

# A Vertically Integrated Medicinal Cannabis Company

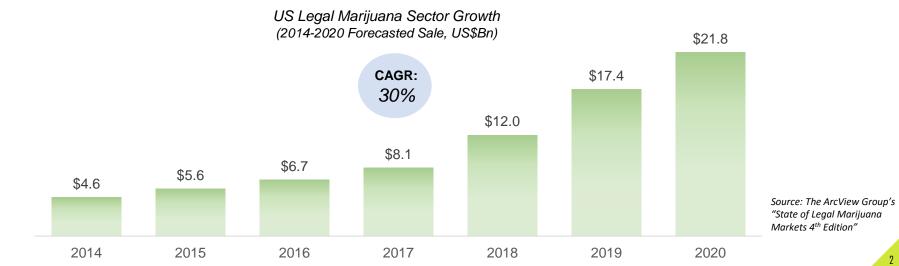
MMJ PhytoTech Limited February 2016 Investor Presentation

# MMJ PhytoTech ("MMJ"): A Leader in Emerging Legal Cannabis Market One of the Fastest Growing Markets Worldwide



MMJ is a vertically-integrated, diversified and global Medical Cannabis ("MC") company. Its unique "Farm to Pharma" platform provides investors with industry-leading exposure to one of the fastest growing markets worldwide.

The US legal cannabis market is expected to grow at a CAGR of 30% from 2014 to 2020, following a similar pattern to Legal MC markets around the world



# MMJ: Shifting the Paradigm The MC Industry Bottleneck



### **The MC Industry Bottleneck**

### Impediments to Global MC Business

- ✓ Varying International MC Legislation
- ✓ High Regulatory Burden
- ✓ Cross Border Trade Restrictions
- ✓ Narcotic Status of Cannabis

### Impediments to Pharmaceutical Transition

- ✓ Recreational Legalization
- ✓ Emerging Treatment of MC as "Third Class" of Medicine
- ✓ Traditional Smokeable Ingestion
- Inherent Non-Pharmaceutical Qualities of a Natural Plant
- ✓ Public Perception

### **MMJ's Strategic Solution**

- ✓ Vertical Integration: MMJ is focused on cultivation, extraction, refinement and research capabilities
- ✓ **Strategic Global Positioning:** MMJ operates in jurisdictions with favourable regulatory frameworks (Canada, Europe, Australia)
- ✓ **Diversification:** MMJ is targeting multiple revenue streams in several jurisdictions and several market segments
- ✓ **Growing Portfolio of Intellectual Property:** MMJ is establishing a market leading position in innovative delivery technologies
- ✓ **Focused on Standardizing MC Administration:** Creating standardized, pharmaceutically and clinically acceptable administration of MC products such as capsules, combustion free inhalation, nano-technology water soluble solutions and topical creams
- ✓ Clinical Development of MC-Based Pharmaceuticals: Focus on low-cost, fast-to-market MC-based prescription drugs

# MMJ: Shifting the Paradigm A Strategic Solution to the MC Industry Bottleneck





"Farm to Pharma" positioning across the MC value chain enables MMJ to manoeuver around the industry bottleneck







- ✓ Near term commercial production of medicinal cannabis in a Federally regulated environment
- ✓ Pharmaceutical processing and distribution of sophisticated delivery technologies

✓ Clinical development of cannabis based prescription drugs

Cultivation

**Extraction & Refinement** 

**Research & Development** 

# MMJ: Shifting the Paradigm Strategic Global Positioning



### **MMJ** is Strategically Positioned in Select Jurisdictions









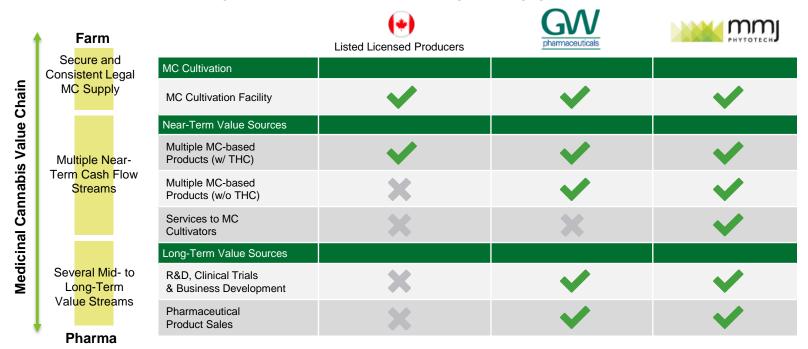




# MMJ: Shifting the Paradigm A Strategic Solution to the MC Industry Bottleneck



# MMJ's "Farm to Pharma" strategy sets it apart from its global peers, positioning it as a leader in the burgeoning global MC industry



### MMJ: Road to Value Use of Equity Proceeds Since Merger



### Use of \$6.4m Net Proceeds from Equity Placements from Merger Close to Feb 1 2016(1)

**Canadian Cultivation United** 

areeneries



**Derivative Products** 

R&D & Clinical Dev.

Corp. Dev. & Other

**Corporate Costs** Cash Balance







\$2.6m (41%)

\$0.7m (11%)

\$0.6m (10%)

✓ Developing potential

Sativex® competitor

\$0.3m (5%)

\$0.9m (14%)

\$1.2m (19%)

**Duncan Facility** inspected

in quarter

- Exclusive delivery License expected technologies
- ✓ CBD capsules inventory build
- ✓ Successful Phase 1 Study complete
- ✓ 2 Potential Australian MC Deals
- ✓ Investigation of US Opportunity

Management & Staff Fees

Accounting, Legal, Marketing & PR etc.

Feb 1 2016 Cash Balance

Since merger close, MMJ has advanced its unique MC platform significantly on a very modest budget

**Total Utilized** 

\$5.2m (81%)

Cash Balance

\$1.2m (19%)

**Net Proceeds from** Equity Placements<sup>(1)</sup>

\$6.4m (100%)

# MMJ: Road to Value Key Achievements and Milestone Update



### MMJ is continuing to deliver on key initiatives delivering shareholder value...

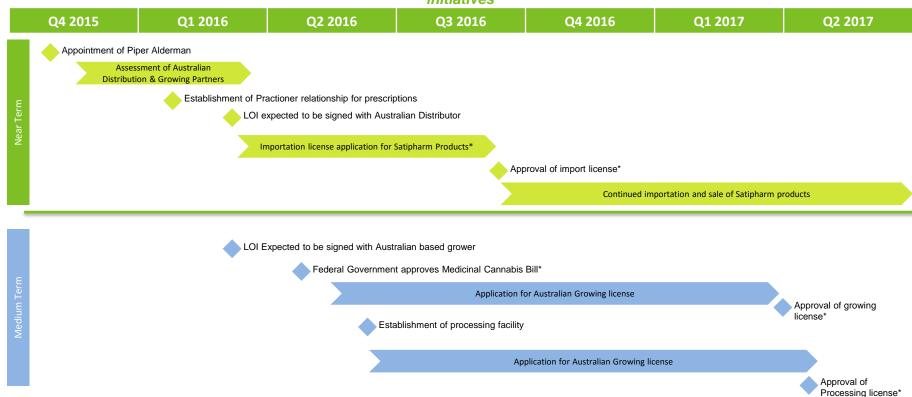
Milestone	Status	Timing
Completion of Duncan facility upgrades & completion of facility for Health Canada inspection		Q4 2015
MMPR License Inspection & Approval	•	Q1 2016
Revenue generation through CBD Capsule Sales		Q4 2015
Expansion of Satipharm Product Range	•	Q2 2016
Australian market entry		Q3 2016
Project Bolt On -Expansion of extraction & refinement to additional markets		Q3 2016
Phase 1 Clinical Trial on safety & performance of PNL oral pills		Q1 2016
Expansion of IP Portfolio		Q1 2016
Phase 2 Clinical on Pain and Spasticity of MS		Q4 2016

...across Business units and across the medicinal cannabis value chain

# MMJ: Near Term Value Drivers Australian Market Entry



MMJ plans to enter the Australian market and deliver shareholder value through a combination of near term and medium term initiatives



# MMJ: Value Drivers Sophisticated Delivery Technologies



### MC-Based Medicine vs MC

### ✓ Demand for Cannabis-Based Medicine vs. Medical Cannabis

- Regulation is driving demand for refined MC-based products and sophisticated delivery systems
- Aim is to provide patients with therapeutic benefits without the adverse impacts associated with smoking

#### ✓ Vast Increase in Consumer Base

 Providing alternatives to smoking increases the consumer base by catering to patients who accept the medical benefits of MC but are opposed to smoking

### ✓ MMJ Well Positioned in Developing Market

 MMJ develops, holds and continues to secure the global rights to sophisticated delivery technologies to cement its position in this higher-value, emerging MC vertical

### **MMJ's Growing Portfolio of Delivery Technologies**

### √ The Gelpell CBD Capsule

- A gastro resistant MC capsule with active compounds contained within proprietary micro natural gelatin beads allowing for superior bioavailability and controlled release
- MMJ holds the global license for the use of this world leading technology in MC products
- MMJ currently manufactures and distributes pharmaceutical grade MC-based capsules throughout the EU
- Doses can be adjusted to patients and regulatory requirements

### ✓ Growing Portfolio of Sophisticated Delivery Technologies

 MMJ intends on developing a broad portfolio of sophisticated delivery technologies and is currently working on several new exciting additions



## Clinical Development: Oral Cannabinoid Products





- ✓ Focused on low-cost, fast-to-market MC-based prescription drugs
  - Specifically, the clinical development of oral drug-products based on major active cannabinoids
- ✓ Already achieving exciting results from the first product in development:
  - An oral soft capsule based on PNL proprietary technology
  - Licensed from The Hebrew University
  - For the treatment of pain and spasticity of Multiple Sclerosis patients
  - Phase 1 Trial Results: completed and indicate a definite advantage over Sativex<sup>RX</sup>, the commercial competitor
  - Phase 2 Clinical Trials: expected to commence in H2 2016

### **Benefits of an Oral Capsule Over Oral Mucosal Spray**

- Increased patient compliance
- No side effects like lesions, mouth ulcerations, pain and soreness of the oral mucosa
- Decreased administration frequency
- User friendly, no adverse taste, longer shelf life, lower cost
- Room temperature storage



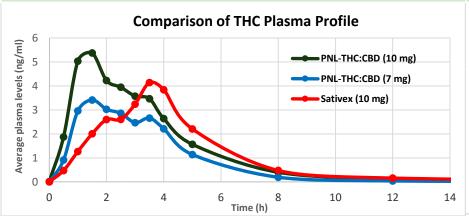
### Clinical Development: Successful Phase 1 Clinical Trial

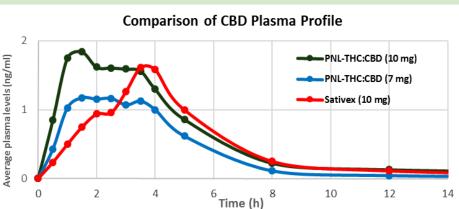




### PHYTOTECH Completion of the Phase 1 clinical trial shows a definite advantage over Sativex...

THERAPEUTICS		
Phase 1 Trial Overview	Phase 1 Trial Results	
<ul> <li>Trial sponsored by Phytotech Therapeutics</li> <li>Multi-arm, randomised, crossover study</li> <li>14/15 completers</li> <li>Undertaken at Sourasky Medical clinic site</li> <li>Pre-cursor to Phase 2 clinical trial for the treatment of pain and spasticity for MS</li> </ul>	<ul> <li>Demonstrable safety and tolerability profile with no significant side effects</li> <li>Higher bioavailability of active compounds in comparison to GW Pharmaceuticals oromucosal spray – Sativex</li> <li>Very rapid onset</li> <li>8 hours exposure time in the blood</li> </ul>	





# Clinical Development: Phase 2 Clinical Trial (Developing Potential Sativex Competitor)





Phase 2 trial will pave the way for the development of Sativex competitor...

### Multiple Sclerosis – Disease Summary and Market Opportunity

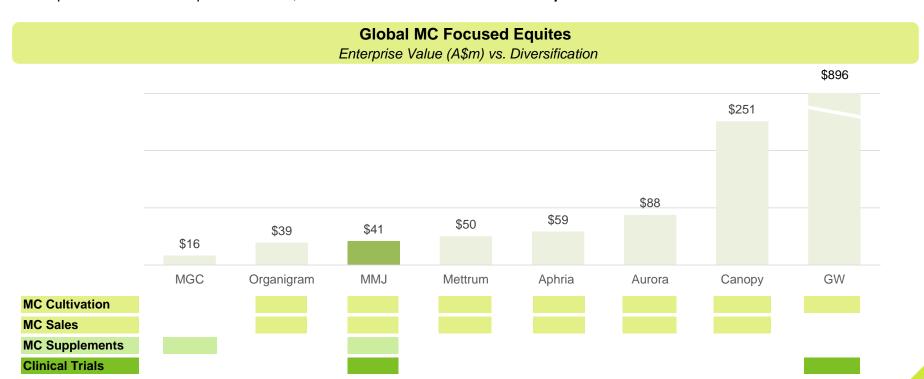
- · Multiple Sclerosis (MS) damages the brain and spinal cord disrupting the ability of the nervous system to communicate with the body
- 350,000 to 500,000 are diagnosed with MS in the US with around 2.5 million worldwide
- MS market currently valued at \$12bn, the multiple sclerosis market is expected to reach \$18.3bn in 2018
- · Spasticity refers to feelings of stiffness and a wide range of involuntary muscle spasms It is one of the more common symptoms of MS
- Spasticity can lead to serious complications, including contractures and pressure sores
- There is currently no cure for spasticity but few drugs provide relief (Baclofen, Tizanidine, Sativex and others)

Phase 2 Trial Overview		
Objective of Trial	Safety and efficacy of investigational product	
Investigational Product	Oral capsule (THC:CBD) 1:1	
Number of Test Subjects	60 Multiple Sclerosis patients	
Planned Commencement	H2 2016	
Study Duration	10 – 12 weeks	
Estimated Cost	US\$500,000	

### Competitor Comparison Slide



- ✓ MMJ is the most diversified global MC focused equity: *industry-leading exposure to one the fastest growing markets worldwide*
- ✓ With current sales of MC-based supplements in Europe, expected MMPR licensing in Canada within the quarter and clinical trials of a potential Sativex competitor in Israel, *MMJ* is also undervalued versus its peers



### Thank You



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# Appendix



## MMJ ASX Snapshot



ASX:MMJ		
Share price – 12 Feb 2016	A\$0.30	
Share price since relisting as MMJ (31 Jul 2015)	A\$0.22 - A\$0.78	
Issued shares (m)	141.1	
Market capitalization (m)	A\$42.3	
Total options/performance shares issued (m)	42.2	
Fully diluted (m)	183.3	
Debt (as at 1 Feb 2015)	A\$0.00	
Cash (as at 1 Feb 2015)	~A\$1.2M	

Shareholding	
Directors & Management (as at 31 Jan 2015)	6.80%
Top 10 Shareholders (as at 31 Jan 2015)	24.53%
Top 20 Shareholders (as at 31 Jan 2015)	32.78%

Average daily volumes traded (ASX)		
3 months	732,000	
6 months	805,000	

## Common Applications for Medical Cannabis



- THC and the non-psychoactive CBD have been shown to exhibit significant therapeutic benefits.
- A recent study in The Journal of the American Medical Association study found evidence supporting the use of CBD for the treatment of chronic pain and spasticity associated with Multiple Sclerosis.
- CBD has also proved effective in the treatment of;
  - epilepsy and seizures (particularly in children)
  - the nausea and vomiting associated with chemotherapy, radiotherapy, motion sickness, pregnancy and HIV/AIDS
  - appetite loss associated with HIV/AIDS, Cancer, Alzheimers Disease and Anorexia nervosa
  - chronic pain resulted from Neuropathic/Multiple Sclerosis, Cancer and Fibromyalgia

### Market Landscape Developments: Australia





### 2015

#### October

- Federal government announces that it intends to legalise medical cannabis, through introduction of licensing scheme
- Bipartisan support through Opposition calling for implementation of nationwide scheme to legalise MC by pledging a federal licensing system for the growing of Cannabis
- Scheme to work in conjunction with Department of Health to ensure safe and reliable supply of locally manufactured medical Cannabis. In line with Victoria's recent announcement of plans to become first city in Australia to legalise access to locally-manufactured medicinal Cannabis products by 2017
- New South Wales to follow suit, committing \$9m in funding for clinical trials and \$12m for International Centre for Medicinal Cannabis Research and Innovation

#### November

- Continued speculation on nature and form of Government regulatory reform
- Number of organisations announce plans to enter the MC market (Growers/Compounders/Distributors)

#### **December**

- Tasmania and New South Wales sign MoU outlining cooperation in clinical trials, research and the framework for medical and research related cultivation
- National Minister for Health Susan Ley indicates that MC system in Australia will be a Nationally regulated and administered system

"Allowing the cultivation of legal medicinal cannabis crops in Australia under strict controls strikes the right balance between patient access, community protection and our international obligations" – Hon. Sussan Ley, Federal Health Minister

## Market Landscape Developments: Canada & Israel





### 2000

MC legalised by Health Canada

### 2014

- MMPR introduced to prohibit unlicensed growing making licenced producers the only source of MC
- MMPR prohibits MC sales via storefronts and dispensaries

### 2015

### July

- Health Canada ratifies supreme court ruling allowing for licensed producers to produce and sell MC extracts
- Internal assessment concludes MMPR competitors' are at a minimum 12-18 months away from developing comparable products to Satipharm's CBD Gelpell Gastroresistant Microgel Capsules<sup>(1)</sup>

### **August**

 Tweed closes acquisition of Bedrocan Canada, renames combined entity Canopy Growth Corporation.
 Consolidation in Canadian market commences

### **November**

- Health Canada reports that as at June 30, 2015, there were 23.930 MMPR clients
- Liberal party wins majority in Federal elections off back of full legalization of cannabis campaign promise
- MMJ ready for Duncan Pre-Licensing Inspection after officially notifying HC of facility's readiness

#### 2016



7% of Canadian doctors have recommended MC to patients

### 2015

#### October

 Indications of imminent consolidation of Israeli MC cultivation sector are strong. Frequent business articles and market gossip fuel speculation

#### 2016

 Health Ministry's proposed reform: sales through pharmacies; new types of products will be permitted upon safety & efficacy evidence; import & export (under certain conditions) will be allowed

## State-of-the-Art Duncan Facility Complete



### **Duncan Facility Cultivation Area**





~ 10,000 ft² of cultivation area across three separate cultivation rooms will yield up to 1,000 kg/year of MC

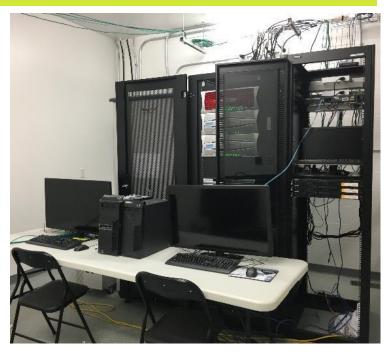
## State-of-the-Art Duncan Facility Complete



### Key Equipment Installations







**Automated Irrigation System** 

**Indoor Incinerator** 

Servers for Security Surveillance System

## State-of-the-Art Duncan Facility Complete



### The Vault / Laboratory







Inside the Vault

**Vault Door** 

In-House QA / QC and Analytics Laboratory

### Operational Update: United Greeneries







14 January 2016

### MMJ Receives Date from Health Canada for Duncan Facility's MMPR Pre-License Inspection

- MMJ PhytoTech Limited ("MMJ") notified by Health Canada ("HC") that a Pre-License Inspection of the Company's Duncan Facility will commence February 1, 2016
- A successful Pre-License Inspection is the final step to receiving a cultivation license from HC under the Marihuana for Medical Purposes Regulations ("MMPR")
- Notice of Pre-License Inspection is considered the most significant value catalyst for MMPR applicants
- In all cases known to MMJ, every MMPR applicant that has received notice of Pre-License Inspection has subsequently been granted an MMPR license
- MMJ is well positioned to soon be one of only 25<sup>(1)</sup> companies legally allowed to produce Medical Cannabis ("MC") in Canada

MMJ PhytoTech Limited (ASX:MMJ) ("MMJ" or the "Company") is pleased to announce its wholly-owned subsidiary United Greeneries ("UG") has received notification from Health Canada ("HC") that an MMPR Pre-License Inspection of UG's Duncan Facility will be conducted on February 1, 2016. This announcement marks the most important milestone passed to date by UG and positions MMJ well to become one of the few companies worldwide legally allowed to produce MC within a federally regulated regulatory framework.

Andreas Gedeon, Managing Director of MMJ PhytoTech, commented:

"Notice from Health Canada of an imminent Pre-License Inspection of the Duncan Facility is extremely positive news. For MMJ and its shareholders, an MMPR license at the Duncan Facility will have enormous strategic and fundamental value. Further, Duncan's status as a Licensed Producer will be key to MMJ's evolution into a diversified, revenue generating, integrated medical cannabis company. This is a significant event for the Company, its employees and its shareholders."



#### ASX RELEASE

5 February 2016

#### MMJ Completes Duncan MMPR Pre-License Inspection

MMJ PhytoTech Limited (ASX:MMJ) ("MMJ" or the "Company") is pleased to announce that its whollywomed subsidiary United Greeneries ("UG") has completed Health Canada's ("HC") Pre-License Inspection of the Company's Duncan Facility pursuant to Canada's Federal Marihuana for Medical Purposes Regulations ("MMPR"). Over a three day period from February 1<sup>18</sup> to 3<sup>24</sup> 2016, HC inspectors were onsite at the Duncan Facility verifying information submitted by UG as part of its application to become a Licensed Producer ("LP") under the MMPR and assessing compliance with the applicable sections of the MMPR prior to license approval. Pre-License Inspection is the final stage prior to Licensing in the application process to become a LP under the MMPR.

MMJ understands that the inspectors are required to submit a report outlining the results of the Pre-License Inspection to HC in Ottawa within two weeks of the inspection. Subsequent to that, it is expected that HC will respond to the Company within two to four weeks.

#### Ends

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#### About MMJ PhytoTech Limited

MMJ PhytoTech Limited is a vertically integrated medical cannabis (MC) company operating globally. The Company aims to commercialise MC and a growing portfolio of sophisticated MC delivery technologies to the rapidly growing international market for legal medical cannabis. The Company operates under three main subsidiaries with operations across the entire Medical Cannabis value chain, encompassing the Company's "Farm to Pharma" strategy.

United Greeneries is MMJ's Canadian-based MC cultivation subsidiary. UG has two facilities with pending MMPR applications, the Duncan Facility on Vancouver Island, BC, and Lucky Lake located in SK. The Company's flagship MMPR applicant is the Duncan Facility which has received notice from Health Canada of a Pre-License Inspection commencing February 1 2016. The Duncan Facility is a state-of-the-art MC cultivation facility with a capacity of up to 1000 KG of dried MC production per year.

## Operational Update: Phytotech Therapeutics





#### **ASX RELEASE**

10 February 2016

## EXTENSION OF YISSUM LICENSE AGREEMENT INCLUDING TWO NEW PATENT APPLICATIONS FORMING A COMPREHENSIVE IP PORTFOLIO

MMJ PhytoTech Limited (ASX:MMJ) (the "Company") is pleased to announce the extension of the exclusive Medicinal Cannabis (MC) licensing agreement between the Company's Israeli subsidiary, Phytotech Therapeutics and Yissum, the commercialisation arm of the Hebrew University of Jerusalem, to include two new patent applications for oral delivery of medicinal cannabis.

#### Development of a Comprehensive IP Portfolio

The extension of the exclusive licensing agreement with Yissum to include the addition of two new US provisional patent applications results in MMJ holding a comprehensive IP Portfolio for the oral delivery of MC. This enables MMJ to continue to develop a variety of cannabinoid based products for oral delivery with strong intellectual property protection.

#### New Licenses: Water Soluble MC Formulations

The first additional licenced patent application added to the MMJ IP Portfolio comprises active combinations of THC and CBD in a dispersible concentrate. Upon contact with an aqueous solution, the concentrate forms nanometer range particle sizes. This licenced patent application extends the previously licensed US 7,919,113 for the delivery of two of more active MC compounds in a single dosage form with water solubility of cannabinoids with improved bioavailability of both compounds.

The second additional licensed patent application comprises dry, rapid water dispersible nanoparticles containing cannabinoids incorporated into a biodegradable polymer. This unique formulation offers high yield, extended release, high bio-availability and water solubility of cannabinoids. The composition may be delivered in oral, injectable, tooical, inhaled and ear and eve drop formulations.

#### Importance of Additional Licensed Patents

The two additional technologies licensed from Yissum extend MMJ's IP portfolio and, importantly, expand the range of delivery technologies for the administering of MC to patients. This further strengthens MMJ's position in the global Medicinal Cannabis market. The expansion of MMJ's delivery technology portfolio for alternatives to smokeable form of Medicinal Cannabis is a key step in MMJ's growth plans. Specifically, offering patients an alternative to the smokeable form of the product has the potential to significantly increase the size of the market MMJ is able to service.



ASX RELEASE

#### 11 February 2016

# COMPLETION OF PHASE 1 CLINICAL TRIALS YIELD HIGHLY SUCCESSFUL SAFETY AND PERFORMANCE RESULTS – THE FIRST ORAL PILL SHOWING SUPERIORITY OVER COMMERCIAL NON-ORAL DRUGS

MMJ Phytotech Limited (ASX\_MM\_) (the "Company") are pleased to announce that on 11 February 2016 the Company's Israeli subsidiary, Phytotech Therapeutics Ltd, received very successful results from its Phase 1 clinical trial (Trial) being undertaken on two medicinal cannabis (MC) oral capsule formulations licensed exclusively from Xissum, the commercialisation arm of the Hebrew University of Jerusalem.

#### **Phase 1 Clinical Trial Results**

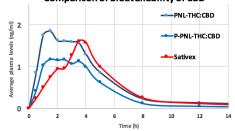
The results of the Trials are extremely positive with consistent results among all 14 completers (14/15 initiating test subjects).

The Trial yielded the following promising results;

- Demonstrable safety and tolerability profile with no significant side effects:
- Higher bioavailability of active compounds in comparison to GW Pharmaceuticals oromucosal spray – Satiyex;
- Very rapid onset; and
- . 8 bours exposure time in the blood.

Graph 1 and Graph 2 below provide a comparison of plasma concentration over time of CBD and THC for the two doses of the Company's formulations versus GW Pharmaceutical's Sativex.

#### Comparison of bioavailability of CBD



Graph 1 – Comparison of bioavailability of Cappabidiol (CBD) in Subjects' plasma for the two doses of the Company's Pro-Nang-Lipospheres and Satives.

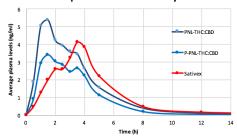
## Operational Update: Phytotech Therapeutics





ASX RELEASE

#### Comparison of bioavailability of THC



Graph 2 – Comparison of bioavailability of Tetrahydrocannabinol (THC) in subjects' plasma for the two doses of the Company's Pro-Nano-Lipospheres and Sativey.

The oral capsules are also showing very good on-going stability results at room temperature, leading to a cost effective and consumer friendly product.

The Company is developing oral capsules containing a standardized combination of Tetrahydrocampain (THC) and Capaphigid, (CBD) for various clinical indications. The first product in development is for relief of pain and spasticity of Multiple Sclerosis (MS) patients which will be the subject of a Phase 2 Clinical trial to be undertaken later in 2016.

#### Oral Capsules and Market Growth

Oral administration is regarded as the best route of delivery of MC compounds due to;

- · Administration simplicity;
- · No side effects of delivery route;
- Extended shelf life;
- · Ability to store at room temperature; and
- Low cost.

The results demonstrate the ability of MMJ's proprietary oral formulation to overcome the conventional challenges of delivery of compounds through an oral delivery system. Trial results indicate that MMJ's formulations per

Oral capsule delivery is expected to be a significant driver of growth in the global MC market. The strong results from the Phase 1 Trials on MNJ's oral capsule place the Company in a very strong position to continue to meet demands of patients and consumers.