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# Emerald Health Therapeutics

Corporate Presentation



**emerald**  
HEALTH THERAPEUTICS



## Disclaimer

The statements made in this presentation may include forward-looking statements regarding the future operations, opportunities or financial performance of emerald health therapeutics (the "company"). Forward looking statements include the estimated increase in the company's production square footage; increases in the company's production; the legalization of recreational cannabis; the size of the medical cannabis market and the recreational cannabis market; the company's expansion goals including scalability, increases in square footage, production and revenue; the company's position in the cannabis market in respect of demand and competition; the company becoming a leading brand in cannabis-based products; and the company's near to long term goals including increases in patient acquisition, facility expansion, clinical trials and product development as well as market capture, revenue and consolidation of the cannabis market.

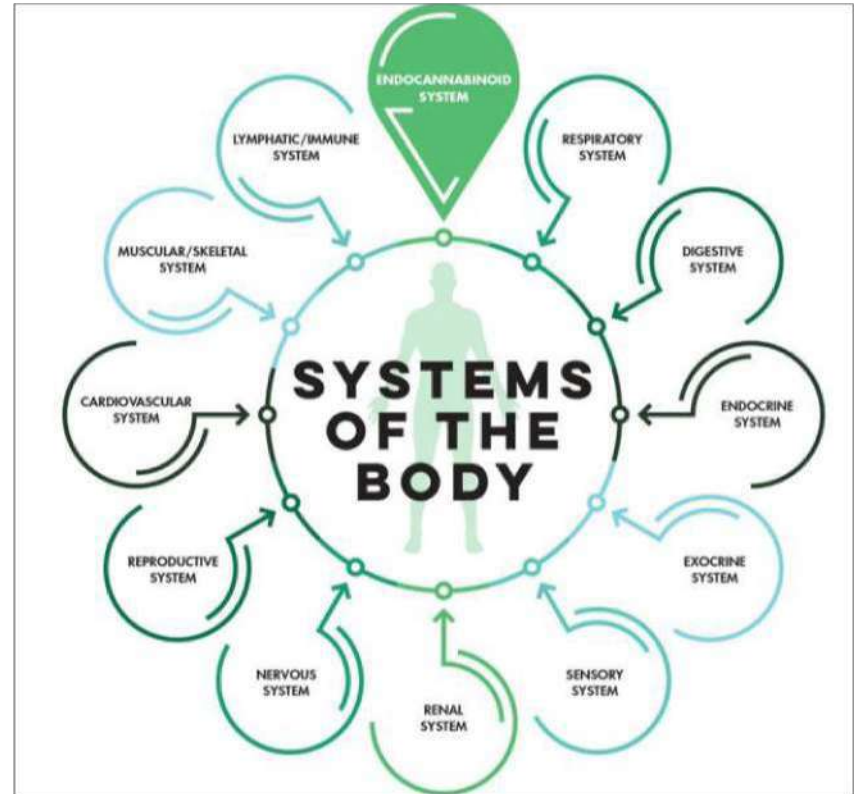
These forward-looking statements are only estimations based upon the information available to emerald health therapeutics, as of the date of this presentation. Except as required by law, we expressly disclaim any responsibility to publicly update or revise our forward-looking statements, whether as a result of new information, future events or otherwise. Thus, the forward-looking statements herein involve known and unknown risks and uncertainties such that actual future operations, opportunities or financial performance may differ materially from these forward-looking statements.

These risks and uncertainties relate to, among other things, changes in laws, regulations and guidelines relating to medical cannabis and the possible legalization of cannabis by the federal government; changes in government; changes in governmental policy; the continued availability of capital financing and general economic, market or business conditions; reliance on management; the inability of the company to expand its current facility or obtain additional facility space; failure to obtain approval by health Canada for the company to increase production and production square footage; unfavorable publicity or consumer perception of the medical cannabis industry; the impact of any negative scientific studies on the effects of cannabis; the growth in the medical and recreational cannabis markets being less than anticipated; increased competition in the market place; the company's ability to meet its near and long-term goals; and the company's ability to retain a competitive advantage if cannabis is legalized as well as the risk factors set out in the company's annual information form and other publicly filed disclosure documents. Undue reliance should not be placed on forward looking statements, which speak only as of the date hereof.

All forward-looking statements contained herein are qualified in their entirety by the foregoing cautionary statements. Reliance should not be placed on forward looking statements, which speak only as of the date hereof.

# The Endocannabinoid System

- System of receptors that interacts with tissues, organs and the immune system
- Composed of endocannabinoids and cannabinoid receptors
- Helps regulate mood, appetite, inflammation and many other functions that promote health and homeostasis
- Cannabis compounds interact with the endocannabinoid system and may have therapeutic effects





# Potential Health Effects of Cannabinoids

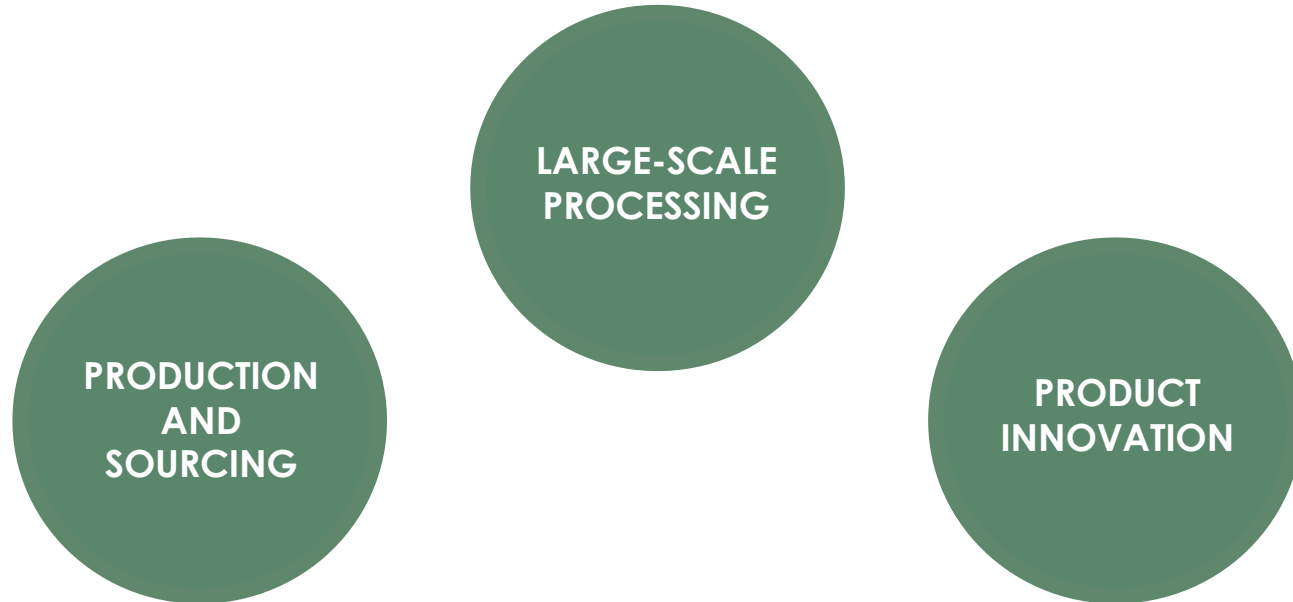
	THC	THC-A	THC-V	CBN	CBD	CBD-A	CBG	CBC-A	CBG	CBG-A	
Pain relief											Analgesis
Reduces inflammation											Anti-inflammatory
Suppresses appetite											Anorectic
Stimulates appetite											Appetite stimulant
Reduces vomiting and nausea											Antiemetic
Reduces contractions of small intestine											Intestinal antiprokinetic
Relieves anxiety											Anxiolytic
Tranquilizing / psychosis management											Antipsychotic
Reduces seizures and convulsions											Antiepileptic
Suppresses muscle spasms											Antispasmodic
Aides sleep											Anti-insomnia
Treats autoimmune disorders											Immunosuppressive
Reduces blood sugar levels											Anti-diabetic
Prevents nervous system degeneration											Neuroprotective
Treats psoriasis											Antipsoriatic
Reduces risk of artery blockage											Anti-ischemic
Kills or slows bacteria growth											Anti-bacterial
Treats fungal infection											Anti-fungal
Inhibits cell growth in tumors / cancer											Anti-proliferative
Promotes bone growth											Bone-stimulant



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## Building Pillars for Unique Positioning in Cannabis Industry

Strategy delivering competitive differentiation in conjunction with key legislative and market turning points in the Canadian cannabis industry





## Experienced Management Team

Avtar Dhillon, MD

Executive Chairman and President

35+ years: building public companies through M&A, establishing dominant IP portfolios, and leading innovative scientific and farming enterprises

Maheep Dhillon

VP Corporate Development

10 years: development management and accelerating corporate expansion

Rob Hill, CPA, CA

CFO

20+ years: accounting & finance; Haywood Securities, KPMG

Michael Bierman

VP Operations

25 years: manufacturing management, product development, and marketing

Rebecca Wong, BSc

VP Quality Affairs

25+ years: quality assurance and quality control; Novelon Therapeutics (formerly QLT)

Thierry Schmidt

President Verdélite

20 years: marketing, brand advocacy and general management; Next Level Energy Inc., L'Oréal Canada

Traviss Graham

VP Production

15+ years: cannabis production, processing, and product development



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## Board of Directors

Avtar Dhillon, MD

Former chairman and CEO, Inovio Pharmaceuticals Inc. (NASDAQ:INO) and board member of several life science companies

Jim Heppell, BSc, LLB

Director and former CEO, Sophiris Bio Inc. and previous president and director of BC Advantage Funds

Bob Rai, BSc

CEO and director, Avicore Health and 20 years of pharmacy experience

Punit Dhillon, BA

Co-founder/director, OncoSec Medical; past VP Finance/Operations, Inovio Pharmaceuticals Inc.



## Scientific Advisory Board

Gaetano Morello, ND

25+ years: accomplished clinician with first-hand experience in the clinical and medical application of cannabinoids

Eduardo Munoz, MD, PhD

30+ years: biomedical research, Professor of Immunology, author of 200 articles, patents and book chapters with nearly 5,000 citations

Giovanni Appendino, PhD

30+ years: cannabinoid research; Professor of Pharmaceutical Chemistry at the UPO; author of 250 articles and 10 book chapters

Jim DeMesa, MD, MBA

29+ years: pharma product development and management; 15 years as CEO of public biotech companies

Alasdair Barr, PhD

Mental health and addictions research Professor at UBC; multidisciplinary and translational approach; active clinical & preclinical research programs

James T. McCracken, MD

30+ years: active clinician; Joseph Campbell Professor of Child Psychiatry, and Director of the Division of Child and Adolescent Psychiatry at the David Geffen School of Medicine at UCLA

Caroline MacCallum, MD, FRCPC, BSc Pharmacy

Internal medicine specialist with expertise in complex pain and cannabinoid medicine; clinical instructor in the Department of Medicine at UBC





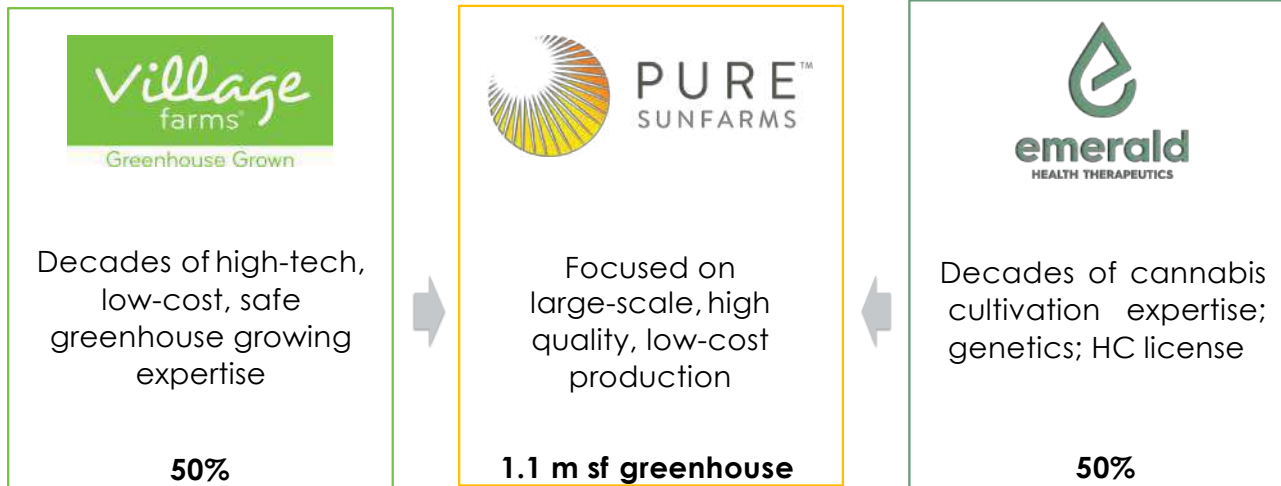
# Pure Sunfarms

Hybrid greenhouse, sophisticated growing facility



## British Columbia: Pure Sunfarms Joint Venture, Delta

- Combines industry-leading cannabis and greenhouse growing expertise
- Existing infrastructure plus sophisticated greenhouse processes & new systems
- Rapid scaling with reduced execution risk





## Cultivation in More Than Half of 1.1M SF Greenhouse Facility



- Meticulous attention to growing environment and systems, processing areas and production ramp up
- Automated growing system proven in different crops to provide optimal efficiencies
- Leading HVAC system; extensive climate management experience & advanced data systems
- High-tech light deprivation/supplementation systems, with individual control of 17 grow rooms



# Verdélite

Purpose-built indoor facility



## Québec: Verdélite



- Wholly owned by EHT
- Licensed Producer in Saint- Eustache, Québec, near Montréal
  - 1 of 12 LPs in Quebec
- 140 estimated full-time jobs in Saint-Eustache once fully operational
- Serving Québécois consumers
- Distribution hub to eastern Canada and nationwide

## Québec: Verdélite



- 88,000 square foot purpose-built cannabis production facility
- 23 independent growing rooms
- 200 cannabis strains
- 12 processing and packaging rooms
- Abundant access to high-quality low-cost water and electricity
- High quality cannabis strains - Craft market

## Hemp for CBD Extraction

- Purchased approximately 500 acres of harvested hemp chaff from established farms in Manitoba and Prince Edward Island in 2018
- Approx. 1000 acres in 2019 – 2022
- Hemp is a very low cost source of CBD



# Provincial Supply Agreements

## British Columbia

- MOU with British Columbia Liquor Distribution Board for recreational market
- 13,000 kg / 1.5 years

## Ontario

- EHT: Supply agreement with Ontario Cannabis Retail Corporation, operating as the Cannabis Retail Store (CRS)
- PSF: Supply agreement with CRS

## Newfoundland and Labrador

- Supply agreement with Newfoundland Labrador Liquor Corporation





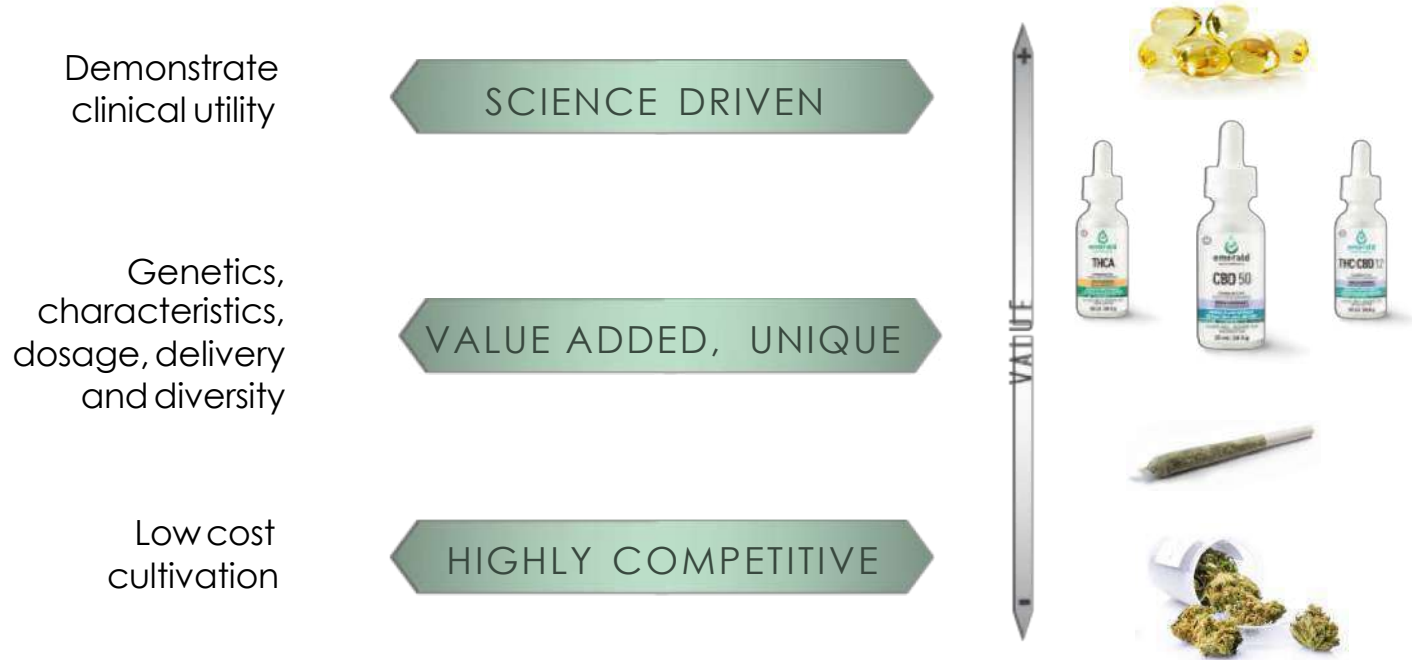
## Emerald Health Naturals' Product Line

- Emerald non-cannabis product line
- Formulated to support the endocannabinoid system
- Endo Brain recently awarded 2018 SupplySide Editor's Choice Award for Brain Health
- Endo Bliss wins Taste For Life's 2019 Essentials Supplement Award
- Received product licenses and natural product numbers (NPNs) from Health Canada
- Planned mid-2019 product launch - natural health product, grocery, and pharmacy store channels



# Intellectual Property & Product Innovation: High Margin Focus

## Science and innovation to drive value



## Strategic Alliance: Factors Group

**Exclusive arrangement with Canada's largest nutritional supplement marketer and manufacturer.**

- Facility capable of 1M kg of biomass extraction and 600M softgel capsule production per year
- Leverage decades of product development, formulation and innovation experience
- Technology transfer of extraction methods and production protocols

**factorsgroup**  
of nutritional companies inc.

Over 1M sf of production facilities, R&D, and quality control laboratories and distribution centres.

# Developing Intellectual Property Portfolio

## Filed 17 provisional US patent applications

- Developing unique Emerald cannabinoid formulations and dosage forms for medical and adult-use cannabis products
- Defined Dose™ - precise and consistent delivery, dosage, and formulations
  - Inhaled dosage forms for smoking
  - Inhaled dosage forms for vaping
  - Capsule and edible formulations

## Strategic Agreements

### Indena

- Proprietary Extraction Technology & Capabilities
- Phytosome® technology to enhance absorption and bioavailability of cannabinoid products

### Emerald Health Biotechnologies España

- Leveraging decades of industry-leading cannabis research and scientific innovation

# Advancing Cannabis Science

## Initiating animal/human studies and benefitting from collaborators' research

- Example: THCA, a non-psychoactive cannabinoid, shows potential in animals to treat neurodegenerative, neuroinflammatory diseases, metabolic disorders and other ailments; EHT product line includes THCA oil product
- Animal study underway at UBC



THE UNIVERSITY  
OF BRITISH COLUMBIA

**BJP** British Journal  
of Pharmacology

RESEARCH PAPER

**Tetrahydrocannabinolic acid is a potent PPAR $\gamma$  agonist with neuroprotective activity.**

Xavier Nadal, Carmen del Río, Salvatore Casano, Belén Palomares, Carlos Ferreiro-Vera, Carmen Navarrete, Carolina Sánchez-Carnerero, Irene Cantarero, M Luz Bellido, Stefan Meyer, Gaetano Morello, Giovanni Appendino, Eduardo Muñoz

Accepted manuscript online: 29 August 2017 [Full publication history](#)

- Research conducted at University of Cordoba



UNIVERSIDAD DE CORDOBA

# Emerald Testing and Innovation Laboratory

## Health Canada Licensed Dealer

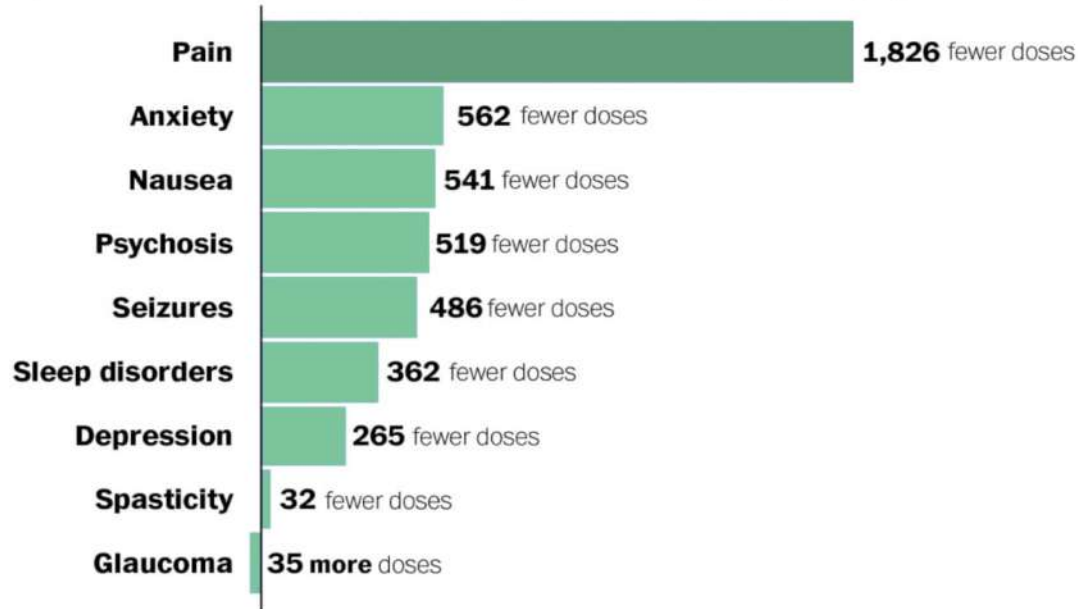


- Cannabis analytical/testing services for LPs
- International government approvals for the import/export of cannabis oils
  - Exporting to USA
  - Importing from Netherlands, Colombia and China
- Permitted research and development activities beyond producer license



## Reduction in Prescription Drugs Where Marijuana is Legal

Difference between annual drug doses prescribed per physician in medical marijuana states, and in states without medical marijuana laws, by drug category





## Strategic Growth Initiatives in 2019/2020

Significantly increasing production 2019-20

Large scale sophisticated extraction

Animal and clinical studies

IP and product development

Branded new product launches

Distribution agreements/partnerships





# Capitalization

	Total	Largest Shareholder: Emerald Health Sciences	Three month average daily volume
Common Shares O/S	136.8 M <sup>2*</sup>	40.4 M (29.5%) <sup>3</sup>	1.36 M <sup>4</sup>
Options, RSUs and Warrants	20.2 M	4.4 M (20%)	<b>Cash</b> \$52.9 M <sup>2*</sup>
Fully Diluted	157.0 M	44.8 M (28.6%)	<b>Add. Funding</b> \$10.8 M*
Market Cap	\$543.4 M <sup>1</sup>		

<sup>1</sup>19/03/06 <sup>2</sup>18/09/30 <sup>3</sup>19/01/16 <sup>4</sup>TSX.V + OTCQX

\*Financing: \$10.8M gross proceeds ; 4.0M o/s (18/12/07)

## Peer Comparative Value (market value/kg production capacity)

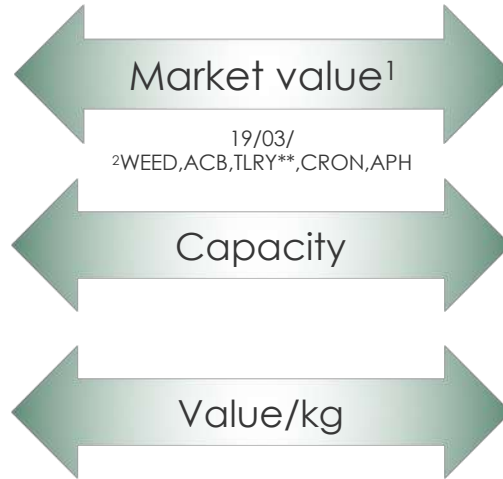


Emerald offers compelling value proposition

C\$543 M

47,000 Kg

\$11,550



**Top 5 Peers**  
Market Value<sup>2</sup>

~\$10 B  
average

~265,440 Kg  
average

~\$43,300  
average

Peers<sup>2</sup> trading at ~ 3.7x EMH

\*\*Tilray stock price converted at USD=1.34



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# Thank You

To learn more please contact:

[invest@emeraldhealth.ca](mailto:invest@emeraldhealth.ca)

TSXV: EMH  
OTCQX: EMHTF  
Frankfurt: TBD