dominant distribution network staffed by fully trained and experienced medical professionals.
3. There is virtually no competition for KHRN in Colombia and Latin America. KHRN is the market leader in medical cannabis and whoever is in second place is not even close. Their advantage

grows daily. ➤ At the same time, KHRN has expansion plans utilizing their strategy of opening clinics:

1. In Colombia with additional clinics
2. In Latin America including Mexico and Brazil.
3. In the U.K. and Germany

➤ As KHRN becomes established in Latin America, it strengthens their foothold in Europe and grows its revenues and margins, the door to finding a strategic partner or takeover offer increases in probability. Although this might not be a preferred route, any such arrangement should be very profitable for investors. I believe KHRN shares are edging toward a breakout and investors should not delay buying.

**One of the reasons I am so enthusiastic about the prospects for Lexaria Bioscience ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) is they are conducting a wide range of tests of its DehydraTECH™ technology.** In the six years or so that I have been following LEXX, DehydraTECH™ has proven to be a very robust technology and has consistently returned positive results. In the past year, with LEXX listed on the NASDAQ, we have seen the market respond with some vigor to positive results from testing. However, as the market assessed the incremental increase in market cap with each result, it was not able to accumulate that value over time. As a result, since the NASDAQ listing, the shares have been up until the stock price dropped during tax loss selling at year end.

Looking ahead, I think as each prospective application is supported by more data, the market will place a cumulative valuation on the shares. In addition, we shouldn't ignore the possibility of a significant breakthrough result that might come at any time.

Here is a summary of the tests completed in 2021 and scheduled for 2022.

#### **2021/2022 Study Program**

**HYPER-A21-1** - Rodent study completed (n=10) demonstrating significant enhancement in CBD delivery using DehydraTECH - Up to 2,178% more CBD delivered into bloodstream and up to 1,737% more CBD delivered into brain tissue.

- **HYPER-A21-2** - Rodent study completed (n=10) demonstrating strongest CBD absorption results ever recorded using DehydraTECH - New formulation delivers up to 2,708% more CBD into bloodstream

- **HYPER-H21-1** – Human clinical study (n=24) evidencing a rapid and sustained drop in blood pressure with DehydraTECH-CBD and excellent tolerability

- **HYPER-H21-2** - Human clinical study (n=16) Hypoxic Pulmonary Vasoconstriction study; evidences up to a remarkable 23% decrease in blood pressure with patented DehydraTECH-CBD relative to placebo and confirms DehydraTECH-CBD reduces arterial stiffness

- **VIRAL-C21-3** - In vitro screening assay completed using a primate cell line, VERO-E6, determined remdesivir and ebastine processed with DehydraTECH were effective at inhibiting the COVID-19 SARSCoV-2 virus

○ **VIRAL-A20-2** - Rodent study completed (n=40) DehydraTECH enables up to three-fold increase in oral delivery of antiviral drugs, Remdesivir and Ebastine

○ **VIRAL-MC21-1** - Successfully confirmed Lexaria's molecular characterization study objectives, demonstrating DehydraTECH processing and formulation technology does not create a covalently bonded new molecular entity (NME) and that each drug tested remained stable and did not undergo change in chemical structure. These findings are strongly supportive of accelerated regulatory filings such as the 505(b)(2) pathway permitted by the Food and Drug Administration (FDA) and other international regulators ➤ **VIRAL-A20-3** - Rodent PK study completed (n=20) demonstrating significant enhancement in antiviral drug delivery using DehydraTECH-enabled Colchicine. Possible benefits for treating SARS-CoV-

2/COVID-19 and mRNA vaccine side effects

○ **NIC-A21-1** - DehydraTECH-oral nicotine delivery peaked in bloodstream 10x to 20x faster than controls and peak levels achieved were up to 10x higher than controls

The following studies are part of approximately 12 applied R&D programs planned for 2022 (tentative start dates are included):

**HOR-A22-1:** April 2022. This PK study will evaluate the ability of DehydraTECH to enhance the delivery characteristics of estrogen. [Estrogen](#) helps to control the menstrual cycle but also controls cholesterol and protects bone health. The hormone replacement market is estimated at [\\$46.5 billion in 2027](#).

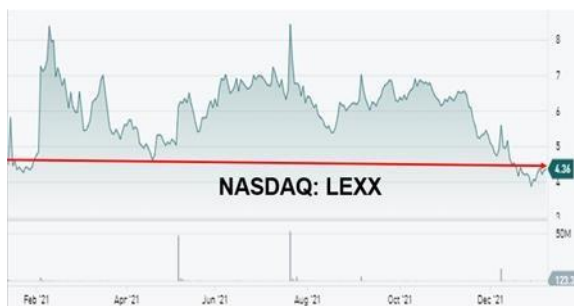
○ **DEM-A22-1:** July 2022. This efficacy study will evaluate DehydraTECH-CBD with and without nicotine for the potential treatment of dementia. Alzheimer's disease is the most common form of dementia and accounts for at least 60% of all cases, and nicotine is already showing promising results related to [Alzheimer's treatment](#). An estimated 55 million people worldwide are currently affected by dementia, [with 78 million expected](#) to be living with some form of dementia by 2030. The dementia drug treatment market is estimated at [\\$19.6 billion in 2026](#).

○ **RHEUM-A22-1:** October 2022. This efficacy study will focus on the ability of DehydraTECH-CBD to potentially affect treatment of rheumatoid disease. Given CBD's postulated [efficacy related to inflammation](#), Lexaria will explore a possible role for CBD in this [area of investigation](#). Rheumatic diseases are autoimmune and inflammatory diseases that cause the immune system to attack joints, bones, muscles and organs. There are over [100 rheumatic diseases](#) including Fibromyalgia, Lupus, Osteoarthritis, Rheumatoid Arthritis and more. The Rheumatoid Arthritis therapeutics market alone is expected to be over [\\$30 billion per year by 2025](#).

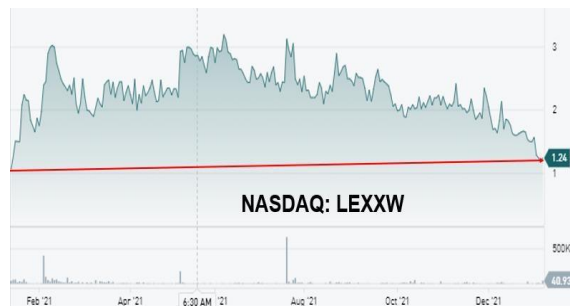
○ **DIAB-A22-1:** November, 2022. This efficacy study will explore the ability of DehydraTECH-CBD to potentially affect treatment of diabetes. Diabetes prevents the body from making enough insulin, resulting in abnormal blood sugar levels. Diabetes is the [7<sup>th</sup> largest cause of death](#) in the US and there is currently no cure. Investigation of CBD related to diabetes is in early stages, though there are some [areas of ongoing investigation](#). CBD has shown some ability to [reduce the incidence of diabetes in mice](#). The prescription drug market used to treat diabetes is expected to be a [\\$77.9 billion global market in 2024](#).

**Conclusion:** with a patented technology that improves the way active pharmaceutical ingredients enter the bloodstream and its listing on the NASDAQ early this year, **Lexaria Bioscience** ([NASDAQ: LEXX](#)),





[LEXXW](#) has successfully disassociated itself from the cannabis industry. Thus, while the cannabis group is down sharply since February 2021, LEXX has



been able to maintain its value in that time frame. Of course, cannabinoids remain important to LEXX but now as an active pharmaceutical ingredient. To give you a sense of the breadth of areas being investigated, consider the following list: dementia (Alzheimer's), diabetes, heart disease, hormone replacement, hypertension, Lupus, oral nicotine, Osteoarthritis, and rheumatoid diseases (Fibromyalgia, Rheumatoid Arthritis). The work is fully funded through all of 2022 and the first half of 2023. As a result, I believe LEXX and LEXXW holders will have several event related positive moves in the market in 2022. I suggest every growth portfolio should earn LEXX and/or LEXXW.

This week I spoke with Chris Bunka, Chief Executive Officer of **Lexaria Bioscience** ([CSE: LXX](#)) ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)). This was my first extended conversation with Bunka since the



Company was listed on the NASDAQ exchange. There are three points I suggest you watch for in the interview:

1. LEXX never was a cannabis company. But it is clear today, LEXX is a biotech business and their current work exploring DehydraTECH™ technology to treat hypertension is important and exciting.
2. LEXX has only traded on the NASDAQ for some nine weeks but overall liquidity has increased significantly and trading and ownership of Lexaria by American investors has risen dramatically.

3. The combination of potentially positive results from hypertension testing that should start flowing before the end of Q2 with many new American investor eyes on the prize could result in astronomical returns for investors.

After you've read the interview, I'm sure you will be as excited as I am about the prospects for LEXX and LEXXW over the balance of the year and starting soon.

**Ohashi:** Tell me about the change in your business philosophy from a year ago.

**Bunka:** I think what has changed the most is our ability to carry out our business. We still do not want to become a drug manufacturing company. We want to hand off our technology to Fortune 500-type companies to run with. We know that the more evidence we are able to supply to regulators, corporate partners or even our public shareholders, lowers the risk and improves the chances of getting a positive start toward a business relationship. This means we must engage in lots of laboratory work, extensive animal studies testing primarily for toxicity and other adverse effects and smaller, early stage human laboratory studies. I'm talking 20 – 30 people in size.

**Ohashi:** That all takes money....?



**Bunka:** Yes, it was the financing we did in January 2021 that enables us, for the first time in our history, to do several projects at one time. If you think back, our previous human study was in May 2018 and that was the last time we had the money to do it. Now we have three human studies starting in the next 30 – 90 days. It's really unprecedented for us to be able to do this amount of work in a short period of time. That will prospectively give us the kind of data we need but were often lacking. When we knock on the door of a giant pharmaceutical company and say we want to work with them on hypertension, they say, show us your clinical data, what are your toxicology results and efficacy? This is the type of information and more we need it we are going to have a meaningful conversation with them. Otherwise, in almost all cases, they are going to say come back with this information and we'll talk.

In the old days, it would have taken us two or three years to be able to afford to gather this data. Now we have five studies for hypertension underway. By May and June we should have all the animal data and by September, October and December we should have the human data. That means, assuming the findings are good, we can have this data much sooner with a significantly higher level of confidence that we'll need to be able to start a meaningful relationship. We feel we've cut 2 -3 years off our development time because we have the money to do this work. Finally, because of the relationships we've built with universities and laboratories around the world, these human tests that might cost on average \$2.5 million each in Canada we are doing for roughly one-tenth of that cost.

Our philosophy remains to spend as little as we can to gather as much data as we can to meet the minimum thresholds to work with Fortune 500 pharma.

**Ohashi:** Now let's move ahead a step. Assume it's later this year or early 2022 and you have a positive from someone. Is it the royalty model you're still after?

**Bunka:** For the most part. There is one area we have been thinking about and we don't have an answer ourselves and that is the hypertension market. If we think back to the 2018 human study we did, we were surprised to find we dropped blood pressure by around 5% with a 90 milligram dose of the DehydraTECH™ CBD. In the medical and pharmaceutical markets there are a couple of dozen hypertension products and almost all of them produce a 10% - 20% reduction in blood pressure and most of them are in the lower end of that range. In the three human studies coming up, we are dosing at 300 milligrams in two and 450 milligrams in the third. The 5% reduction we got in 2018 was basically just something that happened. Now we are upping the dosage by three to five times and we are looking to attain that 10% threshold. If we got 15%, we'd be ecstatic.

Consider that GW Pharma received FDA approval for their generic CBD treatment for seizures in children. Anyone can look up the data that is available and they were dosing 1,000 to 1,200 to as much 1,400 milligrams per day in children. Even at those levels there were no serious adverse side effects reported. Put another way, GW Pharma were dosing a dozen times more than our 2018 study and three or four times stronger than our studies for this year and we already know from GW Pharma's data, there were no serious side effects.

Hypertension is a \$28 billion market in four classes, one of which is 'vasodilator' that covers CBD so it fits that way. Equally as important, in our 2018 study, CBD alone did not reduce blood pressure. It was only CBD plus DehydraTECH™ that produced this result. We also know all of the other approved medications

have serious side effects and from other people's work and anecdotally from the millions of people around the world that have been using CBD, there may be no side effects. Finally, in the European Union and Australia we are already patented and in the U.S. patent pending to use CBD/DehydraTECH™ to treat heart disease. In the U.S. there are 3 or 4 hypertension drugs that each sell \$1 - \$3 billion a year. If all this comes together, as speculative as it may be, the response even before we consider a partner, might give us a path to competing in this market that might mean we will want to keep it ourselves.

**Ohashi:** We can use GW Pharama as a very rough gauge of the potential here. GW Pharma's potential market for treating two rare forms of epilepsy, Lennox-Gastaut syndrome and Dravet syndrome is only around \$1 billion in total and that supported a takeover offer of \$7.2 billion. In your case, the hypertension market is a \$28 billion market and you are at a \$35 million market cap. That means a 200X increase in LEXX to get to the same market cap and 28X more to adjust for the difference in size of the hypertension market....

**Bunka:** Let's start with all the acknowledgements. Recognize that GW Pharma broke new ground, they have FDA approval, they expect to generate \$500 million in sales this year and they have all the intellectual property and experience gained in the process. All of that and more is perfectly understood and puts them three years ahead of where we might hope to be and maybe never will be. We expect to get our animal trials data back in May and June and the final results from our human trials data in September, October and December with preliminary data from the human trials three months before that schedule. Assuming it indicates a 10% to 15% reduction in blood pressure which I think is at least possible, then your arithmetic shows the upside is astronomical and some of that could be reflected in our stock price in the near future.

**Ohashi:** I don't want to get off track but do you have any comment on the British American Tobacco (BAT) investment in Organigram since you've been working with BAT as well?

**Bunka:** Nothing factual about the Organigram. I mean they touch the plant which we don't in that sense and for the same \$220 million BAT could have bought us five or six times over. That kind of transaction would be impossible with us and it isn't what we are expecting. In terms of our relationship with BAT, the work is proceeding but it has been really slowed down by COVID. The U.K. got hit harder than many regions and there have been times when their scientists haven't even been able to get into their labs. So the work is ongoing and we are in regular communication with them but that's about all I can report at this time.

**Ohashi:** I'd like to talk about the stock and trading since the NASDAQ listing. I've observed what seems like a turnover in the stock because there seem to be days of buying regardless of what the market is doing and some consecutive days of selling even though the cannabis group might be strong. What have you seen?

**Bunka:** I've noticed a few things I can share and I know some things that I must keep confidential. For example, in the process of making the application to list on NASDAQ, preparing certain filings to the Securities and Exchange Commission (SEC) and in dealing with the investment bankers, Lexaria had to acquire shareholder lists to gather the information we were asked to provide. Also I have had conversations with various investors and investor groups since then. There's a lot I can't disclose due to confidentiality but there are certainly some things I can share.

First and most obvious, the liquidity has improved by an order of magnitude. In the U.S. we are trading 20 – 40 times more value on the NASDAQ than we were on the OTC. Liquidity in Canada has stayed about the same. When we did the NASDAQ listing and relating financing, some people were unhappy about the dilution. I'm still the largest shareholder and I didn't like it either. But one of the things the increase in liquidity facilitated was it enabled anyone who wanted to sell, to sell without overly depressing the market.

Second I have observations along the lines you mentioned. I always upset people when I say this but Lexaria is not a cannabis company. Certainly we are connected to the cannabis industry but in the same way that most people would say GW Pharma is not a cannabis company, neither is Lexaria. The message we will continue to deliver is Lexaria is a biotech company or perhaps a tech company. We're not a pharmaceutical company because we don't manufacture drugs. We're not a cannabis company because we don't grow and sell the plant. GW Pharma is not a cannabis company even though its only product is derived from the cannabis plant and we work with other molecules such as nicotine as well.

The American investment audience is far more receptive to this message. This is a fact. Since we've listed on NASDAQ, the number of Canadian shareholders and the amount of stock they own is roughly unchanged. At the same time, the number of American shareholders and the amount of stock they own has skyrocketed. For most of the previous two or three years, we were 45% owned by Canadians, 45% owned by Americans and maybe 10% internationally. Today, Canadian ownership of Lexaria has dropped to maybe 25% to 35%, international ownership is about the same but ownership by U.S. investors is up to around 65% or a bit more.

In total our number of shareholders has increased. I am sure I recall when you dropped by last summer, I stated this was a strategic goal of pursuing a NASDAQ listing. We wanted to nurture a new investment audience of American investors.

Third, since listing on NASDAQ the investment capacity of our investors and the people I am talking to now as compared to 6 – 12 months ago is much greater. They are simply much larger investors. As a general observation I can say I am now talking to and Lexaria is receiving investment from individual American investors that are buying the equivalent of 1,000 Canadian shareholders. It is a profoundly different audience that is beginning to acknowledge us than ever before.

**Ohashi:** Are you making any headway with institutional investors?

**Bunka:** Absolutely. Our offering coincident with up-listing to the NASDAQ was almost exclusively institutional. I would say 90% was institutional. On my call log, I would say I am now speaking to approximately one institution a day, certainly three or four a week. Interesting to note, many of the institutions that participated in that January 2021 offering have sold some or all of their position, they are very pleased and I heard from one of them recently who said they were more than willing to participate in our next offering. This has happened more than once and each time I thank them for their interest but tell them quite clearly we are not interested in issuing more equity at anywhere near current levels. We are well funded for the next two years and I have no plans to raise even \$1 at the current market cap.

**Ohashi:** At what point might you be open to taking in more money?

**Bunka:** I would say at a market cap of \$100 million at the soonest. As our market cap is currently around \$35 million give or take, that's roughly a triple from here.

The data is justifying our decision to go for a NASDAQ listing. We have tapped into a new investor audience; we have completed for us a significant capital raise; we have attracted new shareholders; and so on. Remember we have only been on the NASDAQ for nine weeks! What we have seen is the institutions came in and provided around 90% of the capital we raised in January as part of our listing on NASDAQ process. These institutions have been taking profits and are very pleased. The new American retail investors have been able to buy up all that stock and the supply is running dry. All the while our share price has risen +50% or so since our funding. So we're feeling very good about our decision to do this.

**Ohashi:** From my point of view, combining the NASDAQ listing and the capital raise, if you can produce some positive results from your animal and human trials on hypertension and deliver those findings to this new, American investor audience, the impact on your market cap could be astronomical.

**Bunka:** I couldn't agree more. All the evidence I've seen, some of which I discussed with you today, points to this. If we deliver positive results from our trials over the next few months and communicate that to our new American investing audience, I believe there is reason for optimism with respect to our market valuation moving forward.

Let me add one final point. In May 2020 we did a small financing with around 50% institutional participation that also participated in the January 2021 funding. In conversation with some of those institutional investors, they say Lexaria is one of the few companies that they have invested in over the past two years who has done what they said they were going to do.

**Ohashi:** Here's what I like. When we look back at Lexaria with the benefit of time, say in five years, we will see the NASDAQ listing was a key element in your success. It will be much easier for people to recognize what an important step this was being able to look back rather than by looking ahead..

**Bunka:** I agree. In fact, I can tell you that had we not been able to do that financing in January 2021, we'd be out of money right now. We would have still been on that treadmill of doing small equity offerings one after the other that didn't really give us a chance to break out operationally. As you have seen from the numbers we discussed earlier, our shareholder base wasn't really growing. We were able to maintain it but it was stagnating. Looking back at 2020 from an operating point of view, the only thing I regret is we didn't do this two years earlier.

**Ohashi:** thank you for the time. I think the numbers you shared with us on the changes taking place in your shareholder base will be of interest to my readers. It really paves the way for good things to happen in terms of expanding your market cap in 2021 and beyond.

**Bunka:** given what I have been able to share with you and with the support of information that must remain confidential, I can tell you if the changes we have seen after nine weeks had happened over the course of 2021, I would have been very pleased. Let me close by saying that in our prospectus, we allocated funds for marketing and investor relations for 2021 and to date we have only spent 5% of that. Our "news" season is going to be May to December 2021 so we will have the ability to really get that message out at that time. I'm very happy with what we have done after just two months and, when our news cycle starts and we ramp up our publicity campaign, I would add that I think the best is yet to come.

**Conclusion:** Lexaria Bioscience ([CSE: LXX](#)) ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) is one of the first companies I started to follow when I decided to get involved in the cannabis space. My first report on Lexaria was September 2016. It was one of my first big winners going from around \$.35 per share to the

\$3.00 per share mark. Reviewing those initial reports on LEXX, we knew it was more of a technology company and that its applications went well beyond cannabis to include non-steroidal anti-inflammatory drugs (NSAIDs), nicotine and vitamins that were all industries much larger than cannabis.

Nearly five years later, here I am making that point for a second time around. Learning that the combination of CBD and DehydraTECH™ had an impact on blood pressure was a little serendipitous but so was the discovery of quinine as an anti-malarial and penicillin as an anti-bacterial. If you think of the millions of lives saved by quinine and penicillin, a drug that would treat hypertension without serious side effects would produce a medical benefit of a similar nature. I don't know if the LEXX formulation will work but I do know we're not operating totally in the dark. It has already worked once. Also we don't have long to wait because we should start seeing evidence from the animal and human trials starting in around three months and indications from the human trials starting in the next six months.

I have worked with Chris Bunka, CEO, actively over these past five years and he is a major reason I am attracted to this company. His ability to pull off the NASDAQ listing and associated financing is a testament to his abilities. I think there is a chance that we will be looking back five years from now and saying this was the turning point for LEXX on its way to becoming a multi-billion dollar market cap biotech company. What is most exciting is that we could be saying something similar in five months. Is it risky? Of course it is. It must be to offer such potential. But I see it as a measured risk. A level that is acceptable to an aggressive growth investor.

All the pieces are in place. The effect of the combination of CBD and DehydraTECH™ on blood pressure was a somewhat unexpected finding in a human trial almost three years ago. The positive effect on blood pressure was only found with the combination of CBD and DehydraTECH™ and not from CBD alone.



LEXX holds patents on CBD and DehydraTECH™ for the treatment of heart disease in Australia and Europe and a patent pending in the U.S. The al-



ready completed NASDAQ listing gives LEXX access to a much larger group of investors that are more receptive to technological investments. There is evidence this group is already getting positioned in LEXX common stock and warrants. The next round of trials on animals and humans is starting. Funding is not an issue. In this case, I think positive results from the laboratory will translate immediately into superior returns from owning the stock and/or warrants. It's not bye-bye time. It's buy-buy time.

**January 28, 2021: Michael Perlman is Executive Vice President, Investor Relations and Treasury, Jushi Holdings Inc. (CSE: JUSH) (OTCQB: JUSHF).** Perlman is my contact that



I speak to on a regular basis with questions and for updates. JUSH has been very active in the past couple of months so I took advantage of Michael reaching out to me to provide an update. In the course of the discussion, I gained some insights into the company that I had not emphasized before. Rather than review the factual developments that have been reported here already, I thought it would be useful to discuss these insights as they are very meaningful for investors.

(a) **It seems many companies including Jushi are raising a lot of money at current levels.** “Our philosophy is you want to raise capital when the markets are strong, before you need the money and you see there will be several opportunities to deploy the capital. We targeted early January and we worked hard, including New Year’s eve and New Year’s day, to make that happen.

There are lots of things happening in our markets including Pennsylvania and Virginia that we think means our business will be moving forward rapidly in 2021 and we need to be ready. For example, Virginia is moving ahead much faster than most people think. There are a couple of bills including one that puts selling flower on the table that we think will come forward this year making it a 2022 or early 2023 event. So we need to get ready for adult use cannabis in some of the states where we are currently operating. There are also merger and acquisition opportunities out there such as the ones we recently announced in California. These did not have a large cash component but we would like to potentially get to ten stores in California in the reasonably near future. As we move toward that target, cultivation will come into play. It’s not a priority today but we expect to get there. A priority for us right now is Illinois where we have four stores currently and we can see further vertical integration as an opportunity. When you get into M&A activities, it helps to have a strong balance sheet. We’ve looked at Maryland and Massachusetts where we haven’t moved yet but if the right opportunity came along, we would do something. Right now we have \$130 million on the balance sheet so we’ve put ourselves in a good position to bid on assets.”

**This brings to mind your need for good people to go along with growth in physical assets.** “We put a lot of emphasis on this. What we are seeing now is an extension of what’s been happening all along. We are now talking to more outstanding people in good positions in other industries willing to move into cannabis because the future looks very positive and secure. These are people we couldn’t have recruited two years ago that now have a much higher level of comfort with the cannabis industry. We have hired and are hiring very talented people who ran large non-cannabis retail networks. Jushi is going from 16 to 32 stores fairly quickly. Probably 10 – 12 stores this year. We need to ensure we have good people to manage and operate the rollout and we’re doing that.”

(b) **You’re moving more aggressively into California.** “We’ve been following California for three years and up to and including last year, we felt our capital was better deployed in Pennsylvania, Illinois and Virginia. But California has a lot going for it: a large affluent population, positive regulatory attitudes, limited dispensary licenses in some areas, and so on. We know where we want to be and it isn’t San Francisco and Los Angeles where you are competing with everyone including the black market. We’re going to pick and choose. Santa Barbara (one of three) has an affluent population that doesn’t buy as



much from the illegal suppliers. Grover Beach (one of four) where all the surrounding counties prohibit the sale of cannabis. We see an opportunity for a delivery business. In Palm Springs we got the first dispensary you pass when you leave the airport. You can't miss it. The previous owner wasn't maximizing the opportunity. They opened fewer hours per day, didn't have a consumption room and let the facility get run down. In this case it was a location motivated decision.

Another reason we are looking at California is the competitive environment. California can be a difficult market but it is also where a lot trends start and we want to be a part of that. Wherever you operate it is going to be more competitive than Pennsylvania, Illinois or Virginia where if you open a store, people will come. We know these markets aren't going to be this way forever. So we also want to employ best practices from California into our current markets."

**Expansion potential into new geographical regions.** "This is certainly possible. I mentioned Maryland and Massachusetts earlier. If regulatory change happens in New Jersey I can see us moving there. We don't have anything to announce but hypothetically, we are certainly open to opportunities in different regions of the country. We are looking at "bolt on" acquisitions such as adding dispensaries to our existing network and we are looking at more impactful transactions as well. I mean something in Pennsylvania that expands our vertical integration could be very impactful. Right now we are approaching it from the point of view of the acquirer. We are looking to take over other operators. But if we found the right partner and considered it a fit, we could be a merger partner or the acquiree, if you will. Looking ahead, we think the space might be ripe for consolidation so you need to find the right dance partner. I mean we're speaking very hypothetically of course. It could be one of the larger operators looking to add a mid-tier firm to get even larger but I'm more talking about two mid-tier companies wanting to become a large operator."

**Anything I didn't ask about that you would like to add?** "One of the things we think is important and perhaps a little under-appreciated is how much our decisions are based on data. We are doing a lot of work behind the scenes trying to understand the impact of brand and customer experience on customer behaviour and what goes into their purchasing decisions. Then we take that information and convert it into store design and traffic flow. There's a lot work we are doing to learn what our online customers want as distinct from our in-store shoppers. We also do market research on the region, on our brands and outlets, customer surveys, and so on. This is all intellectual property that helps us with store design and merchandising. In our online business, we can see how it improves our conversion rates, our Google Analytics ratings and so on. All the things we're doing on the back end where our team is doing a really great job. We can tell by the response that we are succeeding at looking at what the consumer wants and doing a good job at providing it. We increased our top line guidance from \$28 to \$30 million to \$30 to \$33 million for the fourth quarter so our growth pattern continues strongly."

**Conclusion:** this interview crystallized the idea that although Jushi does things by the numbers, it isn't just a numbers game. It isn't only about opening or acquiring dispensaries as fast as possible. It also involves gathering and analysing the data so each store is better off under the Jushi umbrella. It gives me

confidence that the next 1, 3 or 5 years is not waiting for the mistakes of the past to catch up with you. It means moving forward. There are subtle changes being made regularly that ensures the sum of the parts is getting bigger and better. This is important to a long term investor.

Last October, one of our readers participated in the entire Jushi Analysts Day presentation and emailed to say how impressed he was with the executive team, the support they offered for their forecasts, a business plan that covered how they would succeed state by state, their ability to communicate and their willingness to answer each question in detail. This reader concluded that Jushi with a then market cap of \$0.3 billion compared to other multistate operators (MSOs) with market caps of \$3 - \$5 billion meant there was a lot of upside. The conclusion was that Jushi was a “real gem.”

Jushi has moved up and on any given day recently, its market cap was around \$1.0 billion. But the other MSOs haven't been sitting still either so their market cap range is now \$4.5 to \$9.0 billion. Jushi has made up some ground in the recent past with its superior performance but there is still ample upside for Jushi that remains a “real gem.”



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