



Let's Toke Business

The Commerce of Cannabis

Ted Ohashi MBA, CFA

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Week Ended March 31, 2023

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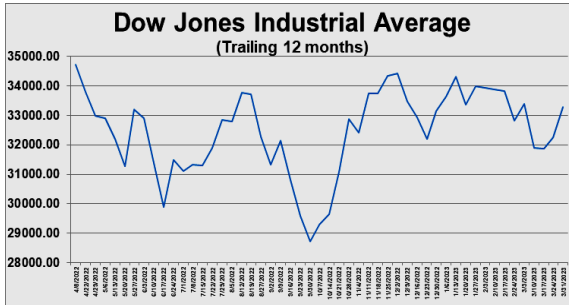
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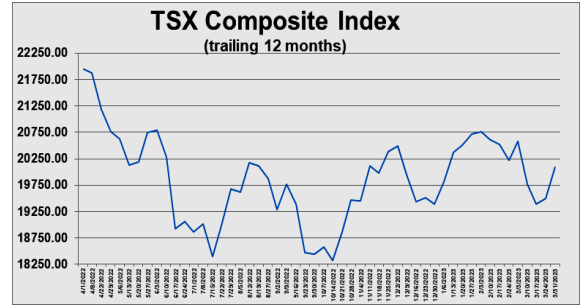
Stock Market Review & Outlook

LTB MARIJUANA INDEX: 1wk -1.3% 1 mo -9.2% 3 mo -5.1% 6 mo -27.8% 1 yr -57.1%

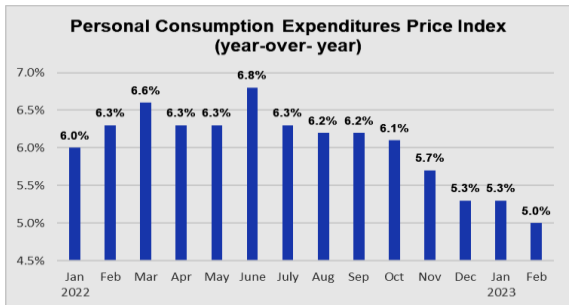
The optimists carried the week as the major large cap indexes all moved higher. As seen in the two charts below, the Dow Jones Industrials gained +3.2% while the Toronto Stock Exchange Compo-



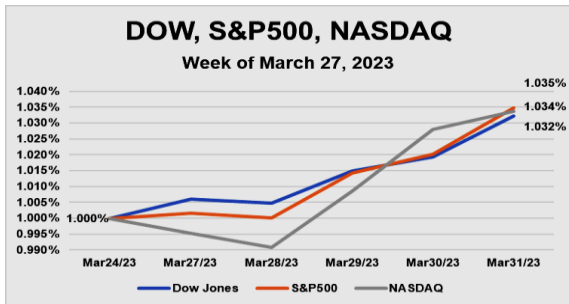
site gained +3.1%. The good news for investors was a reduction in the noise surrounding bank failures. That doesn't mean the



failures are over but it was a relief following a couple of intensely nervous weeks for investors and, more importantly depositors. But the positive fundamental news came on Friday with the Personal



Consumption Expenditures Price (PCE) Index report. It wasn't great news but the year-over-year inflation rate of 5.0% in February was an improvement from the 5.3% in January. The difference between the PCE and the Consumer Price Index (CPI) is The CPI has a narrower definition of consumer expenditures and only takes into account urban expenditures made directly by consumers. On the other hand the PCE considers expenditures made by both urban and rural consumers and expenditures made on their behalf by third parties. For this reason the Federal Reserve board prefers the PCE index which makes its results somewhat more important. The PCE



results for February were not earth shattering but it was positive enough to pave the way for a strong end to the week. As the

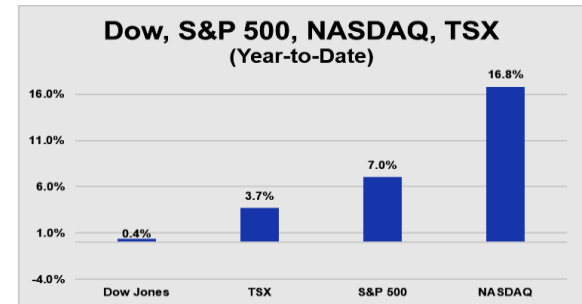
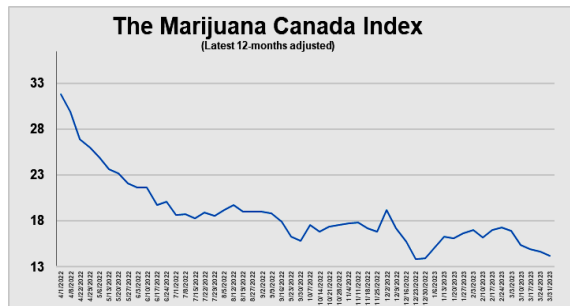
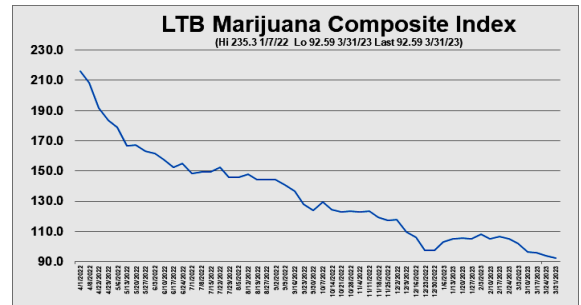


chart above left shows, stocks only showed some weakness on Tuesday and the chart above right shows the large caps are now in the black for 2023 with the Dow recording the smallest advance year-to-date and the NASDAQ Composite leading the parade with a +16.9% gain. As I indicated last week, the news is very news sensitive right now. Fed Chairman Jerome Powell is still walking a tightrope between fighting inflation and saving the banks and has told us upcoming economic data will be very important in influencing the Fed's decisions. So although the PCE results were only mildly positive, in a market like this, the impact is magnified. But I would still be cautious because it cuts both ways.

The cannabis stocks continue to move lower. The Marijuana Canada Index declined -3.0% last week while the Let's Toke Business Marijuana Composite Index slipped -1.3%. Last week I showed

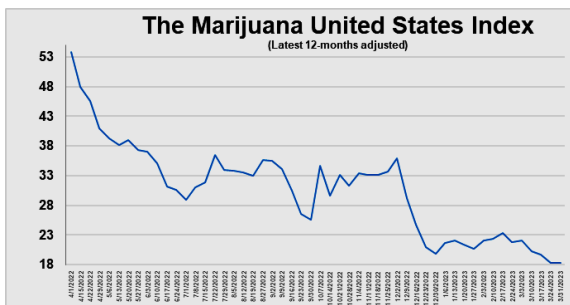


the long-term charts for the cannabis groups that showed over the past five years, the U.S. cannabis sector is down around -80% and



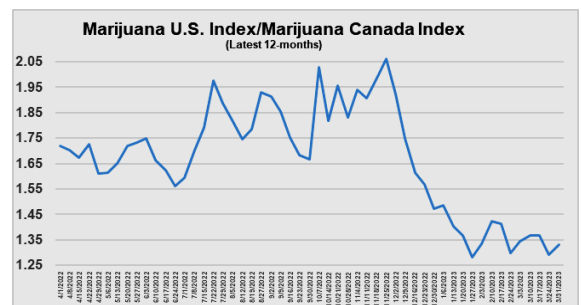
the Canadian cannabis group is down around -95%. It may be stating the obvious but when you see numbers like this, you don't want to be on the sell or short side because the downside is limited. You want to be on the buy or long side because the upside potential is significantly larger. The fundamentals of the cannabis industry haven't changed. The demand is still there. The growth is still there. The key is to remember cannabis investing is not in a stock market. It is in a market of stocks. So find companies that can prosper from the growth in demand for medical and adult-use cannabis despite the problems that have been identified over the past five years.

The U.S. cannabis operators are still underperforming but there are signs that stock prices have reached a point of irresistible value. In my group, a good example might be **Jushi Holdings Inc.**



(CSE: JUSH) (OTCQX JUSHF)

that reported unaudited U.S. dollar results last week for the fourth quarter and year ended De-



cember 31, 2022. Sales for the quarter rose +16.6% and were up 36.8% for the year. Gross profit increase +11.4% to \$22.0 million, adjusted EBITDA was \$6.0 million and the net loss was \$139.9 million. Cash at year end was \$27.1 million. This was a positive report given industry headwinds and the stock held its own after the report. This is an indication the valuation had gotten to a level where investor expectations were reasonable. I have scheduled a management call in early April after which I will report in more detail.

Conclusion: Lexaria Bioscience (NASDAQ: LEXX) (NASDAQ: LEXXW) dropped a little more in the correction than I expected but has been making a comeback of late. I interviewed founder and Chief Executive Officer Chris Bunka which you can read below. As I reported last week, **Khiron Life Sciences (TSXV: KHRN) (OTCQX: KHRNF) (TSXV: KHRN-WT.V) (Frankfurt: A2JMZC)** announced the pricing of its units offering at \$0.05 per share which I described as a disappointment. After the closing of the offering, "disappointment" must have been the understatement of week based on the feedback I

received from readers. I had a quick communication with CEO Alvaro Torres and the calls he must have received made mine sound downright positive. I have addressed some issues below. **Jushi Holdings Inc.** ([CSE: JUSH](#)) ([OTCQX JUSHF](#)) reported on Friday and were reasonably well received as I mentioned above. I will talk to management in the near future and will give you a full report then. **Organigram Holdings** ([NASDAQ: OGI](#)) ([TSX: OGI](#)) is another stock that has fallen to 0.6X tangible book value which has to be about as low as it can go. I am looking forward to their next report around April 11, 2023. My recent chat with CEO Paul Rosen established to my satisfaction that recent financial reports have been a “proof of concept” for **1933 Industries** ([CSE: TGIF](#)) ([OTCQX: TGIFF](#)). I conclude TGIF has proven the viability of its business model and faces a more attractive future than previously. Again, at \$.02 to \$.205 per share, the risk/reward from owning the stock has swung to extremely positive. **Kiaro Holdings Corp.** ([TSXV: KO](#)) continues to demonstrate developing investor interest in their stock. I will reach out to new management shortly. **Speakeasy Cannabis Club** ([CSE: EASY](#)) will probably never trade again as the cannabis operator we were told it was. The Geen family apparently does not care about acting in the interests of their shareholders. I am looking at a new name or two at present including what appears to be an exciting opportunity.

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 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.

After the details of the latest units offering were released, I received several emails that generated more heat than light. I'm not picking on anyone but here is an example. I will let this questioner remain anonymous.

“You have certainly seen the news on **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)). It was clear the two small loans were not enough to save the Company given the cash at hand at the end of the third quarter and the cash burn rate. This raise shows how desperate they are right now. They did not even mention an amount for the offering and even worse the \$0.20 warrants get a new exercise price of \$0.10 per share. This proves Chris Naprawa and Alvaro Torres don't believe the stock will get to \$0.20 per share by 2024. There is no other explanation to justify such a move. The \$0.75 warrants were also taken down.

It shows the desperate need of cash. The situation is terrible; dilution at record levels; the share count will explode and probably double within a year or so.

The recent shareholder letter was a joke as well. Torres just talking about their Press Releases. Why is there no word about Rio? The clinic opened in summer 2022 and we never any transparent Information about how things are going. Is it growing? The same with regulations in Colombia. I know they cannot talk about the financial details but why can't they tell us how things are going in general?

Chris and Alvaro are hiding. Management is a disappointment. Honest and transparent communication has been missing for some time. Last summer, they didn't tell us that Colombian Health Insurance coverage had stopped. This was a big time material event and such reporting should have been done.

I am not only disappointed about the situation but especially how Chris Naprawa and Alvaro Torres have managed the situation."

My first step is in the interest of disclosure to my readers. I know Alvaro Torres and Chris Naprawa quite well and I am also well acquainted with the questioner. So I have insights with respect to the principals mentioned here. I don't want to get bogged down in details so I am going make my comments without directly involving the specific issues raised point by point.

- (a) Anyone who thinks Alvaro Torres and Chris Naprawa are hiding from shareholders don't know them like I know them. These guys do not hide from anything. But they are officers and directors of a public company and there are often issues that arise that they cannot talk about at the time. Negotiating with a new government with a strong left wing bias compared to the right wing government that came before them, means they simply cannot discuss everything, all the time. Now after a couple of months when they do make the proper disclosures, it might look like the event could have been disclosed earlier when in actual fact, it couldn't.
- (b) In talking about KHRN's desperate need for cash, I don't think that can come as a surprise to anyone. Torres was able to arrange a couple of debt financings announced in the past few months which was an accomplishment. The recent units financing, on the other hand, turned out to be a disaster. If Torres and/or Naprawa knew that the outcome would be to raise around \$400,000 at \$0.05 per unit with the costs of fund raising taking up nearly half the proceeds, they wouldn't have done it. I wouldn't have done it. You wouldn't have it. Nobody would have done it. But management makes decisions using the best information they have at the time while critics have the advantage of 20/20 hindsight.
- (c) I have said in the past that the cash crunch at KHRN was the result of a perfect storm. First, a management decision to acquire Pharmadrug and change over using them as their distributor in Europe which they knew would result in several weeks of reduced or missed revenue. But they knew how important it was to make this change, the improved margins that would result and they assessed their cash burn and decided they could manage the change. The situation with the new Colombian government and healthcare coverage was a "black swan" event. By definition it was unexpected and unknowable. That created the problem and you cannot manage for a black swan event. They key is to never give up. So management is trying its best to get through this difficult time. Guys like Torres and Naprawa will not give up.

(d) As a KHRN shareholder, what do you want? If you want to vent your spleen, be my guest but you are working against your financial interest. But if you want to see KHRN fulfill its potential and be successful, this would be a good time to give management some encouragement. If you are playing golf and your partner hits a bad shot or a few bad shots, do you swear at time, call him a fool and tell him he's going to lose the match for you? I don't. I give him some positive feedback. I try to raise his spirits. To call him names and play the blame game only ensures one thing – you will lose. But if you make an effort to get him back on his game, then you have a chance to win. If I was a KHRN shareholder, I would want to maximize my chances of winning. As shareholders, that is what I would be doing right now.

Conclusion: There are two things to keep in mind with **Khiron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)). First, the medical cannabis industry



is going to grow at above average rates for the foreseeable future. Second, KHRN has the business plan and the people to become a

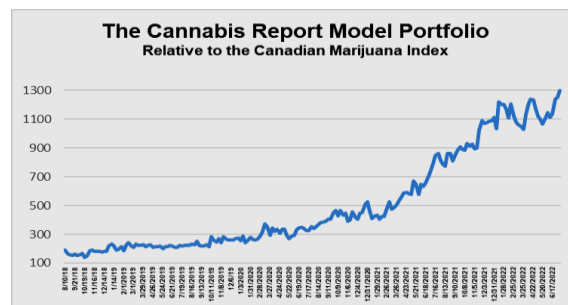


world leader in the medical cannabis field. In the fall of 2022, KHRN was hit by a black swan event that resulted in the cash crunch they have been in since then. It isn't a small problem that was dropped into their collective laps but it wasn't the result of bad management either. It was an unexpected and unpredictable event that management has been trying to deal with ever since. I think from current levels, the risk/reward on the common shares is outstanding and I am going to continue to encourage Alvaro Torres, Chris Naprawa, J.D. Alvarez, Franzisca Katterbach and the rest of the team to keep trying. I think all shareholders should do the same.

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

An update on Lexaria Bioscience and their Investigational New Drug application about to be submitted to the U.S. and Food and Drug Administration

I checked in with Chris Bunka, CEO and director of **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)), a company with a proprietary drug delivery technology, DehydraTECH, that improves the way active pharmaceutical ingredients (APIs) enter the bloodstream by promoting healthier delivery methods and increasing the effectiveness of fat-soluble active molecules and drugs. The Company's technology can be applied to many different drugs and other active ingredients in oral formats including tablets, capsules, oral suspensions – and even foods, beverages and topical preparations. LEXX is expected to submit an Investigational New Drug (IND) application to the FDA.



Ohashi: How is the U.S. Food and Drug Administration (FDA) Investigational New Drug (IND) application for hypertension going?

Bunka: Everything is proceeding well. We had a few small issues but nothing that will change our target date. We still anticipate making the application in early July and we don't control when the FDA will respond but we hope it is between 30 and 60 days.

As part of the process, the FDA requires a couple of tests such as can we manufacture the new drug and stability testing, that is, essentially what is the shelf life of the new drug when stored? We lost a couple of weeks in this process but it won't delay our application.

Let's assume we will be ready to start clinical trials in September 2023 after we receive approval from the FDA. There is preparatory work that needs to be done before we dose our first patient. Let's call that dollar amount 100%. This would include creating the data bases, ordering the monitoring equipment, calibrating the new equipment, training the clinicians, and so on. By dollar amount, we have decided it is prudent to get started on 20% of the work by dollars and committing to the remaining 80% after we have FDA approval. This is just being prudent on our part. So will start on the 20% near the end of April and the rest after we receive FDA approval that we're thinking will be around early August or September when we'll start on the remaining 80% that should enable us to starting dosing patients in early October.

Ohashi: Do you have an update on diabetes?

Bunka: I'll start by saying this was an animal study not human. So we took a population of obese rats and a population of normal, lean rats and lo and behold within seven days or so when we started dosing, these animals started losing weight. Not because of any restrictions on their caloric intake but partly because of increased activity. They were simply physically more active walking around, running around, so obviously that means you're going to burn more calories but also to some degree that we don't fully understand yet. It seems that their metabolic activity also increased so the reduction in weight could not be completely explained by the extra walking or running around so that is a very intriguing finding. Then we also noted that the level of triglycerides in the bloodstream of both lean and obese rats decreased compared to placebo. This was very positive for diabetes and also for weight loss and general health, so that was really interesting. Then we noticed an increase in the good cholesterol levels and also an increase in the bad cholesterol levels but the increase in the good cholesterol overshadowed the quantity of increase in the bad cholesterol. Again at this point we're not entirely sure what is going on but there is no question but that we changed the cholesterol level. Why and how much is all to be determined and we need to see what happens in humans. We haven't determined if we should do another animal study or change the animal or consider moving to a human study. This is something we will be discussing internally over the next couple of months. There are also cost considerations as testing with dogs or humans is quite a bit more expensive.

We are still awaiting results on the dementia study so I don't have anything to report there but we have been promised it will be soon.

We are still waiting on the human nicotine study that has taken much longer than expected. Based on the information I have, we are probably over $\frac{3}{4}$ or so complete which implies in another couple of weeks we should start the last patient dosing. We wanted an American group to do the study and we had a hard time because right now because most people did not want to touch human nicotine testing; number two, we did find three or four groups that would do it but most of them were exceptionally expensive, say, in the range of \$1.2 to \$1.7 million and the group we finally selected was a fraction of that cost

because they were much smaller but we didn't have the budget that we could throw an extra \$1 million around. We anticipated they might be slower and that has proven correct.

Finally, we put out news around the third week of February that we might have a novel mechanism of action in last year's hypertension study. If it proves correct that could significantly shorten our time to FDA approval. The FDA working on novel mechanisms of action right for hypertension and the FDA has clearly displayed they are that interested in finding novel mechanisms of action so that could become fairly significant to us in a strategic sense and lead to a shortened approval time over the longer term. I can also say I there are still a couple a couple more esoteric batches of data yet to be released from that hypertension study. I know this because I know that university based clinicians are in the process of writing and submitting peer reviewed papers on these additional areas so I think we will see at least two additional new peer reviewed papers coming out of that same study.

Ohashi: Not to shamelessly name-drop but have you had any communication with Altria or British American Tobacco lately?

Bunka: We have not had any communication with BAT lately but just happened to have heard from Altria recently as they presented some of their internal findings from analysing the nicotine powders we provided them with last summer. Because of our relationship, we haven't formally issued any information about those discussions and I'm not sure that we will in the near term. But this was in the last two weeks. Also, we have been having discussions with another global nicotine company that is not Altria or BAT.

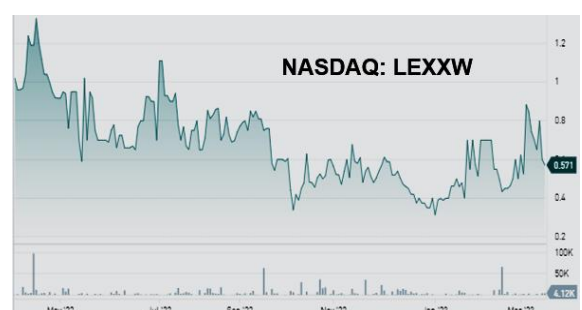
Ohashi: Finally, will you be raising money in the near future?

Bunka: I've said that we had existing cash resources to fund the last round of tests and trials. So we're pretty much covered through our FDA IND application. As we plan our work after that, we will be looking for additional funds. We have a Securities and Exchange Commission (SEC) Form S-3 that simplifies the capital raising process and we will file a Form-S1 for issuing securities on a national exchange. Our circumstances have changed over the past couple of years so we have other opportunities that might change our need for capital and we may have other choices than simply issuing shares and warrants. We will need to raise money at some point but I can't be more specific as to how or when.

Conclusion: Lexaria Bioscience ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)) has many valuable opportunities ahead but for the time being, I remain focussed on their Investigational New Drug application



to the U.S. FDA that should be ready for submission in early July. A positive response is anticipated from the FDA within 30 –

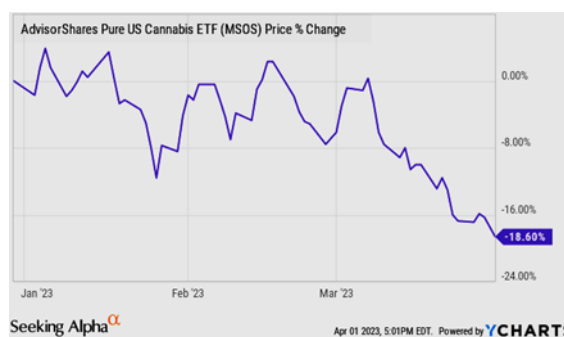


45 days that puts us somewhere around Labour Day. Depending on how much the market is in a mood to anticipate a positive response, the share price should enjoy a substantial bounce at this time. As Bunka said in our chat, they are currently working to ensure they will be ready to start FDA approved human testing after Labour Day and before Canadian Thanksgiving. At this point, there will be many more pharmaceutical eyes on the company and I expect today's investors will be well rewarded. If you own it, hold on. If you don't own it, this is an excellent time to buy it. The stock price corrected in late February and March so you are getting it a price discount.

Marijuana Matters

I thought a recent comment by Alan Brochstein, CFA in New Cannabis Ventures was worth sharing. It references AdvisorShares Pure US Cannabis ETF (NYSEArca: MSOS). Brochstein observed the number of shares of MSOS had declined 8.9% between mid-December 2022 and early January 2023 and is now 13.2% lower. Furthermore, the ETF is performing very poorly declining -18.6% in the first quarter of 2023 indicating redemptions could well continue.

The MSOS portfolio is concentrated in the U.S. multi-state operators (MSO). The five largest MSOs represent 78.8% of the portfolio and Green Thumb Industries and Curaleaf make up 44% of the portfolio.



This does not necessarily create an MSOS Death Spiral but the market action is very similar:

- (1) MSOS performs poorly.
- (2) MSOS gets hit by redemptions.
- (3) MSOS is forced to sell MSO holdings to meet redemptions.
- (4) MSOS selling pushes down the price of the MSOs.
- (5) Return to (1) above.

Can the spiral stop? I think so. Repeated downward cycles reduce the size and importance of MSOS and their impact on the MSO market diminishes and gradually the spiral stops. Of course, if an event changes the downtrend, an event such as some pro-cannabis legislation is passed because Schumer, Booker and Wyden end the senate blockade on pro-cannabis legislation.

Cannabis Quickies

Jushi Holdings Inc. ([CSE: JUSH](#)) ([OTCQX JUSHF](#)) reported preliminary, unaudited results in \$US for the fourth quarter and year ended December 31, 2022. Here are the financial highlights:

Q4 2022

- Total revenue of \$76.8 million, up 16.6% year-over-year and 5.5% sequentially

- Gross profit of \$22.0 million, an increase of 11.4% year-over-year
- Net loss of \$139.9 million
- Adjusted EBITDA¹ of \$6.0 million
- Reduced inventory by \$7.0 million versus the prior quarter
- Cash, cash equivalents and restricted cash were \$27.1 million

FY 2022

- Total revenue of \$284.3 million, an increase of 35.8% year-over-year
- Gross profit of \$95.5 million, an increase of 14.5% year-over-year
- Net loss of \$202.3 million
- Adjusted EBITDA of \$7.1 million
- Reduced inventory by \$8.2 million versus the prior year

Q4 2022 Operational Highlights

- Made significant progress on projects in Virginia and Pennsylvania, expanding overall canopy to 69,310 sq. ft. and total annual biomass capacity to 49,121 lbs., as of yearend.
- Virginia patient base increased by ~188% y-o-y concluding the year with over 12,000 active patients and the total certified patients in our footprint in Virginia is ~22,620
- Closed US\$73.1 million debt financing used to redeem outstanding existing senior secured notes and extend our senior debt maturity to December 2026
- Relocated the Beyond Hello™ Westside dispensary in Pennsylvania to Dickson City in the Greater Scranton Area
- Launched a suite of products in California exclusively at Beyond Hello™ retail locations, including Sèchè pre-roll singles, Tasteology fruit chews, and The Lab vapes
- Strengthened Board of Directors and senior leadership with appointments of Bill Wafford as Independent Director and Chair of the Audit Committee, and Tobi Lebowitz to Chief Legal Officer and Corporate Secretary

Recent Developments

- Opened 36th and 37th retail locations nationwide, a 5th vertically integrated state-level operation with 1st Beyond Hello™ medical dispensary in Ohio and a 5th medical cannabis dispensary in Arlington, Virginia

- Continued focus on cost-savings and efficiency optimization plan, reducing employee headcount from ~1,570 at 2022 peak to ~1,310 today. We expect to move to a new labor model resulting in a total estimated 50% labor hour savings since April of 2022.
- Made a series of leadership appointments, including Michelle Mosier as Chief Financial Officer and appointing Nichole Upshaw to Chief People Officer and changing Shaunna Patrick to Chief Commercial Director and Trent Woloveck to Chief Strategy Director
- Secured up to US\$10.0 million equipment lease financing facility and funding commitment from XS Financial, and drew down an additional US\$1.9 million on an Arlington, VA real estate mortgage facility in the first quarter of 2023
- Expanded 93,000 sq. ft. Virginia facility and its canopy to approximately 15,700 sq. ft. In Q4 2022, Jushi has scaled operations to become EBITDA positive in Virginia.
- In Virginia, in the design phase of a second connected building to increase grower-processor facility's total up to ~263,000 sq. ft. By splitting up the next development phase into two pieces, costs should be reduced to approximately \$35 million.

Management Commentary

Jim Cacioppo, Chief Executive Officer and Founder of Jushi said “Jushi experienced many bright spots over the course of the year, including rapidly growing our retail network across six markets and diversifying our house of brands and product suite. Also, we made progress on the completion of our expansion projects in Pennsylvania and Virginia, were awarded a retail dispensary license establishing our fifth vertically integrated state operation in Ohio, brought on a record number of new Jushi active patients in Virginia’s budding medical market, and scaled our presence in the expanding Nevada market. In 2023, we will continue our focused efforts to realize the full value of the asset base we have built and maximize the return on investment for our shareholders....In the fourth quarter, we were able to successfully complete a \$73.1 million financing to redeem our senior secured notes that were due in January. That being said, we are very aware of the challenging capital market environment facing us and the broader cannabis industry. As a result, our executive team is making real-time changes to our capital allocation strategy as we navigate these challenges and ensure we make the right investment decisions to secure our leadership position across each of our core markets.”

“Looking ahead, we have shifted our attention from rapidly expanding our operations to focusing our efforts on efficiency optimization and cost-saving initiatives across all facets of our business. We have built an incredibly strong and agile platform of high-quality assets distributed across an attractive state footprint and I am confident that this solid foundation along with our strong financial and operational discipline will enable us to accelerate our pathway to profitability as we continue to work towards being free cash flow positive, as soon as practical.”



I will have a management interview in early April.

Applications Watch

Health Canada issued one new license this week for an adjusted total number of licenses of 950. This week a new license was issued to 1000033066 Ontario of Ontario 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

On March 17, 2023 I spoke with Paul Rosen, Chairman of the Board and largest individual shareholder of 1933 Industries ([CSE: TGIF](#)) ([OTCQB: TGIFF](#)).



I look forward to chatting with Rosen because he is also well known for his knowledge and insights in the cannabis industry. I have known Rosen since mid 2020 when he was parachuted in to turn around a failing company. I followed him very carefully as he first stemmed the bleeding at TGIF while doing an excellent job of preserving revenues. After two years, I was comfortable in saying TGIF was no longer a turnaround situation but had advanced into a turned around company. Rosen was more demanding and withheld judgement. This week, for the first

time, I sensed Rosen feels TGIF is well on its way to recovery. He says he is not satisfied and there is more to be done. Right now he is focussed on elevating the company to the next level. Here is a summary of our chat.

Ohashi: It's been a while since we chatted. One of the things that attracted my attention recently is the persistent buying that seems to be in TGIF at \$0.020 to \$0.025 per share.

Rosen: Fundamentally, it's a case of supply and demand. Buyers and sellers agreeing on a price and volume creating a trade. But I don't wonder about the buyers as much as the sellers. There are many different motivations for selling. There are even some that result from people being forced to sell stocks they would rather keep. Maybe they need cash at any price. But the puzzle to me is why is anyone selling at such depressed levels in TGIF. I can only conclude that the stock market is looking at 1933 Industries in light of the past and not as a referendum on our future.

Ohashi: I agree with that. Can we start with a general update on what's going on with 1933?

Rosen: There are always a lot of things I'm happy about; things I'm proud about. I was just in Las Vegas last week and there are many good things happening. If you saw our latest quarterly report, I think it was a very good indication of what we're capable of accomplishing. We had the highest revenue in our history combined with, I think, the lowest selling, general and administration (SG&A) expenses that produced the highest gross margin ever achieved.

From an accounting point of view, there is always the goodwill associated with the value of our biological products. Our plants and our inventory. If product prices are down in our market, the auditors want to write down the value of our biological assets in the ground and in the vault. To us, from an operating point of

view, this is ancient history. I get a report daily and we adjust our prices as rapidly as we see fit. For that quarter, we squeezed out an actual operating profit but then there is this non-cash write down. If wholesale prices in Nevada are down, and we have had prices go up as well; but if prices are down they will reduce what amounts to goodwill on these assets. Also, unlike some Canadian companies who have taken a very aggressive stance to valuing their biological assets because it makes their bottom line look better and have ended up with write-downs in the hundreds of millions of dollars, we are always quite conservative. These write-downs don't change the fact that we actually made a profit. It doesn't impact our cash. It is something they come to tell us about long after it has happened and we have already adjusted for it.

I can't comment specifically on what's happened since will report shortly but I will say that I'm driving for higher results every quarter and there are things that are beyond our control that affect our numbers but I can say if I was shareholder, which I am, our last quarter was a positive sign of what we can do and my challenge is to see if we can move forward from here.

Ohashi: so what is your operational over the balance of 2023?

Rosen: One way we can improve upon our results is to make some meaningful improvements in some of our infrastructure. This is necessary if we are going to move to the next level. In concept, if we can improve our operating environment, improve the quality of our processing, it will reflect favourably on our results. So we are going to make some capital investments to our building and layout. We've been working with what was in place when I got here and now I think it is time to make some changes that will get us to best agricultural practices.

I am not satisfied but I was encouraged by the quarter. Like every company in the industry we're going to continue to face challenges. There's been a lot of failures in Nevada with larger growers failing so we know that market conditions are tough. I read most of the financials of the big multistate operators (MSO) and I think it's fair to say that the U.S. cannabis industry is going through a difficult spell. There's been a lot of price compression in multiple markets and we are getting no favors from the government.

Ohashi: that's been a gripe of mine for some time. I mean we're over two years into the Democrat's mandate and they have done nothing for the marijuana industry. I've been very disappointed in the Democrats approach to cannabis.

Rosen: I mean considering where we were with all their promises when they were elected in 2020, I guess they haven't done anything; it's a giant nothing burger. It's absurd that cannabis is a Schedule I drug because that means a drug with great deal of harm potential and no medical benefit. That's a designation made by the Department of Justice (DOJ) in consultation with the Food and Drug Administration (FDA). You have the FDA approving Epidiolex, a plant based cannabis therapy that has become the best in class go to treatment for Dravet syndrome. So you have an irreconcilable inconsistency between two government agencies: the DOJ that says cannabis under Schedule I has no medical benefit and the FDA which has approved a cannabis therapy for a medical condition. I think Biden knows that's an irreconcilable conflict. I think he's moved the needle on some social issues by accelerating pardons.

If there's blame, I think it is not at the administration. It's at the congressional level. SAFE Banking could have passed. The votes were there. Senate Majority Leader Chuck Schumer (D - NY) and Senator Cory Booker (D - NJ) had this dream that if we just pass SAFE it's going to be like a gift to the fat cats. We want a grand bargain where they do it all in one fell swoop. We want to have criminal justice reform and social justice reform all at the same time. They didn't have support for all of these additional policy changes. I think they could have passed SAFE Banking if they just let it pass as a standalone. I think they could have passed something to fix 280E as well. So I feel the Democrats did blow it and the industry has never fully recovered. The cannabis industry had a peak valuation in February 2021 shortly after Biden took his oath of office. But yes the Democrats controlled the House, the Senate and the White House and they couldn't pass any reform.

I actually think the Republicans could make this their issue I think it will be popular. It's not an unpopular matter among Republicans. Many Republican states have cannabis programs. I feel that something simple like the DOJ dropping cannabis down to Schedule III or lower and pass SAFE Banking or SAFE Banking Plus. This would mean Section 280E will be rescinded and things would be quite a bit better.

I feel something like this can happen between now and the next election.

Ohashi: How are things in Nevada these days?

Rosen: I was there last week and I think things are good. Not great and not terrible. I think the Nevada unemployment rate is a little above average and tourism is fine. Not outstanding but good. We've experienced some cannabis price compression but not as severe as Michigan, Massachusetts or Oregon. Of course, Flower One implemented a plan of arrangement under the Companies' Creditors Arrangement Act. In Nevada, it is difficult to get the Control Board to issue any kind of license. So the industry has been maintaining the status quo and while that isn't ideal, I think we're seeing some price stability and possibly even some small increases. Nevada is also proceeding with its consumption lounges. It's hard to say what contribution they will make to the overall industry but from what I know, if the lounges are upscale and create a nightclub type of experience, it will attract a clientele. We know people will pay a huge premium to join with other young people for drinks and entertainment. If you can recreate that environment where people consume cannabis instead of alcohol, then it will work.

Ohashi: Is cannabis tourism a real thing? Do people travel to experience cannabis?

Rosen: I think in the early days, people would travel to Colorado, for example, to buy legal cannabis. But I don't think that happens very much in today's market. I don't think people are but only if we go to super, high level prestige consumption lounges for a phenomenal experience. People will come to Nevada because of the hotels, casinos, entertainment and consumption lounges can piggyback off that. So I think cannabis tourism is a small plus.

Ohashi: Where do you stand with the debenture holders?

Rosen: I have been trying to convince those that have not converted they will have to agree to an extension. I told them it's not likely they'll be paid back in cash at the end of the term. I have a fiduciary duty to

all stakeholders and the debenture holders are stakeholders but killing the company to pay off the debenture holders is not in anyone's best interest. The debenture holders don't have much leverage because they are unsecured. We get conversions from time to time. Debenture holders and shareholders will both benefit the most if the company is ultimately successful. I really don't spend much time thinking about it.

Conclusion: In mid 2020, Paul Rosen was already the largest shareholder of **1933 Industries** ([CSE: TGIF](#)) ([OTCQB: TGIFF](#)) when he was brought in on a rescue mission. I was very fortunate to have him share his general approach and be able to watch him put it into action. Things were complicated because he started shortly after the COVID pandemic was being realized by the broader population and travel restrictions made his job even more difficult. But Rosen indicates that the last quarter provided an indication of what the company can do and I look forward to more of the same moving ahead. The U.S. cannabis industry is experiencing a relatively challenging time but with a little positive input on the legislative front with the passage of a SAFE Banking or SAFE Banking Plus package as well as changes to address the problems created by Section 280E I think TGIF will turn into a growing cannabis operator generating excellent returns from its current depressed price in the \$0.02 to \$0.025 range. If you don't own TGIF, I think this is an excellent time to buy an initial position. If you are a shareholder, I think this is an excellent time to average down your cost.



February 24, 2023: A multi-billion bluest of blue sky valuations of Lexaria Bioscience is possible

As regular readers know, one of my market favourites is **Lexaria Bioscience** ([NASDAQ: LEXX](#)) ([NASDAQ: LEXXW](#)). In this article, I lay out my thought process which follows this basic outline:

- (a) What is it about LEXX that the market does not fully realize? (b) What is a company like LEXX worth?
- (c) How do (a) and (b) combine to provide LEXX a "blue sky" potential beyond anyone's imagination?

(a) What is the market still missing? I believe LEXX is a pharmaceutical incubator. The characteristics of a typical incubator in any industry is generally based on the following four steps:

1. find an undervalued product, good or service and acquire it in some fashion
2. promote, in the best sense, the product, good or service to a higher, more realistic value
3. sell it for an enhanced value retaining an ongoing equity interest in some form
4. go back to 1. and repeat

The problem with the incubator business model is step 1. Is difficult to replicate successfully many times over. But LEXX is more likely to be able to repeat step 1. because their DehydraTECH™ technology underlies not one but many opportunities. Hypertension is the health issue management decided to

develop first and I think it is likely to provide investors with significant returns this year. But there already more possible DehydraTECH™ applications and this potential was known on day one. Today, several of these DehydraTECH™ offshoots that have already been identified and partially developed including: other cannabinoid applications, oral nicotine, diabetes, dementia, antiviral drugs and phosphodiesterase inhibitors (Viagra, Cialis, etc.) and more. For LEXX, the issue is not where to go next; it is to select which opportunity to develop next.

(b) What is a company like LEXX worth? Here I will refer to a recent comparable so it should be pointed out that each case will be different except in one important way – the escalation in its valuation is likely to be very substantial. It is clear to me that LEXX is undervalued. Here are the reasons as I see them:

1. LEXX has done extensive pre-clinical work on hypertension and their pre-Investigational New Drug (IND) outline was very well received by the U.S. Food and Drug Administration (FDA).
2. The hypertension market represents a \$5 billion need. I think this should clearly be valued higher than a company in the same position with possible access to a smaller market.
3. In late December 2022, Kala Pharmaceuticals (NASDAQ: KALA) announced FDA approval of its IND application which is similar to the application LEXX expects to make around mid year. KALA was immediately up over 10X and is still trading at 3X its pre-FDA IND approval levels. I reported the KALA case to you earlier as a reasonable comparable. Because each situation is unique, your results may vary but my guess is the order of magnitude may be correct and if anything higher because of the importance of hypertension as a medical challenge. In any case, we don't have long to wait because I expect LEXX to receive approval one or two months after the application is submitted.

I believe LEXX could receive an explosive response in the market because:

- The hypertension market is an extremely large commercial market.
- The FDA has outlined a shorter route to final approval for a unique hypertension approach which LEXX's recent Press Release suggests might apply in this case.
- The marijuana plant has been illegal for multiple decades and longer because of its psychoactive effects. During this time, the plant has not been actively researched despite a large body of evidence that it has improved people's quality of life despite not being scientifically proven. I believe this will result in an explosion of scientific study into cannabidiol (CBD),
- I think the pharmaceutical industry's view toward CBD is well established by Pfizer's 2020, \$6.7 billion acquisition of Arena Pharmaceuticals which is developing a CBD based treatment for bowel disease and Jazz Pharmaceuticals' 2021, \$7.2 billion acquisition of GW Pharmaceuticals.

One study I have reported to you earlier estimates the value change from the initial idea to the end of Phase 2 or the start of Phase 3 at 400X and from the start of Phase 1 to end of Phase 2 or the start of Phase 3 as 12X. Finally, if LEXX was trading at a so-called typical valuation, it would be roughly 6X higher than LEXX's current market cap of under \$20 million.

(c) How do (a) and (b) lead to the full blue sky picture of LEXX? The points made above ignore the fact that LEXX has four to six favourable indications of other potentially new drugs based on their DehydriTECH™ technology. Management selected hypertension as the first opportunity to pursue because it offered the greatest potential, short term package. But we can't ignore the potential size of the oral nicotine delivery market at a point in time when the major tobacco giants are moving away from combusting tobacco to deliver nicotine or the potential for a dementia drug at a time when the world population is aging.

It may not be reasonable to multiply the final valuation of LEXX by 4X to 6X but 2X or 3X might be acceptable.

So what is the blue sky, pie in the sky possibility? Here's one formula:

- **\$20 million market cap times 6 to get to a theoretical fair value for where LEXX is now = \$120 million**
- **\$120 million times 12 at the end of hypertension Phase 2 = \$1.4 billion**
- **\$1.4 billion times 2 or 3 to include other potential products = \$2.8 billion to \$4.2 billion.**

Conclusion: Although it is not a forecast, a \$2.8 - \$4.2 billion market cap is a super aggressive, hyper-speculative guesstimate. By the same token, it is not outside the realm of possibilities when you consider



pharmaceutical companies routinely carry multibillion dollar price tags. But I hope it gives some perspective on how undervalued **Lex-aria Bioscience**



[\(NASDAQ: LEXX\)](#) [\(NASDAQ: LEXXW\)](#) at current levels. Based on the charts, I continue to prefer the common at these price levels. For the Cannabis Report Model Portfolio, I owned all LEXXW which I sold and reinvested the proceeds into LEXX.

March 3, 2023 – Can you provide a maximum blue sky valuation along the lines of the one you did for LEXX but for KHRN?

You have to understand that the business of developing a new drug and seeking approval from the U.S. Food and Drug Administration (FDA) is a long established business and the stock market valuation for companies at various steps along the way has been well established. Not only that, I have had a couple of in depth but informal chats with LEXX CEO Chris Bunka about this over the past year and I have written a few articles about this valuation process and the company has issued a couple of Press Releases on the topic as well. What I'm saying is there is a rough formula you can apply to companies in the drug approval business and it is something I have given a lot of thought to over the past year.

This is not the case to the same degree with KHRN. In the past there have been many instances of companies engaged in a loosely similar business model from opening fast food restaurants to retirement

communities to funeral homes. Arguably, the U.S. multistate operators (MSO) are a similar business paradigm. One of my personal frustrations on behalf of KHRN has been that an important ingredient for the success of these earlier ventures has been a generally rising stock market. So the growth company would announce plans to open a group of new restaurants and the market would rise on the news. The company would finance at a more attractive level, open the restaurants and see the sales and net income start to flow. Their valuation would rise on improved revenue and income, rise on the announcement of expansion resulting in an even lower cost of capital. Over 10 – 15 years, this would create a big win-win for all.

For KHRN and to a certain extent the cannabis sector, market conditions have been poor. The cannabis indexes reveal that stock prices have been falling and over that time are down somewhere between 80% and 90%. This means despite positive progress, the cost of capital to KHRN and others has been rising and rising a lot to the point where share price dilution has become the number one problem. Also there isn't a "formula" with respect to these companies as there is with the new drug development operators. So there isn't a template to follow for KHRN as there is for LEXX and others like it.

Having said that, let me give you something to think about. Let's compare what KHRN is doing to the U.S. MSOs. Here are some things to think about:

- (a) Most of the larger MSOs are vertically integrated from seed to sale. KHRN now finds it doesn't need to be vertically integrated and will soon be out of the cultivation and extraction parts of the industry if they aren't already. To me this is advantage KHRN. They are evolving along the lines of giant tobacco, coffee and sugar companies which I think is a good thing.
- (b) Most MSOs sell both medical and adult-use cannabis depending on their jurisdiction. KHRN is dealing only in medical cannabis. Again, advantage KHRN although I am sure others will argue the other way. I see medical cannabis as a more reliable, growth business with an inherent regulatory advantage and nothing rules out adult-use cannabis sales in the long term.
- (c) The MSOs operate in the United States in an increasingly competitive environment. KHRN operates internationally with Colombia and the UK/Germany as its major markets. Advantage MSOs because I think there is a perception that the United States is a more attractive geopolitical environment than Latin America although I think the American competitive environment is more challenging.
- (d) The MSOs are currently operating in the U.S. although there is an argument that the future might see them expand internationally. KHRN has some natural markets including Brazil and Mexico as the questioner asked but also European markets such as Switzerland where they recently entered and not ruling out the U.S. at some time down the road. I give KHRN the nod because they can produce much higher growth on their much smaller base but it's a toss-up.
- (e) In terms of size and financial strength, I think the MSOs clearly have an edge. There is more business risk in KHRN and it will take a few years of growth for KHRN to get over that hump. But this is a normal part of investing in small and microcap companies. Each person must consider the suitability of this type of aggressive, high growth investing.

(f) I think the MSOs lack anything proprietary in what they are doing whereas I believe KHRN's business plan in the medical cannabis field provides the company with a giant moat. KHRN has a lead using their approach to the medical cannabis market and they have intellectual property in the form of the way in which previous patients were medicated with cannabis and the outcomes. I see this as a significant advantage to KHRN.

Conclusion: if you share my vision and confidence in what KHRN has been able to deliver in a “proof of concept” sense, then a sampling of current multistate operators gives you a very general idea of what is possible. I think it is only fair to be reminded of the fact that KHRN is still a very small company with sales of roughly \$20 million and a market cap of approximately \$22 million. But I think the risk/reward potential for **Khi-ron Life Sciences** ([TSXV: KHRN](#)) ([OTCQX: KHRNF](#)) ([TSXV: KHRN-WT.V](#)) ([Frankfurt: A2JMZC](#)) is extremely favourable. I have confidence in this group and on a “bluest of blue sky” basis, I think market caps at or above the upper range of the MSOs of \$2 to \$4 billion as shown here, are within reach. It will take time, for example, Curaleaf was founded in 2010 and Green Thumb in 2014 but I think given the leadership of Founder and CEO Alvaro Torres and the team he has assembled, it can be done.

U.S. Multistate Operators by Market Cap	3/3/2023 (millions)
Curaleaf	\$ 3,800
Green Thumb	\$ 2,900
Trulieve	\$ 1,600
Verano	\$ 1,500
Cresco	\$ 750
Jushi Holdings	\$ 175

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 20th - **Lexaria's Human Oral Nicotine Study Begins Dosing** ([read here](#))
- December 21st - **Lexaria's DehydraTECH-CBD Achieves Superior Human Blood Absorption Levels** ([read here](#))
- December 29th - **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.

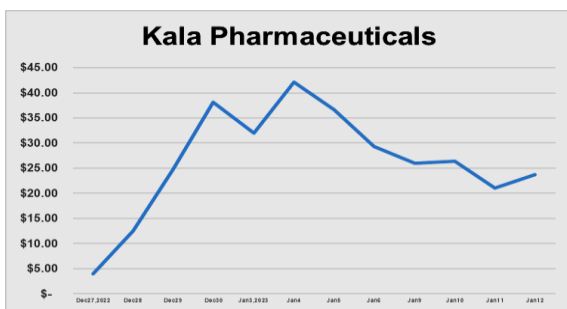
Beads #2, #3 and #4 – the December 2022 press releases covered the start of human dosing for NIC-H22-1 that was important but not critical for publication on December 20, 2022; the December 21, 2022 release "announced" superior CBD absorption using DehydraTECH-CBD™ something that had been generally known 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,

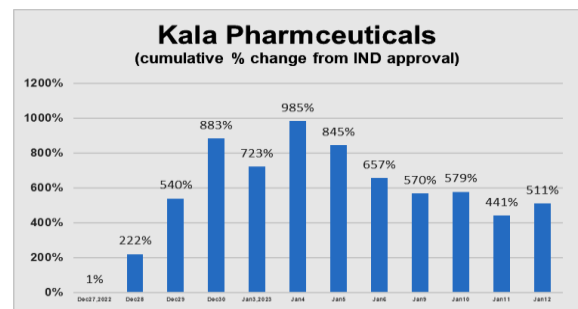
and I am sticking to my expectation of an “explosive” result, there are at least one or two more possible uses, such as nicotine delivery, where they have very strong evidence of a potential application.

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.

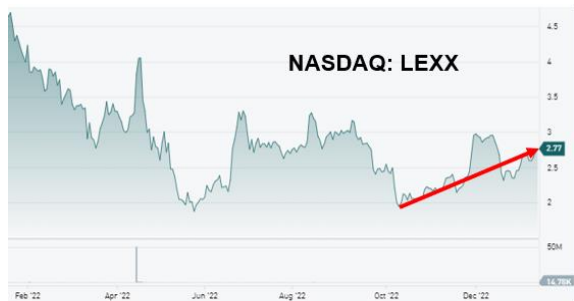
➤ **Most exciting:** within the next few months, I expect LEXX to submit its IND application. When this is done, the stock should respond positively. KALA rose 20% when this was announced. Then within a

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](#))



[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.

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

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 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 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

	2022 Return	Bear Market Return*
Cannabis Sector		
Canada		
LTB** Marijuana Composite Index	-57.8%	-92.3%
NCV*** Canadian Cannabis LP Index	-62.9%	-94.6%
United States		
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		

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.

- ### Hypothetical Stock Market Cycle Volatility
-
- The graph illustrates the volatility of a hypothetical stock market cycle. It shows a series of peaks and troughs. The cycle is divided into four main phases:
- Dynamic Phase of the Bull Market:** This phase is characterized by smaller, more frequent corrections, labeled as "Dynamic Phase Corrections 3%-5%".
 - Bull Market Trading Phase:** This phase is characterized by larger corrections, labeled as "Trading Phase Corrections 5%-10%".
 - Bear Market:** This phase is characterized by a sharp decline, labeled as "Bear Market Corrections 20%".
 - Bear Market Corrections:** This phase is characterized by a sharp decline, labeled as "Bear Market Corrections 20%".
- The graph shows a sharp decline in the Bear Market phase, followed by a recovery in the Dynamic Phase of the Bull Market.

[illegible]

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.

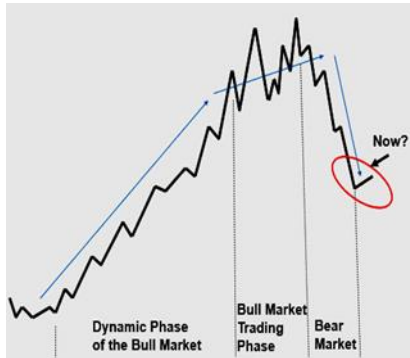
The summary looking forward from August 2022, was that it seemed too soon to call the bear market ended and I suggested we might be heading for a double bottom which now appears much clearer. I said then and I reiterate now, “This makes sense if we also assume the economy recovers in the third quarter 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,



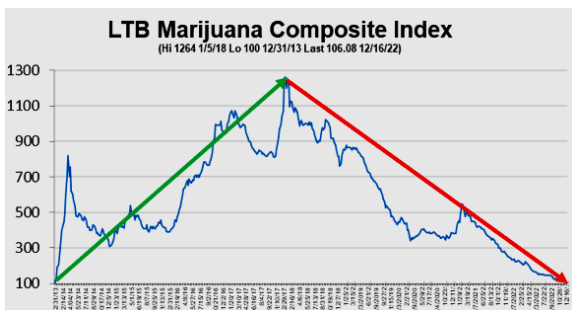
two out of the three major U.S. indexes had declined more than the bear market defining decline of -20%. Both the Standard and Poor’s and NASDAQ Composite had exceeded the -20% hurdle but the Dow Jones Industrial Average had not. So, we were very close to being in a bear market as far as the Dow and 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.

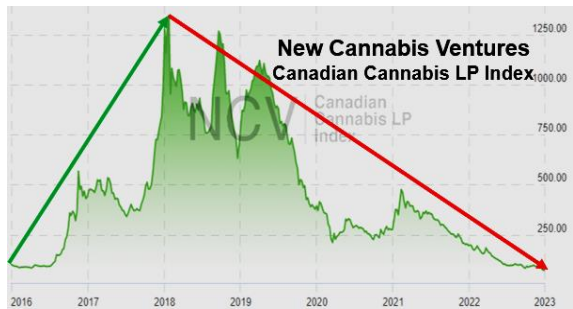


The Cannabis Sector – 2022

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.

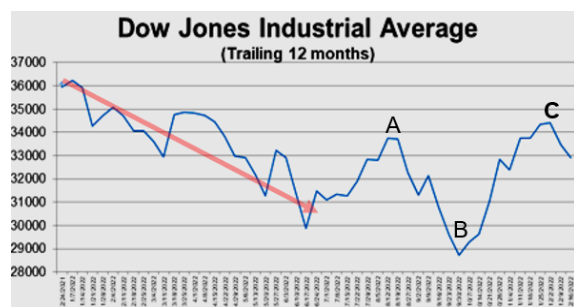
- **Interest rates:** are going to continue to rise in 2023 although the pace might be slower. On the back of five consecutive months of declines in the Consumer Price Index, the Federal Reserve Board reduced the rate of increase in the Federal Funds rate to 0.5% from a series of 0.75% hikes. Chairman 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.

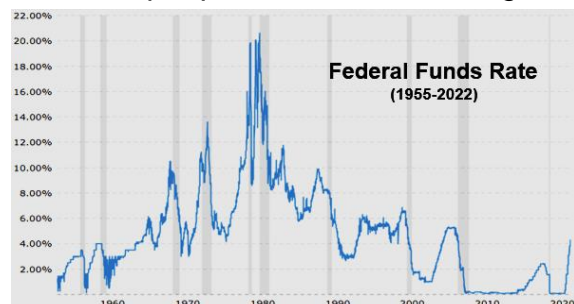
- The stock market during 2022 painted a fairly accurate picture of what was going on. In the first half of the year as the Fed began to ramp up its battle with inflation and interest rates started to rise, stock prices trended lower.



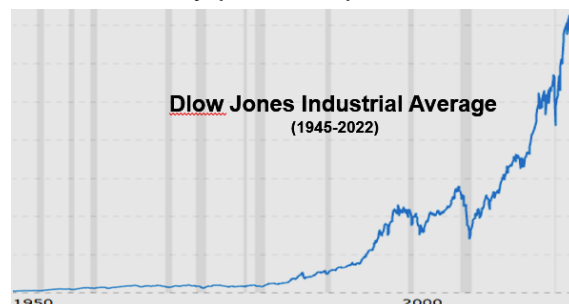
prices trended lower. Then investors turned their attention to when the Fed would begin to ease back on interest rate hikes, the stock market made a higher, high shown on the chart as point "A" indicating a possible change in trend from down to up. But the Fed not only persisted with higher rates, it 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



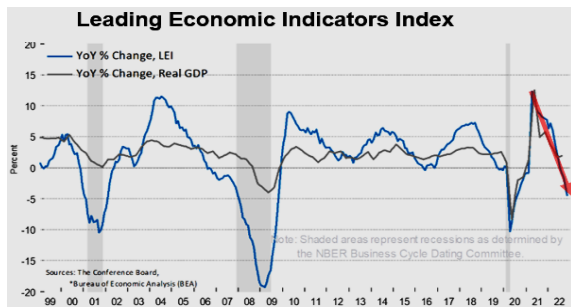
comparison, unemployment is quick and painful. So far, the U.S. recession has been a financial recession



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.

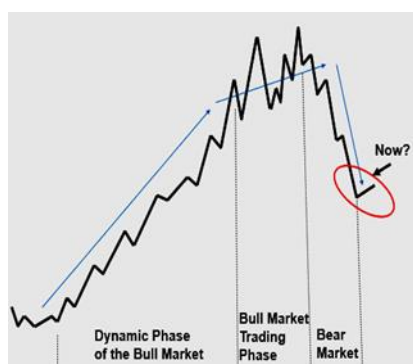
What does that mean for the large cap sector in 2023?

- (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

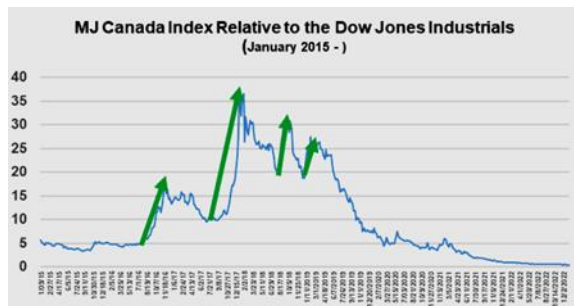


but we are not at the beginning but nearer the end. The chart above right shows the Dow has barely penetrated the definition of a bear market while the cannabis sector is beyond almost any level of decline that anyone might have reasonably expected.

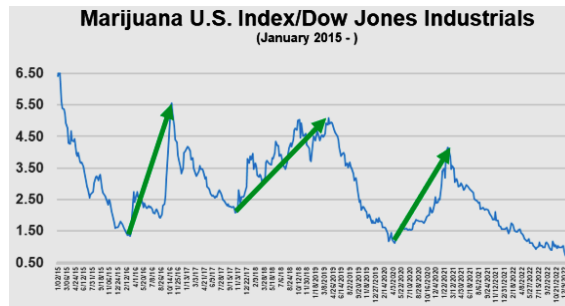
- **On the cannabis side, the markets were let down by the regulators/politicians.** In fact, if I think the greatest mistake that was made by investors in the cannabis sector would be overlooking the regulated nature of the business that would evolve and the ineptitude that politicians would demonstrate 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 2nd and 3rd 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 currently 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.

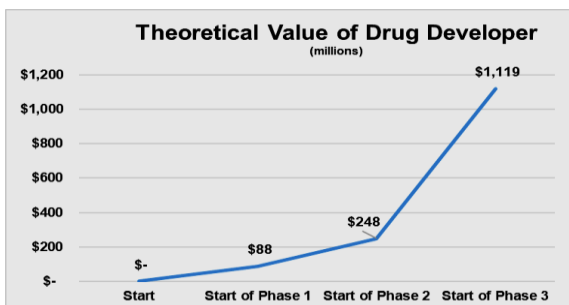
It is important to also bear in mind as this article says, in other industries investment value is often driven by revenue and profit growth. In drug development, value is driven by de-risking that is accomplished by science and clinical experiments. “The more rigorous the experiment, the more value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

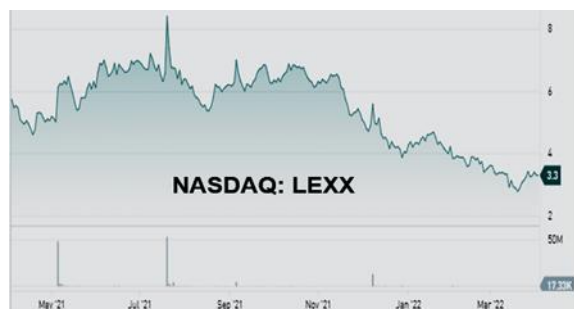
Value at start of program - \$ 0

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

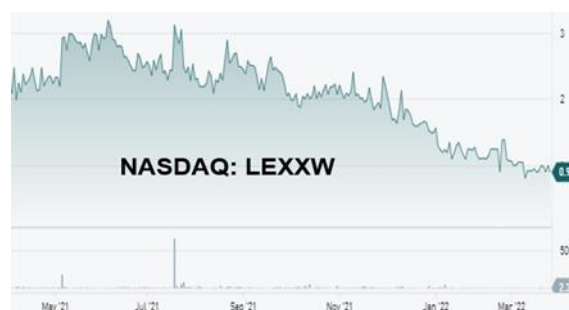
Value at start of Phase 2 - \$ 248,000,000

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.

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