

# Fundamental Research Corp.

Investment Analysis for Intelligent Investors

Siddharth Rajeev, B.Tech, MBA, CFA

Anthony de Ruijter, BA. Econ

April 11, 2019

## Biome Grow Inc. (CSE: BIO) – Building a Base in the Atlantic Provinces, Preparing for Global Expansion – Initiating coverage

Sector/Industry: Cannabis

[www.biomegrow.ca](http://www.biomegrow.ca)

### Market Data (as of April 11, 2019)

Current Price	C\$0.55
Fair Value	C\$1.25
Rating*	BUY
Risk*	4
52 Week Range	\$0.47 - \$2.10
Shares O/S	110,281,815
Market Cap	\$60.65 M
Current Yield	N/A
P/E (forward)	N/A
P/B	2.71x
YoY Return	N/A
YoY CSE	-10.26%

\*see back of report for rating and risk definitions



### Highlights

- Biome Grow Inc. (“Biome”, “company”) is a licensed producer (“LP”) of cannabis with a focus on the Atlantic provinces, where competition amongst LPs is less fierce.
- **Leading Supply of CBD:** The company has secured a 20,000 kg per annum CBD full-spectrum concentrate supply that is unmatched globally in terms of the size of the supply agreement. For context, the concentrate is equivalent to between 150,000 kg and 180,000 kg of CBD-dominant flower. The company intends to utilize the CBD supply to unlock foreign markets where affordable CBD options are lacking.
- **Competing Where the Competition are Not:** The company’s purposeful avoidance of Canada’s most LP dense provinces allows them to establish their brands across the Atlantic provinces, building a strong domestic base.
- **Leading Provincial Supply Agreement:** The government of Newfoundland has contracted Biome to supply 24,000 kg of dried cannabis over a three-year period, one of the largest provincial supply agreements announced to date. In addition, the company will be granted five retail licenses, one of the few LPs to receive retail licensing in addition to purchase orders.
- **We are initiating coverage on Biome with a BUY rating, and a fair value per share estimate of \$1.25.**

### Risks

- Highly regulated industry.
- Licensing/ production delay risks.
- Partner risk.
- Related party risk
- Biological contamination risks.
- Access to capital and share dilution.
- Liquidity risks.

### Key Financial Data (FYE - DEC 31) (C\$)

	2018E	2019E	2020E
Cash	\$ 5,062,113	\$ 873,183	\$ 14,382,072
Working Capital	\$ 5,296,433	\$ 2,701,933	\$ 23,729,572
Assets	\$ 21,369,876	\$ 107,603,691	\$ 136,653,330
Total Debt	\$ 423,214	\$ -	\$ -
Revenues	\$ -	\$ 14,630,000	\$ 83,700,000
Net Income	\$ -3,161,303	\$ -4,632,017	\$ 18,935,139
EPS (basic)	\$ -0.03	\$ -0.04	\$ 0.07

**Company  
Overview**

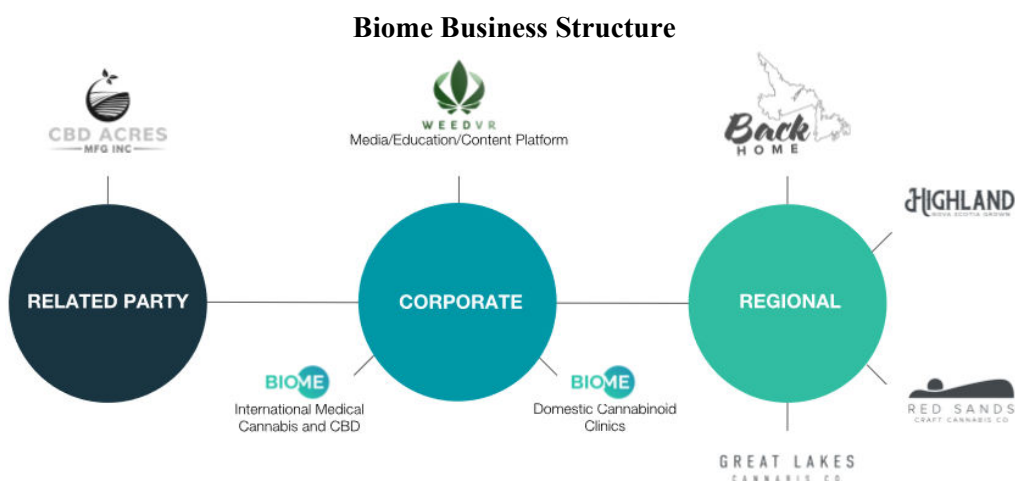
Biome was incorporated on November 22, 2016, as Cultivator Catalyst Corp., and went public on October 9, 2018, via a Reverse Take-Over with Orca Touchscreen Technologies Ltd. The company is working towards developing a vertically integrated cannabis business and is led by a successful team which have been involved with the cannabis industry since its early stages. With Biome, management intends to establish a cannabis business platform built upon risk-hedged production and a dominant presence in the Atlantic provinces. To hedge production risk, Biome has placed an emphasis on securing off-take and supply agreements prior to even beginning construction on production facilities, which they have successfully done in the province of Newfoundland.

**On November 2, 2018, Biome secured a 24,000 kg, three-year supply agreement with the Newfoundland government, one of the largest provincial supply agreements to date.** Note that multi-year supply agreements with provincial governments are exceptional, long-term economic agreements that are large-scale in nature and differ from provincial purchase orders. Provincial purchase orders are short-term, smaller orders made to secure near-term inventory, and almost all LPs receive provincial purchase orders on a recurring basis given short-term supply shortages. However, Biome's supply agreement is one of only a rare few signed between an LP and a provincial government. In addition, the province agreed to issue Biome five retail storefront licenses, and we believe that there are very few provincial supply agreements that exhibit these features. The ability of Biome to secure such a significant contract, despite their relatively small size relative to other LPs, demonstrates the capability of Biome's management, as well as the strength of Biome's relationship with Atlantic Canada.

The business model of Biome can be summarized as follows:

- **Cultivation Operations:** Biome operates, or will operate, four Canadian cannabis cultivation facilities across four different provinces, with each facility supporting a province-specific cannabis brand.
  - Highland Grow Inc. ("Highland"): The company's Nova Scotia focused cannabis brand. The Highland facility is licensed for the production and sale of cannabis.
  - Back Home Cannabis Corp. ("Back Home"): The company's Newfoundland and Labrador focused cannabis brand.
  - Great Lakes Cannabis Co. ("Great Lakes"): The company's Ontario focused cannabis brand.
  - Red Sands Craft Cannabis Co. ("Red Sands"): The company's Prince Edward Island ("PEI") focused cannabis brand.
- **Processing and Extraction Operations:** Biome intends to develop a portfolio of extract products which will be marketed both domestically, and abroad, to jurisdictions where cannabis is legal in some form.
  - Key to this is a recent Memorandum of Understanding ("MOU") with CBD Acres MFG Inc. ("CBD Acres"), a related party, for the purchase of 20,000 kg of hemp-derived CBD extract/ isolate. We believe this to be the largest CBD purchase agreement globally.

- Retail: Biome expects to establish a network of clinics and dispensaries, through which they will sell cannabis products. The company has secured five retail licenses from the government of Newfoundland, and as a result, has become one of only a few LPs across Canada that have secured both sales and retail licensing from a provincial body.



*Source: Company*

Domestically, the company's current strategy is to circumvent the growing competition in Canada's most populous provinces (Ontario, Quebec, British Columbia, Alberta) by focusing on Canada's Atlantic regions. This allows Biome to differentiate their brand from other cannabis brands, who are largely concentrated on the populated provinces outlined above, and avoid competition with licensed producers who have the advantage of scale. Furthermore, based on management's comments, there is reason to believe that Atlantic cannabis consumers favor locally-produced goods, with a higher degree of customer loyalty exhibited towards Atlantic-based brands. We do however note that there is little to no empirical evidence of this, and it is at most, a minor intangible advantage to the company.

Building on the base of their near-term domestic operations, Biome intends to take advantage of loosening cannabis legislation globally and expand operations abroad. To this end, securing a globally unmatched supply of hemp-derived CBD isolate is expected to provide the company a competitive advantage versus other groups in expanding internationally. This is due to CBD's lack of psychoactive effects, therapeutic benefits, favorable legal status (compared to THC-dominant cannabis products) and resulting global demand due to the aforementioned factors.

On February 12, 2019, Biome announced that it had entered into an MOU with related party CBD Acres for Biome to be given preferential access to hemp-derived CBD full-spectrum concentrate at wholesale cost, with Biome permitted to acquire up to 20,000 kg per annum. Note that this supply represents the equivalent of between 150,000 kg and 180,000 kg (11% to 13% implied yield) of CBD-dominant dried flower, according to management. The MOU is for a period of five years, and the exact price points at which Biome may purchase the CBD concentrate from CBD Acres remains undisclosed. However, by acquiring a large

***CBD Acres: Enormous Supply of CBD to Facilitate Global Expansion***

supply of CBD concentrate at whole-sale prices, Biome secures an opportunity to capture the large upside on retailing the CBD to end-consumers and businesses requiring CBD for finished goods manufacturing. Based on our conversations with management, Biome intends to sell their future CBD products on a cost-plus basis, adding significant mark-up on CBD Acres' product, and selling it through their own licensed brands. However, even with significant mark-up, the company believes that the selling price of their CBD supply will still be less than that of currently marketed CBD concentrates, which go for approximately \$20,000 per kg on the lower-end based on our due diligence.

**CBD Acres is a Canadian hemp cultivator, and processor, that has a contracted 4,500 acres (or 196.02 million square-feet) worth of hemp production capacity.** Utilizing their Nano lipid, solvent less extraction process, CBD Acres intends to become one of the nation's largest single suppliers of pure CBD concentrate. The company's Co-CEO, Mark Gobuty, was a pioneer of the Canadian medical cannabis industry, being a founder and former CEO of the Peace Naturals Project Inc., which was one of the first medical cannabis license recipients under the previous Marijuana for Medical Purposes Regulations ("MMPR") and is still operating as a subsidiary of Cronos Group Inc. (TSX: CRON).

Though CBD Acres reports that they have completed three successful grow cycles (of undisclosed size), they have yet to begin commercial operations, and management have advised that bulk product sales are expected to begin in late 2019. Furthermore, CBD Acres is expected to produce both CBD concentrate (for wholesale bulk sales) as well as refined CBD-dominant consumer products. However, for the purposes of this report, we will assume that CBD Acres' deliverables to Biome will be purely in bulk CBD concentrate. The entirety of CBD Acres contracted farmland is located in Ontario, and to our knowledge, CBD Acres has not secured or announced any other supply agreements.

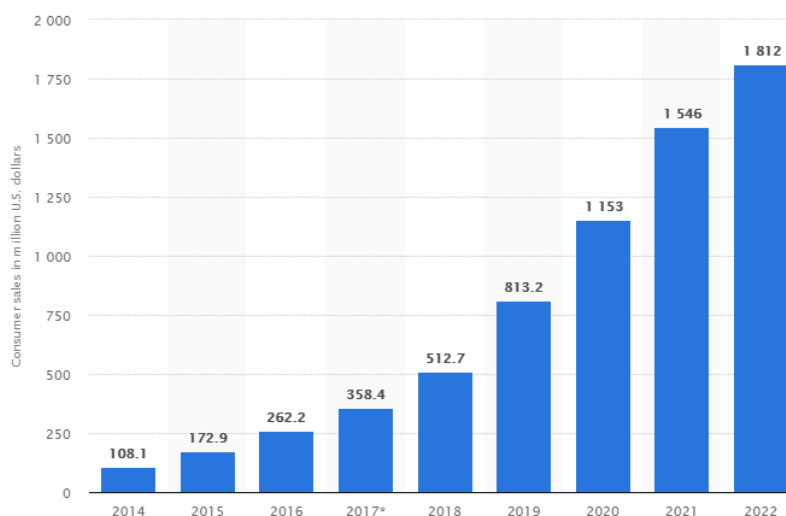
CBD acres is a related party to Biome on the basis that Jacob Capital Management Inc. ("Jacob Capital"), a significant shareholder of the company, is also a significant shareholder in CBD Acres. Given that the CEO of Biome is a principal of Jacob Capital, and therefore, has a material interest in both Biome and CBD Acres, there is material related party risk worth noting to investors. As an example, theoretically, the company could overpay for CBD acres' product, with the excess payment being paid directly to Jacob Capital principals via a dividend from CBD Acres, resulting in a wealth transfer from Biome's shareholders to Jacob Capital. However, based on management commentary, the mutual connection is also the reason for Biome's ability to acquire CBD Acres' product at (purportedly) low cost. Given that Jacob Capital owns equity in both CBD Acres and Biome, it may be that the supply agreement between the two has been designed to provide Biome with the benefit of low-cost CBD concentrate, whilst giving CBD Acres the benefit of secured sales for their production.

Furthermore, management have disclosed that CBD Acres is expected to go public within the next 10 to 12 weeks, resulting in more transparent disclosures that make the theoretical transactions outlined above significantly more difficult for insiders to carry out. However, another risk factor to consider is that CBD Acre's shareholders may push their management to pursue higher price points than the prices offered to Biome through their supply

agreement. Though this is a legitimate concern, management have commented that their 20,000 kg per annum CBD concentrate supply is between 20% and 40% of CBD Acres' total potential production capacity. As a result, we believe that CBD Acres may in fact be more concerned with maximizing sales, than with contending with Biome over pricing of their CBD concentrate supply obligation.

The intention of the company to secure a large CBD supply in advance of global expansion initiatives would appear prudent, given the expected growth of the global CBD industry. In the U.S. alone, CBD consumer sales are expected to grow from US\$358.40 million in 2017, to US\$1.81 billion in 2022, according to Statista. That demonstrates a CAGR of 38.28%, and that is for a market in which CBD's anecdotal and proven therapeutic effects are largely recognized by consumers (though the industry has yet to mature or truly enter its commercial ramp up stage).

**U.S. CBD Consumer Sales 2014-2022**



Source: Statista

It should be noted that growth of the U.S. CBD industry is likely to benefit greatly from the recently signed US\$867 billion Farm Bill, which federally legalized hemp and descheduled (removal from a drug schedule that dictates how the government views/ responds to certain drug compounds) certain cannabinoids from the Controlled Substances Act. The influx of investment and interest in the U.S. CBD opportunity was fairly immediate, with companies such as Canopy Growth Corp. (TSX: WEED) announcing new initiatives centered around establishing hemp/ CBD operations in certain U.S. states. In Canada, the federal legalization of cannabis, and the regulatory changes regarding industrial hemp production, have also resulted in a burgeoning CBD industry fueled by increased capital investment from licensed producers and increased consumer interest.

However, the legislation restricting the use of cannabis has largely stifled the growth of CBD outside of North America and Europe. However, we speculate that CBD legislation may begin to loosen globally due to a number of factors. Firstly, North American and European legalization, and/ or descheduling of cannabis as an illicit drug, has an obvious



positive effect on the industry's growth, and we believe the pace of favorable legislative action is accelerating globally. Secondly, though the THC cannabinoid is opposed by governments in non-western markets, CBD is actually fairly accepted, though it remains a controlled substance. Significant usage of hemp and CBD products (especially as beauty products) has been observed in countries such as South Korea, which recently became the first country in East Asia to legalize medical cannabis.

Based on our discussions with Biome's management, the company appears to ascribe to a similar school of thinking and have pro-actively entered into early-stage discussions with foreign parties to bring their prospective CBD business overseas. Biome claims that they are actively attempting to form beachheads in foreign emerging markets which collectively have a population of approximately half a billion. Though details are scarce, and the countries are undisclosed, a lack of affordable CBD-based products, and medical treatments abroad, make the foreign medical CBD market an opportunity that Biome can now target with their newly acquired CBD supply.

Because of the proven and anecdotal medical benefits of CBD, its infusion into various types of therapeutic products is expected to increase as CBD becomes more widely available. As a result, Biome may find that their CBD business may begin to disrupt the global wellness industry. According to the Global Wellness Institute, it is estimated that the global wellness industry (as measured by spending) reached US\$4.20 trillion in 2017 (5.30% of global economic output), having experienced a CAGR of 6.40% between 2015 and 2017.



Source: Global Wellness Institute

### Highland: Flagship Cultivation Facility

The first of the company's production facilities to be licensed under the Canadian Cannabis Act, the Highland facility is currently Biome's only producing facility and source of revenues. The existing Highland facility is a 6,500 square-foot indoor structure located in Antigonish, Nova Scotia. The existing facility is capable of producing 626 kg of dried cannabis. According to management, the existing portion of the facility was constructed in December 2017. Biome received cultivation and medical sales licenses for the facility on December 1, 2017, and November 14, 2018, respectively. Moving forward, the company intends to expand the facility by an additional 50,000 square-feet, bringing Highland's total square-footage to 56,500 square-feet. The expansion phase of the Highland facility is expected to be completed in the summer/ fall of 2019. Exact dates have not been disclosed as of yet.

Production capacity and CAPEX estimates have not been disclosed to the public. Based on our internal approximations of average production of between 80 and 120 grams per square-foot and an average CAPEX of \$200 per square-foot, the expanded facility should be capable of producing between 4,520 kg and 6,780 kg of dried cannabis, and the 50,000 square-foot expansion should cost \$10 million.

As mentioned, the Highland facility is actively selling its production, and the company has secured multiple purchase orders from the Nova Scotia Liquor Corporation ("NSLC"), who govern the recreational sale of cannabis in the province. The quantity of cannabis delivered as per the purchase orders has not been disclosed. Highland benefits from a current lack of local suppliers in the region – according to the most recent Health Canada data, there were only five active license holding cannabis companies in Nova Scotia. In the below table, Mernova Medical Inc. is owned by Australia-based Creso Pharma Ltd. (ASX: CPH) and MJardin Group Inc. (CSE: MJAR) owns a 50% interest in Atlantican Medical

#### Nova Scotia Licensed Cannabis Producers

License Holder	Licenses	Products Licensee May Sell (Retail)	Products Licensee May Sell (Medical)
Highland Grow Inc.	Medical Sales/ Processing/ Cultivation	Plants, Seeds, Dried, Fresh	Plants, Seeds, Dried, Fresh
Aqualitas Inc.	Medical Sales/ Processing/ Cultivation	Plants, Seeds	Plants, Seeds
AtlantiCann Medical Inc.	Processing/ Cultivation	Plants, Seeds	None
Breathing Green Solutions Inc.	Medical Sales/ Processing/ Cultivation	Plants, Seeds, Dried, Fresh	Plants, Seeds, Dried, Fresh
Mernova Medicinal Inc.	Cultivation	Plants, Seeds	None

Source: Health Canada, FRC

### Back Home: Leading Supply Agreement with Province Secures Near- Term Sales

Back Home is the company's Newfoundland indoor cultivation operation and is currently in the later stages of the Cannabis Act license application process. The facility, which is located on a 20-acre property in St. George, Newfoundland, is currently 18,000 square-feet and is undergoing final design. According to management, construction began on the Back Home facility in November 2018, and the initial facility is expected to be completed in the summer/ fall of 2019. Moving forward, the company intends to expand the facility via construction of an additional 150,000 square-feet, bringing total square-footage to 168,000 square-feet. The expansion is expected to be complete in two phases, with phase one being 50,000 square-feet, and phase two being 100,000 square-feet. The completion dates for these expansions has not been disclosed.

Again, production capacity estimates have not been provided. Based on the industry

*Great Lakes:  
Back Up  
Supply to the  
Atlantic  
Provinces*

averages outlined earlier, we estimate the fully expanded Back Home facility could produce between 13,440 kg and 20,170 kg. With regards to CAPEX, management have advised that CAPEX for the 150,000 square-foot expansion phases is expected to total \$61 million, implying CAPEX-per-square-foot of \$406.67. This is higher than the average of \$200 to \$400 per square-feet we have seen in the industry, and management have attributed the relatively higher CAPEX to costs associated with automation and automating various facility production processes. Whilst specifics were not elaborated, higher automation is associated with lower input costs and may result in lower operating costs as a result. However, we cannot confirm this.

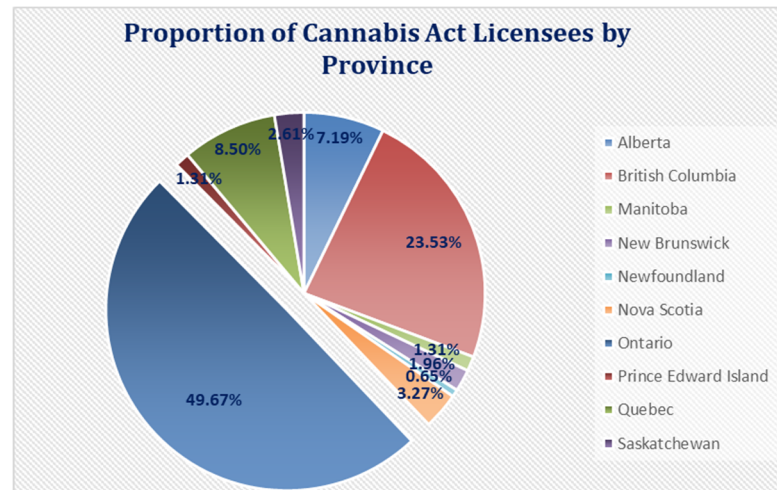
The Back Home facility, and brand, arose from the company's entrance into a significant deal with the Newfoundland government, which management reports is a 20-year economic agreement. **As part of their agreement, the Newfoundland government has agreed to purchase up to 24,000 kg of dried cannabis from Biome over a three-year period, with per year deliverables undisclosed.** This provincial supply agreement is one of the largest announced to date and provide Biome with sales security for their Back Home brand. **In addition to the supply agreement, the company have advised that the government will also grant Biome five retail licenses, allowing them to set up store fronts across the province and allowing them to access higher margins on their production.**

**Another significant aspect of Biome's relationship with the Newfoundland government is the company's opportunity to reclaim as much as \$52 million of their \$61 million CAPEX bill in sales rebates for Biome cannabis products.** That implies a net capital expenditure of \$9 million on the Back Home facility. However, as we are not privy to the specifics of this deal, nor the structure of these rebates, we are not considering them in our models.

Newfoundland has only a single private license holder (BeeHigh Vital Elements Inc.) province-wide. A review of the product offerings on the Newfoundland provincial cannabis webstore finds that most are sourced from out of province suppliers, a situation that is likely sub-optimal for the Newfoundland government due to the proximity of suppliers and the lack of external economic benefits (jobs, provincial taxes). Because of this, and the fact that Biome intends to bring up to 80 jobs to the province through Back Home, we believe that the provincial government will continue to work with the company and offer incentives to help support Biome's operations in Newfoundland.

In Great Lakes, the company has established an Ontario presence that is largely intended to be a reserve supplier to its operations in the Atlantic provinces. Though the facility is located in Norwich, Ontario, Biome expects to redirect production from the facility on the basis of unfavorable market conditions in Ontario itself. This is not surprising, given that Ontario features the largest concentration (49.67% or 76 licensees) of Cannabis Act license holders nation-wide.





*Source: Health Canada, FRC*

The Great Lakes facility is currently in the late stages of the Cannabis Act license application. The facility is currently a 12,000 square-foot indoor growing operation that is in the pre-inspection construction phase, and management intends to expand the facility through the future construction of an additional 75,000 square-foot greenhouse, bringing total planned square-footage to 87,000 square-feet. The initial section of the Great Lakes facility is expected to be completed by the summer of 2019, with the expansion coming online in Q4-2019, according to management (reasonable if funded and started before end of Q2). We estimate that the production capacity of the Great Lakes facility may be between 6,960 kg and 10,440 kg per annum. We estimate CAPEX for the Great Lakes facility at \$17.40 million.

Biome's PEI operation Red Sands is not expected to be a cultivation facility and is instead planned to be both a commercial kitchen and an extraction and processing facility, sourcing cannabis biomass from the company's other facilities throughout Canada. The Red Sands facility is currently in the design stage and is planned to measure 35,000 square-feet with an undisclosed production capacity and undisclosed completion date. The CAPEX is again undisclosed, and there is not enough information regarding the average CAPEX incurred in construction of commercial kitchens and processing facilities to approximate the potential CAPEX bill.

Apart from a lack of cannabis suppliers and processors in PEI, the company have identified the opportunity to benefit from cannabis tourism in the region through Red Sands. According to the Tourism Industry Association of PEI, there were 1.01 million overnight stays from out-of-province tourists in PEI during 2018. Though 89.20% of these tourists were domestic visitors, the fact remains that there is significant out-of-province traffic to PEI, especially given that the province has a population of only 152,000. Based on our discussions with management, we believe that the company intends to produce high-quality infused end-products at the Red Sands facility, utilizing the expected demand from tourists in the region to sell higher-margin extract/ infused products. Tourists are a demographic that exhibit a high propensity to consume novelty foods/ delicacies, and we believe that a commercial kitchen producing high-quality infused product may be able to stimulate

*Red Sands:  
Cannabis  
Tourism  
Demand*

## Sales Channels

demand from this particular consumer segment.

As we mentioned earlier, the company's Highland facility is currently licensed to sell cannabis to both the general public (through wholesalers) as well as to registered medical cannabis patients. The sales channels of the company are outlined below:

### ➤ Recreational Cannabis Sales:

- Sales will be made to authorized retailers across Canada, with a focus on Atlantic provinces. As per their supply agreement with the Newfoundland government, Biome will also supply Newfoundland with production from their Backhome facility.
- Biome also intends to set up their own retail store front network. As pointed out, the company expects to obtain five retail licenses from the government of Newfoundland, and we believe that successfully introducing and operating these initial licenses could lead to additional issuances in the future.

### ➤ Medical Cannabis Sales:

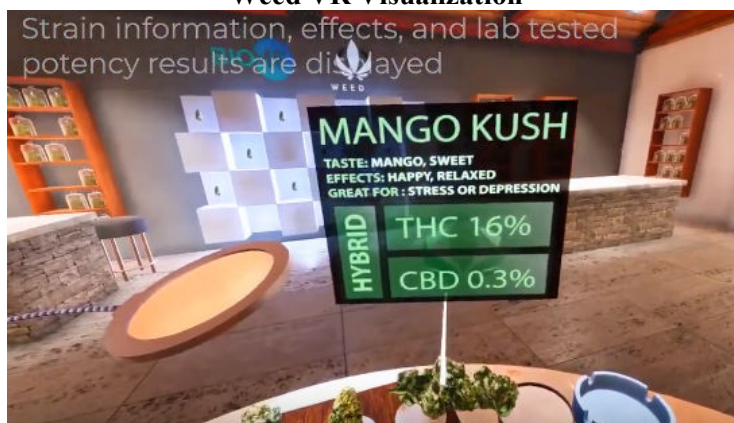
- The company will utilize their MOU with CBD Acres to set up a medical CBD operation focused on foreign markets. CBD will be purchased at wholesale cost from CBD Acres and resold through the company to markets that have a dearth of affordable cannabis products. As we noted earlier, we assume for the purpose of this report that CBD Acres will deliver bulk concentrate to the company, and not finished consumer products. Similarly, we will assume that Biome in turn will not refine the product further, and instead, sell the product through their channels as an LP, on a cost-plus basis.
- Note there is significant partner risk and geo-political risk, as there is no guarantee that the company will be able to reach an agreement with foreign/domestic distributors.

In the near-term, the majority of the company's products are likely to consist of dried flower and plants, as Biome has no extraction capabilities at current. As Red Sands comes online, and the company begins retailing of their CBD concentrate supply, their product portfolio is likely to diversify with new additions of oils, tinctures, topical products, and other cannabis derivatives. For modeling purposes however, we anticipate no consumer goods derived from the future CBD supply.

In addition to the production and sales incentives outlined above, the company also have a small segment of their business dedicated to virtual reality ("VR") marketing and cannabis consumer engagement in Weed Virtual Retail Inc. ("Weed VR"). Weed VR was acquired on June 19, 2018, and is focused on using VR to engage consumers via education about cannabis in a virtual setting. Weed VR uses gamification and a virtual store setting to both educate consumers (via a virtual strain library that includes comprehensive information such as cannabinoid percentage), and also stimulate demand via exclusive offers, reward programs and other commercial incentives. Biome expects to set up pop-up stores at heavily-trafficked areas such as shopping malls, introducing Weed VR through VR head-set experiences.

## Weed VR: Cannabis Engagement and VR Marketing

### Weed VR Visualization



Source: Company, YouTube

Whilst the roll-out and tangible benefits of Weed VR to the company are uncertain, we believe that the initiative could result in stimulated consumer demand from first-time/infrequent cannabis users whose previous reluctance was rooted in lack of information about cannabis.

According to Statistics Canada, estimated cannabis spending in Q4-2018 is expected to range between \$1.07 billion and \$1.34 billion. On an annualized basis, this suggests cannabis sales ranging between \$5.05 billion and \$6.30 billion.

### Estimated Q4-2018 Canadian Spending on Cannabis

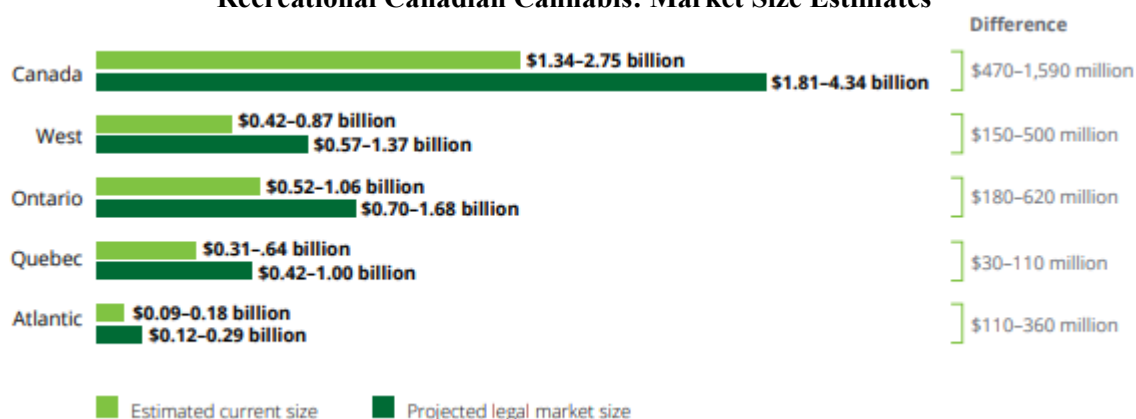
Estimated cannabis spending in the fourth quarter 2018

	Case 1 (D10=\$177)	Alternative estimates	
		Case 2 (D10=\$199)	Case 3 (D10=\$221)
		number	
D1 - Eligible population on October 17, 2018	29,892,021	29,892,021	29,892,021
		percentage	
D2 - Currently using cannabis	14.8	14.8	14.8
D3 - Current users who will switch to legal	49.2	49.2	49.2
D4 - Current users who may switch to legal	25.2	25.2	25.2
D5 - Assumed: 'maybe' switchers who actually switch	50.0	50.0	50.0
D6 - Not currently using cannabis	85.2	85.2	85.2
D7 - Current non-users who will try	5.9	5.9	5.9
D8 - Current non-users who may try	9.4	9.4	9.4
D9 - Assumed: 'maybe' new users who actually try	50.0	50.0	50.0
D11 - Share of the fourth quarter 2018	84.8	84.8	84.8
		number	
Projected users of legal cannabis	5,433,652	5,433,652	5,433,652
Projected users of illegal cannabis	1,689,975	1,689,975	1,689,975
Projected total users of cannabis	7,123,627	7,123,627	7,123,627
		millions of dollars	
Projected legal spending	816	917	1,018
Annualized projected legal spending	3,849	4,325	4,801
Projected illegal spending	254	285	317
Annualized projected illegal spending	1,198	1,344	1,495
Total projected spending	1,069	1,202	1,335
Total annualized projected spending	5,047	5,670	6,297

Source: Statistics Canada

Along the same vein, Deloitte has projected a 2019 Canadian cannabis market (measured by medical, legal recreational and illegal sales) of \$7.17 billion, of which, \$4.34 billion is expected to be derived from legal recreational cannabis sales.

### Recreational Canadian Cannabis: Market Size Estimates



Source: Deloitte

Furthermore, with the legalization of cannabis federally, it is expected that many consumers will in fact place a premium on legal products, whilst also increasing the frequency of their cannabis consumption. This is especially true of less frequent consumers who are expected to be stimulated by the change in regulation, consuming cannabis more often whilst also spending more. The following chart outlines estimates on changes in frequency of consumption as well as amount spent:

### Canadian Cannabis Purchasing Behavior: Frequency and Amount

	Monthly figures	Pre-legalization (current)	Post-legalization (current and likely)	Difference
Frequent users	Average purchase frequency	2.5	3.1	+22.30%
	Average total spend	\$99.05	\$98.88	-0.02%
Less frequent users	Three-month figures			
	Average purchase frequency	0.6	1.3	+121.00%
	Average total spend	\$16.61	\$27.87	+67.80%

Source: Deloitte

With regards to the consumer profile of pre-legalization and post-legalization cannabis consumers, the following infographic provides Deloitte's profiling:

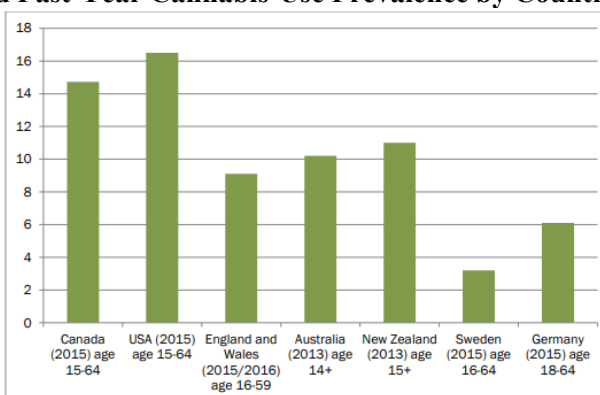
## Current and Likely Users of Cannabis in Canada



Source: Deloitte

Note that the increase in cannabis consumption prevalence comes despite Canadians already being one of the heaviest users of cannabis in developed economies. The below chart outlines past-year cannabis-use in the general populations of several large countries, showing that the Canadian population was already exhibiting one of the highest percentages of nations polled, despite cannabis being years away from legalization.

## Self-Reported Past-Year Cannabis-Use Prevalence by Country (Percentage)



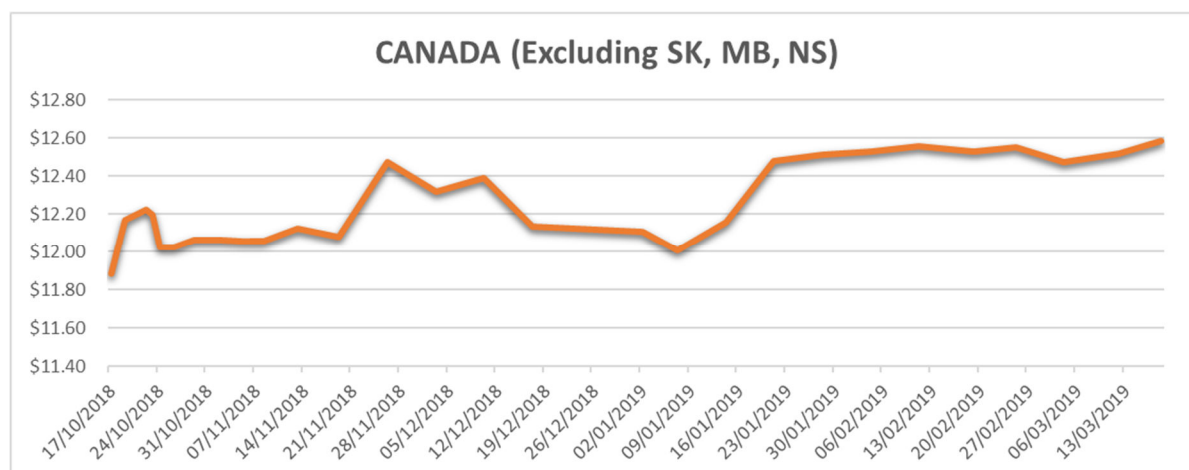
Source: United Nations Office on Drugs and Crime World Drug Report 2017

Retail price action from the onset of legalization has been largely of an upward trajectory. Note that the prices in the below chart are approximations that use price data from provincial web stores and attempt to reflect the impact of taxes on the end price to consumers. Note also that the price data is from listed products on provincial webstores, and sales and



**Management Overview**

quantity information is not disclosed to the public. Note that we were unable to obtain pricing for Nova Scotia, and Saskatchewan and Manitoba use a solely private retail model.



Source: FRC, Provincial Cannabis Webstores

**The company's Board of Directors has four members, three of whom are independent. Management and directors currently own 3.06 million common shares, or approximately 2.78% of the common shares outstanding.**

As investors will note, a significant position in the company is held by Jacob Capital. Jacob Capital is a principal investor and advisory firm based in Toronto which has been responsible for the development and financing of several prominent public cannabis companies. We believe that Jacob Capital's CEO, and chairman, Sasha Jacob, is the primary beneficiary of these shares. Investors should also note that Biome CEO **Khurram Malik is a principal and employee of Jacob Capital, making Jacob Capital a related party to Biome.** The combined ownership of insiders (management, board, and related parties) totals 52.86 million common shares, or 47.93%. Note that there are risks associated with related party relationships and any transactions that are executed by related parties.

Individual	Position	Common Shares	% of Total
Khurram Malik	CEO & Director	3,000,000	2.72%
Abbey Abdiye	CFO		0.00%
Brett James	Director	62,500	0.06%
J. Mark Lievonon	Director		0.00%
Steven Poirier	Director		0.00%
Jacob Capital*	Significant Investor/ Related Party	49,800,000	45.16%
		<b>52,862,500</b>	<b>47.93%</b>

*\*Note that Jacob Capital refers to Sasha Jacob, Chairman and CEO of Jacob Capital. He holds 7.20 million common shares directly, 6.60 million common shares through April Jacob, and 36 million common shares through Jacob capital.*

Source: FRC, Prospectus

Brief biographies of the senior management and board members, as provided by the company, follow:

### **Khurram Malik – CEO & Director**

As an investment banker and analyst covering the Canadian and emerging global cannabis sector, Khurram Malik is one of the most recognized authorities on the state of the sector today. Mr. Malik was the first research analyst in North America to publish a report on the cannabis sector. Mr. Malik also holds the position of Partner at Jacob Capital Management Inc., an advisory firm that provides strategic and financial advisory services to companies in several sectors including technology, infrastructure and renewable energy. Over the past 5 years Mr. Malik has advised more than 20 local and international cannabis companies including applicants and licensed producers in Canada. In his role as CEO Khurram has driven the company's vision to Innovate Globally and Cultivate Locally through the acquisition of 4 Canadian companies involved in the growing and processing of recreational cannabis. Domestic growth alongside efforts to grow internationally in the fast emerging medicinally focused CBD market is a top company priority.

### **Abbey Abdiye – CFO**

Abbey Abdiye is the Biome's CFO a position he has held since the company's inception. Mr. Abdiye is a Chartered Professional Accountant (CPA) and has served as CFO for a range of public companies during his career. Prior to obtaining his CPA designation Mr. Abdiye obtained a Bachelor Business Administration Degree from Simon Fraser and a Co – Op Education Certificate. Mr. Abdiye will provide leadership and coordination in the administrative, business planning, reporting, and budgeting efforts of Biome. He will oversee Biome's financial reporting, internal controls, and corporate governance and oversee Annual audit and regulatory compliance matters.

### **Brett James – Director**

Brett James serves as an independent director of Biome. and brings a wealth of expertise in the Government and Regulatory realm. Over his career, Mr. James has worked in the public sector providing him with unique insights into how government work. Mr. James is a founding principal and partner of Toronto-based Sussex Strategy Group. Mr. James' advice is sought after from clients across a wide range of sectors given his years of experience and the vast network of relationships he has developed. Mr. James is widely known in his community for his support of a range of philanthropic and community initiatives. Mr. James also serves as a Director of Ceylon Graphite.

### **J. Mark Lievonon – Director**

Mr. Lievonon is an independent director of Biome and is a widely recognized leader in the Canadian pharmaceutical industry. Recently retired as President of Sanofi Pasteur, which he joined in 1983, Mr. Lievonon is widely credited with the creation of a billion-dollar enterprise, manufacturing over 50 million doses of vaccines for both domestic and international markets annually. Beyond his work in the biopharmaceutical industry, Mr. Lievonon has always been a passionate advocate for public health access, education and giving back to the community. He is a former Chair of the Markham Stouffville hospital Foundation and Mr. Lievonon has been the recipient of numerous awards including the Queen's Golden and Diamond Jubilee Medallions, various industry awards and an honorary Doctor of Laws degree from York University to name only some. In 2007 Mr. Lievonon was named a Chevalier de l'Ordre national de Mérite by the government of France and in 2015

he was appointed to the Order of Canada.

### Steven Poirier – Director

Mr. Poirier is an independent director of Biome with 25 years of experience in the Wine, Beer and Spirits industry. Currently, Mr. Poirier manages SMP Management Consultants, specializing in strategy consulting to the beverage and alcohol industry. Mr. Poirier's broad spectrum of experience has spanned sales, marketing and new product development. Throughout his career Mr. Poirier has worked with major industry enterprises such as Treasury Wine Estates, and Arterra Wine Canada (formerly Constellation Brands). Mr. Poirier spent 11 years at Moosehead Breweries serving in senior roles including President. Having worked in medium and large businesses and with both public and private firms, Mr. Poirier brings a wealth of understanding of the complexities of various business models. Mr. Poirier holds a Bachelor of Commerce degree from Concordia University and an MBA from York University.

## Financials

At current, the company does not report revenues, as the most recent financial statements for the company have yet to be released. However, as we noted earlier, sales began in early 2019. Furthermore, the company has yet to report consolidated financial statements since their RTO was completed. However, in the company's filing statements for their October 2018 amalgamation, a pro-forma balance sheet was provided for Q1-2018. The company's liquidity and capital structure is summarized below. The company is currently debt-free.

(in C\$) - YE Dec 31st		
Liquidity & Capital Structure		Q1-2018
Cash	\$	8,421,456
Working Capital	\$	8,538,616
Current Ratio		22.57
LT Debt	\$	-
Total Debt	\$	-
LT Debt / Capital		-
Total Debt / Capital		-
Total Invested Capital	\$	13,961,461

Source: FRC, Financial Statements

However, a growing trend in the Canadian cannabis industry is the ability of not only large LPs but also smaller LPs, to attract non-dilutive debt from traditional banking institutions. As a result, whilst our default expectation is for LPs to raise money via equity financings, the probability of debt financing has increased for Canadian LPs significantly. In Biome's case, given the significant upcoming CAPEX, a combination of debt and equity may be required to stave off share dilution.

**Stock Options and Warrants:** We estimate that the company currently has 0.40 million stock options (weighted average exercise price of \$1.00) and 1.74 million warrants (weighted average exercise price of \$0.79) outstanding. None of the options and 0.45 million warrants are currently in the money. The company will be able to raise up to \$0.24 million if all these in the money options and warrants are exercised.

## Valuation

### Revenue Forecasts

Our revenue forecasts for Biome through to 2024 are presented below:

	2019E	2020E	2021E	2022E	2023E	2024E
<b>Highland:</b>						
Facility size (Sq.Ft)	6,500	56,500	56,500	56,500	56,500	56,500
Production Capacity (kg)	626	5,650	5,650	5,650	5,650	5,650
<b>Back Home:</b>						
Facility size (Sq.Ft)	68,000	168,000	168,000	168,000	168,000	168,000
Production Capacity (kg)	6,800	16,800	16,800	16,800	16,800	16,800
<b>Great Lakes:</b>						
Facility size (Sq.Ft)	12,000	87,000	87,000	87,000	87,000	87,000
Production Capacity (kg)	1,200	8,700	8,700	8,700	8,700	8,700
<b>Dried Flower Sales:</b>						
Dried Flower Sales (kg)	2,926	9,200	23,363	31,150	31,150	31,150
Dried Flower Pricing (\$/kg)	\$ 5,000	\$ 4,750	\$ 4,513	\$ 4,287	\$ 4,073	\$ 3,869
Dried Flower Revenues (\$)	\$ 14,630,000	\$ 43,700,000	\$ 105,423,281	\$ 133,536,156	\$ 126,859,348	\$ 120,516,381
Dried Flower Production Costs (\$/kg)	\$ 2,000	\$ 1,950	\$ 1,901	\$ 1,854	\$ 1,807	\$ 1,762
Dried Flower COGS (\$)	\$ 5,852,000	\$ 17,940,000	\$ 44,417,953	\$ 57,743,339	\$ 56,299,756	\$ 54,892,262
<b>Oil Sales:</b>						
Oil Sales (kg)		4,000	8,000	12,000	16,000	20,000
Oil Pricing (\$/kg)	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Oil Revenues (\$)	\$ -	\$ 40,000,000	\$ 80,000,000	\$ 120,000,000	\$ 160,000,000	\$ 200,000,000
Oil Production Costs (\$/kg)	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Oil COGS (\$)	\$ -	\$ 20,000,000	\$ 40,000,000	\$ 60,000,000	\$ 80,000,000	\$ 100,000,000
<b>Total Revenue</b>						
	\$ 14,630,000	\$ 83,700,000	\$ 185,423,281	\$ 253,536,156	\$ 286,859,348	\$ 320,516,381
<b>Total COGS</b>						
	\$ 5,852,000	\$ 37,940,000	\$ 84,417,953	\$ 117,743,339	\$ 136,299,756	\$ 154,892,262
<b>Gross Profit</b>						
	\$ 8,778,000	\$ 45,760,000	\$ 101,005,328	\$ 135,792,817	\$ 150,559,593	\$ 165,624,119

Source: FRC

Our consolidated income statement forecasts for Biome through to 2024 are presented below:

<b>STATEMENTS OF OPERATIONS</b>						
<b>(in C\$) - YE Dec 31st</b>	<b>2019E</b>	<b>2020E</b>	<b>2021E</b>	<b>2022E</b>	<b>2023E</b>	<b>2024E</b>
Revenue	14,630,000	83,700,000	185,423,281	253,536,156	286,859,348	320,516,381
COGS	5,852,000	37,940,000	84,417,953	117,743,339	136,299,756	154,892,262
<b>Gross Profit</b>	<b>8,778,000</b>	<b>45,760,000</b>	<b>101,005,328</b>	<b>135,792,817</b>	<b>150,559,593</b>	<b>165,624,119</b>
Fair Value Adj. on Biological Assets						
<b>Adj. Gross Profit</b>	<b>8,778,000</b>	<b>45,760,000</b>	<b>101,005,328</b>	<b>135,792,817</b>	<b>150,559,593</b>	<b>165,624,119</b>
<b>EXPENSES</b>						
SG&A Expense	10,972,500	16,740,000	37,084,656	50,707,231	57,371,870	64,103,276
Share-based Compensation	2,194,500	2,092,500	4,635,582	6,338,404	7,171,484	8,012,910
<b>EBITDA</b>	<b>(4,389,000)</b>	<b>26,927,500</b>	<b>59,285,090</b>	<b>78,747,182</b>	<b>86,016,239</b>	<b>93,507,934</b>
Depreciation & Amortization	243,017	4,650,866	4,650,866	4,650,866	4,650,866	4,650,866
<b>EBIT</b>	<b>(4,632,017)</b>	<b>22,276,634</b>	<b>54,634,223</b>	<b>74,096,316</b>	<b>81,365,373</b>	<b>88,857,067</b>
<b>Financing Costs</b>						
<b>EBT</b>	<b>(4,632,017)</b>	<b>22,276,634</b>	<b>54,634,223</b>	<b>74,096,316</b>	<b>81,365,373</b>	<b>88,857,067</b>
<b>Non-Recurring Expenses</b>						
Taxes		3,341,495	14,751,240	20,006,005	21,968,651	23,991,408
<b>Net Profit (Loss)</b>	<b>(4,632,017)</b>	<b>18,935,139</b>	<b>39,882,983</b>	<b>54,090,310</b>	<b>59,396,722</b>	<b>64,865,659</b>
FOREX Translation Adj.						
<b>Comprehensive Net Profit (Loss)</b>	<b>(4,632,017)</b>	<b>18,935,139</b>	<b>39,882,983</b>	<b>54,090,310</b>	<b>59,396,722</b>	<b>64,865,659</b>
Shares outstanding	110,281,815	288,059,593	288,059,593	288,059,593	288,059,593	288,059,593
EPS	\$ -0.04	\$ 0.07	\$ 0.14	\$ 0.19	\$ 0.21	\$ 0.23

Source: FRC

Our forecasts are based on the following assumptions:

- Production facilities coming online in late 2019, with expansions coming online in 2020.
- 100 grams per square-foot cannabis yield.
- Gradual ramp up of sales as a percentage of total production capacity.
- Declining price and cost model for dried flower operations, with pricing declining faster than production costs.
- \$10,000 per kg of CBD concentrate. Sales roll-out gradually, reflecting expected time for foreign markets to loosen legislation. We believe the 50% gross margin on the CBD sales is reasonable given that the company is securing product at wholesale cost and selling it under their own licensed brand. As mentioned earlier, this reflects cost-plus pricing.
- CAPEX of approximately \$79.70 million due in 2019. Funds needed to satisfy this CAPEX are expected to be raised via equity financings.

### DCF Valuation

Our DCF valuation on Biome's shares is \$1.25 per share. Our models are summarized below:



DCF Model	2018E(9M)	2019E	2020E	2021E	2022E	2023E	2024E	Terminal
EBIT(1-tax)	\$ -3,161,303	\$ -4,632,017	\$ 16,261,942	\$ 39,882,983	\$ 54,090,310	\$ 59,396,722	\$ 64,865,659	
Non-Cash Expenses	\$ 727,433	\$ 2,437,517	\$ 6,743,366	\$ 9,286,448	\$ 10,989,270	\$ 11,822,350	\$ 12,663,776	
Investment in WC	\$ -271,420	\$ -1,594,430	\$ -7,518,750	\$ -11,268,250	\$ -6,994,050	\$ -8,595,801	\$ -6,803,010	
CFO	\$ -2,705,290	\$ -3,788,930	\$ 15,486,559	\$ 37,901,182	\$ 58,085,530	\$ 62,623,271	\$ 70,726,425	
CAPEX	\$ -2,600,000	\$ -88,400,000	\$ -4,650,866	\$ -4,650,866	\$ -4,650,866	\$ -4,650,866	\$ -4,650,866	
FCF	\$ -5,305,290	\$ -92,188,930	\$ 10,835,692	\$ 33,250,315	\$ 53,434,664	\$ 57,972,405	\$ 66,075,558	\$ 68,057,825
PV	\$ -5,534,025	\$ -84,725,642	\$ 8,773,985	\$ 23,721,390	\$ 33,587,029	\$ 32,105,095	\$ 32,240,192	\$ 316,260,936
Discount Rate	13.50%							
Terminal Growth Rate	3%							
Total PV	\$ 356,428,962							
Cash - Debt	\$ 4,442,489							
Equity Value	\$ 360,871,450							
Shares O/S (dil)	288,302,369							
Fair Value	\$ 1.25							

Source: FRC

For our discount rate, we utilized a weighted average cost of capital (“WACC”) of 13.50%. Industry-relevant cost of equity was used as well as a cost of debt that reflects the average rate of long-term corporate debt. An equity risk premium has also been added to the WACC to reflect additional risk given the required financing to build-out the company’s facilities, as well as the size of the business related to CBD concentrate sales, for which there is less market information.

**After reviewing Biome’s business, the quality of the management team and their execution plan, and our valuation models, we are initiating coverage on Biome with a BUY rating and a fair value estimate of \$1.25 per share.**

## Risks

We believe the company is exposed to the following risks (list is non-exhaustive):

- The company operates in an industry that is highly regulated and subject to material change from governmental intervention.
- There is no guarantee that the company will be granted the licensing required for its remaining un-licensed facilities from Health Canada. This will significantly affect our valuation.
- Significant partner risk as a major portion of the company’s business is reliant on CBD Acres’ ability to supply CBD concentrate. Failure to do so, or a refusal to do so at economic prices, will significantly impact our valuation on Biome’s shares.
- Related party risk: the CEO of the company is a principal and employee of a significant investor, through which Biome is also a related party to CBD Acres, which is a major supplier. Minority shareholders may be exposed to excess risk due to management being beholden to related parties.
- No guarantee that the company will be able to sell the cannabis produced at their facilities, nor successfully secure further long-term supply contracts.
- The company will need to raise a significant amount of cash in order to fund CAPEX – as we forecast this to come from equity financings, there is the potential that shares outstanding of the company will increase significantly. In addition, any private placements may well be done at dilutive prices.
- Contamination risk and other risks associated with biological/ agricultural

production.

- Access to capital and share dilution.
- Liquidity risk.

**We are initiating coverage with a risk rating of 4 (Speculative).**

## Appendix

<b>STATEMENTS OF OPERATIONS</b>			
<b>(in C\$) - YE Dec 31st</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>
Revenue		14,630,000	83,700,000
COGS		5,852,000	37,940,000
<b>Gross Profit</b>	<b>-</b>	<b>8,778,000</b>	<b>45,760,000</b>
Fair Value Adj. on Biological Assets			
<b>Adj. Gross Profit</b>	<b>-</b>	<b>8,778,000</b>	<b>45,760,000</b>
<b>EXPENSES</b>			
SG&A Expense	2,433,870	10,972,500	16,740,000
Share-based Compensation	608,468	2,194,500	2,092,500
<b>EBITDA</b>	<b>(3,042,338)</b>	<b>(4,389,000)</b>	<b>26,927,500</b>
Depreciation & Amortization	118,966	243,017	4,650,866
<b>EBIT</b>	<b>(3,161,303)</b>	<b>(4,632,017)</b>	<b>22,276,634</b>
Financing Costs			
<b>EBT</b>	<b>(3,161,303)</b>	<b>(4,632,017)</b>	<b>22,276,634</b>
Non-Recurring Expenses			
Taxes			3,341,495
<b>Net Profit (Loss)</b>	<b>(3,161,303)</b>	<b>(4,632,017)</b>	<b>18,935,139</b>
FOREX Translation Adj.			
<b>Comprehensive Net Profit (Loss)</b>	<b>(3,161,303)</b>	<b>(4,632,017)</b>	<b>18,935,139</b>
Shares outstanding	110,281,815	110,281,815	288,059,593
EPS	\$ -0.03	\$ -0.04	\$ 0.07

<b>BALANCE SHEET</b>				
<b>(in C\$) - YE Dec 31st</b>	<b>2017*</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>
<b>ASSETS</b>				
<b>CURRENT</b>				
Cash and Cash Equiv.	3,072,569	5,062,113	873,183	14,382,072
A/R	350,381	860,034	1,463,000	8,370,000
Inventory			1,463,000	8,370,000
Biological Assets				
Prepays	41,161	165,954	365,750	2,092,500
HST Receivable				
<b>Total Current Assets</b>	<b>3,464,111</b>	<b>6,088,101</b>	<b>4,164,933</b>	<b>33,214,572</b>
PPE	2,379,312	4,860,346	93,017,329	93,017,329
Goodwill	4,374,313	10,421,429	10,421,429	10,421,429
<b>Total Assets</b>	<b>10,217,736</b>	<b>21,369,876</b>	<b>107,603,691</b>	<b>136,653,330</b>
<b>LIABILITIES</b>				
<b>CURRENT</b>				
A/P	261,194	368,454	1,463,000	9,485,000
ST Debt				
Related Parties	167,448	423,214		
Current Portion of LT Debt				
Other				
<b>Total Current Liabilities</b>	<b>428,642</b>	<b>791,668</b>	<b>1,463,000</b>	<b>9,485,000</b>
LT Debt				
<b>Total Liabilities</b>	<b>428,642</b>	<b>791,668</b>	<b>1,463,000</b>	<b>9,485,000</b>
<b>SHAREHOLDERS EQUITY</b>				
Share Capital	14,475,610	27,817,560	115,817,560	115,817,560
Contributed Surplus	1,273,506	1,881,974	4,076,474	6,168,974
Deficit	(5,960,022)	(9,121,325)	(13,753,342)	5,181,796
<b>Total shareholders' equity (deficiency)</b>	<b>9,789,094</b>	<b>20,578,208</b>	<b>106,140,691</b>	<b>127,168,330</b>
<b>Total Liabilities and Shareholders Equity</b>	<b>10,217,736</b>	<b>21,369,876</b>	<b>107,603,691</b>	<b>136,653,330</b>

<b>STATEMENTS OF CASH FLOWS</b>			
<b>(in C\$) - YE Dec 31st</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>
<b>OPERATING ACTIVITIES</b>			
Net Profit for the Year	(3,161,303)	(4,632,017)	18,935,139
<b>Adjusted for items not involving cash:</b>			
Depreciation	118,966	243,017	4,650,866
SBC	608,468	2,194,500	2,092,500
Shares for Services			
Finance Expense			
Biological Assets			
Transaction Costs			
<b>Funds From Operations</b>	<b>(2,433,870)</b>	<b>(2,194,500)</b>	<b>25,678,505</b>
<b>Change in working capital</b>			
A/R	(509,653)	(602,966)	(6,907,000)
HST			
Prepays	(124,793)	(199,796)	(1,726,750)
Inventory	-	(1,463,000)	(6,907,000)
A/P	107,260	1,094,546	8,022,000
Related Parties	255,766	(423,214)	-
<b>NET CASH USED IN OPERATING ACTIVITIES</b>	<b>(2,705,290)</b>	<b>(3,788,930)</b>	<b>18,159,755</b>
<b>INVESTING ACTIVITIES</b>			
PPE	(2,600,000)	(88,400,000)	(4,650,866)
Goodwill			
Deposits			
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>(2,600,000)</b>	<b>(88,400,000)</b>	<b>(4,650,866)</b>
<b>FINANCING ACTIVITIES</b>			
Equity Issue	7,294,834	88,000,000	
Debt			
Convertible Debt			
Related Parties			
<b>NET CASH FROM FINANCING ACTIVITIES</b>	<b>7,294,834</b>	<b>88,000,000</b>	<b>-</b>
Foreign Exchange / Others			
<b>INCREASE IN CASH FOR THE YEAR</b>	<b>1,989,544</b>	<b>(4,188,930)</b>	<b>13,508,889</b>
CASH, BEGINNING OF THE YEAR	3,072,569	5,062,113	873,183
<b>CASH, END OF THE YEAR</b>	<b>5,062,113</b>	<b>873,183</b>	<b>14,382,072</b>



#### Fundamental Research Corp. Equity Rating Scale:

**Buy** – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

**Hold** – Annual expected rate of return is between 5% and 12%

**Sell** – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

**Suspended or Rating N/A**— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

#### Fundamental Research Corp. Risk Rating Scale:

**1 (Low Risk)** - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

**2 (Below Average Risk)** - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.

**3 (Average Risk)** - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

**4 (Speculative)** - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

**5 (Highly Speculative)** - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

#### Disclaimers and Disclosure

The opinions expressed in this report are the true opinions of the analyst about this company and industry. Any "forward looking statements" are our best estimates and opinions based upon information that is publicly available and that we believe to be correct, but we have not independently verified with respect to truth or correctness. There is no guarantee that our forecasts will materialize. Actual results will likely vary. The Analyst and FRC do not own shares of the subject company. Fees were paid by Biome to FRC. The purpose of the fee is to subsidize the high costs of research and monitoring. FRC takes steps to ensure independence including setting fees in advance and utilizing analysts who must abide by CFA Institute Code of Ethics and Standards of Professional Conduct. Additionally, analysts may not trade in any security under coverage. Our full editorial control of all research, timing of release of the reports, and release of liability for negative reports are protected contractually. To further ensure independence, Biome has agreed to a minimum coverage term including an initial report and three updates. Coverage cannot be unilaterally terminated. Distribution procedure: our reports are distributed first to our web-based subscribers on the date shown on this report then made available to delayed access users through various other channels for a limited time.

The distribution of FRC's ratings are as follows: BUY (70%), HOLD (7%), SELL / SUSPEND (23%).

To subscribe for real-time access to research, visit <http://www.researchfrc.com/subscribe.php> for subscription options.

This report contains "forward looking" statements. Forward-looking statements regarding the Company and/or stock's performance inherently involve risks and uncertainties that could cause actual results to differ from such forward-looking statements. Factors that would cause or contribute to such differences include, but are not limited to, continued acceptance of the Company's products/services in the marketplace; acceptance in the marketplace of the Company's new product lines/services; competitive factors; new product/service introductions by others; technological changes; dependence on suppliers; systematic market risks and other risks discussed in the Company's periodic report filings, including interim reports, annual reports, and annual information forms filed with the various securities regulators. By making these forward looking statements, Fundamental Research Corp. and the analyst/author of this report undertakes no obligation to update these statements for revisions or changes after the date of this report. A report initiating coverage will most often be updated quarterly while a report issuing a rating may have no further or less frequent updates because the subject company is likely to be in earlier stages where nothing material may occur quarter to quarter.

Fundamental Research Corp DOES NOT MAKE ANY WARRANTIES, EXPRESSED OR IMPLIED, AS TO RESULTS TO BE OBTAINED FROM USING THIS INFORMATION AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OR FITNESS FOR A PARTICULAR USE. ANYONE USING THIS REPORT ASSUMES FULL RESPONSIBILITY FOR WHATEVER RESULTS THEY OBTAIN FROM WHATEVER USE THE INFORMATION WAS PUT TO. ALWAYS TALK TO YOUR FINANCIAL ADVISOR BEFORE YOU INVEST. WHETHER A STOCK SHOULD BE INCLUDED IN A PORTFOLIO DEPENDS ON ONE'S RISK TOLERANCE, OBJECTIVES, SITUATION, RETURN ON OTHER ASSETS, ETC. ONLY YOUR INVESTMENT ADVISOR WHO KNOWS YOUR UNIQUE CIRCUMSTANCES CAN MAKE A PROPER RECOMMENDATION AS TO THE MERIT OF ANY PARTICULAR SECURITY FOR INCLUSION IN YOUR PORTFOLIO. This REPORT is solely for informative purposes and is not a solicitation or an offer to buy or sell any security. It is not intended as being a complete description of the company, industry, securities or developments referred to in the material. Any forecasts contained in this report were independently prepared unless otherwise stated, and HAVE NOT BEEN endorsed by the Management of the company which is the subject of this report. Additional information is available upon request. THIS REPORT IS COPYRIGHT. YOU MAY NOT REDISTRIBUTE THIS REPORT WITHOUT OUR PERMISSION. Please give proper credit, including citing Fundamental Research Corp and/or the analyst, when quoting information from this report.

The information contained in this report is intended to be viewed only in jurisdictions where it may be legally viewed and is not intended for use by any person or entity in any jurisdiction where such use would be contrary to local regulations or which would require any registration requirement within such jurisdiction