December 16, 2019

Zacks Small-Cap Research

Sponsored – Impartial - Comprehensive

Steven Ralston, CFA
312-265-9426
sralston@zacks.com

scr.zacks.com

10 S. Riverside Plaza, Chicago, IL 60606

FSD Pharma Inc. (CN.HUGE - CSE)

FSD Pharma Receives Approval to List on NASDAQ; Phase 1 clinical trial of PP-101 micro-PEA expected in 1Q 2020

Based on comparative analysis that utilizes the valuation metric of price-to-book (P/B), a second quartile industry P/B ratio indicates a share price target of $13.70

Current Price (12/13/19)	$5.80
Valuation	**$14.00**

OUTLOOK

FSD Pharma (CSE: HUGE; OTCQB: FSDDF) is a cannabis-platform company focused on **the cultivation**, **processing and distribution of pharmaceutical-grade cannabis** as well as the development of **pharmaceutical and synthetic cannabinoid-based treatments** for a variety of clinical indications. **Management has indicated that at least $260,000 has been generated from the sale of medical cannabis during the fourth quarter**. Through strategic alliances, collaborative agreements and acquisitions, FSD is **pursuing the development of FDA-approved medications** for pain management, fibromyalgia, IBS and coronary artery disease.

SUMMARY DATA

52-Week High	**$132.66**
52-Week Low	**$6.28**
One-Year Return (%)	**-94.51**
Beta	**1.36**
Average Daily Volume (shrs.)	**27,426**
Shares Outstanding (million)	**7.874**
Market Capitalization ($mil.)	**$45.85**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**0**
Insider Ownership (%)	**N/A**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/M**
P/E using 2019 Estimate	**N/M**
P/E using 2020 Estimate	**N/M**

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

ZACKS ESTIMATES

Revenue
(in millions of $CDN)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	0.0 A	0.0 A	0.0 A	0.0 A	0.0 A
2018	0.0 A	0.0 A	0.0 A	0.0 A	0.1 A
2019	0.0 A	0.0 A	0.0 A	0.3 E	0.3 E
2020					N/A E

Earnings per Share
(EPS is operating earnings before non-recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2017	-$0.01 A	-$0.01 A	-$2.06 A	-$0.14 A	-$1.61 A
2018	-$2.43 A	$0.76 A	$0.59 A	-$9.54 A	-$3.85 A
2019	-$0.33 A	-$2.17 A	-$2.20 A	-$1.42 E	-$6.19 E
2020					N/A E

Quarterly EPS may not equal annual EPS total due to rounding

© Copyright 2019, Zacks Investment Research. All Rights Reserved.

RECENT NEWS

FSD Pharma Receives Approval to List on NASDAQ

On December 16, 2019, FSD Pharma announced that NASDAQ has approved the company's application to list FSD's Class B on the NASDAQ Capital Market.

Third Quarter Financial Results

On November 29, 2019, FSD Pharma reported financial and operational results for the third quarter ended September 30, 2019. Revenues, which only consisted of rental income from the Cobourg facility, decreased 7.4% to $12,805. **Management indicated that at least $260,000 generated from the sale of medical cannabis, will be reported in the fourth quarter**. Overall expenses increased 293% (or $8.87 million) to $11.9 million, primarily due to a $5.77 million increase in share-based payments, $1.42 million increase in depreciation and a $1.39 million increase in professional fees. In addition, there was a $1.70 million charge for a change in fair value of derivative liability and a $2.08 million charge due to changes in fair value of other investments. The company reported a net loss of $16.65 million (or $2.20 per diluted share) for the quarter.

During the quarter, **shares outstanding increased 7.9% sequentially** to 7,564,004 Class B shares. Year-to-date, shares outstanding have increased 14.2%. Subsequently, on November 4, 2019, the second tranche of the private placement closed, resulting in the issuance of a total of 228,671 additional Class B shares. **Gross proceeds from both the first and second tranches were CAD $4,596,285**. Management anticipates a third tranche to close in December. The net proceeds will help fund the research and development of PP-101 micro-PEA, including the anticipated Phase 1 clinical trial scheduled to begin in the first quarter 2020, along with general corporate purposes.

Operational Developments

Management continues to advance its **strategic objective to transform FSD Pharma into a specialty, biotech pharmaceutical R&D company** by focusing on the development of a pipeline of synthetic compounds that target the endocannabinoid system. **A Phase 1 human safety and tolerability clinical trial for PP-101 micro-PEA is expected to be initiated during the first quarter of 2020**.The worldwide rights (except for Italy and Spain) of this pre-clinical drug candidate was acquired by FSD Pharma through the acquisition of Prismic Pharmaceuticals in June 2019.

PEA is a naturally occurring anti-inflammatory agent that is be expected to be effective in many inflammatory ailments, including chronic pain, arthritis and fibromyalgia, among others. Micronization of PEA improves its oral bio-availability, and this micronization technique is protected by patents until 2030.

Partner Updates

Canntab Therapeutics

According to its December 2019 corporate presentation, the management of Canntab Therapeutics states that the company is prepared to manufacture THC oil-filled gel-capsules in Room 6 of FSD Pharma's Cobourg facility once an approval from Health Canada for the manufacture of the capsules is received.

Solarvest

According to a November 18 press release, **Health Canada has issued a research license to Solarvest** BioEnergy **for the Microalgae Cannabinoid Expression Program** under its CBD proof of concept research project in partnership with FSD Pharma. The license allows Solarvest "to transfer its

computer modeling work into the laboratory and use its algal expression system to express pharmaceutical-grade cannabinoids." If the project is successful, algae could be used to produce pharmaceutical-grade cannabinoids in cGMP facilities with a growth cycle of days instead of months with cannabis plants.

FSD Pharma Presents at 12th Annual LD Micro Main Event Investor Conference

On December 11, 2019, Dr. Edward Brennan, MD, President of FSD Pharma's Biosciences Division, presented an overview of the company at the 12th Annual LD Micro Main Event Investor conference at the Luxe Sunset Boulevard Hotel in Los Angeles. In addition, one-on-one meetings were hosted with investors throughout the day.

Share Consolidation

On October 16, 2019, FSD Pharma's class A and class B shares underwent a **reverse split on a 1 to 201 basis**. Fractional shares were not issued. Management anticipates that **the share consolidation will help advance management's strategic plan** of increasing the company's visibility among U.S. investors by helping achieve an uplisting to a major U.S. stock exchange.

Appointment of an Independent Director to the Board

On October 11, 2019, FSD Pharma announced that **former U.S. congressman Stephen Buyer has been appointed to the Board of Directors**. Stephen Buyer was a member of the House of Representatives, serving from January 1993 to January 2011.

New Agreement with World-Class Extractions

On September 25, 2019, a letter of intent (LOI) was signed between FSD Pharma and World-Class Extractions Inc. for the establishment of a 50/50 joint venture the development, management and operation of cannabis extraction and processing operations at the company's facility in Cobourg, Ontario. The LOI replaces the Collaboration and License Agreement of November 23, 2018 between World-Class and FV Pharma. Under the LOI, World-Class Extractions is expected to establish a processing center for the purpose of extracting cannabidiol and other elements from cannabis and hemp plants at the facility in Cobourg.

BOSS CO_2 Extraction System



Soma Labs Scientific website

Beast Ethanol Hemp Extraction System



Soma Labs Scientific website/YouTube

World-Class Extractions is expected to provide and install **three Boss CO_2 Extraction systems** (worth approximately $250,000 each), and FSD Pharma will manage and operate the equipment under FV Pharma's processing license once it becomes operational. FSD Pharma will allocate up to 5,000 square feet of licensed indoor space for equipment. A five-year lease is expected to begin on December 1, 2019. The LOI contains provisions for subsequent expansion. In the future, it is expected that that a **Beast Ethanol Hemp Extraction system** will be installed at additional allocated space.

The JV should provide additional revenue and partnership opportunities since this processing center would be capable of extracting CBD oil and other phytochemicals on a toll basis for third-party Licensed Producers.

Launch of Online Ordering System

On August 21, 2019, FSD Pharma announced that its online ordering system for the direct fulfillment of prescriptions of dried medicinal cannabis was operative on FVPharma.com. Clients are required to have a prescription from a medical practitioner or a registration number with Health Canada.



Acquisition of Prismic Pharmaceuticals

On June 28, 2019, **FSD Pharma acquired Prismic Pharmaceuticals** for approximately US$17.5 million (CND$23.4 million) worth of Class B shares (roughly 102.7 million shares at a deemed price of CND$0.2275 per share). FSD Pharma also assumed approximately US$3.05 million (CND$4.07 million) of Prismic's liabilities.

Receipt of Full Sale for Medical Purposes License

Effective as of June 21, 2019, FV Pharma, a wholly-owned subsidiary of FSD Pharma) received a **Full Sale for Medical Purposes License** to sell cannabis under the Cannabis Act of Canada. This amendment to the Sale for Medical Purposes License (which was granted on April 18, 2019) allows dried and fresh cannabis products produced in the Cobourg facility to be sold directly to patients who have prescriptions from authorized healthcare providers.

RECENT FINANCINGS

To date, FSD Pharma has been successful in raising capital so that management has been able to continue advancing its strategy of creating a cannabis-platform company that cultivates, processes and distributes high quality pharmaceutical-grade cannabis as well as advances the development of pharmaceutical and synthetic cannabinoids for an array of medical applications.

During 2018, FSD Pharma received **net proceeds of $41,219,041** from the issuance of shares **and $3,657,128** from the exercise of options and warrants. **During the first nine months of 2019**, FSD Pharma received **net proceeds of $726,163** from the exercise of options and warrants.

Subsequently, FSD Pharma launched a private placement of Class B subordinate voting shares at a price of CDN$0.10 per share. The initial tranche, which consisted of 45,830,850 pre-split shares, closed on October 1, 2019, just after the close of the third quarter, and provided gross proceeds of CAD $4,583,085. Founders, management and Directors accounted for approximately CND$1.165 million of the first tranche. The remaining portion of the private placement (or second tranche) closed on November 4, 2019. **Gross proceeds from both the first and second tranches were CAD $4,596,285** through the **issuance of a total of 228,671 Class B shares at CAD $20.10 per Class B share**. Net proceeds are primarily targeted towards the advancement of the Biosciences Division, including R&D for PP-101.

KEY POINTS

- FSD Pharma is a cannabis-platform company which is targeting many verticals that compose the legal cannabis industry and has entered into several strategic alliances and R&D agreements
  - **cultivation, processing and distribution** of high quality, pharmaceutical-grade cannabis
    - FV Pharma, a wholly-owned subsidiary of FSD Pharma
      - **owns a 620,000 square foot building complex in Cobourg Ontario**
        - former Kraft food production plant
        - thus far, **25,000 square feet** has been licensed and converted to **grow space**, including flowering, vegetation, drying, packaging and ancillary space
        - **plans to increase grow capacity by 220,000 square feet**
      - has obtained
        - ACMPR Cultivation License in the Province of Ontario
        - Standard Processing License in the Province of Ontario
        - Sale for Medical Purposes License from Health Canada
        - Full Sale for Medical Purposes License
      - **launched online ordering system to fulfill Rx** on FVPharma.com
  - strategic alliances in the **cultivation and distribution verticals**
    - **High Tide** (HITI): cannabis-lifestyle retail locations across Canada
    - **Cannara Biotech** (LOVE) FV Pharma to lease 105,523 square feet of Cannara's facility in Farnham Quebec, located about 70 km from Montreal
    - **Huge Shops** (private) option to acquire at least 10 retail locations
    - **Aura Health** (BUZZ) sourcing medical cannabis for **Germany / Eurozone**
  - **pharmaceutical and synthetic cannabinoids** for a variety of **clinical applications**
    - **Canntab Therapeutics** (PILL) **oral dosages** of medical-grade cannabinoids
    - **SciCann Therapeutics** (private) will help develop cannabinoid-based drugs for **inflammatory disorders**; robust cannabinoid research network in Israel
    - **Solarvest BioEnergy** (SVS) R&D for proof of concept that pharmaceutical-grade cannabinoids can be created by algal expression technology

- **Prismic Pharmaceuticals** (acquired by HUGE in 2019) developing **micro-PEA** as a concomitant medication for the relief of inflammation and pain

- **Near-term catalysts**:
  - General news flow on the management's internal initiatives and external partnerships. We are watching for:
    - Operating results of the online initiative at FVPharma.com
    - Solarvest – development of a proof of concept that that algae can express pharmaceutical-grade cannabinoids through biosynthesis
    - Canntab Therapeutics – start of manufacturing commercial batches of oil-filled gel capsules at FSD's Cobourg facility
    - Canntab Therapeutics - XR tablet awaiting approval by Health Canada
    - Awaiting results of clinical trials at:
      - SciCann Therapeutics for IBS
      - Prismic Pharmaceuticals for human safety for PP-101 micro-PEA
- The company helps **build awareness** of the company and management's strategy by attending **Analyst Conferences** and **Industry Forums**:
  - 11th Annual Biotech Showcase in San Francisco (January 7, 2019)
  - Arcview Cannabis Investor Forum in Vancouver (April 25, 2019)
  - 2019 BIO International Convention in Philadelphia ((June 4, 2019)
  - MJ Link Micro Investor Conference in NYC (June 25, 2019)
  - 10th Global Family Office Investment Summit in Dubai (November 24, 2019)
  - Swiss Cannabis Institute Investment Conference in Zurich & Geneva (Nov. 26-27 2019)
  - 12th Annual LD Micro Investor Conference in Los Angeles (December 11, 2019)
- FSD Pharma is well positioned to benefit from the legalization of cannabis in Canada, Germany, the rest of the Eurozone and the United States.

OVERVIEW

FSD Pharma Inc. (CSE: HUGE; OTCQB: FSDDF) is a cannabis-platform company which is targeting many verticals that compose the legal cannabis industry. The platform can be bifurcated into two components. One, management is concentrating on the **cultivation, processing and distribution** of high quality pharmaceutical-grade cannabis, along with the **extraction of cannabinoids** (such as CBD and THC) and the manufacture of cannabis-related products. Two, the company has entered into strategic alliances and R&D agreements in an effort to advance the development of **pharmaceutical and synthetic cannabinoids** for a variety of clinical applications.

Management is especially **focused on the high-value pharmaceutical-grade cannabis market**, namely the development and commercialization of FDA-approved medications. Regulatory approvals for pharmaceutical products require research and clinical trials, both of which call for use of high quality cannabinoids with extreme consistency from batch to batch. **Synthetic cannabinoids**, which function similarly to natural cannabinoids by binding to the same receptors within the endocannabinoid system, in particular, are expected to play a compelling role by delivering the necessary level of consistency that will be sufficient to achieve regulatory approval.

FSD's vertically-integrated operating structure and Scientific Advisory Board (SAB) enable management to shrewdly pursue R&D opportunities in the pharmaceutical industry. The company's management team is being advised by the knowledgeable and experienced members of the SAB about the development of promising pharmaceutical cannabinoid products and the pursuit of strategic alliances, collaborative agreements and acquisitions. FSD Pharma recently acquired **Prismic Pharmaceuticals**, which is pursuing pharmaceutical applications for the micro-palmitoylethanolamide molecule and its effect within the endocannabinoid system. Currently, FSD Pharma is targeting several pharmaceutical applications, including pain management (Prismic), fibromyalgia (Prismic), irritable bowel syndrome (**SciCann**

Therapeutics) and coronary artery disease (SciCann). In addition, FSD Pharma is pursuing alternative production methods of cannabinoids through a collaborative effort with **Solarvest**, which has been commissioned to investigate the development of cannabinoid production by employing algal technology.

FSD Pharma's In-house Cultivation Strategy

Management's primary fundamental tenet is that all the company's cannabis endeavors (both internally and through relationships) produce and/or market the highest quality medicinal-grade cannabis. Internally, the company's lead cultivation project is the development of an **indoor hydroponic cannabis facility** located in Cobourg, Ontario, approximately 120 km (73 miles) east of Toronto on Highway 401.

FV Pharma Cultivation and Processing Milestones

- November 9, 2017 Acquired 620,000 sq. ft. Kraft food production plant in Cobourg, Ontario
- October 13, 2017 Received ACMPR **Cultivation License** in the Province of Ontario
- October 17, 2019 Received **Cannabis License** under the Excise Tax Act by the Canada Revenue Agency
- February 19, 2019 Obtained a **Standard Processing License** in the Province of Ontario
- April 18, 2019 Received a **Sale for Medical Purposes License** from Health Canada
- June 21, 2019 Received a **Full Sale for Medical Purposes License**
- August 21, 2019 Launched online ordering system to fulfill Rx on FVPharma.com

The cultivation and processing of cannabis is conducted by **FV Pharma** Inc., FSD Pharma's wholly-owned subsidiary. FV Pharma is a **licensed producer** (LP) under the *Cannabis Act of Canada*, having received an ACMPR (Access to Cannabis for Medical Purposes Regulation) **Cultivation License** in the Province of Ontario on October 13, 2017, and on February 19, 2019, FV Pharma received a **Standard Processing License,** which permits the processing of over 600 kg of dried flowers per year. In addition, FV Pharma received a **Sale for Medical Purposes License** (seed and plant) from Health Canada on April 18, 2019 and a **Full Sale for Medical Purposes License** (added dried and fresh cannabis) that became effective on June 21, 2019.

In November 2017, FV Pharma acquired a 620,000 square foot building complex, a former Kraft food production plant (located at 520 William Street, Cobourg Ontario) for $5,500,000. With part of an office building being utilized as FV Pharma's headquarters, management plans to transform the entire facility, including surrounding acreage, into a state-of-the-art, indoor cannabis cultivation and processing facility. Being a former food-grade facility, the current production space was designed to conform to regulatory directives pertaining to food safety.

The building space is planned **to be developed in phases**, beginning with first part of **Phase 1,** which dedicated 25,000 square feet to indoor hydroponic cultivation and processing. The initial allotted space should be capable of producing four or five crops annually or an estimated 2,550 kg of dried cannabis per year. The **25,000 square feet is fully licensed** and **produced its first crop for sale in late August 2019**.



520 William Street, Cobourg, Ontario, Google Maps, 2019



Cobourg, Ontario, Google Maps, 2019

The second part of **Phase 1** consists of increasing grow capacity by making an additional 220,000 square feet of space operational for the cultivation of cannabis and other related ancillary functions, which is contingent on pending approval by Health Canada and an estimated $55 million in capital funding. **Phase 2** involves increasing the total amount of grow space to 820,000 square feet, which would catapult FV Pharma into the realm of large-scale, medical-grade cannabis production.

FSD Pharma is leveraging the facility by signing agreements that allow strategic partners to utilize floor space for certain cannabis-related initiatives under the umbrella of FV Pharma's licenses. For example, FSD Pharma is renting 10,000 square feet of space to **Canntab Therapeutics**, some of which is being allocated for the production of CBD oil-filled gel capsules. Management envisions other cannabis products (such as pills/tablets, beverages, edibles, etc.) being produced and pharmaceutical research being conducted at the facility by this and other partners.

Processing, Distribution and External Cultivation of Pharmaceutical-grade Cannabis

As part of the company's cannabis cultivation, processing and distribution platform, FSD Pharma has made strategic investments and forged alliances with High Tide, Cannara Biotech, Huge Shops and Aura Health. Brief descriptions of each relationship follow; however, the relationships are more fully described in separate and distinct Sections below, each delving into the details of every one of agreements.

FSD Pharma Inc.

Grower & Distribution Investments	Business Ticker	Date of Initial Investment	Shares Held	Whole-share Warrants Held	Debt Held	Initial Cost ($CDN)	Current Value ($CDN)	Current % Ownership	Relationship
High Tide	Retailer - smoke/cannabis shops expanding across Canada								MOU
	CSE: HITI	05/02/18	4,552,486	2,000,000	0	$2,200,000	$796,685	2.2%	Wholesale supplier Saskatchewan
Cannara Biotech	Grower in Quebec Province with Branded Consumer Products Division								Agreement
	CSE: LOVE OTCQB: LOVFF	06/19/18	85,003,750	0	0	$1,000,000	$11,050,488	12.0%	Partnership
Huge Shops	Retailer - quick-serve (coffee shop) concept								Investment
	privately-held	12/20/18	17,333,333	0	0	$1,300,000	$1,300,000	9.9%	Strategic
Aura Health	Distributor (Germany, Israel)								Agreements
	CSE: BUZZ	June-19	13,562,387	0	0	$3,000,000	$406,872	16.3%	Consulting & Supply

FSD Pharma is a **strategic investor in High Tide** (CSE: HITI), which has many cannabis-lifestyle retail locations in Alberta, British Columbia, Ontario, Nova Scotia and Saskatchewan with development permits for additional retail cannabis stores. High Tide is also rolling out other cannabis retail concepts in Alberta, Ontario, Saskatchewan and online. Potentially, this relationship creates the opportunity to broaden the wholesale supply MOU to additional Provinces.

FSD Pharma also has access to grow space closer to Montreal through a **Partnership Agreement with Cannara Biotech** (CSE: LOVE). The agreement allows FSD to lease 105,523 square feet of Cannara's facility in Farnham Quebec for the cultivation and processing of cannabis and cannabis- derived products. Cannara's Farnham facility is about 70 km from Montreal versus FV Pharma's Cobourg plant, which is approximately 430 km (265 miles) away. Furthermore, the rates for electricity are extremely low in Quebec, a cost savings for energy-intensive cannabis cultivation operations.









FSD Pharma is a strategic investor in privately-held **Huge Shops**, which also has a strategic alliance with Chairman's Brands that includes the option to acquire at least ten (10) retail locations of any of the retail brands owned by Chairman's Brands. Of particular interest is Coffee Time, a well-established chain of over 75 coffee shops in Canada. Huge Shops is eyeing key markets in Ontario for its locations once the company receives a retail cannabis operator license. Obviously, FSD Pharma's management is optimistic that its strategic investment in Huge Shops will lead to a preferred supply agreement with Huge Shops in the future.

FSD Pharma has entered into a Consulting Agreement and a Supply Agreement with privately-held **Aura Health** (CSE: BUZZ). Under the Supply Agreement, Pharmadrug (a majority-owned subsidiary of Aura Health) has committed to purchase 1,000 kilograms of cannabis annually from FSD Pharma, once FSD's Cobourg cannabis operations are issued an EU-GMP certificate, which Pharmadrug will assist FSD Pharma obtain under the Consulting Agreement. The two agreements provide FSD Pharma with a pathway to open distribution channels for the shipment and sale of medical cannabis into Europe, starting with Germany.

Development of Cannabinoid Pharmaceuticals

FSD Pharma entered into a strategic alliance with privately-held **SciCann Therapeutics**, which will provide clinical trial services to FV Pharma for cannabis-based medical products. In exchange, FV Pharma was granted exclusive Canadian licensing rights for the manufacture and distribution of SciCann's patent-pending, cannabinoid-based and indication-specific line of medical cannabis products and will have access to a collaborative network of leading researchers located in Israel. Currently, SCN-001 (aka Steady Stomach), a spilanthol-CBD combination product, is in a pilot clinical safety and efficacy study for IBS and IBD being conducted by SciCann.

FSD Pharma entered into a Collaboration and Profit-Sharing Agreement with **Canntab Therapeutics** (CSE: PILL). Under the mutually beneficial arrangement, Canntab is renting 10,000 square feet of space at FSD's Cobourg facility where Canntab plans to manufacture cannabinoid oil-filled gel capsules under the umbrella of FSD's licenses and later XR tablets after receiving approval by Health Canada. In return, FSD is assisting Canntab in application process for licenses at Canntab's own facility in Markham, Ontario. FSD Pharma will receive 50% of the profits and/or a 3.5% royalty of certain products under the Profit-Sharing Agreement.

FSD Pharma Agreements

- May 28, 2018 — Strategic Alliance with SciCann Therapeutics
  - clinical studies and cannabinoid scientific research in Israel
- September 17, 2018 — Partnership with Canntab Therapeutics
  - oil-filled gel capsules and proprietary hard pill formulations
- May 7, 2019 — Collaborative Research Agreement with BioEnergy Solarvest
  - R&D on synthetic cannabinoids via algal expression technology
- June 28, 2019 — Acquired Prismic Pharmaceuticals Inc.
  - micro-PEA development platform

FSD Pharma and **Solarvest BioEnergy** (TSX-V: SVS) signed a definitive Collaborative Research and Development Agreement, under which Solarvest will be conducting research with the aim of developing a proof of concept that algae can create pharmaceutical-grade cannabinoids through biosynthesis. The production of synthetic cannabinoids through algal technology would be a paradigm shift in the cultivation process of CBDs.



FSD Pharma acquired privately-held **Prismic Pharmaceuticals** in July 2019 The acquisition represents the concrete transition of FSD Pharma's corporate emphasis towards synthetic cannabinoids and capturing the value of novel drug discoveries. As part of FSD's Biosciences Division, Prismic is focused on developing prescription drugs based on its patented micro-PEA development platform. Management is targeting multiple therapeutic categories where the treatment of inflammation and pain provides therapeutic relief, for example fibromyalgia, irritable bowel syndrome and post-operative pain management.

FSD Pharma Inc.

Pharmaceutical Investments	Ticker	Business Date of Investment	Shares Held	Whole-share Warrants Held	Debt Held	Initial Cost ($CDN)	Current Value ($CDN)	Current % Ownership	Relationship
SciCann Therapeutics		Pharmaceutical R&D (Israel)							MOU
	privately-held	05/28/18	117,647	0	0	$1,999,991	$1,999,991	10.0%	Strategic Alliance
Canntab Therapeutics		Tablet (hard pill) IP							Agreements
	CSE: PILL OTCQX: CTABF	09/17/18	0	0	0	$0	$0	N/A	Collaboration & Profit-Sharing
Solarvest BioEnergy		Pharmaceutical R&D (CBD Research Project - algal proof of concept)							Agreement
	TSX-V: SVS	05/07/19	3,000,000	3,000,000	$2,400,000	$3,000,000	$2,850,000	7.6%	R&D
Prismic Pharmaceuticals		Pharmaceutical R&D (micro-PEA)							Subsidiary
	wholly-owned	06/28/19	100.0%	0	$4,070,000	$23,400,000	$27,470,000	100.0%	wholly-owned

FSD Pharma Milestones

- May 24, 2018 Acquired FV Pharma Inc.
- May 29, 2018 FSD Pharma began trading on the CSE under the ticker HUGE
- June 15, 2018 FSD Pharma added to the CSE 25 Composite Index
- August 14, 2018 FSD Pharma listed on the Frankfurt Stock Exchange under the ticker 0K9
- September 19, 2018 FSD Pharma upgraded to OTCQB Venture Market under the ticker FSDDF
- September 27, 2018 FSD Pharma included in Horizons Marijuana Life Sciences Index ETF (TSE: HMMJ)
- June 28, 2019 Acquired Prismic Pharmaceuticals Inc.
- August 21, 2019 Launched online ordering system to fulfill Rx on FVPharma.com

Common Stock Chronicle

FSD Pharma's Class B shares began trading on the CSE on May 29, 2018 under the trading symbol HUGE, following a three-cornered amalgamation with Century Financial Capital Group on March 24, 2018. On June 8, 2018, the company was listed on the OTCQX with the trading symbol FSDDF; then on September 19, 2018, FSD Pharma was upgraded to the OTCQB Venture Market. FSD Pharma's stock is also listed on the Frankfurt Stock Exchange under the ticker 0K9 (WKN: A2JM6M).

On June 15, 2018, FSD Pharma was added to the CSE 25 Composite Index, and on September 27, 2018, the company's stock was included in Horizons Marijuana Life Sciences Index ETF (TSE: HMMJ).

HIGH TIDE (Strategic Investment in Retailer - Minority Ownership & Supplier MOU)

FSD Pharma, through its wholly-owned subsidiary FV Pharma, **owns 4,551,999 shares and 2,000,000 warrants** (exercisable at $0.497 per share) **of High Tide Inc**. (CSE: HITI). FSD Pharma acquired the position through High Tides initial private placement that closed on May 2, 2018 and a subsequent private placement that closed on October 2, 2018. Both helped fund High Tide's initiatives prior to the company's listing on the CSE.

FSD Pharma made this **strategic investment in High Tide** prior to the company being listed on the CSE and as High Tide's management was in the initial stages of positioning the company to roll out a large cannabis retail network throughout Canada.

The relationship fostered by **FSD's early financial commitment to and support of High Tide** should allow the companies to work collaboratively on mutually beneficial cannabis ventures in the future. Foremost, FSD Pharma's effort to grow high quality, hydroponic cannabis would benefit significantly by a close connection with High Tide's downstream cannabis operations, primarily it's large, developing retail chain which should ultimately have a presence in most, if not all, Canadian Provinces. Currently, High Tide has existing retail locations in Alberta, British Columbia, Ontario, Nova Scotia and Saskatchewan.

In addition, on July 18 2018, FSD Pharma entered into a **non-binding Memorandum of Understanding** (MOU) with High Tide. Under the MOU, FSD Pharma may become a wholesale supplier of up to 5,000 kilograms of cannabis products to High Tide for the Saskatchewan market, when FSD Pharma is able to supply hydroponically grown cannabis. As part of the MOU, FSD Pharma issued 200,000 Class B shares to High Tide.

HIGH TIDE INC.

Headquartered in Alberta, High Tide is a retail-focused cannabis company with a portfolio of **branded retail concepts** and vertical integrated by a **wholesale distribution** network and **manufacturing capabilities** of cannabis lifestyle accessories.

High Tide is pursuing the development of **four retail concepts** that were designed to provide a compelling customer experience and are being advanced to take advantage of the legal recreational market across Canada.

1) **Smoker's Corner**: counterculture smoke shop chain with 14 locations
2) **Canna Cabana**: modern-concept cannabis retailer
3) **KushBar**: upscale cannabis retailer under development
4) **Grasscity.com**: online cannabis accessory e-retailer

High Tide's retail store strategy is to establish a strong, branded retail presence in the legal recreational cannabis business throughout Canada. The process entailed developing retail concepts prior to legalization, applying for retail cannabis licenses, acquiring licensed locations, applying for the required development permits, advancing the retail locations through the various stages of development and construction, and finally, supplying and operating the stores in order to provide an experience that

generates customer loyalty. The strategic goal is to establish the maximum allowed number of retail cannabis stores in each of the Canadian Provinces where recreational cannabis will be legal.

In the e-commerce channel, High Tide acquired Grasscity.com in December 2018. High Tide owns 100% of Smoker's Corner Ltd., Canna Cabana Inc. and Grasscity.com and holds a majority position (50.1%) in KushBar Inc.

High Tide also operates in the wholesale segment. The company's vertical integration effort into cannabis lifestyle accessories, including manufacturing and wholesale distribution capabilities, should help establish and further enhance High Tide's retail presence in Canada.

In the first six months of fiscal 2019, High Tide generated approximately $11.6 million in revenues, roughly 60% from accessories and 37% from the sale of cannabis.

High Tide Milestones

- 2009 **Smoker's Corner** founded as a counterculture smoke shop chain
- 2011 **RGR Canada** (manufacturer & distributor of cannabis accessories) founded
- August 29, 2016 Famous Brandz (mfr. & distributor of cannabis accessories) founded
- April 30, 2018 Acquired remaining 50% of **Famous Brandz**
- February 22, 2018 **Canna Cabana** (modern-concept cannabis retailer) incorporated
- April 1, 2018 Acquired 50.1% of **KushBar** Inc. (upscale cannabis retailer)
- April 2018 Launched ***Famous X*** brand
- December 17, 2018 High Tide began trading on the **CSE** under the ticker HITI
- December 19, 2018 Acquired **Grasscity.com**

WHOLESALE DISTRIBUTION and MANUFACTURING

RGR Canada is High Tide's wholesale distribution and manufacturing company. With a 27,000 sq. ft. facility in Calgary, RGR offers over 4,300 SKUs of lifestyle accessories, with many being manufactured through contracts with factories in China, the United States and Europe.

Famous Brandz is a manufacturer and distributor of licensed lifestyle accessories (bubblers, dugouts, grinders, hand pipes, rolling trays, water pipes etc.), which are sold to wholesalers and retailers around the world. Through partnerships with celebrities and entertainment companies, Famous Brandz **licenses brands** (such as Cheech & Chong's Up in Smoke, Trailer Park, Snoop Dogg, Guns N' Roses among others), designs products featuring those brands, oversees the contract manufacturing process and distributes the products. Famous Brandz also manages its in-house *Famous X* brand. International sales of branded products are achieved via B2B distribution channels while direct sales to consumers are completed through the e-commerce platform of famousbrandz.com.





FAMOUS X
WATER PIPE BEAKER



TRAILER PARK BOYS
BUBBLER



CHEECH & CHONG
ROLLING TRAY



CHEECH & CHONG
GRINDER

Famous Brandz website: famousbrandz.com

RETAIL CONCEPTS

Smoker's Corner is a counter-culture retail chain with a wide range of smoking accessories for both cannabis and tobacco consumers. Smoker's Corner has **14 locations** (as of August 1, 2019) across Alberta, British Columbia and Nova Scotia, all of which are supplied by RGR Canada.





High Tide Investor Presentation August 2019

Canna Cabana is being positioned to be a one-stop cannabis retailer with a sophisticated, yet playful, modern ambience and offering complete customer service. Canna Cabana has **18 locations** across provinces of Alberta, Ontario and Saskatchewan as of August 1, 2019**.**





High Tide Investor Presentation August 2019

Incorporated on January 9, 2018, **KushBar** Inc. is an upscale retail concept that is focused on Canadian cannabis consumers seeking an elevated experience and excellent customer. Locations are being planned in Alberta and Ontario (see mykushbar.com /ourlocations). High Tide owns 50.1% of KushBar Inc.





High Tide Investor Presentation August 2019

Acquired by High Tide in December 2018, **Grasscity.com** is an online retailer of cannabis lifestyle products and smoking accessories. Based in Amsterdam, the website receives roughly 5.8 million visits and 65,000 orders annually. Approximately 90% of orders are from customers in the United States.



CANNARA BIOTECH INC. (Minority Ownership and Partnership Agreement)

Partnership Agreement with Cannara Biotech

On June 19, 2018, FSD Pharma entered into a Partnership Agreement with Cannara Biotech. Under the agreement, FSD will utilize 105,523 sq. ft. of Cannara's 625,000 sq. ft. facility, which is situated in Farnham, Quebec, about 70 km from Canada's second largest city, Montreal. **FSD Pharma has the right to use 105,523 square feet of Cannara's facility** to cultivate cannabis for two years once the company's application for a Cultivation License is approved for this location, or the space could be used for other cannabis sales activities revolving around items such as dried cannabis, fresh cannabis, cannabis oil, etc.

As part of the Partnership Agreement, FSD Pharma's FV Pharma received 75,000,000 Class B shares of Cannara Biotech. In addition, on July 24, 2018, FSD Pharma participated in a 12 million share Cannara private placement with an additional investment of $1 million, bringing the total amount of Class B shares beneficially held by FSD to 85,000,000. The net proceeds of the July equity financing were used to support Phase 1 construction project at Cannara's facility in Farnham. **Currently, FSD Pharma owns 85,003,750 Class B shares of Cannara Biotech** (or 12.2% of the outstanding Class B shares).

FSD Pharma and Cannara are collaborating on several initiatives. FSD Pharma is helping Cannara execute its licensing strategy. FSD Pharma is looking forward to developing a second grow site to better serve the Montreal market; on August 13, 2018, FSD Pharma (via its wholly-owned subsidiary, FV Pharma Quebec) submitted an application for a **second site Cultivation License** to Health Canada for Cannara's facility in Farnham. FV Pharma is also **helping Cannara with the process of becoming a Licensed Producer** under the ACMPR in Quebec. In May 2019, Dr. Sara May, PhD, the current president of FV Pharma, was appointed to Cannara's Board of Directors.

Cannara Biotech Milestones

• February 21, 2018	Cannara Biotech was incorporated
• June 15, 2018	Cannara Biotech completed acquisition of **625,000 sq. ft. facility**
• January 14, 2019	Cannara Biotech began trading on the CSE under the ticker LOVE
• March 18, 2019	Cannara included in Horizons Marijuana Life Sciences Index ETF (TSE: HMMJ)
• March 26, 2019	$8.87 million in private financings closed to fund launch **shopCBD.com**
• May 15, 2019	Cannara Biotech began trading on the OTCQB under the ticker CNBTF On July 10 2019, ticker symbol changed to LOVFF

Overview of Cannara Biotech

Headquartered in Montreal, Cannara Biotech (CSE: LOVE and OTCQB: LOVFF) is an emerging cannabis company focused on the **developing a large indoor cultivation facility in Farnham** and producing and selling **premium, branded cannabis and cannabis-infused products** within the Canadian Provinces and for export into international markets, particularly to Germany, Italy, France and the Netherlands. Cannara's management is focused on generating licensing revenues, rental revenues and joint-venture/partnership revenue streams from cannabis-related operations conducted in the company's facility in Farnham.

Cannara Biotech's Initiatives

1) Develop and license its 625,000 sq. ft. facility in Farnham, Quebec
2) Launch shopCBD.com website to serve North American hemp-based CBD market
3) Develop multiple consumer branded health & wellness products e.g. edibles, beverages etc.

Development of Multi-Purpose Facility in Farnham, Quebec

On June 15, 2018 Cannara acquired the facility in Farnham (a former carpet and flooring plant) from Olymbec Development for $12,550,000, which is structured as an 11% mortgage payable due on April 6, 2021. In addition, Cannara purchased the building with two on-going lease agreements (IKEA warehousing and Onyx), which generate slightly over $2 million in lease payments annually. **Lease revenues** for the first three quarters of fiscal 2019 (the nine-month period ended May 31, 2019) were $1,543,666 while lease operating costs were only $355,531, easily covering the carrying cost of building. Olymbec Development continues to manage the facility for a management fee equal to 5% of the rental income and cost of operations. The building is being currently valued at almost $40 million.

Cannara's management plans to convert the building into a multi-purpose facility of vertical integrated cannabis-related operations. When completed, the building is intended to be primarily an indoor cannabis cultivation facility with a large number of grow rooms, but augmented with processing capabilities for a wide range of cannabis-related goods, including cannabinoid-infused beverages, edibles, cosmetics and other health and wellness products. If and when the facility obtains the proper licenses, the plan calls for the cultivation and processing of medical cannabis.

The multi-year project consists of three phases of development. **Phase 1**, which was fully funded by private placements, initially entailed the renovation of approximately 130,000 sq. ft. of space into 18 grow rooms capable of cultivating 15,000 kilograms of cannabis annually. In March 2019**,** the Phase 1 build-out was expanded by 40,000 sq. ft. to 170,000 sq. ft. in order to provide more cultivation flexibility, to provide space for post-harvest operations, to accommodate an R&D lab and to create a business development corridor where a range of cannabis-infused products can be advanced. The construction associated with Phase 1 is expected to be completed in late summer 2019. With the anticipation of obtaining a Cultivation License in late calendar 2019, Cannara's grow capacity expected to come on line by the end of this year.

The cannabis growing cycle is approximately between seven and 10 weeks. Cannara's management anticipates producing five-to-six crops annually in the year-round grow facility. Initially, the plan entails farming out extraction process.

Phase 2 involves 178,000 sq. ft. and **Phase 3** encompasses 277,000 sq. ft. of space, which are planned for 2020 and 2022, respectively. Management envisions that peak capacity will exceed 100,000 kilograms of cannabis.



Branded Health and Wellness Products

Cannara's management believes that providing **branded** medicinal and recreational cannabis products, supported by well-executed marketing strategies, will be the fundamental attribute of a successful cannabis company. Cannara is being positioned to be a supplier of premium, branded cannabis products in preparation of when the Government of Canada legalizes the production and sale of cannabis edibles, beverages, topicals and extracts. Currently, the regulations will go into effect on October 17, 2019 with sales expected to become legal sometime in mid-December 2019.

Deloitte conducted a survey of 2,000 Canadians and has estimated that that in Canada spending on edibles will be $1.6 billion, cannabis-infused beverages $529 million, topicals $174 million, concentrates $140 million, tinctures $116 million and capsules $114 million.



Cannara has developed a brand marketing strategy covering a host of concepts in various consumer packaged goods categories including:

- *Nativa* premium cannabis concentrate, cannabis oil, dried buds and vaporizer cartridges
- *Cannabar* edibles - chocolate bars containing THC
- *Liquid CBD* hydration beverages in blue raspberry, citrus, black cherry and blackberry
- *Earth Magic* cosmeceuticals – body lotion, facial moisturizer and body balm
- *Gummyz* confectionaries – CBD and THC in green apple, watermelon and peach
- *Floragel* oils and tinctures
- *PetLeaf* for animals - chew treats, tinctures and creams

Cannara has entered into agreements with partners for beverages, edibles and other consumer product offerings. The LOIs are expected to convert into JVs when the product lines launch. Recently, in early February 2019, Cannara entered into a LIO with a microbrewery in order to develop cannabinoid-infused beverages including non-alcoholic beer, kombucha and cider

shopCBD.com

In December 2018, the U.S. Congress passed the 2018 Farm Bill, which classified hemp (defined as cannabis with less than 0.3% THC) as an ordinary agricultural commodity having removed it from the list of Schedule I controlled substances. As consumer demand for natural health and wellness solutions increases, this legalization of hemp-based CBD is expected to create a US $22 billion market in the United States by 2022 according to the Brightfield Group.

In January 2019, Cannara Biotech created a specialty retail subsidiary (Global shopCBD.com Inc.) to address this emerging market through an online, e-commerce platform (**www.shopCBD.com**). Funded by several private placements that raised approximately CAD$8.86 million in gross proceeds, the launch of the website is imminent.

Exclusively targeting the U.S. market, the online platform will sell **hemp-based CBD products**. The strategy focuses on offering a wide variety of consumer products (tinctures, oils, capsules, body care items, vaporizer cartridges and pet-related products) from hemp-CBD product manufacturers. Products are being sourced from various vendors and are expected to be priced competitively.

Cannara is the majority shareholder of Global shopCBD.com Inc. (approximately a 61% ownership position).

Cannara Biotech's Anticipated Milestones

- The launch of ShopCBD.com (hemp-based CBD e-commerce platform serving the U.S. is expected in the third quarter of 2019
- The completion of the Phase 1 construction program (170,000 sq. ft.) by end of the summer
- The receipt of a Cultivation License by end of calendar 2019
- Cannara's management anticipates harvesting the company's first crop in early 2020, followed almost immediately by the generation of revenues from the sale of cannabis crop
- Cannara is expected to achieve full cycle production later in 2020

On May 15th, 2019, Cannara Biotech began trading on the OTCQB Venture Market under the ticker CNBTF.

HUGE SHOPS (Strategic Investment in Retailer - Minority Ownership)

FSD Pharma owns 17,333,333 shares of privately-held **Huge Shops**. FSD Pharma acquired the **strategic investment** position through $1,300,000 subscription that closed on or before December 20 2018 at a price of $0.075 per share. At the time, the holding **represented approximately 9.9% of the outstanding shares of Huge Shops**. Obviously, FSD Pharma's management is optimistic that its

strategic investment in Huge Shops will lead to a preferred supply agreement with Huge Shops in the future.

Based in Toronto, **Huge Shops has a strategic alliance with Chairman's Brands**, a privately-held Canadian franchise company with a portfolio of quick-serve and casual restaurant concepts, namely 241 Pizza, Coffee Time, Eggsmart, Robin's Donuts, New Orleans Pizza, Mia Fresco and The Friendly Greek. **Huge Shops has an option to acquire at least ten (10) retail locations** of any of the retail brands owned by Chairman's Brands, which would allow Huge Shops avoid entering into separate leasing arrangements for each location. Also, the strategic alliance should enable to rapid build-out of a network of recreational cannabis shops that could reach 14 million consumers in Ontario, which is estimated to be a retail market in the $2.1-to-$2.3 billion range by the Parliamentary Budget Officer.[i]

Of particular interest is Coffee Time, an established operator of coffee shops with over 75 locations in Canada and over 25 locations elsewhere (Greece, Albany NY, Qatar and Kandahar). With modern yet casual interiors, Coffee Time serves coffee, donuts, specialty drinks, bakery items (bagels, muffins, croissants, strudel & cookies), soups and sandwiches. Executives at both Chairman's Brands and Huge Shops see a significant opportunity being provided by the legalization of cannabis in Canada. The **potential synergies** are quite evident in a plan that combines Huge Shops' strategic plan to build a brand name recreational cannabis franchise with Coffee Time's retail footprint and operational skills.

Coffee Time website: coffeetime.com







Through its option with Chairman's Brands, Huge Shops has the ability to quickly create a network of marque recreational cannabis shops in key demographic areas of Ontario. It is planned that any cannabis retail shops opened by Huge Shops stores will be branded and operated by Coffee Time.

Huge Shops filed expressions of interest with the Alcohol and Gaming Commission of Ontario (AGCO) in order to obtain a cannabis retail operator's license, and in the second lottery, which was conducted on August 20 2019, Huge Shops Ontario was awarded a Retail Store Authorization license for a store located at Fowlers Corners at the intersection of 566 Frank Hill Rdand Highway 7 in Peterborough, Ontario. Huge Shops intends to expand rapidly into key markets throughout Ontario until the maximum 75 locations per operator is reached.



Coffee Time

at 566 Frank Hill Rd

and Highway 7

at Fowlers Corners

566 Frank Hill Road, Google Maps, 2019

There is a connection between coffee shops and cannabis, which is quite evident in Amsterdam. Coffee Time is a well-known brand in Canada and should enable Huge Shops to gain a position quickly in recreational cannabis retail category.

AURA HEALTH (Minority Ownership)

Cross-Ownership and Collaboration

FSD Pharma entered into and completed a share exchange with Aura Health Inc. The share exchange, along with two associated agreements**,** provides FSD Pharma with a pathway to open a distribution channel for the sale and shipment of medical cannabis into Germany and also throughout the Eurozone. Once the Cobourg grow facility receives EU-GMP certification, FSD will be able to expand its distribution footprint into Europe.

FSD Pharma owns 13,562,386 common shares of Aura Health Inc. (CSE: BUZZ), which were acquired through a $3,000,000 share exchange that was completed in June 2019. On the other side of the exchange, Aura Health owns 13,181,019 FSD Pharma Class B shares. As part of the stock exchange agreement, FSD Pharma entered into a **Consulting Agreement** with Aura Health and a **Supply Agreement** with Pharmadrug Production GmbH (a majority-owned subsidiary of Aura Health).

Under the Consulting Agreement, Aura Health will assist FSD Pharma in the process of obtaining **EU-GMP certification** for the FSD's Cobourg facility, which is expected to be facilitated by Aura Health's subsidiary, Pharmadrug, which received its EU-GMP certification in 2018. As a licensed medical cannabis importer, Pharmadrug has the ability to sponsor and help register foreign producers like FSD Pharma. An EU (European Union) GMP (Good Manufacturing Practice) certificate is issued only after all critical manufacturing processes are validated for quality, safety and efficacy and verified by an on-site inspection. In general, the certificate is valid for three years after the inspection is performed.

Under the Supply Agreement, **Pharmadrug has committed to annually purchase 1,000 kilograms of cannabis** (at a price of $7,000 per kilogram FOB) **from FSD Pharma**, after FSD's Canadian cannabis operations are issued an EU-GMP certificate.

At current market prices, FSD Pharma owns 16.3% Aura Health, which in turn owns 0.84% of FSD Pharma.

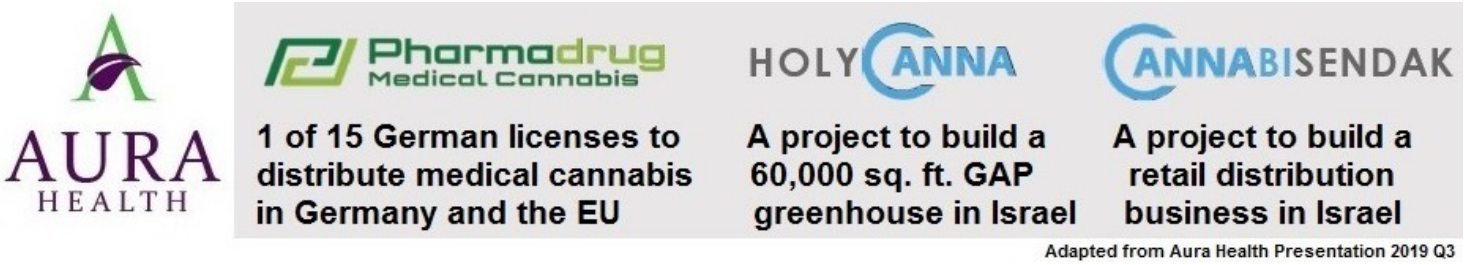
Aura Health Inc.

Headquartered in Toronto, Aura Health Inc. (CSE: BUZZ) is focused on building a vertically-integrated medical cannabis network and is specifically **targeting the international markets of Germany, the Eurozone and Israel**. As part of its strategy, Aura Health:

- Acquired 80% of **Pharmadrug Production GmbH**, a German medical cannabis distributor, which in 2018 was granted a Class I Pharmaceutical Narcotics distribution license by the Bundesinstitut für Arzneimittel und Medizinprodukte (Federal Institute for Drugs and Medical Devices) that permits Pharmadrug to import and distribute medical cannabis to pharmacies within Germany and also throughout the Eurozone, once each country legalizes medical cannabis. The €4.6 million (CAD$6.82 million) transaction closed on May 17, 2019.
- Holds an unsecured convertible note in **HolyCanna (**the note automatically converts into 54% equity ownership position once Aura is added to the license). Headquartered in Israel, HolyCanna was issued a cannabis nursery and cultivation license by the Israeli Medical Cannabis Agency of the Ministry of Health. HolyCanna's management plans to construct a 60,000-square-foot greenhouse grow facility and anticipates that production will commence in 2020 and that exportation will begin during the second half of 2020. Israel's medical cannabis export law is in

the process of being formalized. The terms of the convertible transaction was finalized in November 2018 at a cost of ILS (Israeli Shekel) 10 million (or CAD$3.57 million).

- Entered into a binding Letter of Intent (LOI) to purchase 57% of **CannabiSendak**, which plans to build a network of high profile dispensaries in Israel, starting with its first clinic in Tel Aviv by September 2019 and followed by a full-service dispensary and club by the end 2019. The dispensaries are designed to include a café, patient consultation areas and a doctor on site. Aura's management plans to complete the transaction during the fourth quarter of 2019.



Adapted from Aura Health Presentation 2019 Q3

Aura Health's scope of initiatives ranges from **cultivation** and **extraction** to **distribution** and high profile **dispensaries**. Aura Health plans to assist Pharmadrug source medical cannabis from Israel (through HolyCanna), from Canada (via FSD Pharma) and from third party suppliers. While waiting for HolyCanna to achieve production and for FSD Pharma to receive EU-GMP certification, Aura Health is sourcing medical cannabis from Bedrocan International B.V. in the Netherlands under an annual permitted allocation of 190 kilograms. Likewise, Aura Health, through Pharmadrug, has a Supply Agreement in place with BlissCo Cannabis Corp, (CSE: BLIS), though the details of that Agreement are not public.



Aura Health Presentation 2019 1Q

Arcview Market Research and BDS Analytics estimate that the legal German medical cannabis market will grow from $0.1 billion in 2018 to $1.4 billion by 2024. However, with *de minimis* local production capacity, Germany must import medical cannabis. Through its acquisition of 80% of Pharmadrug, Aura Health is one of the 15 qualified distributors that are legally authorized to import medical cannabis into Germany.

CANNTAB THERAPEUTICS (Collaboration and Profit Sharing Agreement)

Adding to FSD Pharma's network of vertically integrated cannabis manufacturing ventures, the company entered into a definitive **Collaboration and Profit-Sharing Agreement** with Canntab Therapeutics (CSE: PILL) on September 17, 2018. The **mutually beneficial partnership** advances both companies, which share a primary focus on providing medical cannabis products. Both managements realize that, over the long term, the value-added nature of cannabis-based products for doctor-prescribed therapeutic treatments should lead to more stable demand and higher pricing than the commodity-like marijuana products for the recreational marketplace.

FSD Pharma's Partnership with Canntab Therapeutics

The relationship with Canntab provides the opportunity for FSD Pharma to participate in the **oral dosage category** in the medical cannabis space, both in Canada and internationally, particularly in Australia, Mexico and Germany where the two companies have agreements in place.

Under the terms of the agreement, FSD Pharma:

- Is assisting Canntab obtain a Standard Processing License and a Sale for Medical Purposes License from Health Canada
- Is providing Canntab with 10,000 square feet of space at its Cobourg facility (including the 2,400 square-foot Grow Room 6, which falls under the umbrella of FV Pharma's Cultivation License, Standard Processing License and Sale for Medical Purposes License) through which FSD Pharma:
    - Is receiving **rent** from Canntab
    - Will receive a **3.5% royalty** from the sales of all Canntab's products manufactured at the Cobourg facility
    - Will be entitled to **50% of the profits** on Canntab products that are sold by FSD Pharma
    - Will receive **50% of the profits** on Canntab's retail sales that will be sold through distribution channels established by FSD Pharma

To date, the following **milestones** under the agreement have been reached:

- In September 2018, Canntab installed, at its own expense, manufacturing equipment at the Cobourg plant, including a GMP-compliant, high-output tablet press, along with blending, drying and packaging equipment.
- In October 2018, Canntab filed an application to become a Licensed Producer (Non Grower) with Health Canada. FSD assisted in the application process, which will ultimately enable Canntab to begin production at its own facility in Markham, Ontario, where construction is still in progress.
- Initially, Canntab anticipates beginning manufacturing commercial batches of oil-filled gel capsules at FSD's Cobourg facility.

Overview of Canntab Therapeutics

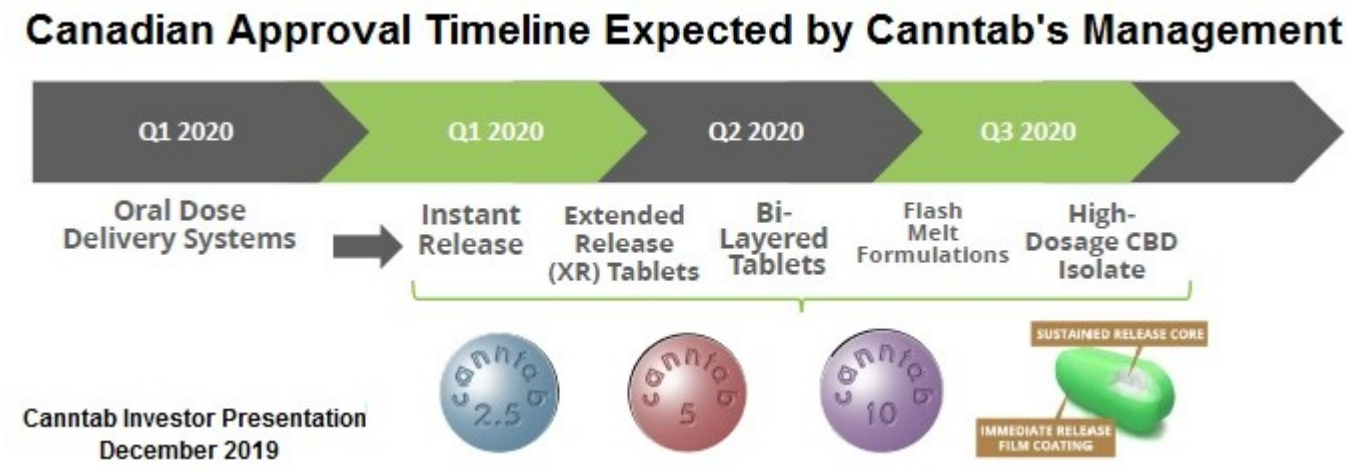
Based in Markham, Ontario, **Canntab Therapeutics Limited** (CSE: PILL) (OTCQB: CTABF) holds a portfolio of 13 patent-pending IP (intellectual property) processes and formulations for the standardized delivery of medical cannabis through **hard pills** (aka **tablets**). Canntab's delivery platform technology spans a **suite of precision oral dosage formulations**, including immediate release, extended release, sustained release, modified-release multi-layer, flask melt and bi-layered tablets. These formulations are based on Canntab's proprietary processes, which all begin with cannabis oil in water emulsions.

Hard pills are vastly superior delivery mechanisms for medicinal purposes relative to the current methods of smoking, gel capsules, edibles and oil tinctures, all of which fail to provide the necessary medical attributes for pharmaceutical-grade formulations of uniform dosage, long shelf life, high levels of bioavailability and extended release capabilities. Canntab concentrates on tablets that are designed to contain CBD, THC or a combination of the two in a bi-layered pill to provide therapeutic treatments for a variety of medical conditions.



For example, two statistical studies suggest that the use of cannabis reduces the level of opioid prescriptions by 6% and 12% percent in patients under Medicaid and Medicare, respectively.[ii] Therefore, medical cannabis prescribed for supplement use with opioids could possible disrupt the opioid epidemic by both reducing the use and the time of use of opioids, particularly for post-operative pain relief.

Cannabinoids that can be consistently produced in tablets and delivered in precise, accurate doses have the potential to fundamentally transform the pharmaceutical industry, initially for clinical trials and when found to be safe and effective, for physicians to comfortably prescribe and to responsibly titrate dosages.



Canntab's **Extended Release (XR) tablet** especially has immense potential in that it is designed to address the disadvantages of competing oral delivery systems. Specifically, the XR tablet would:

- Have the capability of providing therapeutic relief over an 18-hour period
- Be available in the precise pharmaceutical dosages of 2.5 mg, 5 mg and 10 mg for optimizing titration
- Deliver higher absorption levels and afford greater bioavailability of the active ingredient

The IP of Canntab's XR tablet is being protected by four international patent applications, though it should be noted that Canntab's tablets have not yet been approved by Health Canada. Canntab's management plans on manufacturing XR tablets at FSD's facility in Cobourg both for the domestic Canadian markets and for export internationally.

Initially, Canntab's management plans on commercially manufacturing CBD oil-filled gel capsules at FSD's Cobourg facility with revenue anticipated to be generated in 2019. Sales of Canntab's extended release tablets are anticipated to begin late December 2019 – January 2020, if Health Canada does not request any additional information and/or a pre-sales inspection.

Canntab Therapeutics (CTABF) also trades in the U.S. on the OTCQB, having traded on the OTCQX Best Market between April 20, 2019 and November 18, 2019.

SCICANN THERAPEUTICS

On May 28, 2018, FSD Pharma's wholly- owned subsidiary, FV Pharma Inc., executed a binding Memorandum of Understanding (MOU) and entered into **a strategic alliance with** privately-held **SciCann Therapeutics Inc**., a Canadian-Israeli specialty pharmaceutical company. FV Pharma agreed to invest up to $3,000,000 for a 15% equity stake in SciCann. FV Pharma has already participated in two

private placements (in May and October 2018), in which shares were priced at $17 per share. To date, FV Pharma has acquired **117,647 shares of SciCann** for $1,999,991.

As part of the strategic alliance, FV Pharma has secured the exclusive licensing rights **in Canada for the manufacture and distribution of SciCann's patent-pending, cannabinoid-based and indication-specific line of medical cannabis products**. In addition, **FV Pharma will have premium access to SciCann's cannabinoid scientific research platform**, which will assist FV Pharma in performing pre-clinical and clinical studies for cannabis-based medical products as well as allow for access to a collaborative network of leading researchers at academic institutions, medical centers and commercial companies, mostly located in Israel.



SciCann website: scicann.net

SCICANN THERAPEUTICS INC.

SciCann Therapeutics is focused on the development and commercialization of cannabis-based pharmaceutical products that target and modulate the endocannabinoid system. SciCann is attempting to utilize the **robust cannabinoid ecosystem in Israel**, where the permissive regulatory climate has allowed the scientific research of cannabis to flourish. In addition to most recently legalizing the export of medical cannabis in January 2019, **Israel is considered the world leader in medical cannabis research**. Since the early 1990s, medical cannabis has been allowed to be grown on regulated farms and distributed through registered dispensaries. In Israel, SciCann has put together an extensive **network of cannabinoid researchers** in an effort to encourage cooperation and collaboration. The resulting synergies should lead to the discovery of many innovative, therapeutic cannabis products.

SciCann Therapeutics is currently pursuing the development of therapeutic agents and drug candidates for inflammatory disorders in the fields of gastrointestinal disorders (IBS) and liver disease (NAFLD), along with atherosclerosis, a cardiovascular disease. Central nervous system disorders and pain management will also be targeted.

SciCann's strategic alliance with FSD Pharma is indicative of the strong potential of **the Canadian medical cannabis market**, where recent nationwide legalization has stimulated strong growth. Dr. Zohar Koren, CEO of SciCann Therapeutics, was appointed as FSD Pharma's Head of Scientific Advisory Board in June 2018.

SCN-001 for Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD)

SciCann Therapeutics is working on the development and commercialization of a CBD-based treatment for IBS and IBD. Known as **SCN-001** or ***Steady Stomach***, SciCann's synergistic product combines *spilanthol* with cannabidiol (CBD) for the relief of pain that is associated with both IBS and IBD. *Spilanthol* is a bioactive compound known to produce analgesic and anti-inflammatory effects, which helps reduce the gastrointestinal spasms associated with IBS and IBD; however, when combined with cannabidiol, the desensitization of the TRPV1 pain receptor in the gastrointestinal system is enhanced, amplifying the

therapeutic effect. This combination CBD product appears to show potential for the treatment of both IBS and IBD.

A **pre-clinical colitis study on rodents** compared CBD to the *Steady Stomach* combination product in reversing the adverse effects caused by an induction agent for colitis. The CBD arm attained a 27% improvement score in lowering abdominal inflammation levels while the combination product arm achieved a 79% improvement score. In addition, *Steady Stomach* has been successfully tested on rodents for toxicity without any observed adverse effects.

In November 2018, a **pilot clinical safety and efficacy study** was initiated in Pittsburgh. The double-blind, randomized, placebo-controlled trial (n=20) of the *Steady Stomach* CBD combination therapy for the treatment of IBS is ongoing.

As SciCann's strategic partner, FSD Pharma would have the exclusive manufacturing and distribution rights for the *Steady Stomach* product in Canada. Since the active ingredients are natural food-grade compounds, *Steady Stomach* qualifies as a CBD food supplement product.

Clinical Research Program (FSD Pharma – SciCann - Mor Research Applications LTD)

In August 2018, a **cannabis clinical research program** was formed in Israel among FSD Pharma, SciCann Therapeutics and Mor Research Applications LTD (the Technology Transfer Office of Clalit Health Services). Under this strategic alliance, Mor Research will conduct randomized, placebo-controlled clinical studies on cannabinoid-based products for FSD Pharma/SciCann in order to advance the prospective medical cannabis candidates to commercial pharmaceutical products. Mor Research has been and is involved with over 100 different medical projects from CBD-based treatments to medical devices. Clalit is the largest HMO in Israel, operating a network of 14 full scale hospitals, employing over 9,000 physicians and serving of over 50% of Israel's population. Dr. Zohar Koren, CEO of SciCann, served as Vice President of Business Development for Mor Research Applications from 2014 to 2017.

Cardiovascular Research Program Research Program (FSD Pharma – SciCann)

On September 23, 2018, FSD Pharma and SciCann Therapeutics announced a new research program for the prevention and treatment of **atherosclerosis**. The R&D program is aimed at the development of cannabinoid-based treatments that will mitigate the build-up of atherosclerotic plaques in arteries. By narrowing the arteries, atherosclerosis can often trigger cardiac events, such as strokes and myocardial infarction (aka heart attacks). Many researchers have suggested that by modulating the endocannabinoid system, particularly through adjusting CB2 signaling, coronary artery disease can be treated. The research is to be conducted at the Tel Aviv University.

SOLARVEST BIOENERGY INC. (Minority Ownership and R&D Agreement)

On May 7, 2019, FSD Pharma and Solarvest BioEnergy Inc. (TSX-V: SVS) signed a definitive **Collaborative Research and Development Agreement**, under which Solarvest will use its algal expression technology to conduct research for the purpose of developing a **proof of concept** that will confirm that algae can express pharmaceutical-grade cannabinoids through biosynthesis. A joint scientific review committee (with members being scientists from both companies) will monitor the project's progress and budget. This **CBD Research Project** has an initial two-year term and a budget of $1,000,000.

The research agreement is an exemplar of FSD Pharma's **paradigm shift towards the development of synthetic cannabinoids** in management's quest for effective and commercially successful pharmaceutical-grade cannabis products. The ability to cultivate cannabinoids through biosynthesis would both **significantly reduce grow time** and **considerably improve consistency** of the expressed

CBC and THC. The current plant-based cannabinoid production time is measured in months (roughly 12 weeks) while a growth cycle of algae is only a few days (approximately 100 hours). Production times (as well as research timelines) could be reduced significantly.

Also, algae systems do not contain any known human pathogens and do not utilize pesticides or herbicides, thereby creating inherently safer molecule. When grown in a bioreactors (a closed cultivation system where temperature, light, pH and nutrient conditions are controlled), algal systems express **consistent yields of high quality algae-generated proteins** suitable for use in pharmaceuticals and food.

Solarvest BioEnergy Inc.

TSXV: SVS



Photobioreactor: pinterest

If successful, the implications of producing bio-synthetic cannabinoids with algal expression technology would dramatically disrupt medical cannabis cultivation industry. The ability to produce synthetic cannabinoids in a controlled, replicable process with predictable consistency from batch to batch would radically reduce costs and profoundly increase the quality and purity of medical cannabis.

Solarvest has already developed an algal-based production platform capable of producing organic omega-3 DHA (docosahexaenoic acid) fruit gummies. In addition, in March 2015, Solarvest produced bio-active therapeutic proteins in a proof of concept project that, in conjunction with previous positive results with other complex proteins, confirmed that Solarvest's algal platform is capable of producing active recombinant proteins, like BMP (bone morphogenetic protein) which is used to promote bone formation in orthopedic surgery. Solarvest's technology should be capable of targeting the production of not only cannabinoids in general, but also specific cannabinoids. Previously, Solarvest completed a feasibility study for the expression of CBD and THC.

Mutual Investments

As part of the agreement, FSD Pharma and Solarvest BioEnergy made **mutual $3 million investments in each other**. FSD Pharma issued **10,000,000 class B HUGE shares to Solarvest** at a price of $0.30 per share, while Solarvest issued 3,000,000 Units to FSD Pharma at a price of $0.20 per Unit, along with a 5-year, **$2.4 million 3% convertible debenture**. Each Unit is comprised of one SVS common share and one 2-year warrant exercisable into one SVS share at $0.25. The convertible **debenture** is convertible into 2,000,000 SVS common shares.

License and Royalties

If Solarvest can successfully develop the proof of concept, FSD Pharma has the option to enter into an exclusive, worldwide license agreement over the incorporation of cannabinoids generated by the developed algal expression technology in all prescription drugs that can treat diseases affecting the central nervous system. In respect to the license, FSD Pharma will pay a 5% royalty of net profits from those drug products to Solarvest. For all other indications, Solarvest will pay a 5% royalty of net profits

(sales or net license fees received from third parties) to FSD Pharma until $3.0 million has been paid in royalty fees, at which point the royalty will be reduced to 3%.

Solarvest

Headquartered in Vancouver, Solarvest is an algae technology company which is utilizing its 69 patents and algal production platform to develop numerous products. The company's first commercial product is anticipated to be organic omega-3 DHA (docosahexaenoic acid) fruit gummies, which are expected to enter full production in the very near future. Omega-3 DHA powders, which will be used as a nutritional supplement for processed food, are expected to follow. In the intermediate term, the company is working on developing a modified algae strains that are capable of producing therapeutic proteins, including CBD and THC for CBD Research Project with FSD Pharma. Long term, Solarvest plans to develop a genetically modified algae strain that can produce hydrogen. The company's 30,000 square-foot administration offices R&D operations are located in Summerville, Prince Edward Island, including a 5,000 square-foot laboratory.



FSD Investor Presentation March 2019



Solarvest Investor Presentation January 2018

PRISMIC PHARMACEUTICALS (Wholly-owned Specialty Pharmaceutical Company)

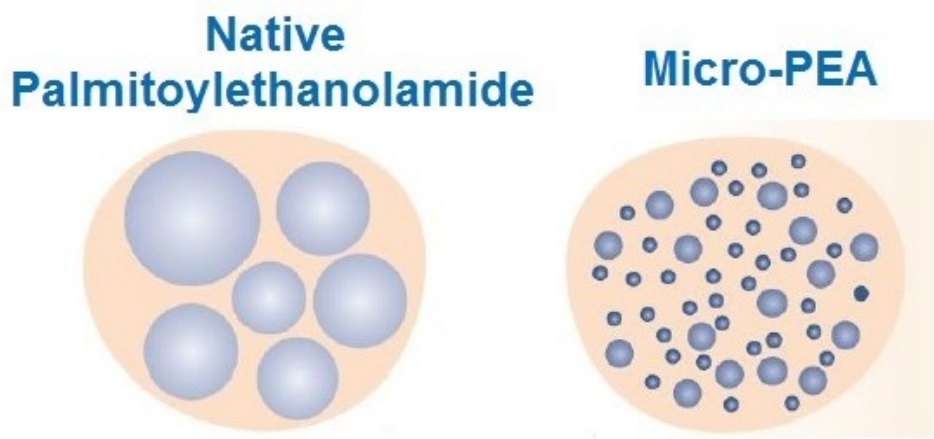
On July 2, 2019, FSD Pharma **acquired privately-held Prismic Pharmaceuticals** Inc., an emerging **specialty pharmaceutical company** focused on developing novel, non-addictive prescription drugs based on its patented **micro-PEA development platform**. The acquisition of Prismic represents the **tangible transition of FSD Pharma's corporate emphasis** towards capturing the value of drug discoveries, particularly in the realm of medicinal cannabis. Prismic Pharmaceuticals is now part of **FSD Biosciences Division**, which is envisioned to be a collection of promising, incubator companies, each conducting research and development (R&D) on prescription drug candidates and navigating the molecules through the clinical trial process towards FDA approval. Management was especially attracted to Prismic's micro-palmitoylethanolamide molecule due to its enhanced effect within the endocannabinoid system, specifically the inhibition of the enzyme (fatty acid amide hydrolase or FAAH) that breaks down cannabinoids, thereby indirectly increasing the activation of CB2 and CB1 receptors, the same receptors activated by CBD and THC. Prismic Pharmaceuticals will serve as a platform to develop and advance micro-PEA in combination with cannabinoids to address multiple therapeutic categories.

On June 28, 2019, FSD Pharma **acquired Prismic Pharmaceuticals for approximately CDN$27.5 million** (approximately US$20.6 million) paid through the **issuance of 102.7 million Class B subordinate voting shares** valued at CAD$23.4 million (approximately US$17.5 million) and the assumption of Prismic's long- and short-term liabilities valued at CAD$4.07 million (approximately US$3.05 million). Prismic's stock options and warrants were converted into FSD Pharma options and warrants.

PRISMIC PHARMACEUTICALS INC.

Founded in 2011, Prismic Pharmaceuticals secured the exclusive licensing rights to PEA (palmitoylethanolamide), including the micronized form, for Chronic Kidney Disease from the Epitech

Group SRL in June 2013. A few months later, in August 2013, Prismic secured **the rights to PEA for all conditions in all regulatory categories** through a strategic partnership agreement with Epitech. As a result, Prismic holds the exclusive worldwide licensing rights (with the exception of Italy and Spain) to micro-PEA, a form of palmitoylethanolamide with particle sizes between 0.6 and 10 microns. The particle sizes of native PEA range from 100-to-700 microns.



FSD PHARMA

Prismic Pharmaceuticals, Inc.

Prismic Investor Presentation March 2019

By 2015, through clinical work, Prismic confirmed that certain formulations of PEA had demonstrated a **synergistic effect** when administered concurrently with certain prescription drugs for severe and/or chronic pain, including oxycodone, morphine and other opioid analgesics. The ability to achieve the desired therapeutic pain relief effect with lower doses of these addictive drugs is a significant clinical benefit.

FSD's management was drawn to Prismic Pharmaceuticals because of micro-PEA's **well-documented safety profile**, its **patent protection** for all conditions in all regulatory categories, its **increased oral bio-availability** and its **synergistic or entourage effect** on certain drugs, especially those impacting the endocannabinoid system.

PEA (Palmitoylethanolamide)

PEA is a fatty acid amide that is naturally produced by the body. This anti-inflammatory agent acts on the **CR2 cannabinoid receptor**, which affects the inflammatory process in the nervous system. Also, PEA acts on the **CR1 cannabinoid receptor**, which mediates most of the psychotropic effects of THC, a psychoactive component of cannabis that modulates the efficacy of synaptic transmission.

Micro-PEA

The large particle size of native PEA limits its solubility when administered orally. By increasing the drug's surface area through micronization, the rate and the amount of dissolution is dramatically increased, thereby increasing the bioavailability of PEA. Consequently, when administered via a micro-PEA formulation, the amount of PEA absorbed increases significantly, which, in turn, enhances the efficacy and potency of PEA's anti-inflammatory and analgesic therapeutic properties.

Safety Profile of Micro-PEA

PEA has been **evaluated in at least 22 clinical studies**, all conducted in Europe.[iii] Having been tested on more than 4,000 patients in various states of pain,[iv] the studies have demonstrated PEA has an excellent safety profile. Despite this **robust amount of clinical safety data**, some suggest that too few patients have been treated for more than 60 days for PEA to be classified definitively as safe. However, **over one million doses** of Epitech's Normast (600 mg ultra-micronized PEA) and Pelvilen (200 mg ultra-micronized PEA) have been administered to patients in Italy and Spain without adverse side effects. The average particle size of ultra-micronized PEA is 2.6 microns.[v]

Therapeutic Indications

The PEA fatty acid amide has been studied for its anti-inflammatory and analgesic actions **for the relief of inflammation and pain**, respectively. There appears to be a substantial amount of efficacy data that establishes its anti-inflammatory and anti-nociceptive properties when administered orally in a micro formulation as a pharmaceutical product. In addition, there are indications that **the concomitant use of micro-PEA with certain addictive drugs** can achieve the same therapeutic effects while delaying the development of dependence in patients through the ability to reduce the dosing of the addictive drugs. In addition, the management of FSD Pharma/Prismic Pharmaceuticals desires to pursue the development of **non-addictive therapeutic treatments** for pain through **the concomitant use of micro-PEA with synthetic cannabinoids**.

Having shown to have a therapeutic effect against pain and inflammation syndromes, management has identified **multiple therapeutic categories** for micro-PEA's potential to address numerous expansion opportunities:

- **Analgesics**
  - treatment of acute pain conditions, e.g. post-operative pain
  - therapeutic relief of chronic pain conditions, such as fibromyalgia
  - in combination with opioids to mitigate the potential of addiction
  - in combination with cannabinoids as a non-addictive replacement for opioids
- **Anti-inflammatory Agents**
  - conditions where inflammation is an underlying or significant cause of the disorder
- **Gastrointestinal Agents**
  - irritable bowel syndrome
  - irritable bowel disease
- **Central Nervous System Agents**
  - Fibromyalgia
  - Alzheimer's disease
- **Opioid-Sparing** / **Opioid-Replacement Drug**

Through the development and completion of clinical programs, management plans to navigate the FDA process for micro-PEA to be approved for the management of pain and treatment of inflammation, particularly for the treatment of chronic pain associated with fibromyalgia and acute pain situations where opioids are being currently prescribed.

PP-101

Prismic's lead prescription drug candidate is **PP-101** (a 600 mg tablet of micro-PEA), which is formulated as a concomitant medication to be taken concurrently with pregabalin **to treat pain associated with fibromyalgia**. Though initially approved by the FDA as an anticonvulsant for the treatment of epilepsy, pregabalin (aka Lyrica®) was later approved for fibromyalgia. Pregabalin is a controlled, schedule V drug with common side effects of dizziness and drowsiness, especially when administered at higher doses. In addition, pregabalin can be addictive; abruptly stopping its use can cause withdrawal symptoms.

In 2018, Prismic completed a FDA pre-IND (Investigational New Drug) meeting, during which the FDA accepted the company's proposed adaptive design trial consisting of a Phase 2/3 clinical trial in which PP-101 is to be administered concomitantly with pregabalin for the treatment of pain associated with fibromyalgia. An adaptive design trial design allows for pre-specified modifications to the trial's design based on new information gleaned from early data accumulated during the early stages of the trial.

Management anticipates that a **Phase 1 human safety and tolerability clinical trial will be initiated during the first quarter of 2020**. Thereafter, a pre-IND application is anticipated, which may include comparable human trial data gathered from past clinical studies in Europe; then, a Phase 2 trial for osteoarthritis is expected.

Potential follow-on drug development programs could include studies on the **concomitant use of micro-PEA with** the opioid **morphine** (PP-102), the cannabinoid **THC** (PP-103) and the cannabinoid **CBD** (PP-104).

VALUATION

Valuation analysis of cannabis companies is a very challenging exercise, since many are pre-revenue entities in the development stage. In addition, almost all public cannabis companies are reporting negative EBITDA and net income. However, the legalization of cannabis in Canada and other places around the world has created a unique opportunity to invest in an embryonic industry with immense potential.

Empirically, there appears to be a **select subset of more advanced cannabis companies** that can be defined by two quantitative factors: first, a market capitalization over $35 million, indicating investor interest and support, and second, positive and growing revenues, identifying that the company has been licensed by Health Canada and is generating cannabis-related sales. Generally, these leading companies are ramping up cultivation, increasing production capacity and pursuing opportunities in complementary cannabis verticals as well as through collaborative ventures, both of which include post-cultivation processing operations, distribution networks (including Canadian retail stores and international export/import opportunities), consumables (beverages and edibles), CBD-infused wellness products, cannabis-based medicinal therapeutics and pharmaceutical efforts (including clinical research programs), among others. These more advanced companies have also secured first mover advantage.

In the life cycle of nascent industries, like in the cannabis space, the appropriate valuation methodology migrates from one metric to another. Initially, as a company's strategy gains acceptance, investors willingly fund operations during the emerging stage through **private placements** to qualified investors. Through these financings, the company's book value increases and the company receives much needed capital to fund growth initiatives. If management successfully executes its strategy, the company's book value will increase through **operational activities**. Furthermore, in the embryonic cannabis space where strategic alliances are commonplace, strategic partnerships and alliances have spurred **cross-ownership investments**, which reinforce business relationships. The values of these investments are reflected on the balance sheet, impacting the company's book value. As a result, we believe that, at this time**, the appropriate valuation methodology for FSD Pharma should be based on the metric of price-to-book value (P/B)**.

It should be noted that other methods, such as discounted cash flow (DCF) analysis, can be employed on emerging companies; however, this technique is not only complex, but also fraught with assumptions and estimates, which often can result in misleading targets. In the future, as the sales profile grows, but with the company having not yet attained profitability, the valuation metric of price-to-sales (P/S) will come into play. In due course, an expanding revenue stream ordinarily manifests into positive earnings, and P/E becomes the suitable valuation metric.

We have identified several **comparable companies**, all of which are revenue-generating, cannabis companies. Currently, the P/B valuation range for this subset of more advanced cannabis companies is between 0.32 and 1.86.

Industry Comparables	Ticker	Exchange	Beta	% Chg YTD	Mkt Cap ($ mil.)	Price/ Book	Revenues TTM ($ mil.)
FSD PHARMA INC	**HUGE**	CSE	1.36	-93.3%	45.9	0.64	0.3
Industry Mean			2.60	-51.9%	2,371	1.23	135.2
Industry Median			2.88	-47.9%	393.5	1.32	77.2
S&P/TSX Composite Index	TSX		1.00	18.7%	N/M	1.80	N/A
S&P 500 Index	SPX		1.00	26.4%	N/M	3.55	N/A
Public Investments							
AURORA CANNABIS INC	ACB	TSX	1.56	-48.8%	3,781	0.82	293.5
CANNARA BIOTECH	LOVE	CSE	0.46	N/A	92	1.86	2.1
CANOPY GROWTH CORP	WEED	TSX	3.79	-25.5%	9,509	1.77	344.2
EMERALD HEALTH THERAPEUTICS	EMH	TSXV	1.96	-86.4%	58	0.32	17.0
ORGANIGRAM HOLDINGS INC	OGI	TSX	3.95	N/A	539	1.65	106.3
SUPREME CANNABIS COMPANY	FIRE	TSX	3.89	-47.0%	248	0.99	48.1

The book value of FSD Pharma has been modified in order to update two important factors:

- The value of the Cobourg facility appears to be understated on the balance sheet. Originally purchased for $5.5 million, FSD has subsequently made property improvements of over $10.0 million, yet the property and equipment is only valued at $12.0 million on the balance sheet. In addition, there is no value being attributed to the licenses from Health Canada that allow for the production and sale of cannabis that are attached to the footprint of this property. Using the property estimated value provided in a company press release dated November 18, 2018, we estimate that the value of the Cobourg facility is $18.25 million and adjust the company's book value accordingly.
- FSD Pharma owns minority equity investments in six cannabis companies (High Tide, Cannara Biotech, Huge Shops, Aura Health, SciCann Therapeutics and Solarvest BioEnergy). These investments are marketed-to-market every quarter in FSD's balance sheet. We calculate the changes in value of these investments since the end of the last quarter and adjust book value accordingly.

With the expectation that FSD Pharma's stock will attain a second quartile P/B ratio of 1.5, our **comparable analysis valuation price target is $14.00.**

RISKS

- As with almost all cannabis companies, FSD Pharma is an early-stage enterprise that has yet to generate sufficient cash flow from operations to adequately fund its activities. However, the company has been able to effectively fund its operations and initiatives to date.
- The outstanding Class B shares increased 80.3% in 2018 as a result of the three-cornered amalgamation with Century Financial Capital Group and several subsequent private placements, along with the exercise of options and warrants. So far during 2019 (as of the end of the third quarter ended September 30, 2019), shares outstanding have increased 14.8%, primarily due to the acquisition of Prismic Pharmaceuticals for approximately 16.43 million Class B shares. Currently, an ongoing private placement has issued 228,671 Class B shares.
- During the process of the three-cornered amalgamation with Century Financial Capital Group, 15,000 Class A voting shares were created, issued and ultimately conveyed to the holders of the

15,000 Class A voting shares of FV Pharma (namely the three founders: Thomas Fairfull, Zeeshan Saeed and Anthony Durkacz). Holders of Class A shares are entitled to 55,608.66 votes per share while holders of Class B shares have only one vote per share. As a result, shareholders of Class A shares hold significant voting power and are able to exert immense influence over management and the company.

- Not all of FSD Pharma's strategic relationships have had positive outcomes; a few have been terminated.
    - A collaboration with Auxly Cannabis Group (TSX.V – XLY), formerly Cannabis Wheaton Income Corp., to develop grow operations at the Cobourg facility was terminated in February 2019 due to Auxly failing to achieve its construction commitments. Consequently, FSD Pharma wrote-down $7,499,977, which was being held in trust by Auxly to cover construction and development costs.
    - The company's investment in Clover Cannastrip Thin Film Technologies required a $1,500,000 write-down in the first quarter of 2019 due to alleged misappropriation of funds by the President and Manager of Clover Cannastrip.
    - Furthermore, the proposed acquisition of Therapix Biosciences was terminated on December 21, 2018.
- Risks related to the cannabis industry:
    - The continuation the company's business development in Canada is dependent on *Cannabis Act of Canada* remaining in effect and the company remaining in good standing and maintaining the Licenses granted by Health Canada.
        - Concerns of over-supply of cannabis products in Canada due to many start-ups attempting to participate in this emerging industry.
    - The company's potential in Israel and Europe is dependent on the legal and regulatory environments in those areas.
    - Any potential cannabis-related activities in the United States are exposed to inherent risks associated with the conflict between Federal and State laws and regulations.

BALANCE SHEET

FSD Pharma Inc.

(in $CDN)	2017	2018	3Q 2019
Period ending	12/ 31/ 2017	12/ 31/ 2018	9/ 30/ 2019
ASSETS			
Cash and cash equivalents	4,739,988	21,134,930	7,251,696
Sales taxes recoverable	294,508	982,663	1,857,142
Trade and other receivables	-	8,325	4,356,491
Prepaid and other assets	353,160	444,099	193,645
Inventory	-	-	1,749,025
Biological assets	-	-	80,008
Total Current Assets	**5,387,656**	**22,570,017**	**15,488,007**
Other investments	-	18,064,541	18,768,147
Right-of-use asset	-	-	207,245
Property, plant and equipment	8,292,038	12,141,676	12,016,665
Intangible assets	-	-	23,658,014
TOTAL ASSETS	**13,679,694**	**52,776,234**	**70,138,078**
Trade payables and accrued liabilities	1,265,995	1,743,806	4,359,599
Lease obligations	-	-	56,207
Derivative liability	-	-	2,200,000
Convertible notes	-	-	1,748,076
Short term notes	-	-	197,805
Total Current Liabilities	**1,265,995**	**1,743,806**	**8,561,687**
Lease obligations	-	-	156,799
Non-Current Liabilities	**-**	**-**	**156,799**
TOTAL LIABILITIES	**1,265,995**	**1,743,806**	**8,718,486**
SHAREHOLDERS' EQUITY			
Class A share capital	201,500	201,500	201,500
Class B share capital	12,794,963	67,916,302	95,957,746
Warrants	621,900	4,442,145	6,327,748
Contributed surplus	2,990,600	4,977,300	18,386,147
	-		244,814
Accumulated deficit	(4,195,264)	(26,504,819)	(59,698,363)
Stockholders' equity (deficit)	**12,413,699**	**51,032,428**	**61,419,592**
TOTAL LIABILITIES & STOCKHOLDERS' EQUITY	**13,679,694**	**52,776,234**	**70,138,078**
Class A Shares outstanding	15,000	15,000	15,000
Class B Shares outstanding	3,794,846	6,843,780	7,816,110

PROJECTED ANNUAL INCOME STATEMENT

FSD Pharma Inc.

Income Statement (in $CDN, except share and per share data)	2017 12/31/2017	2018 12/31/2018	2019 E 12/31/2019
Rental income	25,943	86,656	62,611
Cannabis revenues	0	2,107	260,000
Other income	0	0	0
Total Revenues	**25,943**	**88,763**	**322,611**
Cost of sales	-	-	1,349,950
Gross (loss) profit before FV adjstmts.	-	-	**(1,027,339)**
Loss (gain) chg. in value of bio. assets	-	-	132,966
Gross (loss) profit	-	-	**(1,197,306)**
Expenses			
Advertising and promotion	-	2,803,588	2,058,294
Allowance for impairment of Auxly funds	-	7,499,977	0
Consulting fees	-	2,037,049	2,226,092
Depreciation	-	183,194	3,136,298
General and administrative	189,826	168,574	4,175,830
Loss on change in fair value of biological assets	-	-	175,524
Insurance	-	156,038	314,409
Interest expense	-	-	109,749
Listing expense	-	7,991,791	0
Facility related expenditures	167,477	1,360,477	963,518
Production and growing expenses	-	401,897	37,440
Professional fees	202,555	1,955,253	3,040,091
Salaries, wages and benefits	-	1,740,720	2,327,187
Shareholder and public company costs	-	124,973	242,035
Share based payments	2,990,600	6,440,406	17,891,380
Total Expenses	**3,550,458**	**32,863,937**	**36,697,847**
Loss Before Other Income (Expenses)	**(3,524,515)**	**(32,775,174)**	**(37,895,153)**
Gain (loss) on chg. in deriv. liability	-	-	(1,700,000)
Changes in fair value of investments	0	10,064,550	(5,660,506)
Net Loss	**(3,524,515)**	**(22,710,624)**	**(45,255,659)**
Basic and diluted loss per share	**(1.61)**	**(3.85)**	**(6.19)**
Wgted avg. of Class B Shares - basic & diluted	2,190,117	5,905,177	7,316,883

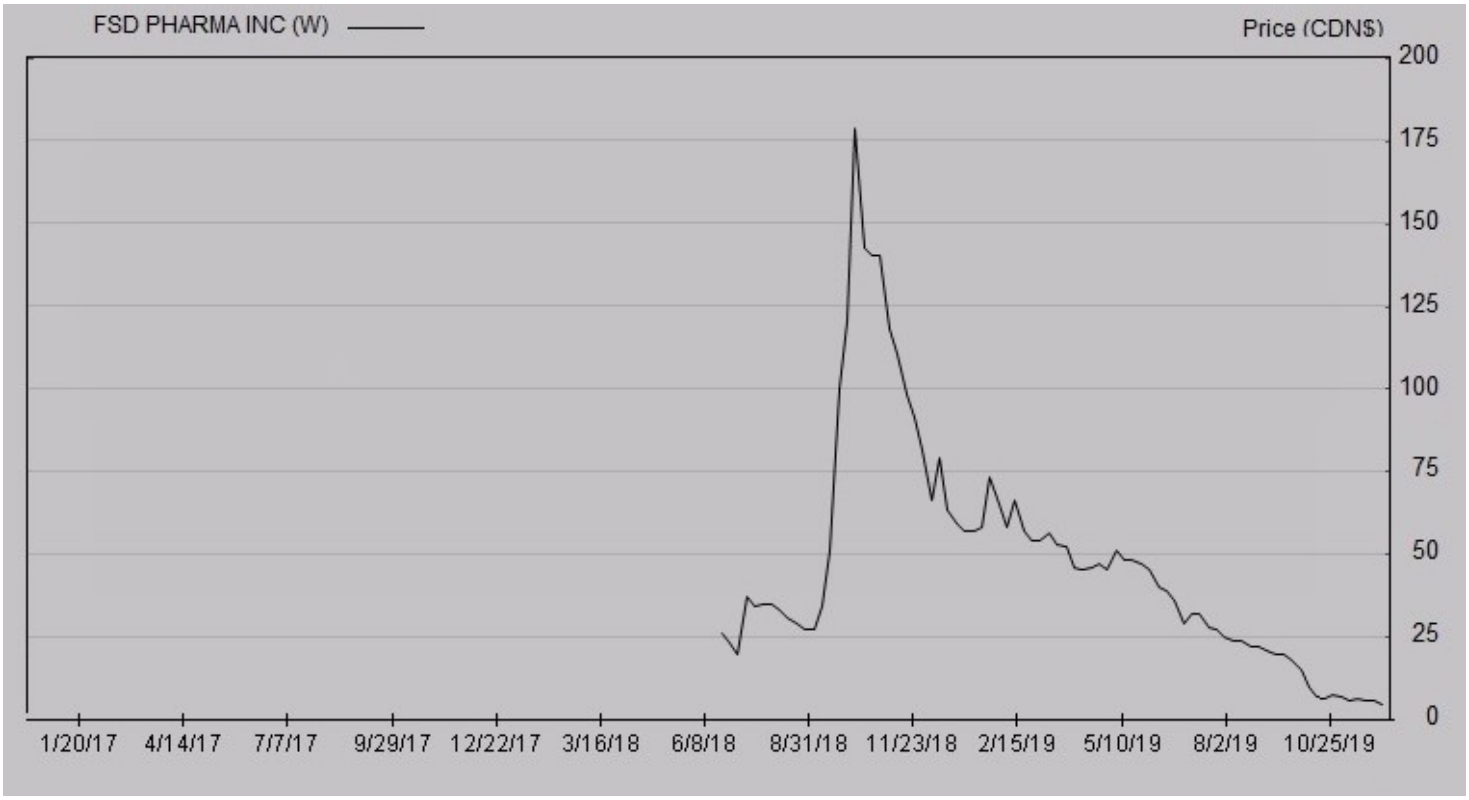
QUARTERLY INCOME STATEMENTS

FSD Pharma Inc.						
Income Statement (in $CDN, except share and per share data)	**2017** **12/31/2017**	**1Q 2018** **3/31/2018**	**2Q 2018** **6/30/2018**	**3Q 2018** **9/30/2018**	**4Q 2018** **12/31/2018**	**2018** **12/31/2018**
Rental income	25,943	39,983	28,340	13,833	4,500	86,656
Other income	0	0	1,032	0	1,075	2,107
Total Revenues	**25,943**	**39,983**	**29,372**	**13,833**	**5,575**	**88,763**
Expenses						
Advertising and promotion	-	265,323	3,187	912,939	1,622,139	2,803,588
Allowance for impairment of Auxly funds	-	-	-		7,499,977	7,499,977
Consulting fees	-	223,671	707,599	239,097	866,682	2,037,049
Depreciation	-	56,711	0	41,547	84,936	183,194
General and administrative	189,826	37,812	24,834	71,755	34,173	168,574
Insurance	-	74,682	0	60,421	20,935	156,038
Listing expense	-	7,885,144	0	0	106,647	7,991,791
Occupancy costs	167,477	277,979	248,529	394,058	439,911	1,360,477
Production and growing expenses	-	64,727	0	159,088	178,082	401,897
Professional fees	202,555	57,879	573,700	267,887	1,055,787	1,955,253
Salaries, wages and benefits	-	131,794	516,032	436,576	656,318	1,740,720
Shareholder and public company costs	-	10,000	0	10,906	104,067	124,973
Share based payments	2,990,600	685,396	1,390,900	438,378	3,925,732	6,440,406
Total Expenses	**3,550,458**	**9,771,118**	**3,464,781**	**3,032,652**	**16,595,386**	**32,863,937**
Loss Before Other Income (Expenses)	**(3,524,515)**	**(9,731,135)**	**(3,435,409)**	**(3,018,819**	**(16,589,811)**	**(32,775,174**
Changes in fair value of investments	**0**	**0**	**7,500,000**	**6,876,000**	**(4,311,450)**	**10,064,550**
Net Loss	**(3,524,515)**	**(9,731,135)**	**4,064,591**	**3,857,181**	**(20,901,261)**	**(22,710,624**
Basic and diluted loss per share	**(1.61)**	**(2.43)**	**0.76**	**0.59**	**(9.54)**	**(3.85)**
Wgted avg. Class B Shares diluted	2,190,117	4,004,414	5,359,917	6,586,452	2,190,117	5,905,177

FSD Pharma Inc.

Income Statement (in $CDN, except share and per share data)	2018 12/31/2018	1Q 2019 3/31/2019	2Q 2019 6/30/2019	3Q 2019 9/30/2019	4Q E 2019 12/31/2019	Estimate 2019 12/31/2019
Rental income	86,656	18,500	18,501	12,805	12,805	62,611
Cannabis revenues	0	0	0	0	260,000	260,000
Other income	2,107	0	0	0	0	0
Total Revenues	**88,763**	**18,500**	**18,501**	**12,805**	**272,805**	**322,611**
Cost of sales	-	-	-	849,950	500,000	1,349,950
Gross (loss) profit before FV adjstmts.	-	-	-	**(837,145)**	**(227,195**	**(1,027,339)**
Loss (gain) chg. in value of bio. assets	-	-	-	132,966	0	132,966
Gross (loss) profit	-	-	-	**(970,111)**	**(227,195**	**(1,197,306)**
Expenses						
Advertising and promotion	2,803,588	1,066,487	991,807	-	-	2,058,294
Allowance for impairment of Auxly funds	7,499,977	-	-		-	0
Consulting fees	2,037,049	429,556	752,313	544,223	500,000	2,226,092
Depreciation	183,194	46,687	179,588	1,460,023	1,450,000	3,136,298
General and administrative	168,574	127,200	1,512,107	1,236,523	1,300,000	4,175,830
Loss (gain) chg. in value of bio. assets	-	(145,851)	321,375	-	-	175,524
Insurance	156,038	66,481	60,584	92,344	95,000	314,409
Interest expense	-	-	7,242	102,507	0	109,749
Listing expense	7,991,791	-	-		-	0
Facility related expenditures	1,360,477	687,973	88,104	92,441	95,000	963,518
Production and growing expenses	401,897	37,440	0	0	0	37,440
Professional fees	1,955,253	353,267	531,591	1,655,233	500,000	3,040,091
Salaries, wages and benefits	1,740,720	529,404	916,523	431,260	450,000	2,327,187
Shareholder and public company costs	124,973	54,331	50,671	85,033	52,000	242,035
Share based payments	6,440,406	302,858	5,383,199	6,205,323	6,000,000	17,891,380
Total Expenses	**32,863,937**	**3,555,833**	**10,795,104**	**11,904,910**	**10,442,000**	**36,697,847**
Loss Before Other Income (Expenses)	**(32,775,174)**	**(3,537,333)**	**(10,776,603)**	**(12,875,021**	**(10,669,195**	**(37,895,153**
Gain (loss) on chg. in deriv. liability	-	-	-	(1,700,000)	0	(1,700,000)
Changes in fair value of investments	10,064,550	1,240,047	(4,460,724)	(2,075,717	(364,112)	(5,660,506)
Net Loss	**(22,710,624)**	**(2,297,286)**	**(15,237,327)**	**(16,650,738**	**(11,033,307**	**(45,255,659**
Basic and diluted loss per share	**(3.85)**	**(0.33)**	**(2.17)**	**(2.20)**	**(1.42)**	**(6.19)**
Wgted avg. Class B Shares diluted	5,905,177	6,901,483	7,009,369	7,564,004	7,792,675	7,316,883

HISTORICAL STOCK PRICE



DISCLOSURES

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

ANALYST DISCLOSURES

Zacks SCR Analysts hereby certify that the view expressed in this research report or blog article accurately reflect the personal views of the analyst about the subject securities and issuers. Zacks SCR also certifies that no part of any analysts' compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report or blog article. Zacks SCR believes the information used for the creation of this report or blog article has been obtained from sources considered to be reliable, but we can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice. The Zacks SCR Twitter is covered herein by this disclosure.

INVESTMENT BANKING AND FEES FOR SERVICE

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

Zacks SCR has received compensation from the issuer directly, from an investment manager, or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer.

The non-investment banking services provided to the issuer include the preparation of this report, investor relations services, investment software, financial database analysis, organization of non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR.

Each issuer has entered into an agreement with Zacks to provide continuous independent research for a period of no less than one year in consideration of quarterly payments totaling a maximum fee of $40,000 annually.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business.

SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the Valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover.

SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

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

CANADIAN COVERAGE

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

---

[i] Marijuana economics: predicting Ontario's legal pot market, September 21, 2017.
[ii] Ritter, Ritter, Studies Link Legal Marijuana With Fewer Opioid Prescriptions, April 2, 2018
[iii] Gabrielsson, Linda, et al, Palmitoylethanolamide for the treatment of pain: pharmacokinetics, safety and efficacy, British Journal of Clinical Pharmacology, 2016, page 934.
[iv] Hesselink, J M Keppel, Chronic idiopathic axonal neuropathy and pain, treated with the endogenous lipid mediator palmitoylethanolamide: a case collection, International Medical Case Reports Journal, September 12, 2013, Abstract.
[v] Impellizzeri, Daniela et al, Micronized/ultra-micronized palmitoylethanolamide displays superior oral efficacy compared to non-micronized palmitoylethanolamide in a rat model of inflammatory pain, Journal of Neuroinflammation 2014, Table 1.