



Clinical-Stage  
Pharmaceutical Company  
Focusing on  
Proprietary Synthetic  
Cannabinoids

Technologies Developed  
in Israel

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March 2017

Issuer Free Writing Prospectus dated March 20, 2017  
Filed Pursuant to Rule 433  
Registration Statement No. 333-214458



# Forward-Looking Statements

This presentation constitutes a “free writing prospectus,” or a portion thereof, required to be filed by the Company with the Commission or retained by Therapix Biosciences Ltd. (“we”, “us” or “our”) under Rule 433 to the Securities Act of 1933, as amended, or the Act.

All statements in this communication, other than those relating to historical facts, are “forward-looking statements.” These forward-looking statements may include, but are not limited to, statements relating to our objectives, plans, and strategies, the expected timing of trials, statements relating to the research, development, and use of our platform technologies, technologies, products and product candidates; and all statements (other than statements of historical facts) that address activities, events, or developments that we intend, expect, project, believe, or anticipate will or may occur in the future.

Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties. We have based these forward-looking statements on assumptions and assessments made by our management in light of their experience and their perception of historical trends, current conditions, expected future developments, and other factors they believe to be appropriate

Important factors that could cause actual results, developments, and business decisions to differ materially from those anticipated in these forward-looking statements include, among other things: the overall global economic environment; the impact of competition and new technologies; general market, political, and economic conditions in the countries in which we operate; projected capital expenditures and liquidity; changes in our strategy; government regulations and approvals; and litigation and regulatory proceedings. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this presentation as a result of, among other factors, the factors referenced in the “Risk Factors” section of the prospectus contained in our preliminary prospectus dated March 20, 2017, filed with the Securities and Exchange Commission as part of our Registration Statement on Form F-1 on March 20, 2017 (the “Preliminary Prospectus”).

You should read carefully the factors described in the “Risk Factors” section of the prospectus contained in the Preliminary Prospectus to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements.

These statements are only current predictions and are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry’s actual results, levels of activity, performance, or achievements to be materially different from those anticipated by the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. These forward-looking statements speak only as of the date of this presentation, and we assume no obligation to update or revise these forward-looking statements for any reason.

# Free Writing Prospectus Statement

This presentation highlights basic information about us and the offering to which this communication relates. Because it is a summary, it does not contain all of the information that you should consider before investing in our securities.

We have filed a registration statement (including a prospectus, which currently is in preliminary form) with the U.S. Securities and Exchange Commission, or the SEC, for the offering to which this presentation relates. The registration has not yet become effective. Before you invest, you should read the preliminary prospectus in the registration statement (including the risk factors described therein) and other documents we have filed with the SEC for more complete information about us and this offering.

You may access these documents for free by visiting EDGAR on the SEC Web site at [www.sec.gov](http://www.sec.gov).

The preliminary prospectus, dated March 20, 2017, is available on the SEC Web site at [www.sec.gov/edgar](http://www.sec.gov/edgar).

Alternatively, we or any underwriter participating in the offering will arrange to send you the preliminary prospectus and, when available, the final prospectus and/or any supplements thereto if you contact Laidlaw & Company (UK) Ltd., 546 5th Avenue, New York, New York 10036, via e-mail at [syndicate@laidlawltd.com](mailto:syndicate@laidlawltd.com) or via telephone at (212) 953-4917.

# Company Highlights

- ✓ Clinical-stage pharmaceutical company
- ✓ Repurposing FDA approved synthetic THC (dronabinol)
- ✓ Proprietary formulations, dosage and delivery platforms
  - ✓ Novel sublingual and nasal THC formulations
- ✓ Focused on high-reward CNS indications
- ✓ Combining two development programs:
  - ✓ **Tourette Syndrome** - combination drug therapy
    - ✓ THC & PEA: increased efficacy ,lower dosage and side effects (pre-clinical data)
    - ✓ POC Phase II clinical trial recently initiated
  - ✓ **Mild Cognitive Impairment (MCI)** - Ultra-Low Dose THC
    - ✓ First subset of MCI patients to be evaluated for the treatment of cognitive impairment in traumatic brain injuries & concussion
- ✓ Additional indications being assessed:
  - ✓ Potentiation of antibacterial agents for the eradication of resistance strains
  - ✓ Pain



# Experienced Management Team

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## **Dr. Ascher Shmulewitz, *Chairman***

- Prolific inventor and serial entrepreneur in biomedical technologies
- Has founded over two dozen life science companies and led multiple companies to successful exits

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## **Mr. Guy Goldin, *CFO***

- Has over 20 years of experience in a wide variety of managerial, financial, tax and accounting related positions

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## **Mr. Doron Ben Ami, *Chief Strategy Officer***

- Seasoned executive with more than 20 years of management experience
- Held various senior leadership roles in multinational pharmaceutical companies (Merck, Lundbeck)

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## **Dr. Elran Haber, *CEO***

- Served more than 10 years as Chairman and on Board Directors of several publicly traded, private companies and various associations
- Held key roles at various life science start-ups & private investment firm

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## **Dr. Adi Zuloff-Shani, *CTO***

- Has more than 15 years of vast experience as an R&D Executive
- Has served as Vice President Development at Macrocare Ltd. (NASDAQ)



# Board of Directors

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## Dr. Ascher Shmulewitz, *Chairman*

- Prolific inventor and serial entrepreneur in biomedical technologies
- Has founded over two dozen life science companies and led multiple companies to successful exits

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## Mr. Micha Jesselson, *Director*

- Part of the Jesselson Family Office that operates from Tel Aviv & New York
- Manages Jesselson Investments Ltd. involved in variety of sectors including VC investments, private equity transactions and real estate development in NYC

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## Mr. Avi Meizler, *Director*

- Experienced businessman and entrepreneur in Brazil since 1979 in the fields of pharmaceuticals, engineering & construction

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## Mr. Zohar Heiblum, *Independent Director*

- Co-founder of TeFen Ltd. ,a leading consulting firm in Israel
- Has been involved in various companies as investor, consultant, board member and chairman

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## Mr. Mark E. Groussman, *Director*

- Investor in both private and public companies
- Served as the President of Melechdavid, Inc.
- Served as the CEO of American Strategic Minerals Corporation
- Served as a director of Muscle Pharm Corp.

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## Mr. Stephen M. Simes, *Director*

- Extensive experience in US public BioPharma companies (BioSante, Unimed)
- Expertise includes management, product development, financing and M&A

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## Dr. Yafit Stark, *Independent Director*

- VP & Global Clinical Advisor, Global Clinical Development at Teva Pharmaceuticals Ltd .
- Established the Innovative R&D Division of Teva USA
- Was responsible for the clinical development of Copaxone

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## Mr. Amit Berger, *Independent Director*

- Serves as CEO of Dolphin I Investment Ltd.
- Served as the Chairman of Dash Investments Ltd.
- Served as Chairman, CEO and a Director in various companies

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## Mr. Donald P. Dizon, *Director*

- Investor in both private and public companies
- Served as Director of High Yield and Distressed Bond Sales at Knight Capital Group
- Served as Senior Vice President at Jefferies High Yield Trading, LLC

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## Mr. M. David Silverman, *Director*

- Founded NFM, Inc. (now NFM Lending), and has served as its CEO
- Owned and operated several small businesses

# Cannabis and Cannabinoid Overview

Medicinal use of cannabis and derivatives is well known<sup>1</sup>

**Best known agents in cannabis :THC and CBD**

- ✓ Potential benefits shown in multiple indications: antispastic, analgesic, antiemetic, neuroprotective, anti-inflammatory and in certain psychiatric diseases<sup>1</sup>
- ✓ Sourced botanically (complex) or synthetically (simpler & pure)
- ✓ Therapix utilizes an **FDA approved compound**: Dronabinol (synthetic THC)
- ✓ Stand-alone therapies or combination agents (“Entourage Effect“)



# Repurposing FDA Approved Cannabinoid (THC) For New Indications



## Tourette Syndrome Therapy based on the “Entourage Effect”

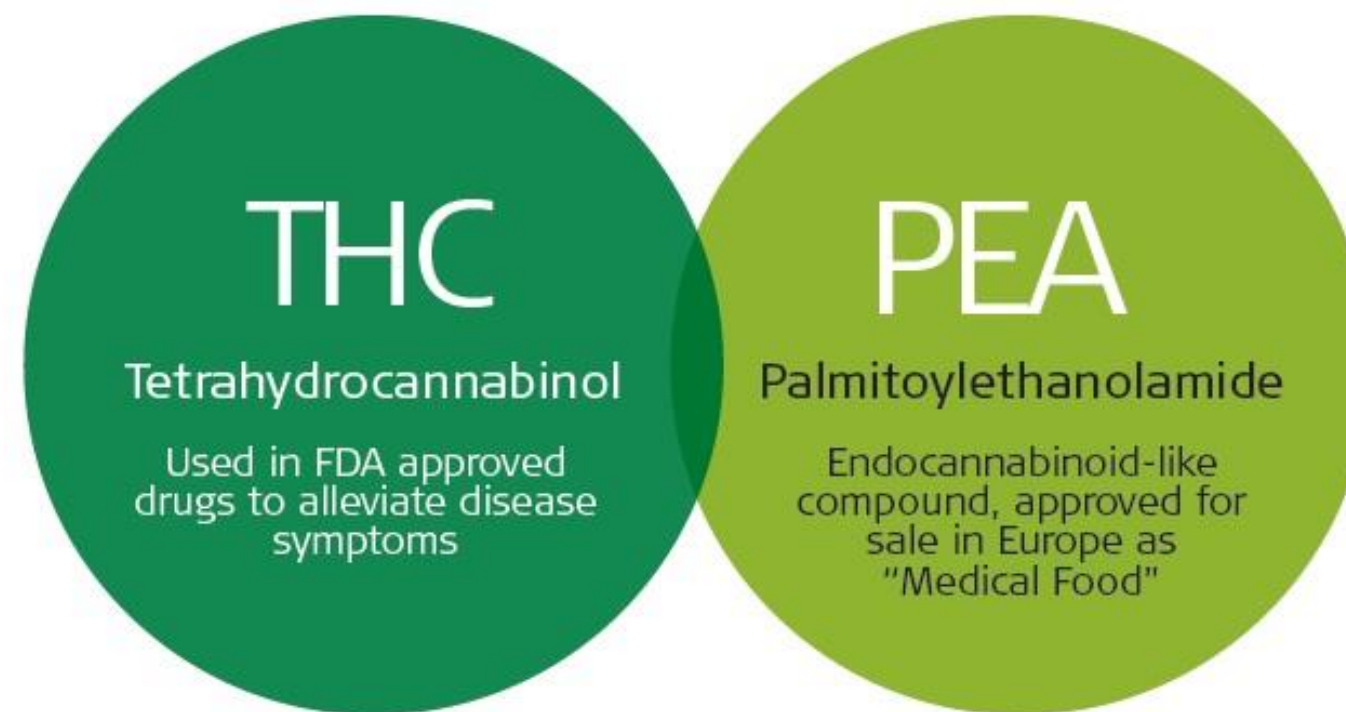
The “Entourage Effect” first described by Prof. Raphael Mechoulam<sup>1</sup>



## Cognitive Deterioration / Pre-Alzheimer's “Ultra-Low Dose THC”

A systemic cannabinoid-based therapy for brain related conditions targeting the multi-billion CNS drug market

# “Entourage Effect” – THC and PEA



**THC and PEA, a Proprietary Combination**  
**The Entourage Effect**

# Targeting Tourette Syndrome - an Orphan Disease<sup>1</sup>

- ✓ **Primary near-term indication for Therapix:** Tourette Syndrome - A neuropsychiatric tic disorder characterized by motor and vocal tics
- ✓ To date, only three drugs have been approved by the FDA to treat Tourette Syndrome - limited use due to severe side effects
- ✓ THC shown to reduce Tourette's symptoms<sup>2</sup>
- ✓ Filed an Orphan Drug Designation - FDA has requested additional data



# Tourette Syndrome - Joint Pharma Solution THX-TS01

- ✓ Several studies suggest that cannabis and THC may be effective in the treatment of Tourette Syndrome
- ✓ THX-TS 01- combines a synthetic endocannabinoid analog, PEA, with THC
- ✓ Taking a 505 (b)(2) regulatory strategy for FDA approval, based on Marinol® (dronabinol)
- ✓ POC Phase IIa clinical study initiated in December 2016 at Yale Medical Center



# Tourette Syndrome - THX-TS01 Development Plan

	2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Pre-Clinical studies	COMPLETED							
ODD Submission		COMPLETED						
POC Phase IIa Clinical Study - Tourette Syndrome								
Phase IIb Clinical Study								

# THX-TS01 - Additional Opportunities

## Antibacterial Therapy

- ✓ Antimicrobial resistance has been defined as a global threat<sup>1,2</sup>
- ✓ Urgent unmet need for new anti-bacterial agents<sup>2</sup>
  - ✓ THC may possess antibacterial properties, which were assessed in number of clinically relevant applications<sup>3</sup>
- ✓ Therapix intends to use its entourage technology to potentiate the efficacy of existing antibiotic drugs, especially in antibiotic-resistant bacteria strains

## Pain

- ✓ Cannabis and cannabinoids are used in patients with chronic pain conditions<sup>4</sup>
- ✓ Therapix signed a non-binding memorandum of understanding for strategic cooperation in pain conditions with Rafa Laboratories Ltd.



# Mild Cognitive Impairment (MCI) and Alzheimer's Disease

- ✓ In 2015, there were an estimated 46.8 million people with dementia worldwide and is estimated to increase by 2030 to 74.7 million<sup>1</sup>
- ✓ The global societal economic cost of dementia for 2015 is estimated at \$818 billion, a 35% increase from the cost estimate for 2010<sup>1</sup>
- ✓ The prevalence of Mild Cognitive Impairment (MCI) increases with age, at a rate of 10% in those aged 70-79 years and 25% in those aged 80-89 years<sup>2</sup>
- ✓ There is no FDA approved treatment or therapy for MCI<sup>3</sup>



# Cannabis and Cognition

- ✓ Cannabis has been shown to cause long-term cognitive deficits in chronic users manifested as impairment in attention, memory or executive functions
- ✓ Paradoxically, Ultra-Low Doses of THC have been shown to prevent and reverse cognitive decline in preclinical trials<sup>1</sup> as demonstrated by Prof .Yosef Sarne at the Tel Aviv University

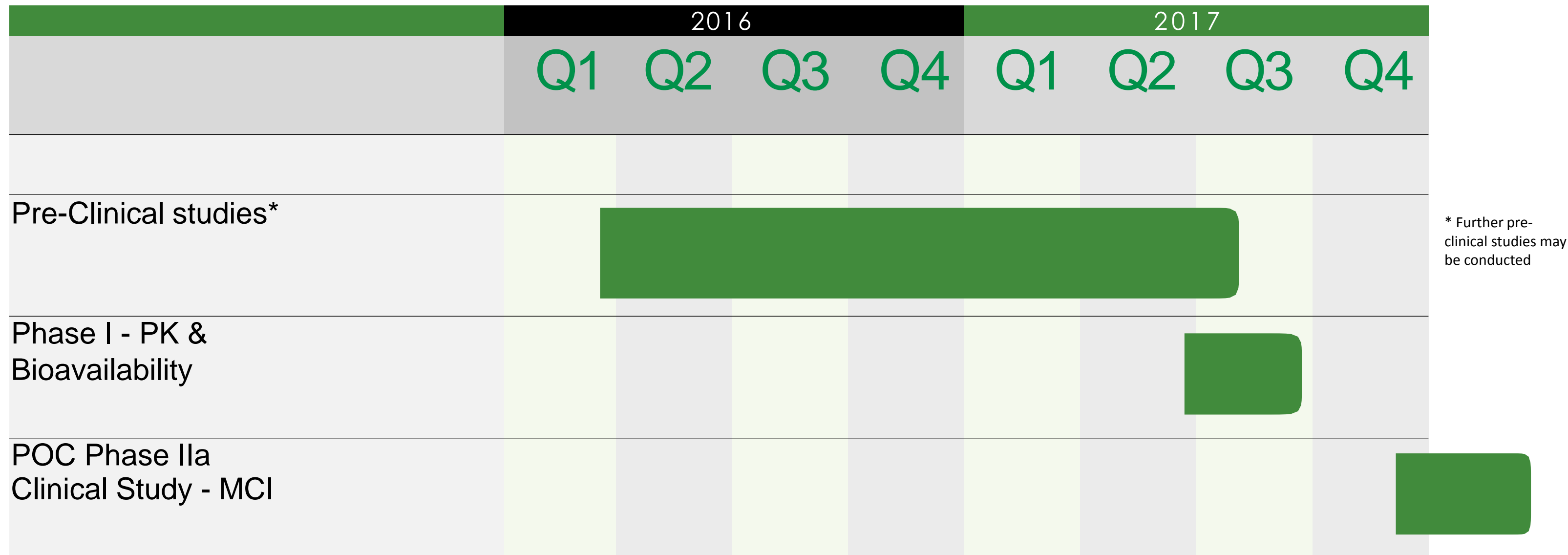


# Mild Cognitive Impairment (MCI) - BrainBright Solution THX-ULD01

- ✓ Recent pre-clinical research demonstrates Ultra-Low Doses of THC can prevent cognitive impairment
- ✓ THX-ULD01 - Therapix is developing a unique drug based on an FDA approved synthetic cannabinoid for delaying memory loss and potential progression to early stages of Alzheimer's
- ✓ Regulatory path to be streamlined using 505(b)(2) strategy based on Marinol® (dronabinol)
- ✓ Phase I-type study with healthy volunteers to demonstrate safety and bioavailability to be initiated in Q22017
- ✓ POC Phase II study to demonstrate efficacy to be initiated in H1 2018
- ✓ First subset of MCI patients to be evaluated for the treatment of cognitive impairment is in traumatic brain injuries & concussion



# Mild Cognitive Impairment (MCI) - THX-ULD01 Development Plan



# Strong Scientific Advisory Board

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## **Prof. Raphael Mechoulam**

- A Professor Emeritus of the School of Pharmacy at the Faculty of Medicine of the Hebrew University in Jerusalem
- A recipient of the Israel Prize

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## **Prof. James Leckman**

- A child Psychiatrist at Yale University
- Served as Director of the Child Study Center at Yale for over two decades
- A prominent international expert in the field of research and treatment of Tourette Syndrome

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## **Prof. Kirsten Müller-Vahl**

- Professor of Psychiatry the Hannover Medical School, Germany
- Recognized as the leading researcher in the field of cannabinoid use in treatment of Tourette Syndrome
- Served as a member of the scientific advisory board of the German Tourette Syndrome Association

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## **Prof. Michael Davidson,**

- Professor of Psychiatry
- Served as Chief Psychiatrist at the Department of Psychiatry of the Sheba Medical Centre Tel-Hashomer
- Chairman of the Stuckinski Centre for Alzheimer's Disease Research in Ramat Gan

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## **Dr. Michael Bloch**

- Associate training director of the Child Study Center's Solnit Integrated Program, Yale School of Medicine
- Noted researcher on the study of Tourette Syndrome, obsessive-compulsive disorder and trichotillomania

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## **Prof. Daniele Piomelli**

- The Editor-in-Chief of Cannabis and Cannabinoid Research
- Serves as Louise Turner Arnold Chair in Neurosciences
- Professor of Anatomy and Neurobiology, Pharmacology, and Biological Chemistry at University of California, Irvine

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## **Prof. Avi Weizman,**

- Professor of Psychiatry at the Sackler School of Medicine Tel Aviv University
- Head of the Laboratory of Biological Psychiatry at the Felsentein Medical Research Center
- Director and Head of Geha Mental Health Center's Research Unit

# Cannabinoid Market: Landscape and Opportunities

## FDA-regulated drugs vs. medical marijuana:

- ✓ Medical marijuana: variable dosing; therapeutic and psychoactive effects; poor compliance; abuse potential; political issues (still considered as Schedule 1 drug)
- ✓ FDA-regulated drugs: Rigorous GMP manufacturing; clinical efficacy/safety studies; controlled dosing
- ✓ FDA option for 505(B)(2) regulatory route- abbreviated development and shorter time to market

## Examples of approved Drugs:

- ✓ AbbVie: Marinol capsules (synthetic THC) for CINV (Schedule 3 drug)
- ✓ GW Pharma: Sativex sublingual spray (botanical THC and CBD (to reduce Multiple Sclerosis (MS) spasticity (not approved in the US)

## In Development:

GW Pharma (GWPH, Market Cap~ 3.3B USD): Sativex sublingual spray for MS spasticity ;Epidiolex sublingual spray (botanical CBD) for Epilepsy

Insys (INSY, Market Cap ~0.8B USD:( Syndros synthetic THC oral solution for CINV, anorexia in AIDs patients (recently approved) ;Synthetic CBD oral solution for Epilepsy

Zynerba (ZYNE, Market Cap ~275M USD :( Developing transdermal gel cannabinoid treatments (synthetic)



# Summary

- ✓ Focused on high value CNS indications with unique combinations, formulations and delivery methods
- ✓ Two indications with potential for shorter regulatory paths due to: Orphan Drug Designation (Tourette's) and 505(b)(2) pathway using approved active ingredients (Tourette's, MCI)
- ✓ Phase IIa (POC) clinical trial for Tourette Syndrome initiated in December 2016
- ✓ Phase I clinical trial in MCI program scheduled to start in Q2 2017 with POC Phase II clinical trial to start in H1 2018
- ✓ Additional indications being assessed:
  - ✓ Potentiation of antibacterial agents
  - ✓ Pain
- ✓ Experienced Management Team, Board of Directors and Strong Scientific Advisory Board



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**THERAPIX**  
BIOSCIENCES

