



Pilz BioScience

German: PILZ

English Translation: noun "Mushroom"

Our mission is to use medicinal psychedelics to optimize cellular function as well as modify cognitive perception, helping patients find and nurture the roots of their good health

PILZ BIOSCIENCE CORP MANAGEMENT PRESENTATION

OCTOBER 2020



Disclaimer

This presentation includes certain statements that may be deemed forward-looking statements. All statements in this discussion, other than statements of historical facts, which address future production, activities and events or developments that the Company expects, are forward-looking statements. Such forward-looking statements include, without limitation: (i) estimates of future raw material prices, supply, demand and/or production; (ii) estimates of future cash costs; (iii) estimates of future capital expenditures; (iv) estimates regarding timing of future research and development, construction, production or closure activities; (v) statements regarding cost structure, project economics, or competitive position, and; (vi) statements comparing the Company's properties to other projects or products. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include market prices, continued availability of capital and financing, and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance, that the Company expressly disclaims any responsibility for revising or expanding the forward-looking statements to reflect actual results or developments, and that actual results or developments may differ materially from those projected, in the forward-looking statements.



Corporate Overview

PILZ BIOSCIENCE CORP. ("PILZ") is a research driven biotechnology company focused on developing medicinal psychedelics for neuro-inflammatory conditions with a significant cognitive component and high unmet therapeutic needs. The initial focus is on Autism Spectrum Disorder (ASD).

- ✓ Development of the Pilz ASD Correlate
a unique and proprietary system for modeling diagnostics and therapeutics
- ✓ Integration of key aspects in chronic disease
inflammation, oral/gut/brain axis, behavior
- ✓ Effective and comprehensive diagnostic and therapeutic monitoring programs
- ✓ First-in-class therapeutics



Pilz BioScience

Senior Leadership Team

MARVIN S. HAUSMAN, MD

Chairman of the Board & Chief Scientific Advisor

Dr. Hausman is an Immunologist and Board-Certified Urological Surgeon with more than 30 years of drug research and development experience with various pharmaceutical companies, including Bristol-Myers International, Mead-Johnson Pharmaceutical Co., E.R. Squibb, Medco Research, and Axonyx.

Dr. Hausman was a co-founder of Medco Research Inc., a NYSE listed clinical research organization and biotechnology company specializing in adenosine products that was subsequently acquired by King Pharmaceuticals. Dr. Hausman was also a co-founder of Axonyx, and served in various capacities as President, CEO and Chairman until the company merged into NASDAQ listed Torrey Pines Therapeutics Inc. in 2006. Dr. Hausman is currently a Director of NuGenerex ImmunoOncology Biotechnology Corporation and is Chairman of the Board of Directors and Chief Science and Technology Officer of Entia Biosciences Inc.

Dr. Hausman has done residencies in General Surgery at Mt. Sinai Hospital in New York, and in Urological Surgery at UCLA Medical Center. He received his medical degree from New York University School of Medicine.

He is on the Alumni Board of Governors of NYU Grossman School of Medicine.

DEREK IVANY

President & Director

Mr. Ivany has a rich history of successfully working with both start-up and publicly traded companies and has a track record of generating significant shareholder value. Having worked with many international groups, Mr. Ivany has established a network of high-profile contacts across such sectors, especially, medicinal and adult-use cannabis, oil & gas, mining, agriculture, technology, and e-sports.

Derek most recently stepped down as President and CEO of AgraFlora Organics International Inc. where, during his tenure, AGRA grew from under \$2M in market capitalization to over \$250M at its peak. Derek was instrumental in building AGRA's asset base in both upstream and downstream cannabis operating entities including a licensed producer, AAA Heidelberg in London, Ontario, and Propagation Services Canada in Delta, British Columbia which operates the 2nd largest cannabis greenhouse growing facility in the world measuring 2,200,000 square feet.

Derek has a special personal connection to autism. Derek's brother Steve (1 year his junior), was diagnosed with ASD at a young age. Derek has witnessed first hand the devastating effects that severe autism can have on a family. Derek has been largely responsible for providing care and funding for Steve's daily needs for the past 10 years and is passionate about doing his part in advancing research in this area.

Senior Leadership Team

DR. GEORG HOCHWIMMER

Director

Dr. Hochwimmer is chief analyst at General Research, GmbH, a leading Munich-based securities research analysis firm. Dr. Georg Hochwimmer is a noted business consultant and academic responsible for aiding in the development of several highly profitable companies throughout Europe. He serves as CEO of supraMAT Technologies AG, which is a business incubator for German technology companies. He founded leading German tech start-ups such as Jenabatteries, SmartDyelivery and Trophosys. He is also a managing director of Microdrop Technologies which is a globally leading 3D micro-printing company. Dr. Hochwimmer has earned advanced degrees in chemistry and machinery engineering.

DR. JULIA PEREDERIY

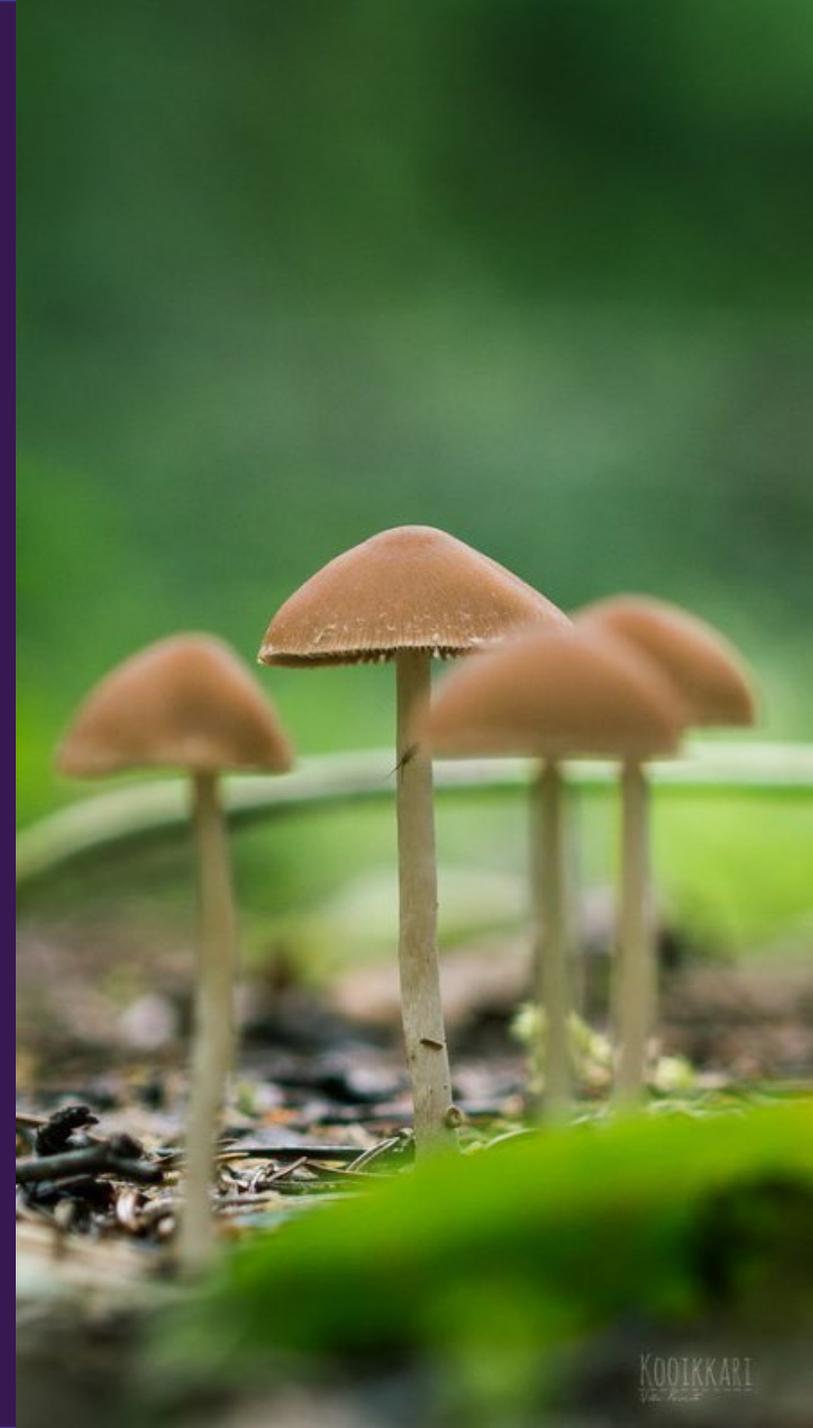
Strategic Advisor

Specializing in early-stage technologies and data-driven corporate strategy, Dr. Perederiy holds scientific and commercialization expertise along the full spectrum of biological innovation, from single-cell analytics to systems-level therapeutics. An established academic scientist, Julia is an author of multiple peer-reviewed publications, including highly regarded research on the neurogenetics of autism. In the private sector, Julia is an experienced entrepreneur and management consultant, helping biotechnology companies with business planning, market entry strategy, and fundraising.

Dr. Perederiy holds Bachelor's degrees in Neurobiology and Psychology from the University of California, Berkeley, a Master's in Technology Entrepreneurship from University of Portland, and a PhD in Neuroscience from Oregon Health & Science University.

What Are Medicinal Psychedelics?

- Chemical compounds such as psilocybin (4-phosphoryloxy-N,N-dimethyltryptamine) derived from certain species of hallucinogenic mushrooms
- Powerful behavioral agents at the forefront of a medical revolution, integrating cellular function and inflammation with cognition and mental health
- Agonists at serotonin receptors with the ability to modulate psychological states
- Ideal drug candidates for inflammatory neurological conditions with a significant cognitive component





Pitz BioScience

Psychedelics Driving a Paradigm Shift

Why Patients Need a New Approach

One thing that doesn't work in modern western healthcare is separating cellular function from cognition and behavior, with different specialists handling patient care

Addressing the true complexity of neurological conditions, medicinal psychedelics integrate biological markers of brain function with mood, cognition, and behavior

The medical community is increasingly open to exploring the therapeutic potential of psychedelics in neuro-inflammatory conditions

“Regardless of receptor-level pharmacology, the really interesting changes that occur with these compounds are in brain network dynamics — the way different areas of the brain communicate with each other”

Dr. Matthew Johnson – Professor of Psychiatry & Behavioral Sciences

Johns Hopkins School of Medicine (2017)

Current Clinical Landscape: Autism Spectrum Unmet Needs & Pilz Solutions

NEED FOR CHANGE IN DIAGNOSTIC APPROACH AND TREATMENT

- Vague diagnostic criteria, especially in girls.
- No definitive medical test to diagnose the disorders.
- Complexity of presenting behavioral symptoms.
- Rigid healthcare environment: 'patients don't always fit.'
- No integration of care; need to address both behavior/cognition and biochemical/physical symptoms.

PILZ BIOSCIENCE OFFERS A NEW APPROACH

- Biomarker-based differentiation of disease subsets
- Focus on collaborative care; aligning communication between clinicians and behavioral therapists
- Emphasis on patient-centric therapeutic paradigms

Scientific Background: ASD

Though ASD symptoms are diverse, underlying causes converge on common biological mechanisms, priming development of a new approach to diagnostics and treatment.

COMMON BIOLOGICAL MECHANISMS

Association between ASD and inflammation

Link between ASD and microbiota in the gut

POTENTIAL THERAPEUTIC EFFICACY

Modulation of social cognition via hallucinogens and 'entactogens' Preller & Vollenweider, 2019

REFERENCES

Masi et al., 2017

Fattorusso et al., 2019

(1) Masi, A., Glozier, N., et al. 2017. The Immune System, Cytokines, and Biomarkers in Autism Spectrum Disorder. *Neurosci Bull* 33(2):194-204.

(2) Fattorusso, A., Di Genova, L., et al. 2019. Autism Spectrum Disorder and the Gut Microbiota. *Nutrients* 11(3): 521.

(3) Preller K. H. & Vollenweider F. X. 2019. Modulation of Social Cognition *via* Hallucinogens and "Entactogens." *Front Psychiatry* 10:881



The Piliz Approach Innovation & Results

At long-last merging biochemistry and cognition in the clinical setting, Piliz aims to revolutionize ASD diagnostics and treatment by integrating patients' physical and mental/behavioral wellbeing



NIS Labs: Tested Psilocybin and Psilocin for cellular bioavailability and anti-inflammatory capabilities in a preclinical RBC bioassay



Microbiome Insights: Work in progress. Testing fecal samples for microbiota profile.



Thermo Fisher: Work in progress. Testing serum samples for inflammatory response.



Pilz BioScience

Autism Spectrum Disorder Therapeutics Market

The therapeutics markets for Autism Spectrum Disorder (“ASD”) represented approximately USD \$3.2 Billion in 2018 and is forecast to reach USD \$4.6 Billion by 2026 per the rising incidence of the disorder globally *

ASD is characterized as a developmental disorder that affects communication and behaviour. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), people with ASD have:

- Difficulty with communication and interaction with other people
- Restricted interests and repetitive behaviours
- Symptoms that hurt the person’s ability to function properly in school, work and other areas of life

* Fortune Business Insights Report – August 26, 2019



Pilz BioScience

Autism Spectrum Disorder Market Reports

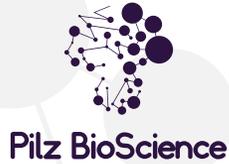
CDC (Centers for Disease Control and Prevention) state that approximately 1 in 54 children has been identified with ASD and is reported to occur in all racial, ethnic, and socioeconomic groups

A Canadian public policy study estimated the lifetime cost of supporting an individual with ASD at a range of between CAD \$1.2 Million to \$4.7 Million depending on the level of symptom severity and disability *

A 2015 report forecasted the economic burden of ASD including annual direct medical, direct non-medical, and productivity costs to be USD \$461 Billion by 2025 **

* Ontario Autism Coalition

** J Autism Dev Disord – Brief Report: Forecasting the Economic Burden of Autism in 2015 and 2025 in the United States



Autism Spectrum Disorder R&D Plan

Research and develop a pure synthetic psilocybin compound as well as tryptamine-based psychedelic derivatives in new and novel clinical indications

INITIAL PSILOCYBIN INVESTIGATION

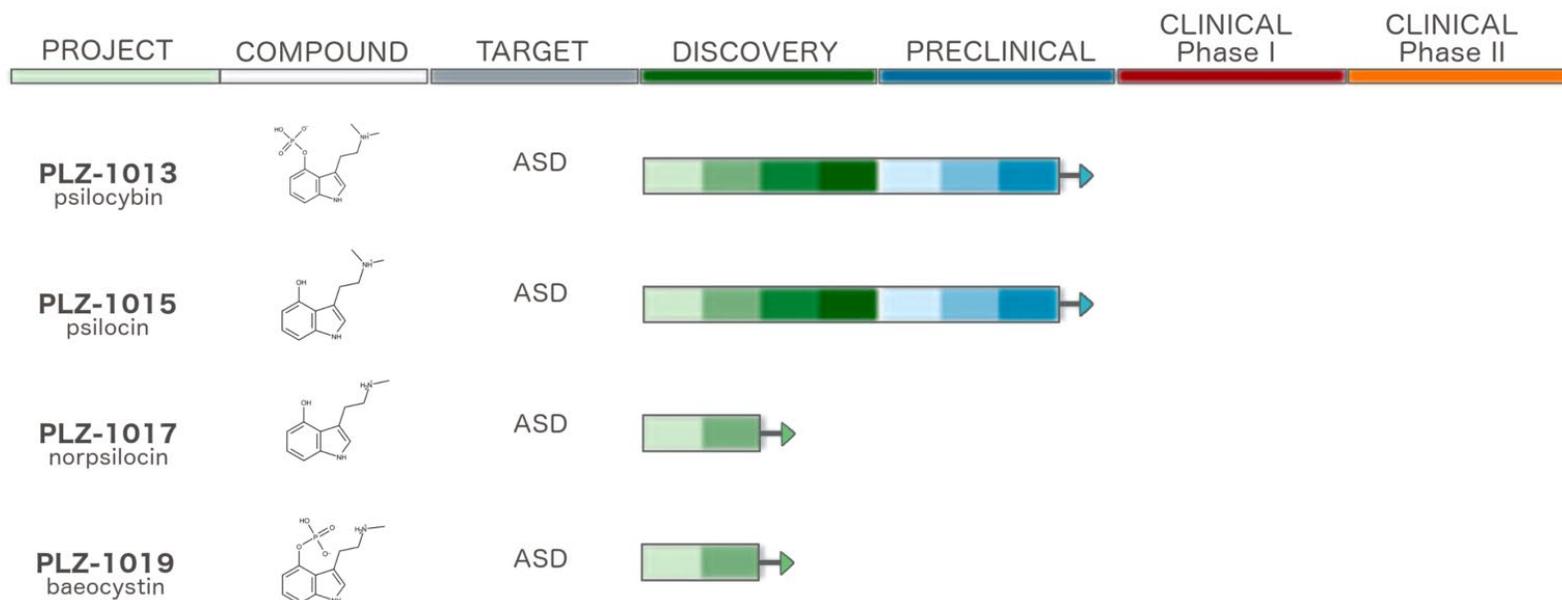
- Antioxidant protection of blood cells, stem cells and neurologic cells
- Inflammatory cytokine profile
- Gut microbiome characterization
- Modulation of therapeutic response in animal models of ASD

PURE PSILOCYBIN vs. ENTOURAGE EFFECT

- Pilz initial focus is on synthetic psilocybin and psilocin, as well as combinations of tryptamine-based psychedelic derivatives
- Pilz Bioscience will also investigate the potential of the Entourage Effect of full-spectrum products derived from psychedelic mushrooms

Drug Candidates in Development

Focusing on chronic neuro-inflammatory conditions, PILZ is developing a robust, diversified pipeline in multiple indications with high unmet medical needs. The initial target indication is Autism Spectrum Disorder (ASD).



Recent Corporate Milestones

■ Pilz entered into a Master Services Agreement with Comac Medical Ltd. – an international clinical research/site management company engaged in monitoring clinical trials, bioanalysis, GxP auditing, and biometrics. Comac will assist Pilz in designing and performing pharmacokinetic and Phase 1 clinical studies, as well as assist in European regulatory filings for drug approval.

■ Pilz is collaborating with Dr. Viviana Trezza at Roma Tre University (Rome, Italy), who has developed a rat model that allows the evaluation of the relationship between altered brain function in ASD and behavior. This model can test new pharmacological drug treatment options and their side effects. Samples from this model will undergo molecular analysis and will aid in development of the “ASD Correlate” – a proprietary diagnostic paradigm to capture molecular, cellular, and behavioral features of ASD with an aim to personalize individual therapy.



Pilz BioScience

Marvin S. Hausman, MD

Notable Exits, Drug Development Programs, and Research Missions

- King Pharmaceuticals takeover of Medco Research in 1998 in a USD \$314 Million stock swap, pooling of interest transaction
- Axonyx merger with Torrey Pines Therapeutics which then became Raptor Pharmaceuticals
- Successful in-licensing and development of inhibitors for acetyl and butyrylcholinesterase, as well as the drug Posiphen
- Conducted various drug development programs with The National Institute on Aging, a division of the National Institute of Health, located in Bethesda, Maryland
- Designed mRNA and miRNA Inflammatory Index Panel for Designer Genomics International