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CB1 Capital is an investment manager and advisor that specializes in the supply chain of cannabinoid-based wellness solutions, products and therapies that address a wide range of unmet medical conditions, or have commercial use-cases.



- Global cannabis and hemp sales (including the black market) were roughly \$300 billion in 2018, which was mostly flower
- There is currently \$75-100 billion aggregate market capitalization of publicly-traded global cannabis equities
- Contemplating cannabis and hemp as ingredients in a wide array of use-cases and end products, we estimate global market capitalization could reach \$1 trillion within a decade





# This is healthcare disruption. And it's happening.

We believe cannabis is in the nascent stages of a multi-year efficacy-led bull market and will separate into several categories – consumer packaged goods, including beverages and nutraceuticals, industrial use-cases, such as plastic composites and hempcrete, and efficacy-driven solutions, or biotech.

We believe the collective perception will shift from viewing cannabis as a discretionary vice to one with an abundance of use-cases.

CB1 Capital does not touch the plant or move the plant across state lines; we buy, sell, and invest in securities of publicly traded companies and select private ventures, and advise emerging companies in the space.





We are building a community of thought-leaders to help solve one of the most amazing riddles in modern medical history: how to unlock the universe of cannabinoid wellness properties from the cannabis plant.

Most cannabinoids are non-euphoric and many of them provide therapeutic benefits. What's more, they interact with our ECS in ways that are beginning to reshape our understanding of health and wellness.

The endocannabinoid system (ECS) is the one of the most ubiquitous networks of receptors in the human body and a retrograde signaling system that helps to regulate neurotransmissions.

Science is teaching us that by targeting the right receptors with the right cannabinoids, a multitude of wellness indications, applications, and potentially groundbreaking medical breakthroughs are not only plausible—but probable.



- Firm was formed in 2017 by its principals to specificially invest in and capture the opportunity in this sector, after years of research in the space
- Principals each have 20+ years experience in finance industry
- Firm started managing third party capital in November 2017



### **Global Wellness Strategy**



- Identify opportunities across industry verticals that include:
  - Primary markets
  - Cultivation and retail
  - Consumer products
  - Biotechnology and pharmceutical
- Ancillary markets
  - Packaging
  - Extraction
  - Laboratories

- Focused "best ideas" strategy
- Long-short approach
- Look to hold 25-40 positions given current opportunities
  - position sizes generally 0.5%-8.0% at initiation of position
- Invest up to 5% of the portfolio in options strategies to hedge against sector and broader market declines

### **Objective & Approach**



- Long-term (5+ year) sector allocation, not a tactical trade
- Structured with an eye toward liquidity for investors
- Seek to generate net absolute total return over a full market cycle in excess of the CAGR in the sector
- Expect significant volatility until institutional investors adopt the sector in a meaningful way
- Use prudent trading strategies and risk management to dampen volatility



### **Competitive Advantages**



#### Early adopter/first mover advantage

- One of the few credible participants in space
- Access to top intellectual capital
- Knowledge moat

#### Best-in-class Advisory Board

- Two world-renowned scientists with experience running FDA trials and extensive knowledge of the science of the endocannabinoid system/cannabis
- Political insights from Gov. Johnson and Beltway insiders
- Product/branding insights from Canadian and US operators



- Senior front and middle/back office team members have an average of 23 years of industry experience
- Research team members have as much as 10 years experience studying the science behind the Endocannabanoid System (ECS)
  - Ability to access Advisory Board members and our network of scientific experts helps inform biotech and other company outlooks
- CB1 platform is one of the few credible participants in the sector and attracts intellectual capital
- Significant portfolio management experience, including trading and risk management







**Todd Harrison**Chief Investment Officer
Founding Partner

Todd Harrison is the Founding Partner of CB1 Capital Management and our Chief Investment Officer. Mr. Harrison has spent almost three decades on Wall Street managing risk, navigating booms and busts and researching global market strategies. His institutional experience includes Morgan Stanley Global Equity Derivatives (VP), The Galleon Group (MD-Derivatives) and Cramer, Berkowitz LLC, where he served as President and Head of Trading.



Loren Defalco

Director of Research

Partner

Loren DeFalco is a Partner of CB1
Capital Management and our Director
of Research. He has 19 years of industry
experience and has been covering the
cannabis sector for almost a decade.
Loren cured himself of an epilepsy
condition ten years ago through an ECSfocused diet, exercise and a regimen of
cannabinoids that he developed based on
his research of the ECS. We believe that
his unique experience and his in-depth
research of the ECS (through medical
journals and scientific developments) and
related nutraceutical arena make him an
ideal choice to lead our research efforts.



**Jon Tyras**Chief Operating Officer & CFO
Partner

Jon Tyras is a Partner of CB1 Capital
Management and our Chief Operating
Officer, Chief Financial Officer and Chief
Compliance Officer. He has spent over
20 years in the industry. Jon was most
recently the Chief Financial Officer and
General Counsel of the \$20 billion public
securities platform of Brookfield Asset
Management, a leading global alternative
asset manager with approximately \$330
billion in AUM. Prior to spending over a
decade at Brookfield, Mr. Tyras spent eight
years as a capital markets attorney at Paul
Hastings and four years at Ernst & Young.



**Dave Charnick** 

Subject Matter Expert, Founder, Kalyx Development Inc. and Special Advisor, Cannabis Benchmarks, a division of New Leaf Data Sciences.



**Lorne Gertner** 

Chairman of HG2 Capital Corp, CEO of Hill & Gertner Capital Group; Co-Founder, The Cronos Group; Director, Emblem Corp.; Co-Founder & Chairman Tokyo Smoke; Investment Partner and Director, Green Acre Capital.



Dr. Julie Holland

Psychiatrist and psychopharmacologist, Author of the bestsellers "Weekends at Bellevue" and "Moody Bitches", editor of "The Pot Book: A Complete Guide to Cannabis", medical monitor for a clinical study examining the efficacy of using cannabis in the treatment of PTSD in veterans.



**Gary Johnson** 

Twenty-ninth governor of New Mexico, two-time Presidential candidate. Founder, Big J Enterprises; Former CEO of Cannabis Sativa, Inc.



**Dr. Ethan Russo** 

Board Certified Neurologist, psychopharmacology researcher; Director of Research & Development, International Cannabis and Cannabinoid Institute (ICCI), former Senior Medical Advisor, GW Pharmaceuticals; former Medical Director, PHYTECS.



#### Cannabis has had a relationship with humanity since ancient times...



### 26,900 BC

Evidence of human use of cannabis goes back about 30,000 years with hemp rope dating back to 26,900 BC found in Czechoslovakia.

#### 2737 BC

Emperor Shen Neng of China introduces first pharmaceutical uses of cannabis "ma" prescribing it for gout, malaria and rheumatism.



### 1500 BC

Ancient Egypt's Papyrus Ebers notes possible use of cannabis as a way to alleviate pain and inflammation.



#### 6000 BC

Cannabis seeds and oils used for food in China.



#### 2000-1400 BC

Cannabis spreads from China to India with the sacred Indian Atharvaveda listing cannabis as a holy plant that could relieve stress and anxiety.



Pollen deposits found at Pan-p'o village provide earliest evidence of cannabis cultivation by people.



#### 1400-500 BC

Scythians and other nomadic Central Asian peoples are thought to have spread cannabis use into Eastern and Northern Europe.







440 BC

Herodotus writes of Scythian

funeral ceremonies where

cannabis seeds are ritually

burned for euphoric effect.

#### 207

Hua T'o becomes the first recorded physician to use cannabis as an analgesic, using a mixture of cannabis and wine to anesthetize patients.



#### 1532

French monk and writer
François Rabelais writes of
a plant called Pantragruelion
identified as cannabis said
to have healing powers, ease
gout pains, cure horses of
colic and treat burns.



#### 1764-1794

The New England Dispensatory recommends hemp roots to treat inflamed skin and the Edinburgh New Dispensatory prescribes cannabis oil for incontinence, coughs and venereal disease.

### 77-79 AD

Pliny the Elder notes use of cannabis root tea for the relaxation of the joints, for gout and similar maladies.



900

Persian physician Abu Bakr Muhammad ibn Zakariya al-Razi, known in the West as Rhazes, is accounted to have used cannabis to treat epilepsy.



#### 1838-1840

Cannabis introduced to modern Western medicine for numerous maladies by Irish physician William O'Shaughnessy, increasing its popularity.



#### 200

Roman doctor Claudius Galen writes about use of cannabis and notes analgesic properties if consumed in large amounts.



A decree by King James I requires all American colonists to grow "Indian hemp" for export to England.







#### 1860

Ohio State Medical Society meets to summarize medical uses of cannabis, noting favorable outcomes for treating pain, inflammation and cough.



#### 1860-1900

Cannabis can be readily found in over the counter pharmaceuticals for the treatment of a variety of ailments from chronic cough, menstrual cramps and even fussy babies.



The U.S. Food and Drug Administration (FDA) is created to prevent another morphine addiction crisis as many people became addicted to unregulated drugs like heroin, opium and morphine.





By the late 19th century, people living in Europe and America could buy cannabis extracts in pharmacies and doctors' offices to help with stomach aches, migraines, inflammation, insomnia and numerous other ailments. More that 100 papers had been published on its therapeutic uses.

In addition to cannabis being widely available, so were many other substances like morphine, opium, heroin and cocaine; each were causing large-scale social and health problems...

#### 1914

The Harrison Narcotics Tax Act is passed regulating and taxing certain drug use with those moving to criminalize drugs making baseless, racially charged arguments to bolster support for the bill.

#### New Drug Law!

As passed by Congress under the Pure Foo Act of June 3, 1906, has not effected or business. We adopted our motto, "Only the Best," long before Congress thought of suc an Act. Call on us for fresh Colgan's Taff Tolu and Dr. Hass' stock and chicken pow ders.

LYNE BROS, Crab Orchard Druggists.





#### 1914 AD

El Paso becomes the first city in the United States to ban cannabis in a panicked response to the flood of immigrants crossing the southern border fleeing the Mexican Revolution. First recorded use of the word "Marahuana."

#### 1930s

Use of the word "marihuana" in American English increases, being preferred as an exotic-sounding name for prohibitionists during debates on cannabis use. By using the newly emerging mass media and support from publisher William Randolph Hearst, Anslinger propels anti-marijuana sentiment.

#### 1936

#### Reefer Madness film is released.





Go to: https://vimeo.com/295187841

#### 1930

The Federal Bureau of Narcotics is established within the Department of the Treasury. Harry J. Ansligner is appointed as the first commissioner by Secretary of the Treasury, Andrew Mellon.



#### 1933

Anslinger is credited with saying, "There are 100,000 total marijuana smokers in the US, and most are Negroes, Hispanics, and entertainers." The 21st Amendment repeals the 18th, ending Alcohol Prohibition.

### 1937

The Marihuana Tax Act of 1937 is passed levying taxes on hemp products and sales of cannabis products. Farmers could pay for tax stamps for the cultivation of fiber hemp, physicians were charged a tax for prescribing cannabis and pharmacists taxed for selling cannabis. The American Medical Association strongly opposed the act citing that use of the largely unknown word "marihuana" prevented physicians from realizing the Act meant they would lose cannabis as medicine.







#### 1938

Popular Mechanics publishes the "Billion Dollar Crop" article proclaiming Hemp the next great cash-crop as mechanical decorticators solve a problem over 6,000 years old, processing hemp in large quantity.

"...Postulated theories include the cotton industry, the paper industry, the petrochemicals industry, the alcohol industry and/ or the emerging pharmaceuticals industry had various collusive efforts to see government further regulate, criminalize and demonize the cannabis plant and its uses. This only speaks to the versatility and disruptive impact cannabis has across numerous industries..."

#### 1969

Leary v. United States, Supreme Court declares Marijuana Tax Act unconstitutional.



#### 1970

Nixon signs the Controlled Substances Act and cannabis is assigned Schedule 1 classification as a drug with high potential for abuse and no accepted medical use alongside heroin and cocaine.

#### 1942

Hemp for Victory encourages hemp production for the war effort.

#### 1961

Single Convention on Narcotic Drugs ratified by the U.N.

#### 1964

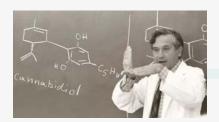
Raphael Mechoulam isolates the molecule tetrahydrocannabinol (THC).



#### 1968

The Federal Bureau of Narcotics never exceeds 330 employees or a budget of \$3 million. Nixon campaign speech asserts "Narcotics are a modern curse of American youth... I will take executive steps necessary to make our borders more secure against the pestilence of narcotics."





### **The War on Drugs**



### "This is your brain on drugs"

#### 1973

The DEA is created to replace the Federal Bureau of Narcotics.





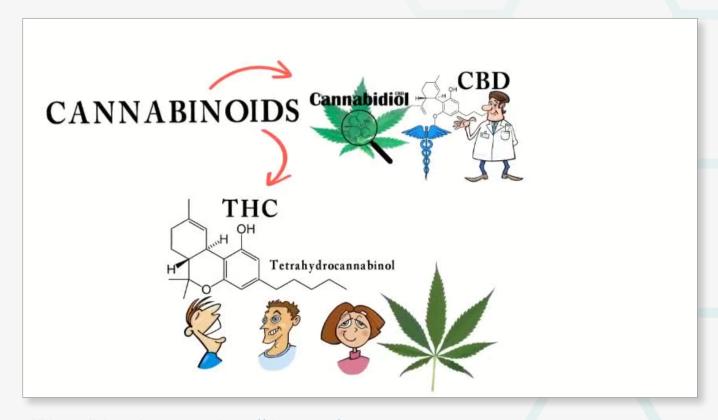
Video - click to play or go to: https://vimeo.com/295188127



### 1983

Both D.A.R.E. program and "Just Say No" campaign are launched.





Video - click to play or go to: https://vimeo.com/295188180

### What is the Endocannabinoid System (ECS)?

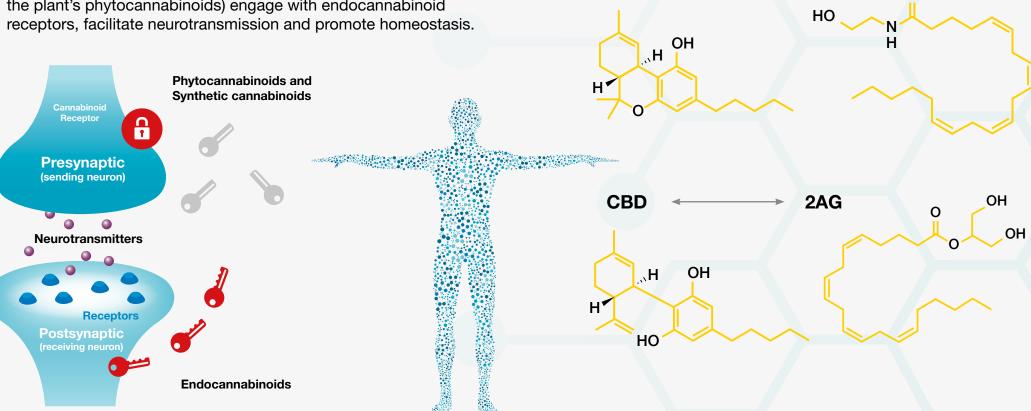
We can easily recount bodily systems such as the respiratory system, lymphatic/immune system, cardiovascular system, nervous system or others. The endocannabinoid system may ultimately be seen as equally important in time.

The ECS is a group of neuromodulatory lipids, enzymes and receptors involved in numerous behavioral and physiological processes, ubiquitous in all people.

CB1 & CB2 receptors are two ECS receptor sites where cannabinoids (either the body's own endocannabinoids or the plant's phytocannabinoids) engage with endocannabinoid receptors, facilitate neurotransmission and promote homeostasis

The ECS produces many cannabinoids including anandamide, AEA, which is identical in action to THC, and 2-Arachidonoylglycerol, 2AG, which is a phytocannabinoid mimetic to CBD.

**AEA** 



THC

### Science catches up



1988-1990

The first human cannabinoid receptors (CB1 and CB2) are discovered.

#### 1996

California passes Proposition 215 allowing the use of medical cannabis.



1998

GW Pharmaceuticals is founded by Dr. Geoffrey Guy and Dr. Brian Whittle, commencing clinical trials evaluating cannabinoids.

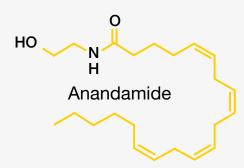


#### 2013

CNN documentary "Weed" featuring Charlotte Figi increases cannabidiol awareness and highlights CBD efficacy in epilepsy. Charlotte's Web brand CBD begins.

### 1992

Anandamide (AEA), a cannabinoid compound produced by the human body, is discovered.



...The complete human endocannabinoid system comes into full view...

#### 2003

Rick Simpson uses concentrated cannabis oil to treat his cancer symptoms and began distributing it free of charge to patients in need.

#### 2018

Food and Drug Administration approves GW Pharmaceutical's New Drug Application for Epidiolex, for the treatment of certain orphan pediatric seizure disorders.





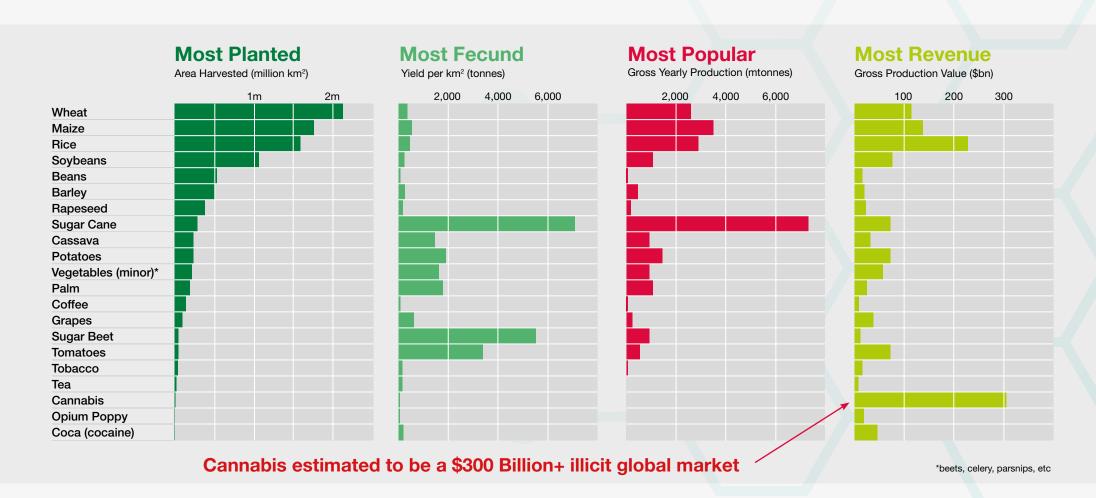
### **Time vs. Policy - Arbitrage 1**



A currently estimated \$300 billion, primarily illicit, global market is moving into the regulated and taxable realm.

This market consists primarily of dry flower and doesn't account for the oncoming market of diverse consumer packaged goods.

As more regulated markets open up, consumption rates should significantly grow as new consumers are exposed to cannabinoids across new distribution networks.



### Price vs. Institutional Flow - Arbitrage 2



Most Institutional Investors and High Net Worth Investors are prohibited from investing in the cannabis space due to legal or regulatory impediments.

As these legal and banking barriers resolve and the cannabis space opens, institutions will likely chase growth.

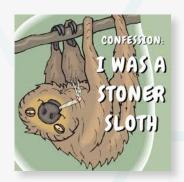
With all potential use-cases added together, a \$1-2 trillion potential annual market is visible on the horizon vs \$75-\$100 billion in aggregate current public cannabis-related market cap.



Most analysts on the street still view cannabis as a social lubricant vs an entirely new drug delivery platform.

Those that understand some of the science still value a limited range of known, validated use cases, such as epilepsy.

### **Perception**





### Reality



Cannabis and cannabinoids are a baseline ingredient that will be featured in an array of differentiated consumer packaged goods. Tomorrow's cannabis consumer won't smoke cannabis; they'll drink it, eat it, rub it on, take it as a pill, wear it as a patch or even take bubble baths in it.

Cannabis isn't about getting high; it's about getting Well.®

#### Why the CB1 Wellness Strategy:

Focus on liquid, publicly-traded securities provides better liquidity than private equity model

Diversification across geographies and industry verticals

Flexibility to follow the sequence of relative value as supply chains change and evolve vs being subject to linearly holding a private company

The ability to have income characterized as 'unrealized and realized capital gains from transacting in securities' rather than owning hard assets that could be a red flag as 'MRB income' for Federal income tax purposes

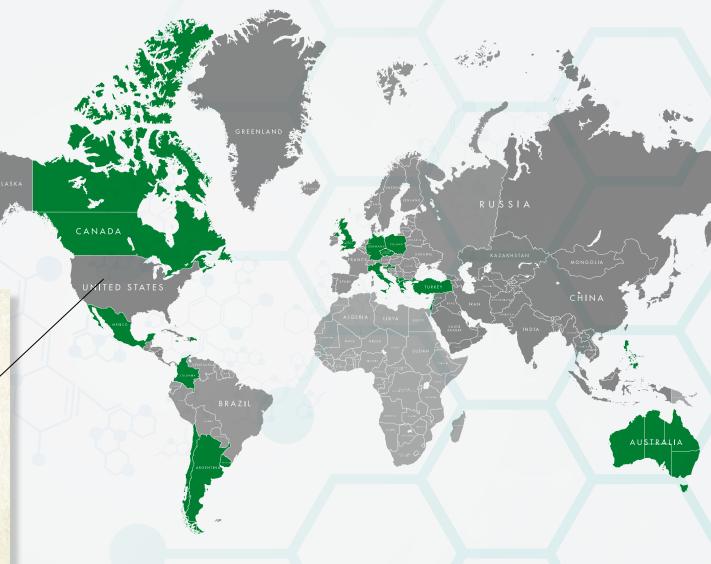


MRB = Marijuana Related Business

### **International Adoption**



Cannabis legalization is not exclusive to North America. So far, 24 countries or territories have legalized cannabis fully or partially for medical and/ or adult use. Map at right is a brief snapshot of the laws in those countries with established regulations.





Countries or territories that have legalized cannabis fully or partially for medical and/or adult use.

**Note:** Countries that have decriminalized possession for small amounts of cannabis and the U.S. are not included above. For U.S., see map on left.

Source: Cannabis Business Times

### **CB1**Capital

# **Industrial Hemp - a sustainable solution** for thousands of products

**The Many Uses of Hemp** STALK **SEEDS** LEAVES/FLOWERS **FIBER HURDS** OIL SEED CAKE **HEMP NUT** 個 承 **TEXTILES** COOKING/SEASONING OIL MILK/DAIRY ANIMAL BEDDING INSULATION ORGANIC COMPOST BAKERY MULCH/COMPOST DIETARY SUPPLEMENT ANIMAL BEDDING GRANOLA MEDICINE/RECREATION **BODY CARE PRODUCTS** ANIMAL FEED FIBER BOARD FUEL PROTEIN POWDER

#### ROOTS





MEDICINE

ORGANIC COMPOST



### **The 10 Cannabis Industry Verticals**





**Industrial Hemp & Farming** 



**Cultivation & Dispensaries** 



**Extraction & Nutraceuticals** 



**Pet Foods & Supplements** 



**Biopharmaceutical Applications** 



**Education & Media** 



**GMP Compliant Labs** 



**Consulting & Professional Services** 



**Cosmetics & Vanity** 



**Picks & Shovels** 

We see an evolving global wellness disruption

**Standard Retail Channels** 

**Flower** 

Concentrates

**CPG** 

**Beverages** 

**Nutraceuticals** 

**Industrial Hemp Products** 

Diversified across geographies

Cannabis will transition towards a bifurcated market

**Biopharma/Medical Channels** 

**API & Therapeutic windows** 

**Intellectual Property** 

**Clinical Trials** 

**FDA** approvals

**Prescribed by doctors** 

**Covered by insurance** 

...and industry verticals

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## Info



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