

# A new generation of medicine

# Psygen Industries Ltd. Corporate Presentation

September 2021

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# One of the world's first dedicated commercial manufacturing facilities for synthetic psychedelic medicines

Psygen's team of experts has unrivalled experience in the chemical synthesis of psychedelics. Psygen is focused on providing high-purity, active pharmaceutical ingredients (APIs) and research chemicals produced to good manufacturing practices (GMP) standards, while sustainably contributing to the growth of the psychedelic research ecosystem.



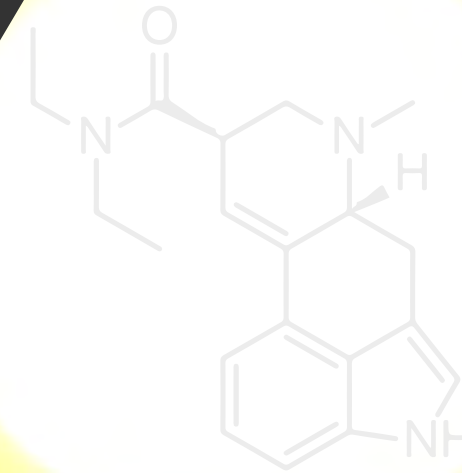
# Message from our founders

## Why are we called 'Psygen'?

The name Psygen expresses the philosophy and purpose of the company.

**PSY** is from the Latin psyche, taken from a Greek term meaning life, mind, soul, or breath, while **GEN** relates to 'kinship,' 'interconnectedness'. In our definition, gen is intentionally broadened to encompass a spirit of generosity in treating people, customers, and those taking our medicines as a family of kindred souls.

Psygen's team and shareholders unite through our shared mission, vision and values. The notions of generosity, responsibility, courage, curiosity, and clear intentions guide all we do.



**Danny Motyka, BSc**  
Chief Executive Officer | Co-Founder

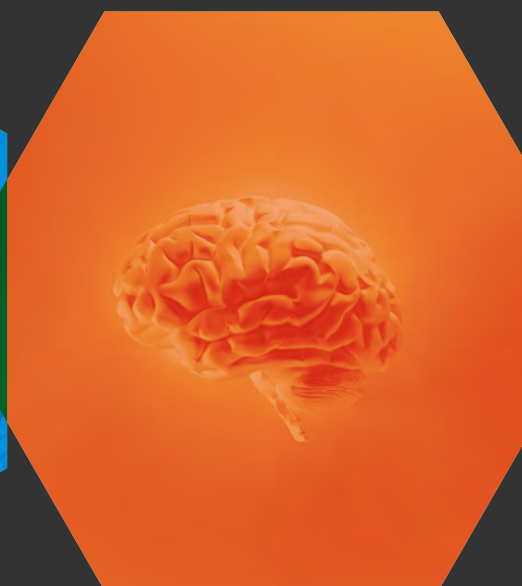
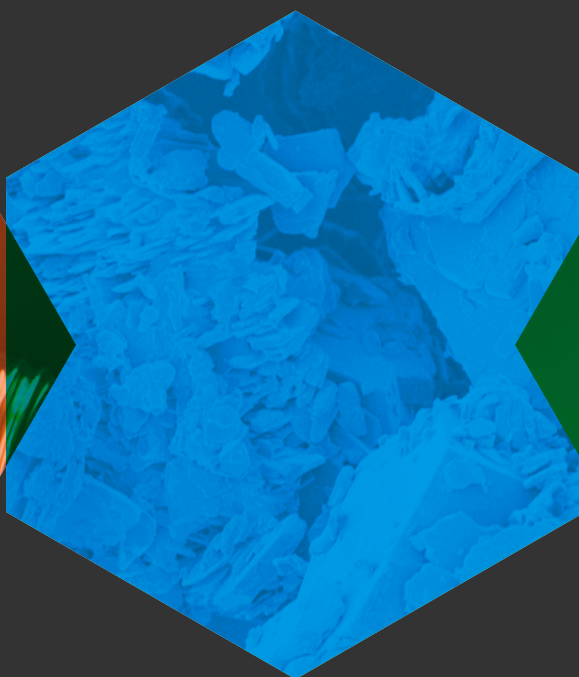
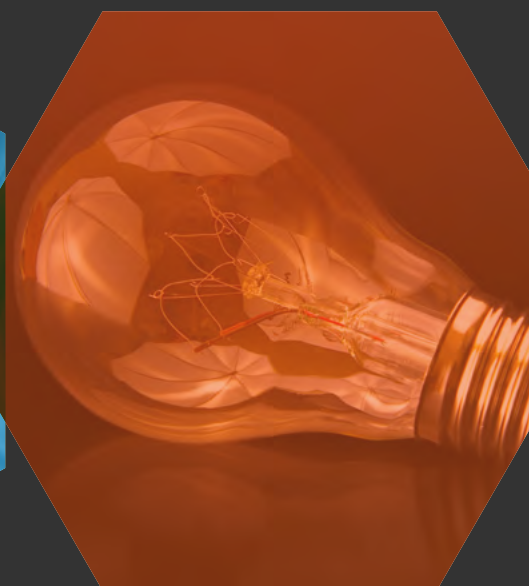


**Peter van der Heyden, PhD**  
Chief Scientific Officer | Co-Founder



# Company highlights

Psygen is a leading pharmaceutical-grade psychedelic supply chain solution for clinicians and researchers with the world's first dedicated, GMP compliant, state-of-the-art, large-scale manufacturing facility.



## Supply Chain Solution

Psygen will be one of the world's first dedicated GMP manufacturers of psychedelic active pharmaceutical ingredients (APIs).

## Unmatched Experience

Over 50 years of experience in psychedelic medicinal chemistry.

## Synthetic Product

Synthetic manufacturing processes are scalable and produce consistent, high quality product.

## Drug IP

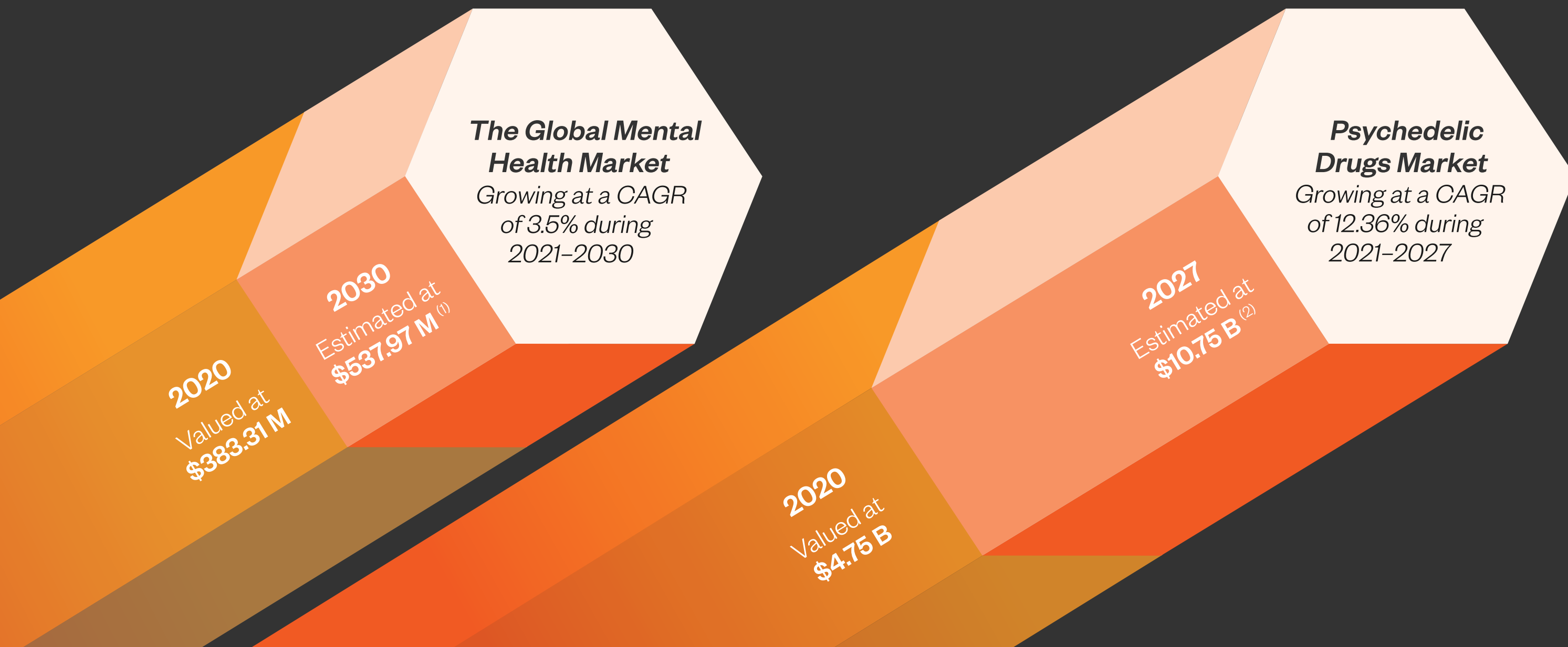
Psychedelic drug IP for synthetic manufacturing processes.

## Sales Pipeline

Psygen has developed a significant number of long-term customer relationships with executed supply agreements.

# Growth in the psychedelics industry

As a leading psychedelic contract manufacturing organization (CMO), Psygen is poised to capture market share across all psychedelic drug classes.



# Paradigm shift in perception

**Psychedelics are changing how mental health conditions are treated. As a result, we believe the human experience as a whole will improve.**

*The world of medicines for mental health is shifting:*

Approximately two-thirds of Europeans and Americans support **legalizing** psychedelics.<sup>(3)</sup>

Psilocybin issued “**breakthrough therapy designation**” by US FDA for depression.<sup>(4)</sup>

US FDA has granted **expanded access** to MDMA for PTSD patient treatment trials.<sup>(5)</sup>

**82%** of Canadians approve of the use of psilocybin-assisted therapy for people suffering from an end-of-life illness.<sup>(6)</sup>

Psychedelic-assisted therapies could provide relief in costs to society above US **\$150 billion** in relation to depression and US **\$12.4 billion** in relation to PTSD, in the US and EU alone.<sup>(3)</sup>

**80%** of patients were still feeling positive effects up to four and a half years later after one dose of psilocybin.<sup>(8)</sup>





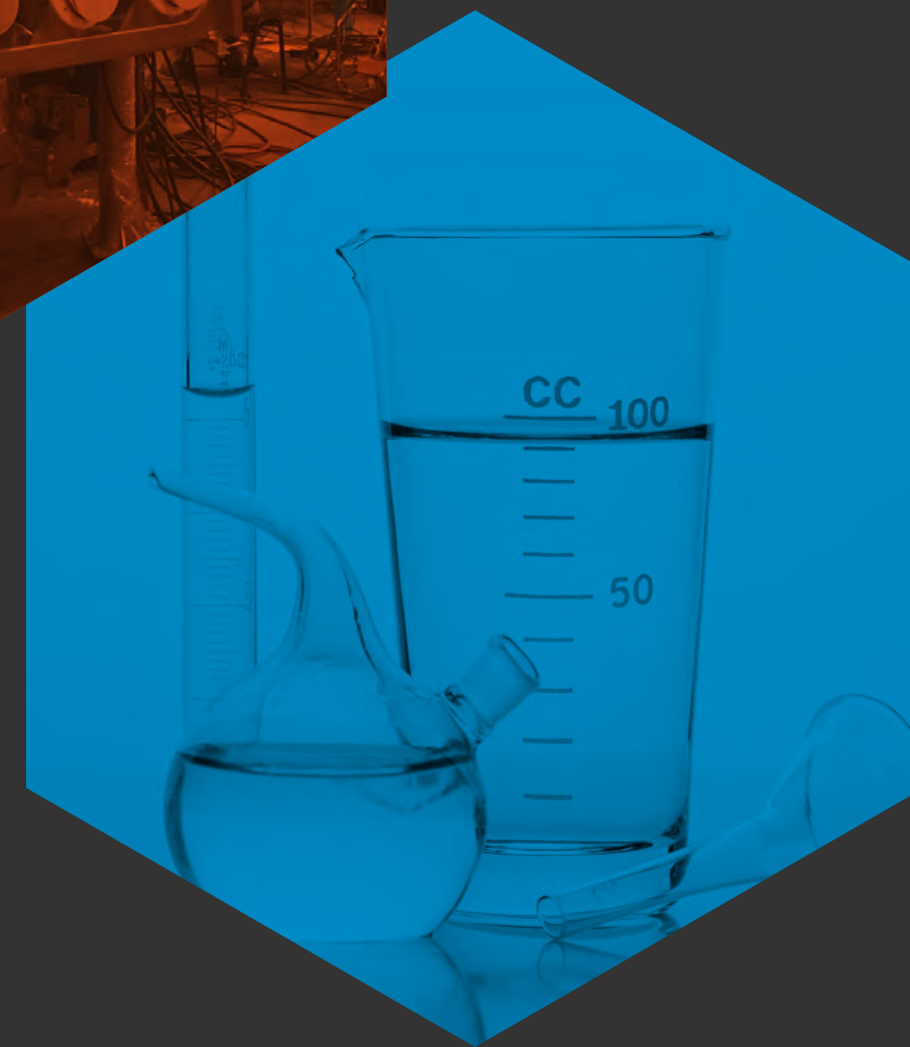
# The existing supply chain is not sufficient

## Existing Contract Manufacturing Organizations (CMOs)

- Lack of technical expertise and infrastructure to produce at scale
- Some CMOs are under exclusive supply agreements for certain psychedelic APIs
- Other product offerings compete for production capacity in diversified CMOs

## Natural Products Address a Different Market

- FDA approval of botanical drug products will be difficult and time consuming
- Isolation of pure psilocybin as API for drug products is challenging
- Complex standardization process for API batch release due to the inherent variability of natural products
- Only a small number of APIs may be sourced from natural products



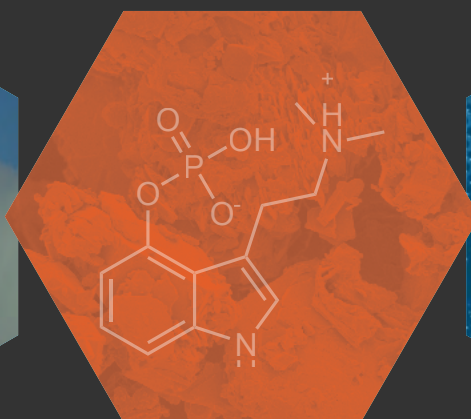


# The psychedelics industry needs a dedicated manufacturer

Current number of dedicated GMP manufacturers of synthetic psychedelic medicines to supply the industry: **ZERO**



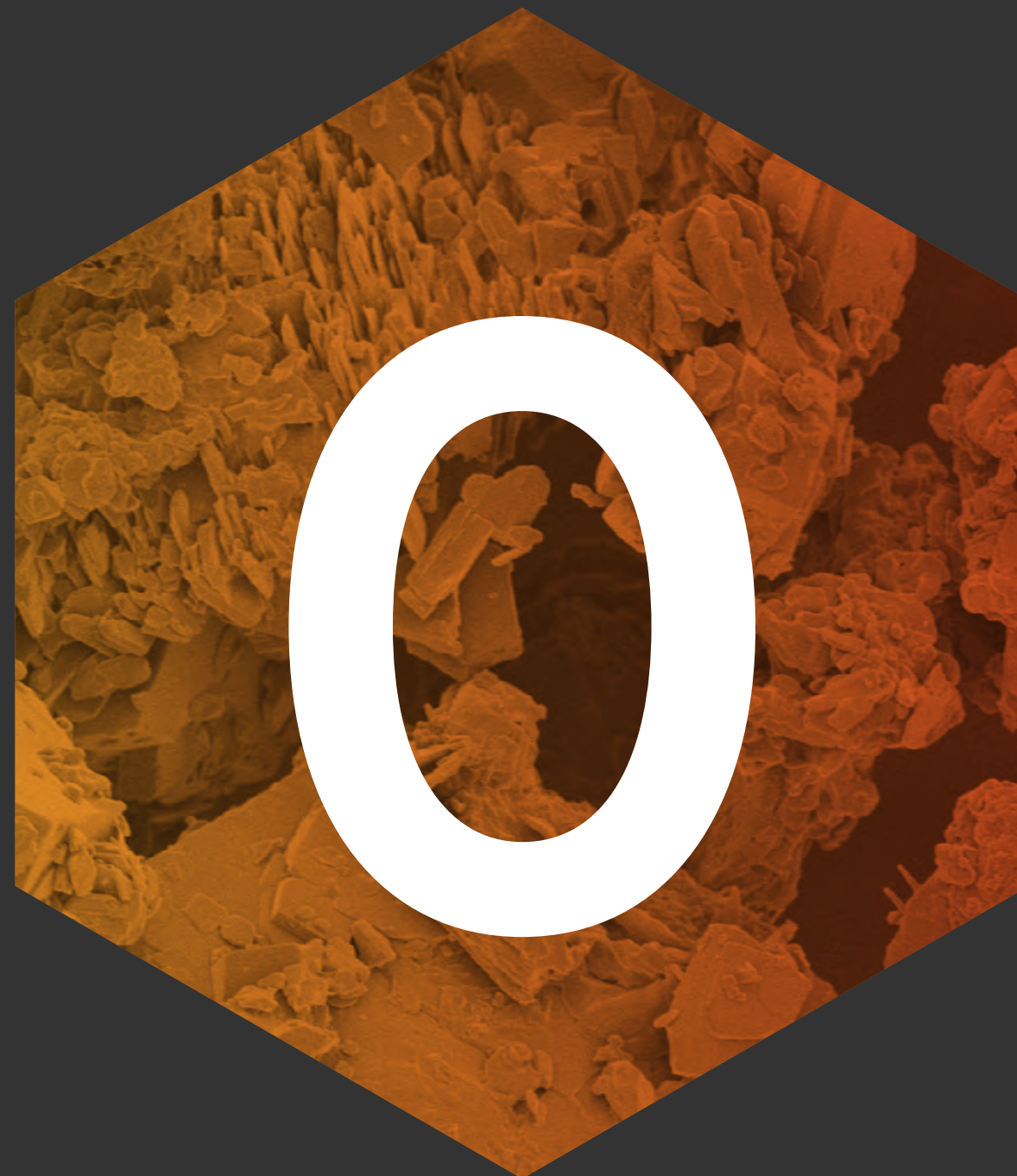
Accelerating Demand



Limited Supply



High Barriers to Entry





# Psygen will supply the industry

## A Dedicated Psychedelics Manufacturing Facility

Psygen has harnessed more than 50 years of combined experience synthesizing psychedelics to provide a catalogue of molecules for clinicians, researchers, and drug developers.





# Psygen's state-of-the-art facility

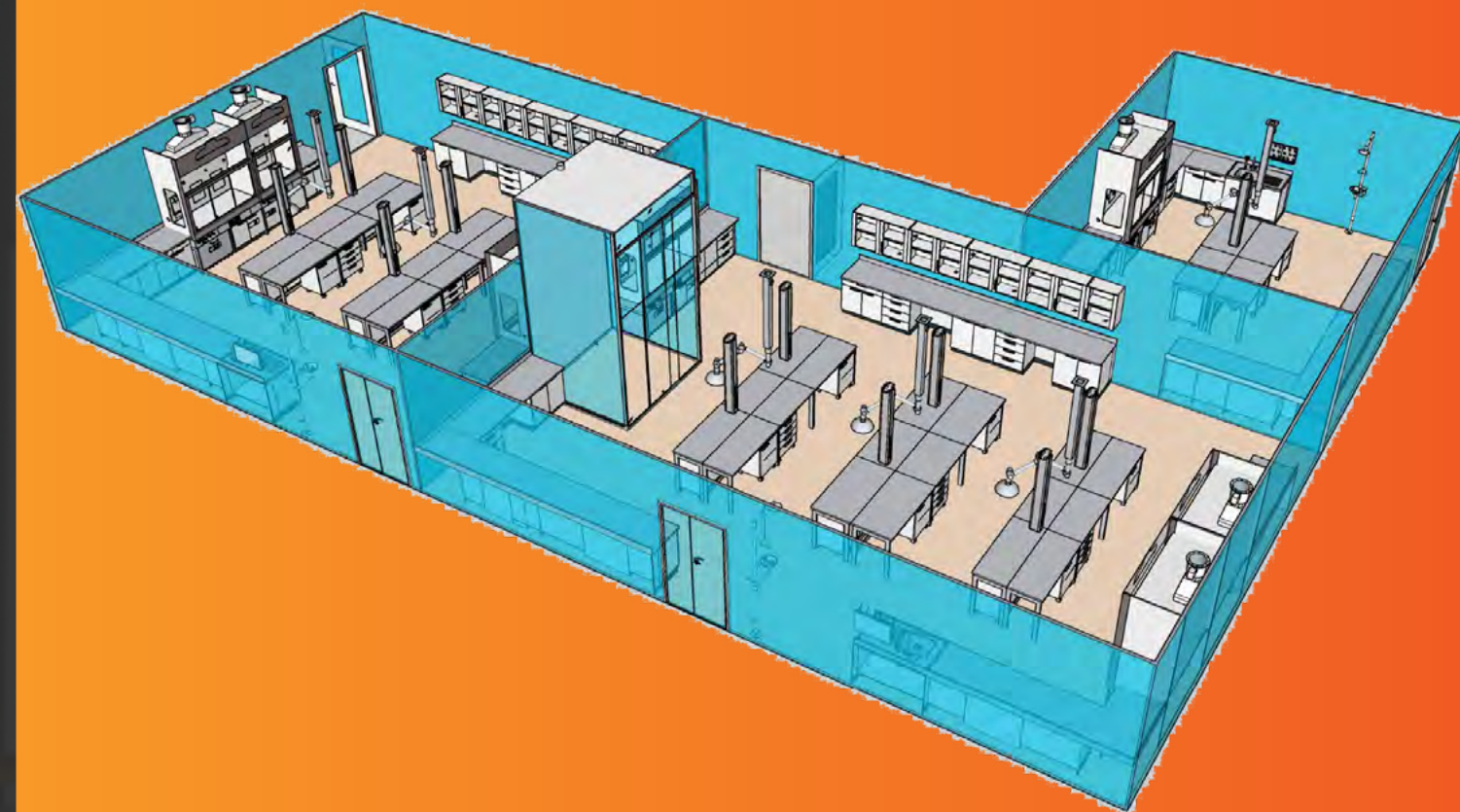
**17,000 sq. ft. will be GMP-compliant and enable large-scale synthesis of psychedelic compounds in a production area of 6,000 sq. ft.**

Psygen will lead and empower this industry by creating a robust supply chain solution for today and the future.

Begin construction notice received from Health Canada and granted in March, 2021.

**Phase 1** infrastructure can meet the projected clinical research demand through to 2025 – Fully Funded.

**Phase 2** plans are in development to produce hundreds of kilograms of psilocybin and MDMA annually.





# Facility completion & commissioning – Q4 2021

## Advantages of Psygen's Manufacturing Processes:

- Superior quality control
- Faster delivery time
- Proprietary and patent-pending manufacturing methods increase yield, lower costs, and improve margins
- Psygen has applied for a Health Canada dealer's licence which allows the manufacture, sale, import, export, and analysis of LSD, 2C-B, DMT, MDMA, psilocybin, and mescaline
- Psygen has developed methods for synthesis of 5-MeO-DMT and ibogaine, which are not controlled substances in Canada



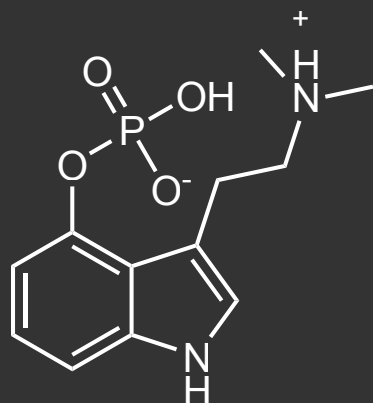


# Psygen API catalogue

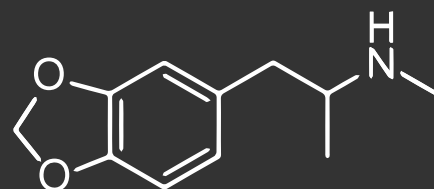
## Tryptamines. Phenylethylamines. Ergolines.

Psygen has unparalleled knowledge and manufacturing capability. We will provide better product outcomes, lower prices, faster delivery times, and superior quality control, as well as the ability to create custom compounds.

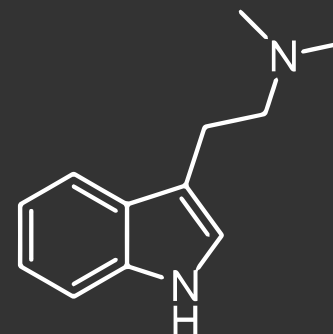
**Psilocybin**



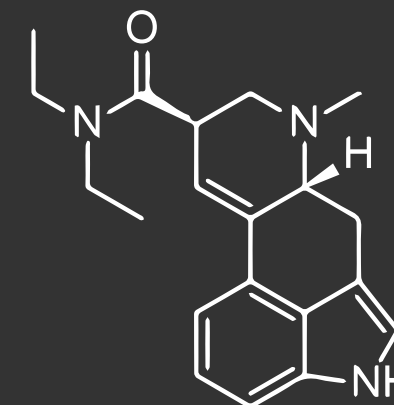
**MDMA**



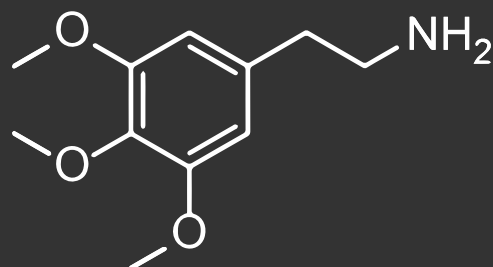
**DMT**



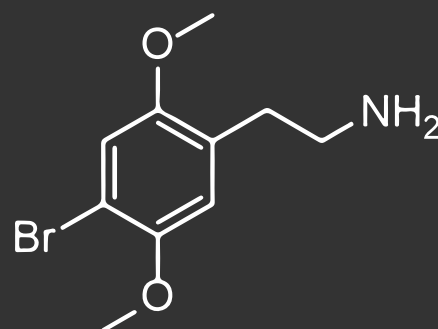
**LSD**



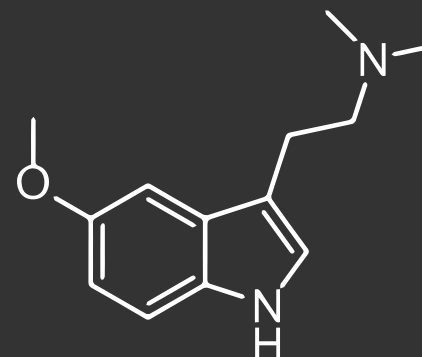
**Mescaline**



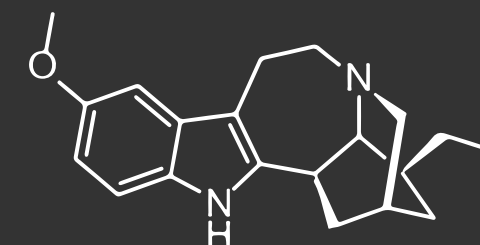
**2C-B**



**5-MeO-DMT**

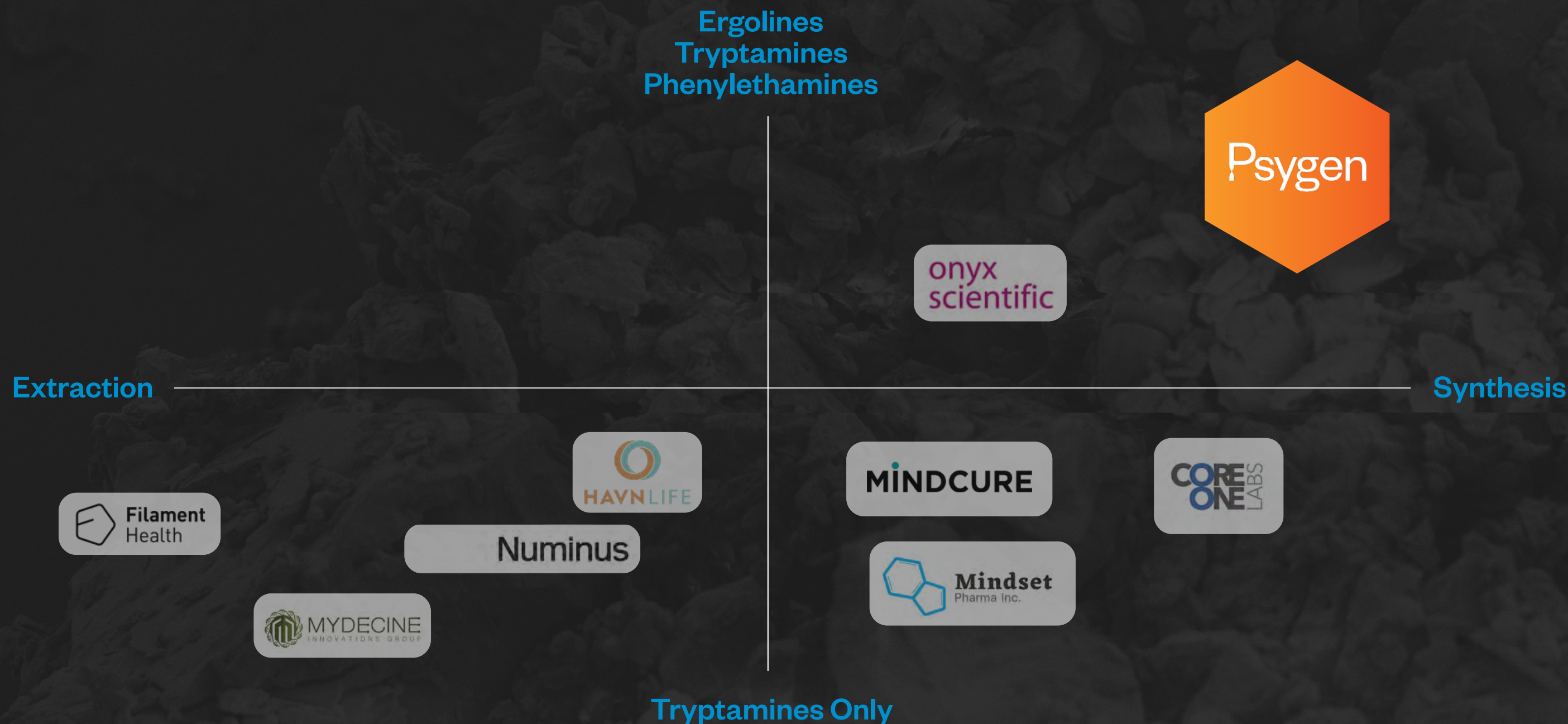


**Ibogaine**



# Psychedelic manufacturers

## Psygen's Market Position





# Psygen will supply the growing demand

Globally, 130 organizations are conducting clinical research with psychedelics that require a reliable API supplier. <sup>(14)</sup>

## Psygen annual production capacity:

2022: 3 kg = 150,000 doses

2024: 200 kg = 10 million doses

## Psilocybin

263% Increase in clinical trials listed between 2020 and 2021 <sup>(9)</sup>

100 kg: estimated demand per 1,000,000 patients

## Psygen annual production capacity:

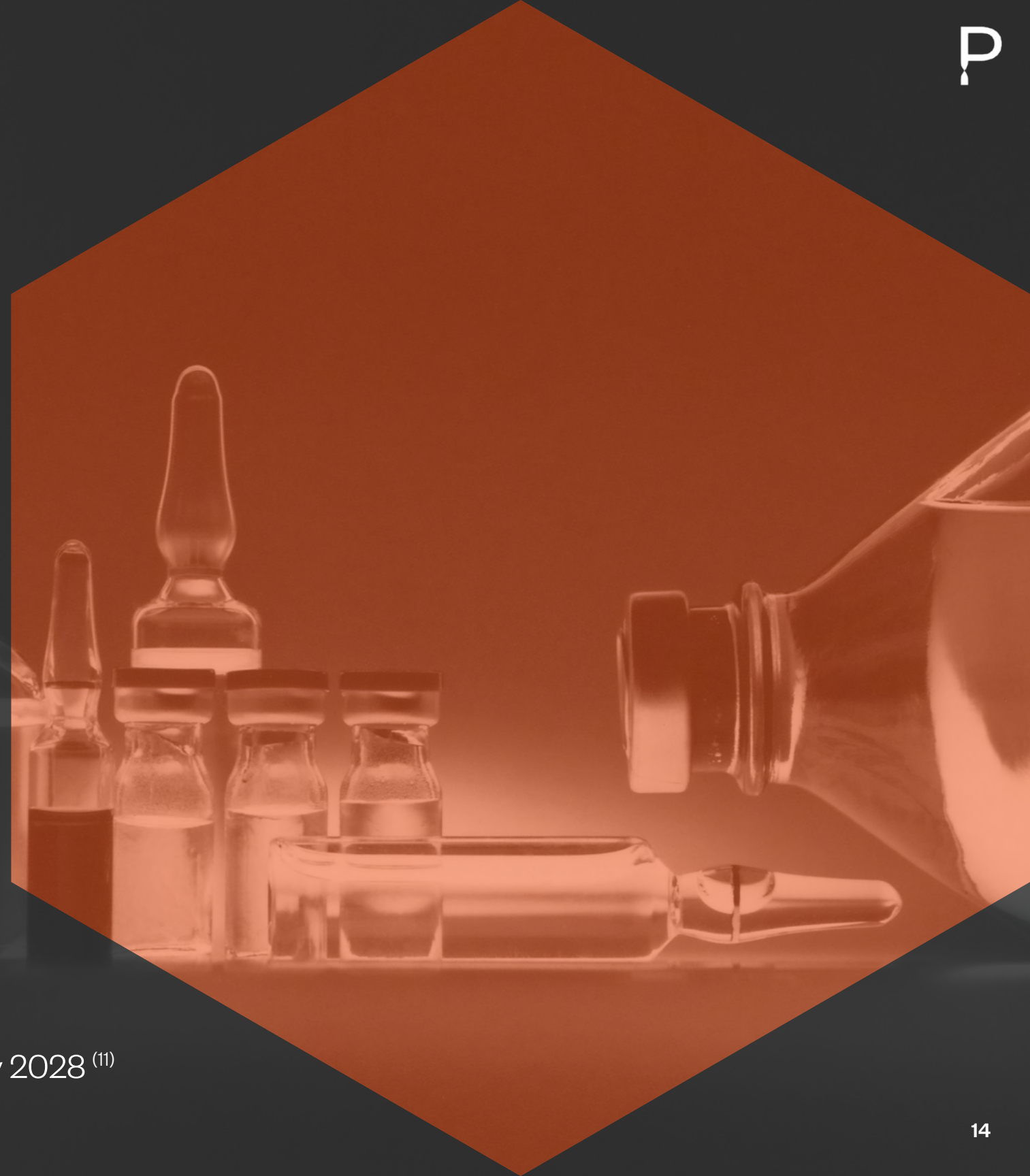
2022: 5 kg = 50,000 doses

2024: 200 kg = 2 million doses

## MDMA

On track for a 2023 FDA approval for the treatment of PTSD <sup>(10)</sup>

MDMA will see a total annual revenue of \$326.6m in the US and EU by 2028 <sup>(11)</sup>



# Psygen is targeting the global market

## Sales Pipeline.

- Prospective Customers: 35+
- Psilocybin Pending Sales Orders: 1.3 KG
- Production Orders: \$3.8 Million (CAD)

## The waiting list for production from the Psygen facility is growing.

- Drug Product Manufacturers
- Clinical Trial Sponsors
- Scientific Researchers

Active Customers: 16\*

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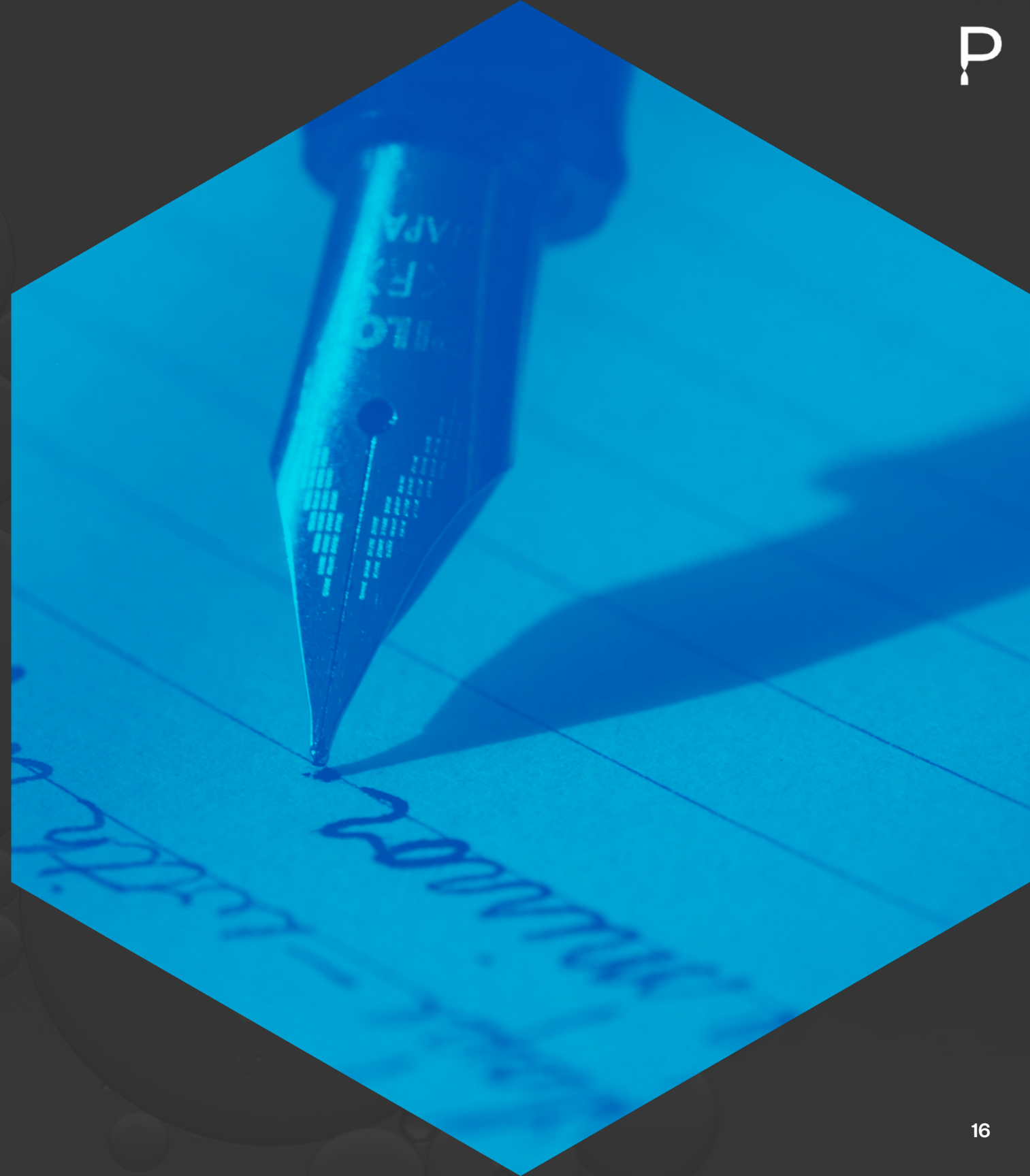
wesana™



# Intellectual property strategy

**Proprietary manufacturing protocols for safe, large-scale manufacturing of the highest quality psychedelic drug substances to GMP standards.**

- Pending patent applications for tryptamine recovery method and tryptamine manufacturing method:
- Psygen has filed two provisional patent applications at the United States Patent and Trademark Office (USPTO), establishing priority dates for claiming technologies related to recovery of tryptamines and to formulation options for tryptamines.
- Data suggests possible improvements in efficiency and economics of manufacture for psilocybin and certain other tryptamines.
- Additional formulation options for psilocybin.



# A diversified strategy: LSD product development

## LSD Drug Product

- Mark Haden, Director of Clinical Research, is leading the clinical aspects of the LSD drug development program.
- Product development will begin with manufacture of GMP LSD for use as an API.
- Two drug products with LSD formulated to standard doses and to microdoses will be developed.
- Solutions to formulation challenges are predicted to yield valuable intellectual property.

## Clinical Research Goals

- Collect safety and efficacy data while improving efficiency of delivering psychedelic-assisted psychotherapy.
- Data applicable to Psygen's LSD drug products and to collaborations related to drug products of Psygen's customers.



**Mark Haden**  
Director of Clinical Research



# Achievements to date

Q3 2021

**As a leading psychedelics contract manufacturing organization (CMO), Psygen is poised to capture market share across all psychedelic drug classes.**

Raised \$12 million

Validated  
production process  
for psilocybin &  
produced 500 g  
GMP material

Filed 2 provisional  
patent applications  
on innovative process

Established 16  
customers

# Psygen roadmap





# Social mandate—Psygen is defined by values

We are committed to donating up to 10% of all profits to nonprofit entities that provide access to therapy for low-income and marginalized populations and conduct research programs advancing understanding of psychedelics.



## Generosity

We will provide the psychedelic compounds and accelerate the industry access to safe, non-exclusive, and cost-effective medicines.



## Gratitude

Psygen's expertise is built on firm foundations of formal science and traditional wisdom. We are thankful to all those who taught and inspired us.



## Curiosity

We are scientists by nature; we achieve progress in our field by experimentation, curiosity, and a willingness to collaborate.



## Connection

We understand that disconnection is the bitter root from which trauma and ill health can grow. We produce medicines that reconnect us with nature and humanity, and that allow positivity to bloom.

# Management & Administration Team



**Peter van der Heyden, PhD**  
Chief Science Officer (CSO)



**Danny Motyka, BSc**  
Chief Executive Officer (CEO)



**Paul Mesburis, CA, CPA, CFA**  
Chief Financial Officer (CFO)



**Nadia van der Heyden**  
Director of Sales and Marketing



**David Wood, PhD, LLB**  
Chief Legal Officer (CLO)  
and General Counsel



**Bri Sebastian, PhD, P.Chem**  
Director of Laboratory  
Operations



**Michael Johal**  
Director of Communications  
and HR



**Arunima Nath, MSc. Pharma**  
Director of Quality  
and Compliance

# Management & Administration Team



**Lisa Miner**  
Supply Chain Manager



**David Gvora, CA, CPA, MBA**  
Controller



**Chloe Deutscher, BSc. ChE**  
Business & Process  
Engineering Manager



**James Bateman, RSE**  
Maintenance Manager



**Crystal Carson**  
Media & Event Manager



**Ken Jones**  
Associate Science Writer



**Mark Haden, MSW**  
Director of Clinical Research



**Colin Kilty, BBA**  
Account Manager

# Operations & Lab Team



**Stewart Frescas**  
Lead R&D Chemist



**Giorgio Baggi, PhD**  
Senior Pharmaceutical Chemist



**Jayamma Yaruva, PhD**  
Chemistry Lead - Production



**Daniel M. Callahan, MS**  
Senior Production Chemist



**Adam Fehr, CLT**  
Analytical Chemist



**Chris Johnsen**  
Laboratory Assistant  
(Production Lab)



**Cory Heinrichs, BSc**  
Laboratory Assistant  
(Production Lab)



**Rachelle Varga, BSc**  
Laboratory Assistant  
(Production Lab)



# Board of Directors & Advisors



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Director



**Mitch Greenspoon**  
Director



**Norma Beauchamp, BBA**  
Director



**Robbie Bent**  
Director



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**Dennis McKenna, PhD**  
Advisor



**Dr. Dave Pate, PhD, MSc**  
Advisor



**Eleonora Molnar**  
Ethics & Community  
Engagement Advisor



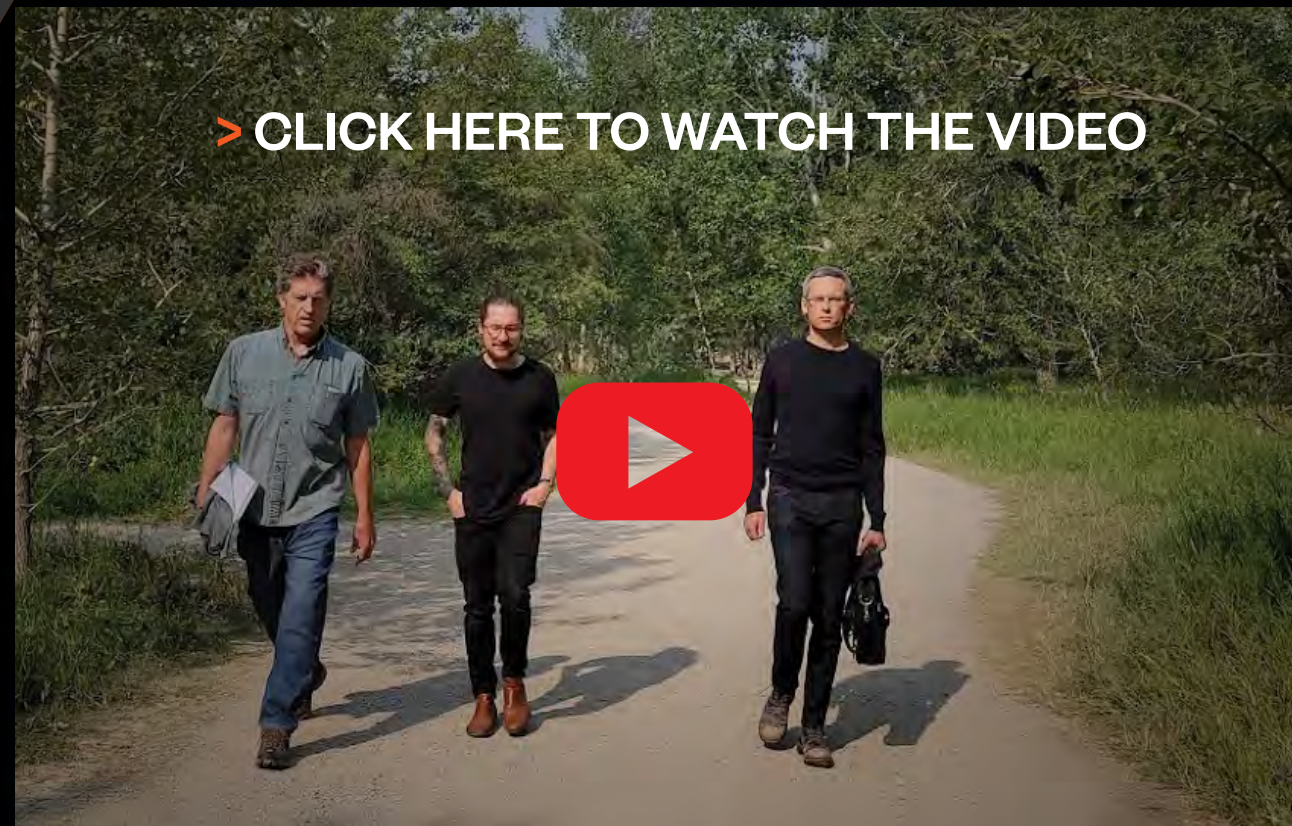
**Dave Nichols, PhD**  
Advisor



# The Psygen story

Watch our team share  
the Psygen story.

> [CLICK HERE TO WATCH THE VIDEO](#)





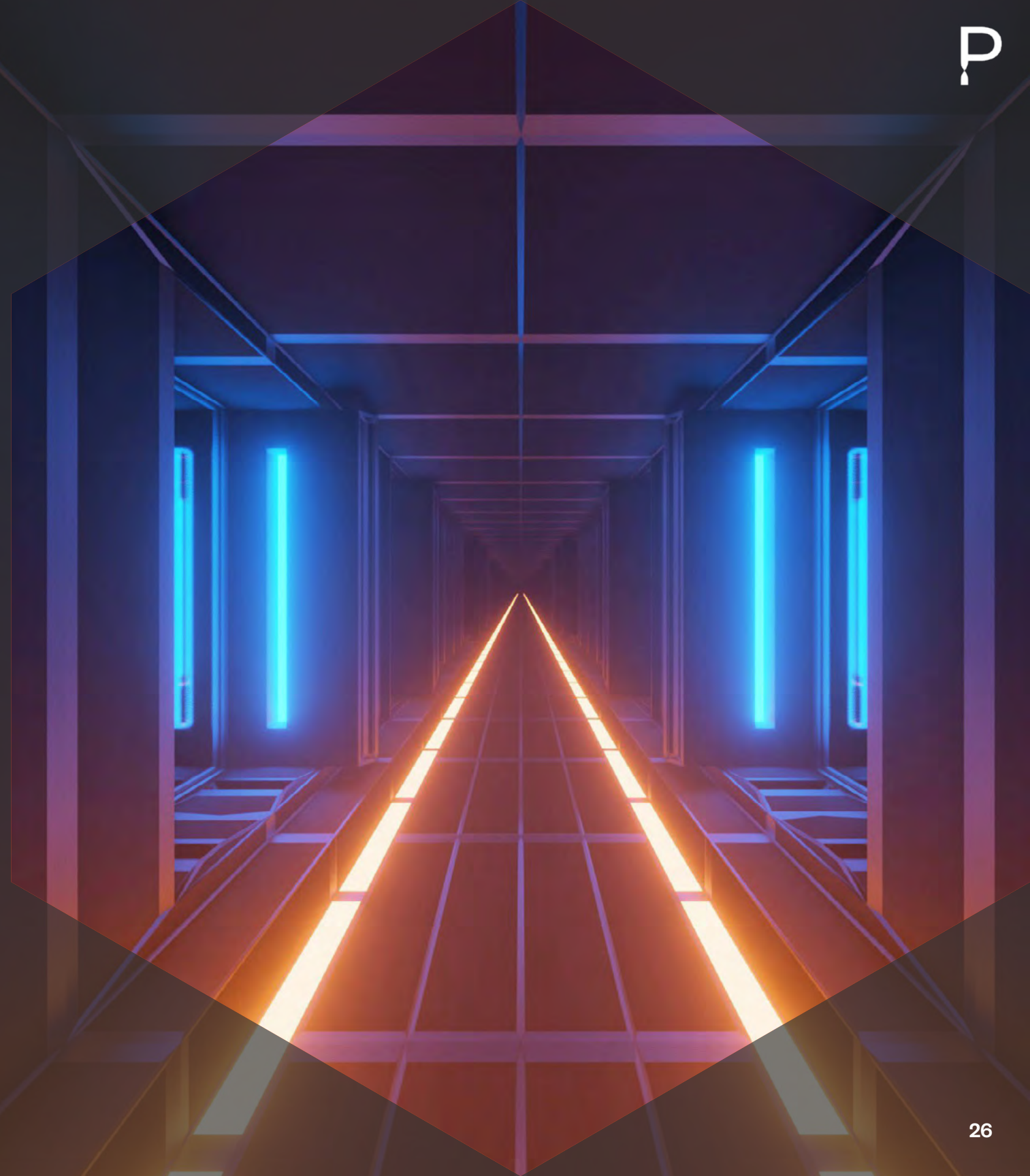
# Investment summary

**Fall 2021 – Psygen intends to complete an RTO Transaction in conjunction with a brokered private placement offering.**

Our progressive business model is primarily focused on large-scale manufacture of psychedelic substances and includes drug development for the purpose of commercialization.

- **Phase 1**, which is fully funded and expected to be completed in 2021, will meet production requirements for expected clinical trial demand through to 2025.
- **Phase 2** plans are in development, utilizing our scalable processes to design a pilot plant capable of meeting true commercial demand.
- Increased yields lead to higher margins.
- Superior quality control.
- Strong intellectual property position.

Based on management projections and assumptions, including but not limited to, the timely completion Psygen's facility on its projected construction schedule, having access to necessary supply and personnel and assuming maximum production at Psygen's facility.



# Thank you

We invite you to join our mission to build a global psychedelics supply chain as we will synthesize GMP psychedelics at an unprecedented scale and accelerate the industry's access to safe, non-exclusive, and cost-effective medicines.

Psygen knows the transformative power of this work, and we are determined to increase access to these compounds.

It is time to replace stigma with curiosity and ignorance with evidence.

# Psygen

A new generation of medicine.

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