atai
LIFE SCIENCES

Healing mental health disorders so that everyone everywhere can live a more fulfilled life.

Company Overview

Disclaimer

This presentation may include forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, industry dynamics, business strategy and plans and our objectives for future operations, are forward-looking statements. These statements represent our opinions, expectations, beliefs, intentions, estimates or strategies regarding the future, which may not be realized. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "targets," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions that are intended to identify forward-looking statements. Forward-looking statements are based largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short term and long-term business operations and objectives and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including without limitation the important factors described in the section titled "Risk Factors" in our final prospectus, dated June 17, 2021, filed with the Securities and Exchange Commission ("SEC") pursuant to Rule 424(b) under the Securities Act, and in our other filings with the SEC, that may cause our actual results, performance or achievements to differ materially and adversely from those expressed or implied by the forward-looking. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this presentation may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. We caution you therefore against relying on these forward-looking statements, and we qualify all of our forward-looking statements by these cautionary statements.

The forward-looking statements included in this presentation are made only as of the date hereof. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor our advisors nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. Neither we nor our advisors undertake any obligation to update any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations, except as may be required by law. You should read this presentation with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

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This presentation contains excerpts of testimonials from individuals who have been treated with compounds or derivatives of the compounds underlying our product candidates in the context of third-party studies or otherwise that are solely intended to be illustrative and not representative of the potential for beneficial results of such compounds. Our product candidates are in preclinical or clinical stages of development and none of our product candidates have been approved by the FDA or any other regulatory agency.

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We are a founder-led team aiming to develop differentiated treatments for patients suffering from mental health disorders

Christian Angermayer
Founder & Chairman

APEIRON INVESTMENT GROUP
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Florian Brand
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COMPASS Navigating Mental Health Pathways
springlane

Greg Weaver
CFO

ELQ Eloxx Pharmaceuticals
Sirna Therapeutics

Rolando Gutierrez, MD
CMO

janssen
Bristol Myers Squibb

The atai team has collectively led → **13** **NDAs through regulatory approval** + **50+** **IND applications**

Executive Summary and Key Investment Highlights

1. Mental health disorders have become one of largest global health burdens, exacerbated by the COVID-19 pandemic. Despite the unmet patient need, innovations remain limited, with only 17 new neuropsychiatric drugs approved since 2015.

2. As a response to lack of innovation, atai focuses on compounds with prior clinical evidence, including psychedelics whose therapeutic potential has become evident in recent academic studies and which have benefited from recent regulatory momentum.

3. Our platform consists of 11 drug development programs and 6 enabling technologies, focusing on differentiated and potentially disease-modifying mental health treatments. We intend to continue to grow our platform through acquisitions and incubations.

4. Our platform approach: Decentralized drug development process, leveraging the atai team and our enabling technologies such as digital therapeutics to aim for improved safety, efficacy and probability of clinical success across our pipeline.

5. Validation of atai's operating model: IPO of COMPASS Pathways and Otsuka partnership with Perception (first drug development partnership between big pharma and a biopharmaceutical company developing psychedelics).

6. Our pipeline is rich in R&D catalysts over the next 18 months, and we have a team of more than 200 highly experienced FTEs / consultants across our platform, and a strong cash position of approx. $335M[1].

(1) As of March 31st, 2022

Meaningful R&D catalysts over the next 18 months lead to a unique density of news flow, excluding potential for additional business development opportunities

Recent Milestones

2021

- Perception initiates Phase IIa study of PCN-101
- DemeRx doses first subject in Phase 1/2a study of DMX-1002
- Recognify started Phase 2a study in CIAS with RL-007
- Perception closed licensing deal with Otsuka for Japan
- atai entered strategic partnership with IntelGenx
- DemeRx received approval to start DMX-1002 Phase 1/2 in UK
- atai announced successful closing of Series D, raising $157m
- Perception announced positive Phase 1 results with PCN-101
- Empath partnered with Bionomics on PTSD drug development
- atai acquired majority stake in Recognify to develop RL-007 for CIAS
- COMPASS successfully IPO-ed on NASDAQ
- atai launched EmpathBio to develop EMP-01 for PTSD

Anticipated Milestones next 18 months

- RL-007 Phase 2a results
- PCN-101 Phase 2a results
- RL-007 Phase 2 FSI
- GRX-917 Phase 2 FSI
- KUR-101 Phase 1 results
- DMX-1002 Phase 1 results
- GRX-917 Phase 1 results
- EMP-01 Phase 1 results
- VLS-01 Phase 1 results
- PCN-101 (SQ vs. IV BA) results
- IntroSpect app deployment
- EntheogeniX lead candidate
- Psyber prototype deployment
- InnarisBio pilot Phase 1 results

Legend Preclinical · Phase 1 · Phase 2 · Enabling Technology

Notes: FSI = First subject in, SQ = Subcutaneous, IV = Intravenous, BA = Bioavailability

Founded in 2018

As a response to the **significant unmet need and lack of innovation** in the mental health treatment landscape, as well as the **emergence of therapies that previously may have been overlooked or underused**, including psychedelic compounds and digital therapeutics.

Although mental health has become one of the largest global healthcare challenges, there has been little innovation for patients[7]

SIGNIFICANT BURDEN

~1bn

Affected people

Global population with mental health disorders[1]

>50%

Of US population impacted

Expected that more than half of US population will have a mental health disorder at some point in their lifetime[2]

~$16tn

Global economic impact

Estimated global economic costs of mental health disorders by 2030[3]

~4x

Recent impact of COVID-19

Percentage of US adults experiencing symptoms of depression and anxiety rose from 11% in 2019 to 42% end of 2020[4]

URGENT NEED FOR INNOVATION

~33%

Respond inadequately

A third of patients with depression respond inadequately or relapse with current treatments within certain indications[5]

Up to 12 wks

Slow onset of treatment effect

Frontline treatments for depression and anxiety have slow onset (4-12w)[6]

~75%

Relapse rate

Most of the patients treated for opioid use disorder (OUD) relapse[7]

7

Psychiatry approvals since 2015

Only 17 new drugs approved by the FDA for psychiatry disorders since 2015 – less than 16% relative to oncology (N=108)[8]

1. Ritchie, "Global mental health: five key insights which emerge from the data", Our World In Data (2018).
2. Kapil, "5 Surprising Mental Health Statistics", National Council for Behavioral Health (2019).
3. Patel et al., "The Lancet Commission on global mental health and sustainable development", The Lancet (2018).
4. Abbott, "COVID's mental-health toll: how scientists are tracking a surge in depression, Nature (2021)
5. Salzer, "National Estimates of Recovery-Remission From Serious Mental Illness", Psychiatry Online (2018).
6. Tew et al., "Impact of prior treatment exposure on response to antidepressant treatment in late life" Am J Geriatr Psychiatry (2006)
7. Sinha, "New Findings on Biological Factors Predicting Addiction Relapse Vulnerability" (2011)
8. EvaluatePharma (as of 12.05.2021). New drugs include new molecular entities or new active ingredients.

A resurgence in psychedelic therapies is emerging as promising disease-modifying drug candidates progress with regulatory momentum

1938 — SANDOZ

LSD synthesized by Dr. Albert Hofmann at Sandoz research labs[1]

1953 — CHARLES UNIVERSITY

Dr. Stan Grof uses LSD to treat heroin addiction in Prague[3]

1960s

Psychedelic therapy developed by Dr. Abram Hoffer and Dr. Humphry Osmond, efficacious in treating alcoholics[2]

1965

Drug Control Amendments forbid the manufacture and sale of psychedelic drugs (scheduling)[4]

> "America's public enemy number one is drug abuse."
>
> **PRESIDENT NIXON, 1971**

2016 — JOHNS HOPKINS Center for Psychedelic & Consciousness Research

Psilocybin shows sustained decreases in depression and anxiety in cancer patients[5]

2017 — COMPASS Navigating Mental Health Pathways

FDA Breakthrough therapy designations for psilocybin for treatment of TRD.[7]

2018 — MAPS

FDA Breakthrough designation for MDMA-Assisted Psychotherapy and announcement of Phase 3 in PTSD[6]

2019 — Johnson & Johnson

FDA approval of intranasal S-ketamine for TRD[8]

Early research suggested efficacy in mental health →

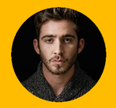
Novel results and regulatory support underscore therapeutic value →

Note: LSD = Lysergic acid diethylamide; TRD = Treatment-resistant depression; MDD = Major depressive disorder; PTSD = Post-traumatic stress disorder.

1. Hofmann, MAPS (1996)
2. Dyck, "'Hitting Highs at Rock Bottom': LSD Treatment for Alcoholism" (2006)
3. Williams, "Human Psychedelic Research: A Historical and Sociological Analysis" (1999)
4. FDA, Drug Law History (2018)
5. Griffiths et al., "Psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer" (2016)
6. MAPS, announcement breakthrough designation Phase 3 (2017)
7. COMPASS, COMPASS Pathways Receives FDA Breakthrough Therapy Designation for Psilocybin Therapy for Treatment-resistant Depression (2018)
8. FDA, FDA Approves New Nasal Spray (2019)

Patient reports: In a study, more than half of the patients ranked psilocybin therapy among the top five most meaningful experiences of their lives[1]

"When I had a craving, something in my head quickly thought about the good part, the taste, the feeling, the high, right? But if I think of the drug now... I quickly think about the downside. It changed the perception I have regarding the drug."[2]



Male, 25
Ibogaine

"It sort of relieved a lot of stress, a lot of negative thoughts within my body... opened my eyes to see where my stress and conflict is coming from... It is hard to explain but... it just brought a lot of grief up that I had inside me, it brought it out and I got rid of a lot of grief."[3]

Male, 55
Psilocybin

"I felt like, just like a whole new reborn person... I had not felt that happy in a long, long time. I felt way better about myself."[4]

Female, 19
Ayahuasca

1. Griffiths et al., "Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance" (2006)
2. Schenberg et al., "Treating drug dependence with the aid of ibogaine: A qualitative study" (2017)
3. Watts et al., "Patients' Accounts of Increased 'Connectedness' and 'Acceptance' After Psilocybin for Treatment-Resistant Depression" (2017)
4. Argento et al., "Exploring ayahuasca-assisted therapy for addiction: A qualitative analysis of preliminary findings among an Indigenous community in Canada" (2019)

The atai platform: Decentralized drug development process that leverages our team and enabling technologies to aim for improved probability of clinical success

People

- Small teams with entrepreneurial autonomy develop our compounds
- Operational involvement of interdisciplinary atai team
- Access to experienced group of strategic advisors and KOLs

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Process

- Disciplined selection criteria (including prior evidence in humans)
- Impactful capital allocation to acquired and incubated companies
- Strategic value capturing and high degree of optionality

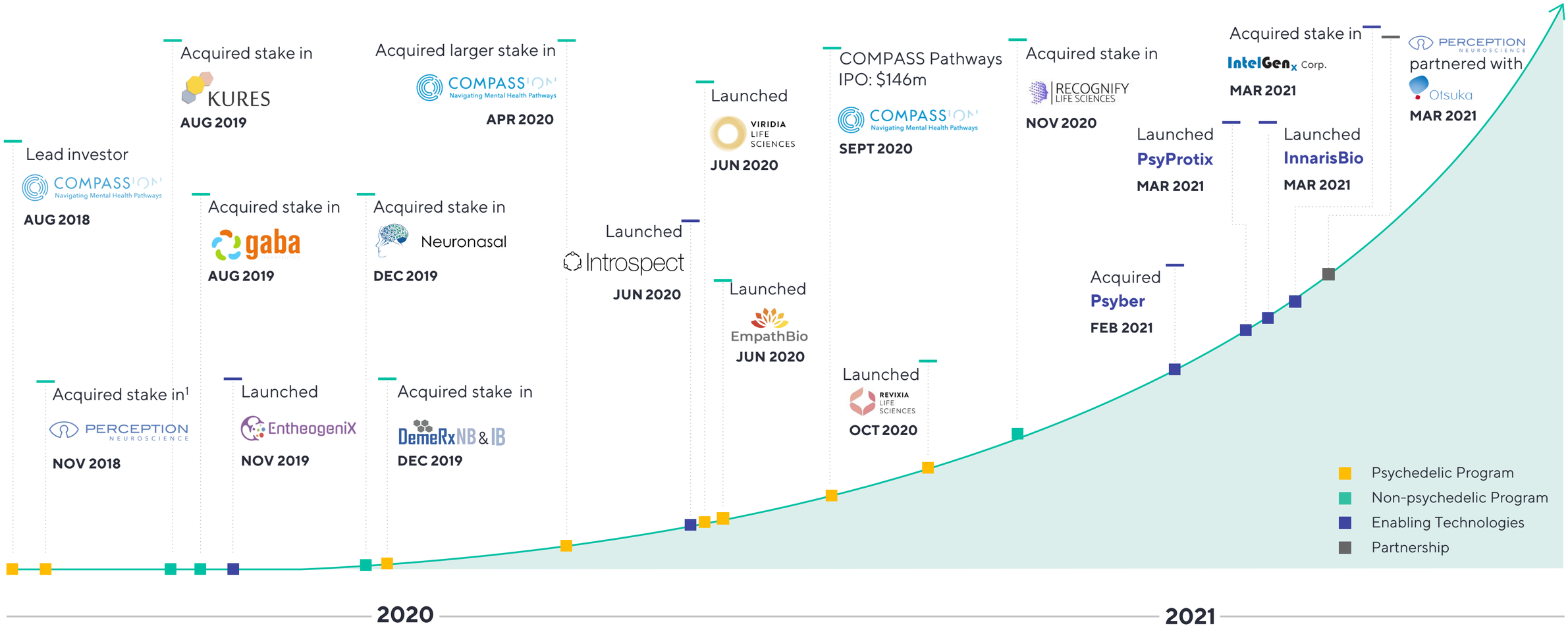
COMPASS Navigating Mental Health Pathways Otsuka

Enabling Technologies

- Digital Therapeutics
- Formulation and biomarkers
- AI-enabled drug discovery

Introspect EntheogeniX

Rapid Growth via incubations and acquisitions:
6 psychedelic programs, 5 non-psychedelic programs and 6 enabling technologies



1. Ketamine and S-ketamine are psychedelic/dissociative at therapeutic doses, while R-ketamine (the enantiomer that Perception Neuroscience is developing) is assumed to be nonpsychedelic at effective doses.

Development program overview: Lead compounds, lead indications and stage of development

Lead Compound	Lead Indication	Preclinical	Phase 1	Phase 2	Phase 3	Affiliate Company[1]
PCN-101 / R-ketamine	Treatment-Resistant Depression					Perception Neuroscience
RL-007 / Compound[2]	Cognitive Impairment Associated With Schizophrenia					Recognify Life Sciences
DMX-1002 / Ibogaine	Opioid Use Disorder					DemeRx IB
GRX-917 / Deuterated etifoxine	Generalized Anxiety Disorder					GABA Therapeutics
NN-101 / N-acetylcysteine	Mild Traumatic Brain Injury					Neuronasal
KUR-101 / Deuterated mitragynine	Opioid Use Disorder					Kures
EMP-01 / MDMA derivative	Post-Traumatic Stress Disorder					EmpathBio
RLS-01 / Salvinorin A	Treatment-Resistant Depression					Revixia Life Sciences
VLS-01 / DMT	Treatment-Resistant Depression					Viridia Life Sciences

LIMITED TO EQUITY INTEREST

Developing COMP360 therapy, with psychological support from specially trained therapists, for treatment-resistant depression. Phase 2b topline data read out in Nov '21.	COMPASS Pathways
Developing DMX-1001, a formulation of noribogaine, as a potential at-home maintenance therapy for OUD. Preclinical stage.	DemeRx NB

Note: DMT = N,N-dimethyltryptamine; MDMA = 3,4-Methylenedioxymethamphetamine.
(1) Perception, Recognify, DemeRx IB and Neuronasal are all variable interest entities; GABA is a non-consolidated VIE with operational involvement through MSA model, including Srinivas Rao serving as CMO; EmpathBio, Revixia and Viridia are wholly-owned subsidiaries; COMPASS Pathways and DemeRx NB are non-controlling equity interests.
(2) RL-007 compound is (2R, 3S)-2-amino-3-hydroxy-3-pyridin-4-yl-1-pyrrolidin-1-yl-propan-1-one(L)-(+) tartrate salt.

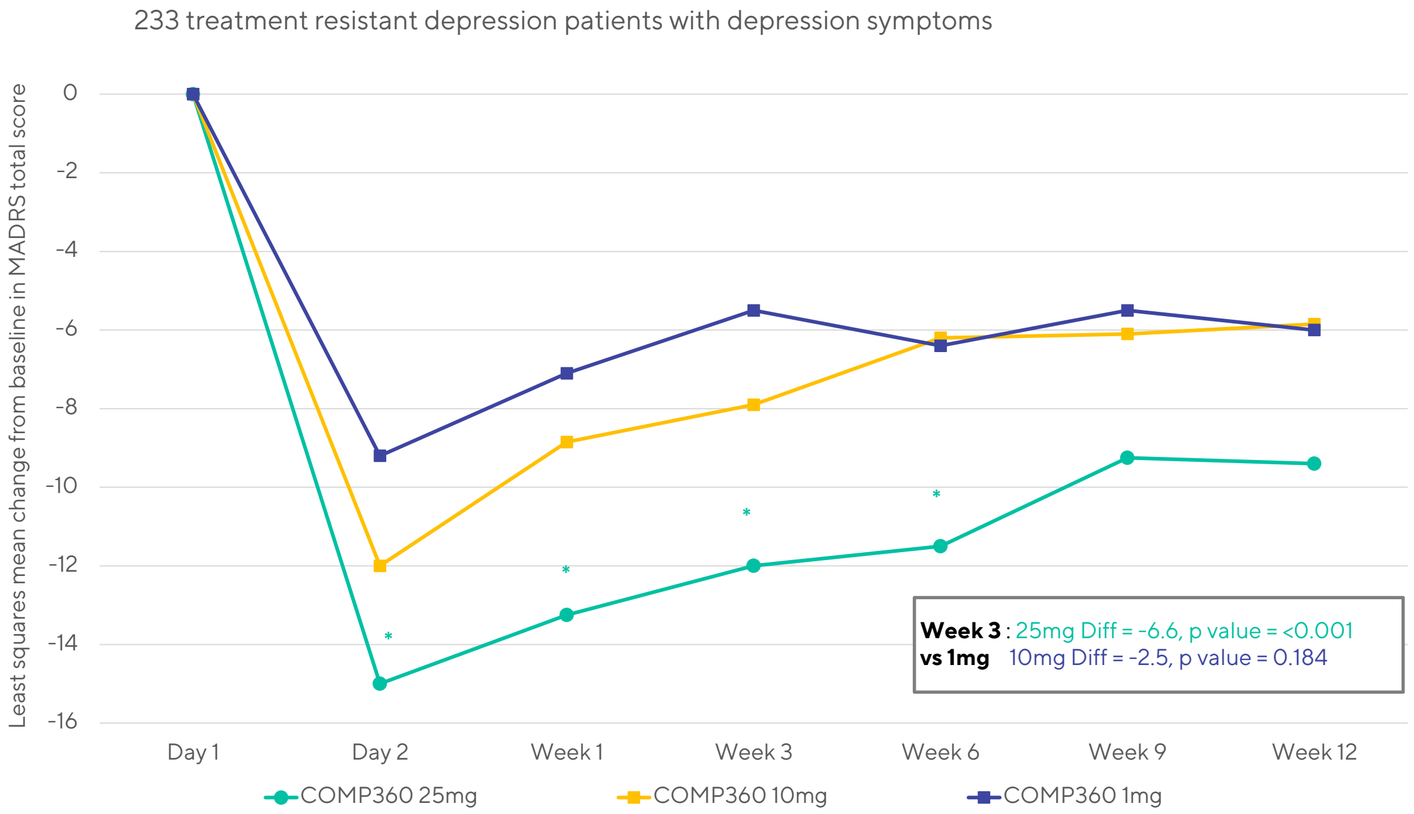
SUMMARY

COMPASS Navigating Mental Health Pathways

OWNERSHIP	22.6%[1]
PRODUCT	Oral Psilocybin (COMP360)
PHARMA-COLOGY	5-HT2A-R agonist
PRODUCT FEATURES	Rapid onset, potential for sustained efficacy after single dose
INDICATIONS	Primary: Treatment Resistant Depression Potential: Major Depressive Disorder, Anorexia, Autism, Bipolar Disorder, Chronic Cluster Headache, Body Dysmorphic Disorder
CURRENT STATUS	COMP360 Phase 2b trial completed, Phase 3 trial in planning
INTELLECTUAL PROPERTY	Proprietary formulation of synthetic psilocybin, COMP360
HIGHLIGHT	COMP360 demonstrated efficacy in reducing depressive symptom severity with rapid and durable response in Phase 2b study

COMPASS' Phase 2b trial showed a rapid, sustained reduction in depressive symptoms

PRIOR EVIDENCE IN HUMANS (COMPASS PATHWAYS PHASE 2b)



Source: Schedule 13D filed with the SEC as of November 29th, 2021
Note: MADRS = Montgomery-Åsberg Depression Rating Scale; * = statistically significant treatment difference vs 1mg at visit; COMP360 = a proprietary high-purity, polymorphic crystalline formulation of psilocybin; In COMPASS's model of psilocybin therapy, COMP360 is administered in conjunction with psychological support from specially trained therapists.
1. Ownership percentage as of November 30th, 2021.

SUMMARY

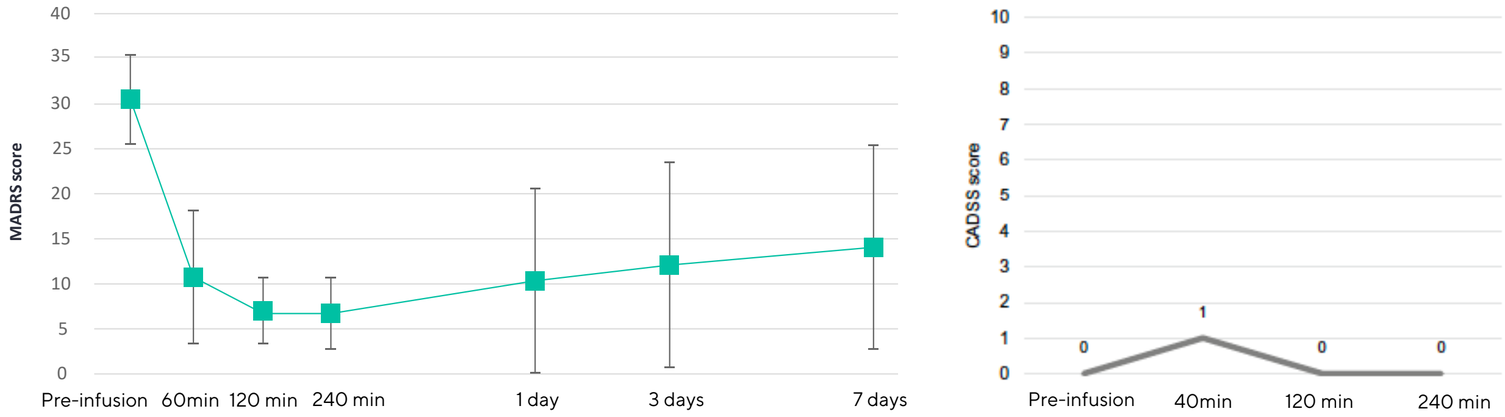
PERCEPTION NEUROSCIENCE

OWNERSHIP	58.9%[1]
PRODUCT	Subcutaneous R-ketamine (PCN-101)
PHARMA-COLOGY	Glutamatergic modulator
PRODUCT FEATURES	Rapid-acting, nonpsychedelic antidepressant with potential for at home use
INDICATIONS	Primary: Treatment Resistant Depression Potential: Substance Use Disorder
CURRENT STATUS	Phase 1 trial showed safety and tolerability of R-ketamine at doses of up to 150mg, Phase 2 trial initiated in Q3 '21
INTELLECTUAL PROPERTY	Issued methods of use of R-ketamine for treatment of depressive symptoms
HIGHLIGHT	Third party study: Single IV dose (0.5 mg/kg) of R-ketamine led to a rapid and sustained decrease in MADRS in patients with TRD; dissociation was nearly absent[1]

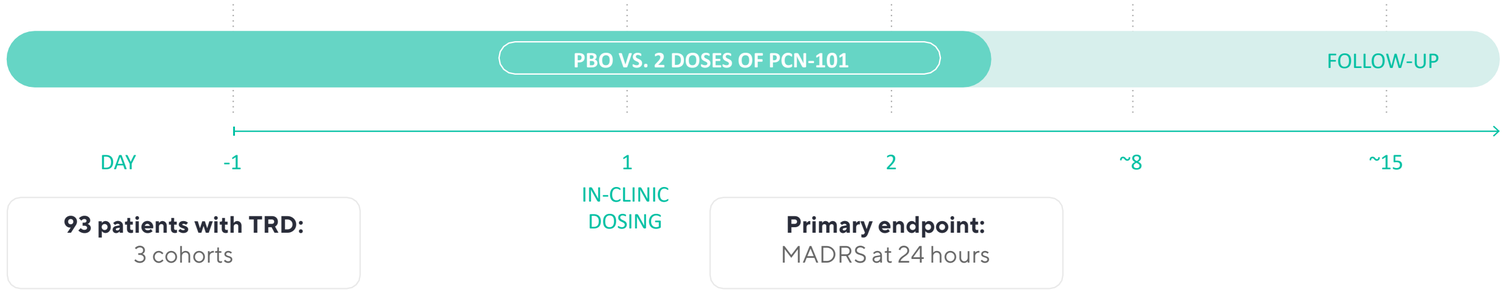
We aim to develop PCN-101 as a rapid acting antidepressant with potential for at-home use

PRIOR EVIDENCE IN HUMANS (THIRD PARTY STUDY[2])

Mean MADRS over 7 days and median CADSS scores of TRD patients after single IV dose (0.5mg/kg) of R-ketamine (n=7) [1]



ONGOING PCN-101 PHASE 2 TRIAL: Randomized, double blind, placebo-controlled (n=93)

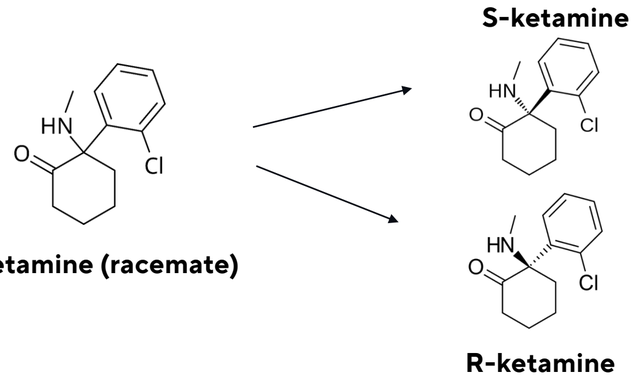


Note: MADRS = Montgomery-Asberg Depression Rate Scale, CADSS = Clinician-administered dissociative states scale, IV = Intravenous, PBO = Placebo.

1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021. Perception does not give effect to the shares of common stock issuable after giving full effect to the anti-dilution feature of the Stock Purchase Agreement, which would not impact our majority position in Perception.
2. Leal et al., "Intravenous arketamine for treatment-resistant depression: open-label pilot study" (2020)

Deep-dive R-ketamine vs. S-ketamine: Higher-potency, longer lasting antidepressant effect and lower potential for abuse in preclinical models

Profile of R- vs. S-ketamine



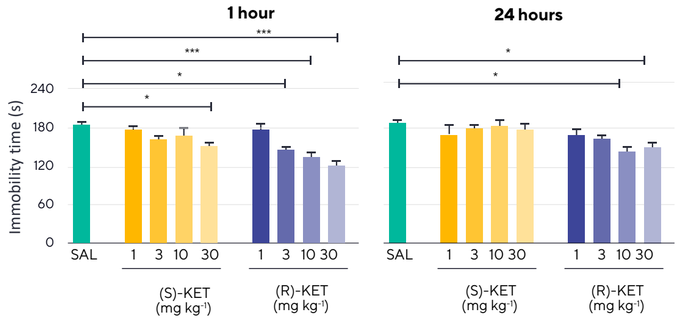
R-ketamine lacks the psychotomimetic and abuse potential of S-ketamine at therapeutic doses in preclinical models.

Like S-ketamine, R-ketamine's mechanism involves increased neuroplasticity through glutamatergic modulation, with potency differences putatively arising from:

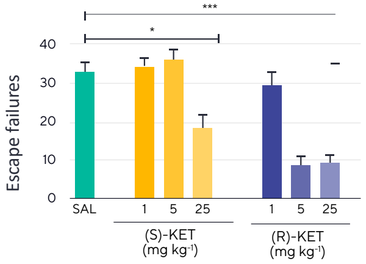
- Different active metabolite profiles
- Different pre- and post-synaptic sites of action
- Involvement of different intracellular pathways (mTORC1 vs. ERK)

Superior and more durable

Forced swim test[1] (third party study)



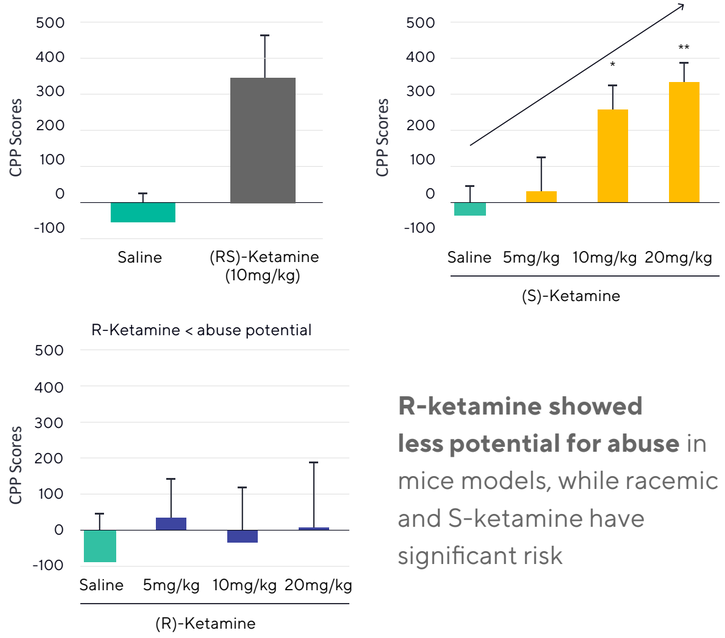
Learned helplessness test



R-ketamine outperformed and outlasted S-ketamine in mice; confirmed in multiple other animal models in different labs

Lower potential for abuse

Conditioned place preference score test[2] (third party study)



R-ketamine showed less potential for abuse in mice models, while racemic and S-ketamine have significant risk

Note: mTORC1 = Mechanistic target of rapamycin complex 1, ERK = Extracellular signal-regulated kinases.

Sources: Wei et al., "A historical review of antidepressant effects of ketamine and its enantiomers" (2020); Chang et al., "Comparison of antidepressant and side effects in mice after intranasal administration of (R,S)-ketamine, (R)-ketamine, and (S)-ketamine Pharmacology Biochemistry and Behavior " (2019);

1. Zanos et al., "NDMAR inhibition-independent antidepressant actions of ketamine metabolites" (2016);
2. Yang et al., "R-ketamine: a rapid-onset and sustained antidepressant without psychotomimetic side effects" (2015).

PERCEPTION NEUROSCIENCE

SUMMARY

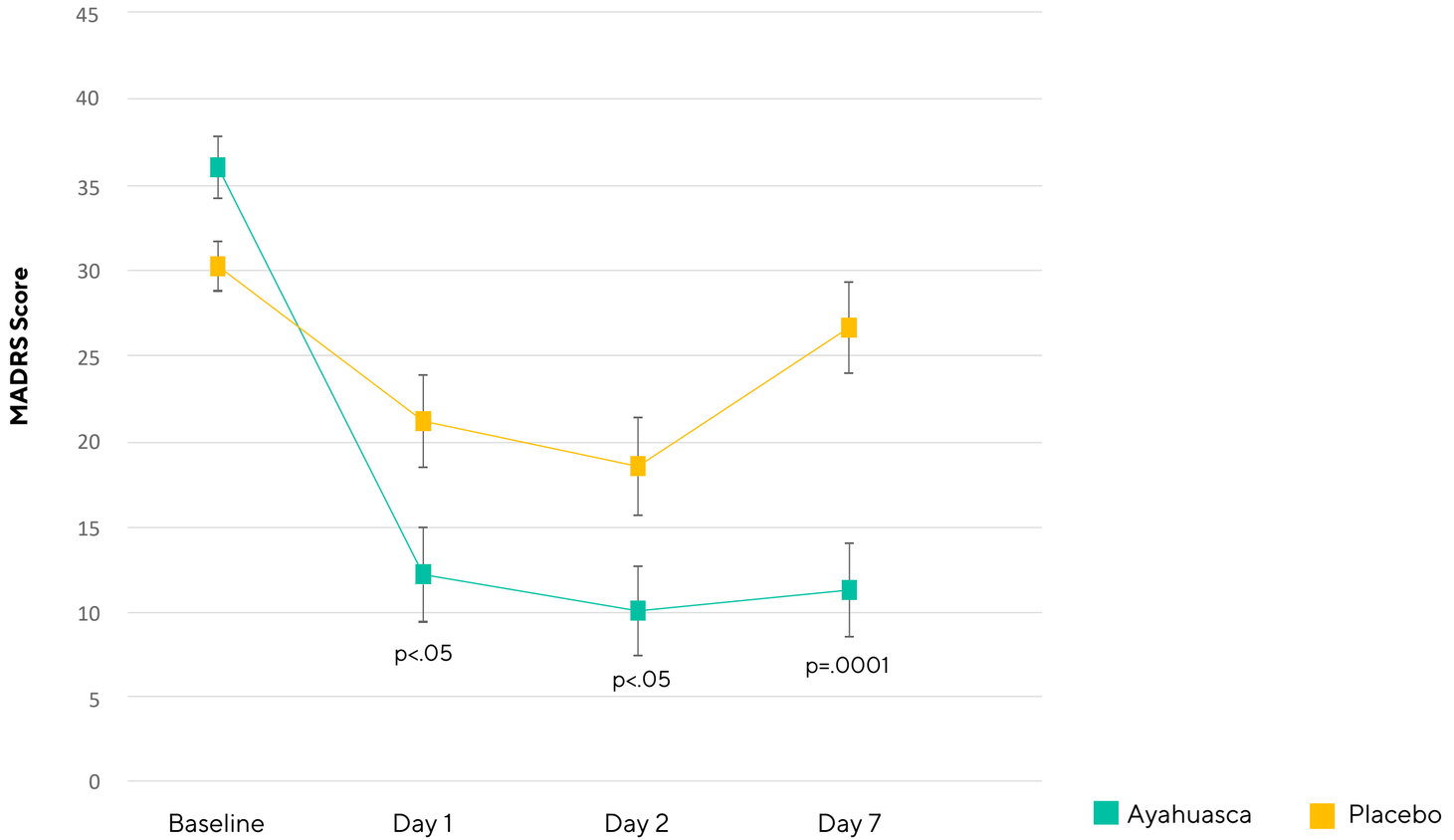
VIRIDIA LIFE SCIENCES

OWNERSHIP	100%[1]
PRODUCT	Dimethyltryptamine (DMT) in a buccal transmucosal film (VLS-01), DMT is the active psychedelic moiety in Ayahuasca
PHARMA-COLOGY	5-HT2A-R agonist
PRODUCT FEATURES	Rapid onset, sustained efficacy after single dose, short duration of psychedelic effect (~30 to 45 minutes)
INDICATIONS	Primary: Treatment Resistant Depression Potential: Eating Disorders, Substance Use Disorders
CURRENT STATUS	Pre-clinical: Formulation work and safety testing in progress; Phase 1 clinical trial anticipated to initiate in mid-'22
INTELLECTUAL PROPERTY	Filed provisional on formulations of DMT
HIGHLIGHT	VLS-01 is designed to have an improved duration of psychedelic effect while improving tolerability

VLS-01 may increase patient accessibility by reducing patient and clinic time commitment

PRIOR EVIDENCE IN HUMANS (THIRD PARTY STUDY[2])

Double-blind, randomized placebo-controlled trial with Ayahuasca in 29 patients with TRD



Note: MADRS: Montgomery-Asberg Depression Rate Scale.

1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021.
2. Palhano-Fontes et al. "Rapid antidepressant effects of the psychedelic ayahuasca in treatment-resistant depression", Psychol Med (2019)

SUMMARY

REVIXIA LIFE SCIENCES

OWNERSHIP	100%[1]
PRODUCT	RLS-01 is a buccal formulation of Salvinorin A (SalA), a naturally occurring psychedelic compound derived from the *Salvia divinorum* plant
PHARMA-COLOGY	Non-orally bioavailable, non-nitrogenous agonist of the kappa-opioid receptor (KOR), no interaction with serotonergic mechanisms
PRODUCT FEATURES	Rapid-acting hallucinogenic compound, no wash-out of SSRIs required
INDICATIONS	Primary: Treatment Resistant Depression Potential: Substance Use Disorder, Pain
CURRENT STATUS	Phase 1 clinical trial anticipated to initiate in H2 '22
INTELLECTUAL PROPERTY	Filed provisional on formulation of SalA
HIGHLIGHT	Hallucinogenic experiences demonstrated by all six significantly elevated HRS clusters on an active dose, and no significant adverse events (third party study).[2]

Salvonorin A's subjective effects were demonstrated to be similar to classical psychedelics

PRIOR EVIDENCE IN HUMANS (THIRD PARTY STUDY[2])

Participant ratings on Hallucinogen Rating Scale (HRS) completed 1h after drug administration (n=30)

Cluster	Placebo	Active	P value
Affect	0.75 (0.47)	1.50 (0.58)	<0.001*
Cognition	0.37 (0.41)	1.61 (0.81)	<0.001*
Intensity	0.38[3] (0.76)	3.00[2] (0.77)	<0.001*
Perception	0.33 (0.36)	1.71 (0.73)	<0.001*
Somaesthesia	0.31 (0.33)	1.27 (0.54)	<0.001*
Volition	0.94 (0.53)	1.85 (0.46)	<0.001*

Study showed ability of S. divinorum leaf to **reach hallucinogenic states of consciousness beyond serotonergic mechanisms**.

All six **Hallucinogen Rating Scale (HRS) clusters were significantly elevated** for participants given the active S. divinorum leaf.

No significant adverse events were observed or reported by the participants.

Five patients reported **positive changes in relationships** with living family members.

Note: Data are mean ratings with one standard deviation shown in parentheses (*P < 0.05).

1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021.
2. Addy, "Acute and post-acute behavioral and psychological effects of salvinorin A in humans" (2011)
3. Median used instead of mean for nonparametric data

Depression positioning and landscape: atai's programs are designed to be differentiated from one another and from competitors

	TRD treatments being developed by atai companies				Marketed therapies		Phase II and III competitors		
	Compass	Perception	Viridia	Revixia	J&J	e.g. Lilly, Pfizer	Various	GH Research	Sage / Praxis
Company	COMPASS Pathways	Perception Neuroscience	Viridia Life Sciences	Revixia Life Sciences	Johnson & Johnson	Lilly, Pfizer	Novartis NeuroRx, Johnson & Johnson, Axsome Therapeutics	GH Research	Sage Therapeutics, Praxis
Compound	COMP360	R-ketamine	DMT	Salvinorin A	S-ketamine	SSRI/SNRI	MIJ-821, NRX-102, JNJ-5515, AXS-05	5-MeO-DMT	SAGE-217, PRAX-114
Potential for at home use		✓				✓	✓		✓
Potential for sustained efficacy	✓	✓	✓	✓	✓		tbd	✓	tbd
Rapid onset of treatment effect[1]	✓	✓	✓	✓	✓		tbd	✓	✓
Mechanism of Action	5-HT2A-R agonist	Glutamatergic modulator	5-HT2A-R agonist	KOR agonist	NMDA-R antagonist	SERT / NET blockade	NMDA-R / mGluR2 antagonists	5-HT1A- and 5-HT2A-agonist	$GABA_A$ positive allosteric modulator

Note: 5HT2A-R = Serotonin 2A receptor, KOR = kappa-opioid receptor, NMDA-R = N-methyl-D-aspartate receptor, NET = Norepinephrine transporter, SERT = Serotonin Transporter, mGluR2 = Metabotropic glutamate receptor 2, GABA = Gamma-aminobutyric acid, DMT = Dimethyltryptamine, 5-MeO-DMT = 5-methoxy-N,N-dimethyltryptamine , SSRI = Selective Serotonin Reuptake Inhibitor, SNRI = Selective serotonin-norepinephrine reuptake Inhibitor., COMP360 = a proprietary high-purity, polymorphic crystalline formulation of psilocybin; In COMPASS's model of psilocybin therapy, COMP360 is administered in conjunction with psychological support from specially trained therapists.
Sources: GlobalData, Evaluate Pharma (both as of 2021), Uthaug, M. V. et al. Prospective examination of synthetic 5-methoxy-N,N-dimethyltryptamine inhalation: effects on salivary IL-6, cortisol levels, affect, and non-judgment. Psychopharmacology 237, 773–785 (2019). company websites
1. Rapid onset of treatment effect versus standard of care.

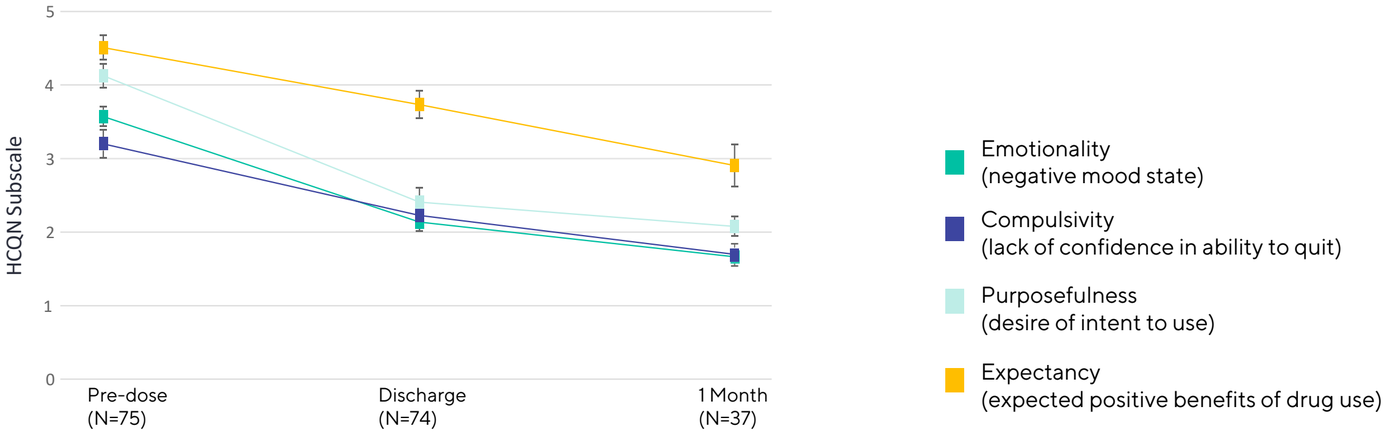
SUMMARY

DemeRx IB & NB

OWNERSHIP	59.5%[1]
PRODUCT	Ibogaine HCl capsules (DMX-1002), ibogaine is a naturally occurring psychedelic compound isolated from a West African shrub, iboga
PHARMA-COLOGY	Opioid mediated, cholinergic, glutamatergic and monoaminergic receptor modulator
PRODUCT FEATURES	A single dose of ibogaine may precipitate a rapid withdrawal and long-term abstinence in OUD patients
INDICATIONS	Primary: Opioid Use Disorder Potential: Substance Use Disorder, Post-Traumatic Stress Disorder, Traumatic Brain Injury
CURRENT STATUS	Phase 1/2 trial initiated in Q3 '21
INTELLECTUAL PROPERTY	Pending method of treatment claims for OUD for ibogaine, issued method of treatment claims for OUD patients on methadone for noribogaine[3]
HIGHLIGHT	Potential sustained reduction in opioid craving with DMX-1002 single administration

A single-dose of ibogaine showed sustained reductions in opioid cravings in 75 opioid-dependent patients

PRIOR EVIDENCE IN HUMANS (THIRD PARTY STUDY[2])



ONGOING PHASE 1/2 TRIAL

Stage 1: Maximum Tolerated Dose

TREATMENT (MULTIPLE DOSES) | **SAFETY/PK**

Subject cohort: Recreational opioid users (up to 30 subjects)

Objective: Dose finding

Stage 2: Proof of Concept

TREATMENT VS PCB | **SAFETY/EFFICACY**

Patient cohort: Opioid dependent patients (approximately 80 subjects)

Endpoints: Acute withdrawal, abstinence over 90 days

Note: HCQN = Heroin Craving Questionnaire, PTSD = Post-traumatic stress disorder, OUD = Opioid use disorder, PCB = Placebo, PK = Pharmacokinetics.

1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021. Refers to ownership in DemeRx IB. DemeRx NB ownership is 6.3%, which does not give effect to option to acquire further shares which may increase the ownership to up to 57.1%
2. Mash et al., "Ibogaine Detoxification Transitions Opioid and Cocaine Abusers Between Dependence and Abstinence: Clinical Observations and Treatment Outcomes" (2018)
3. Noribogaine Intellectual property resides in DemeRx NB

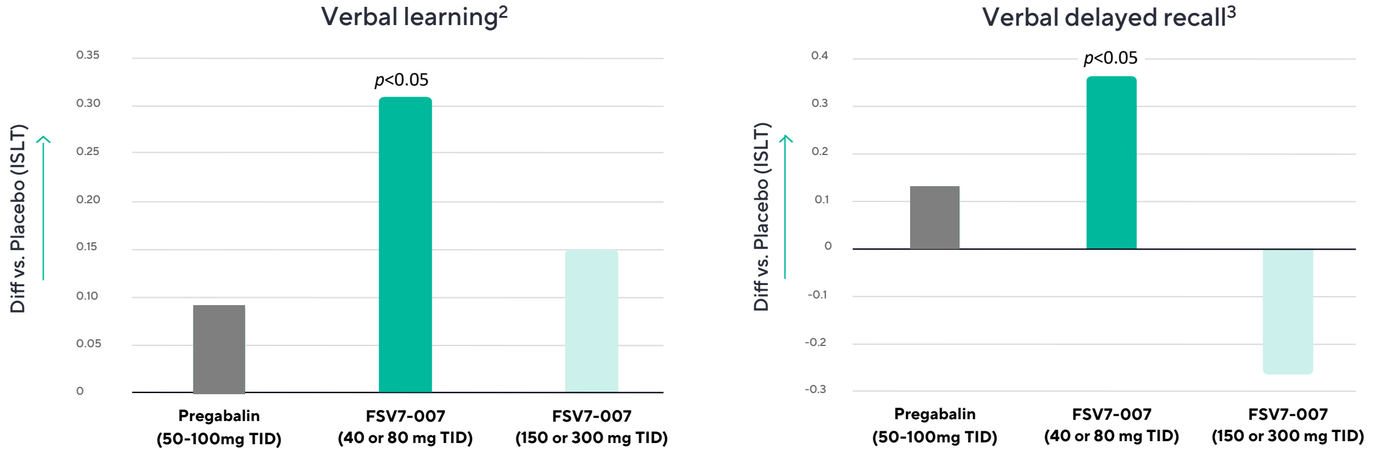
SUMMARY

RECOGNIFY LIFE SCIENCES

OWNERSHIP	51.9%[1]
PRODUCT	(2R, 3S)-2-amino-3-hydroxy-3-pyridin-4-yl-1-pyrrolidin-1-yl-propan-1-one(L)-(+) tartrate salt oral capsules (RL-007)
PHARMA-COLOGY	Cholinergic, glutamatergic and GABA-B receptor modulator
PRODUCT FEATURES	No drug-related serious adverse events in over 500 study subject exposures, pro-cognitive effects demonstrated in two Phase 1 and one Phase 2 trials
INDICATIONS	Primary: Cognitive Impairment Associated with Schizophrenia Potential: Autism, Alzheimer's dementia
CURRENT STATUS	Successful Phase 2a biomarker trial with Phase 2a crossover trial expected in Q1 '22
INTELLECTUAL PROPERTY	Issued composition of matter patent
HIGHLIGHT	Previous Phase 2 showed pro-cognitive potential of RL-007 in 180 patients with diabetic peripheral neuropathic pain

RL-007 has previously shown pro-cognitive effects in human clinical studies

PRIOR EVIDENCE IN HUMANS



COMPLETED PHASE 2 TRIAL: Single-arm, single-blind dose-ranging clinical trial

Note: CIAS = Cognitive impairment associated with schizophrenia; RL-007 is (2R, 3S)-2-amino-3-hydroxy-3-pyridin-4-yl-1-pyrrolidin-1-yl-propan-1-one(L)-(+) tartrate salt; TID denotes 3x/day dosing

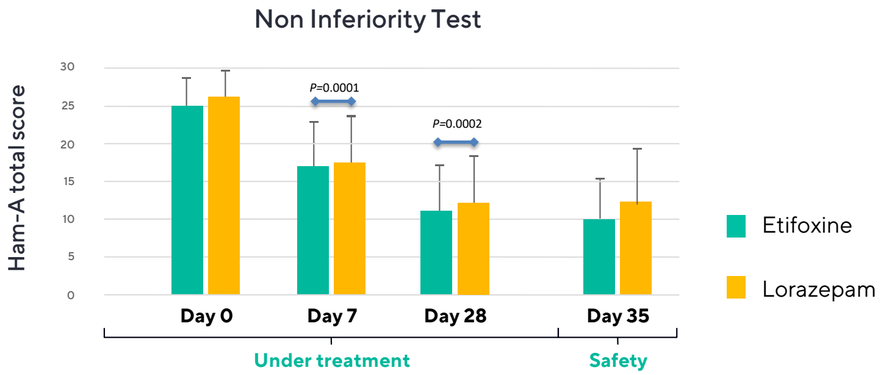
1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021.
2. Verbal learning was assessed by the "International Shopping List Task" (ISLT)
3. Verbal delayed recall was assessed by ISLT with a delayed recall, as a parameter for short-term memory

SUMMARY

OWNERSHIP	53.8%[1]
PRODUCT	Deuterated etifoxine HCl oral dosage form (GRX-917)
PHARMA-COLOGY	Etifoxine facilitates endogenous production of neurosteroids like allopregnanolone through agonist activity at the mitochondrial translocator protein (TSPO)
PRODUCT FEATURES	GRX-917 is designed to have rapid onset activity of anxiolytic activity like benzodiazepines but without the sedating, addicting, or cognitive impairing properties
INDICATIONS	Primary: Generalized Anxiety Disorder Potential: Social Anxiety Disorder, Postpartum Depression
CURRENT STATUS	Phase 1 trial initiated in H1'21
INTELLECTUAL PROPERTY	Issued composition of matter on deuterated etifoxine (GRX-917) and corresponding methods of use
HIGHLIGHT	GRX-917 is aimed to be an improved version of Etifoxine, which already showed promising results

GRX-917 has the potential for benzodiazepine-like rapid-onset efficacy with improved safety and tolerability

PRIOR EVIDENCE IN HUMANS (THIRD PARTY STUDY[2])



Etifoxine works as rapidly as lorazepam, with etifoxine continuing its effects beyond treatment, while lorazepam shows rebound

Etifoxine has a **strong safety** record: a review of over **14m prescriptions** in France found no cases of abuse, misuse or dependence[3]

ONGOING PHASE 1 TRIAL

Part 1: Single Ascending Dose

TREATMENT | SAFETY/PK/PD

Up to 40 healthy subjects: Up to 5 cohorts

PD Endpoint: qEEG

Part 2: Multiple Ascending Dose

TREATMENT | SAFETY/PK/PD

Up to 36 healthy subjects: Up to 3 cohorts

PD Endpoint: qEEG

Note: HAM-A = Hamilton Anxiety Rating Scale, SD = standard deviation, qEEG = Quantitative electroencephalography, PK = Pharmacokinetics. PD = Pharmacodynamics.

1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021.
2. Nguyen et al., "Efficacy of etifoxine compared to lorazepam monotherapy" (2006)
3. Cottin et al., "Safety profile of etifoxine: A French pharmacovigilance survey" (2016)

SUMMARY

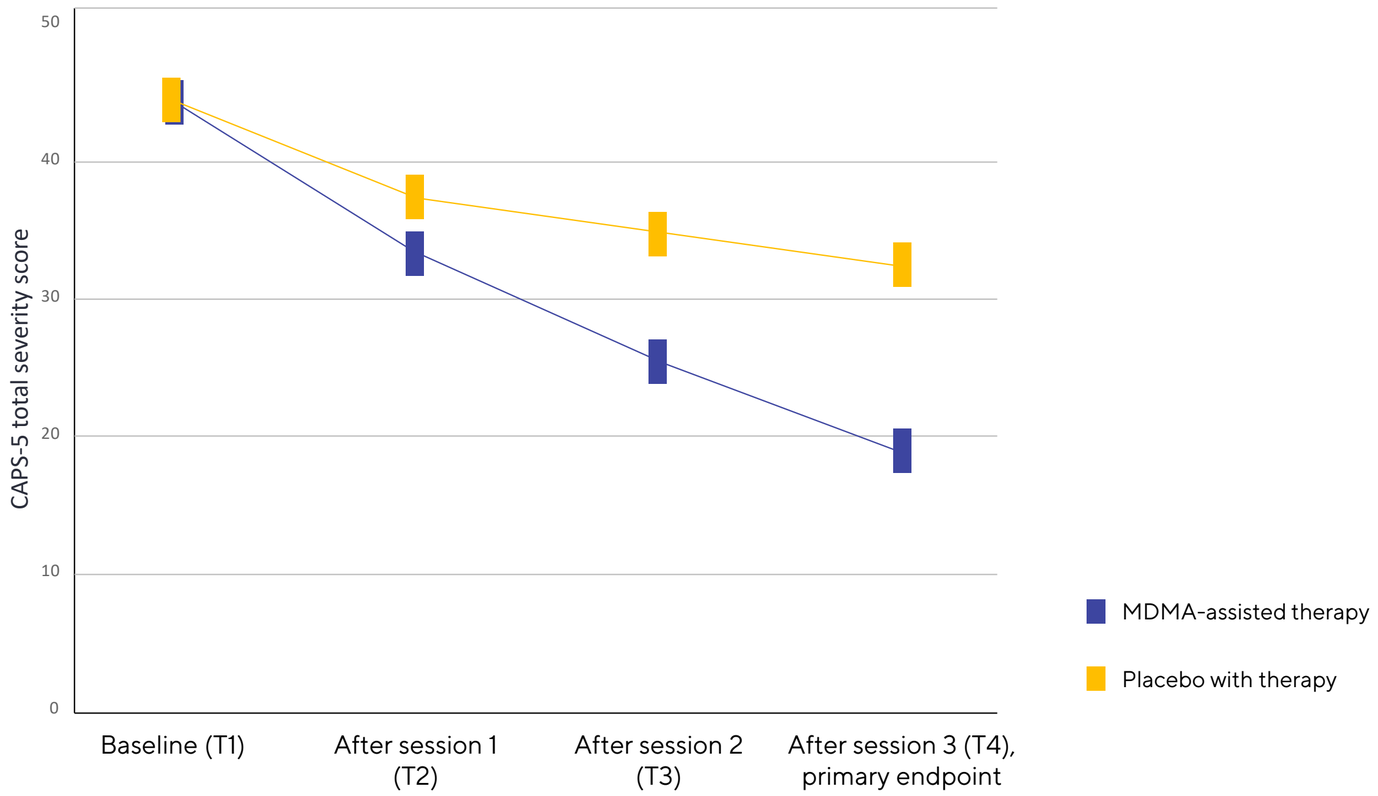
EmpathBio

OWNERSHIP	100%[1]
PRODUCT	EMP-01 is an oral formulation of an MDMA derivative being developed for the treatment of PTSD
PHARMA-COLOGY	A monoamine releaser and reuptake inhibitor with prominent effects on serotonin (5-HT)
PRODUCT FEATURES	An entactogen; a compound class that increases feelings of empathy and closeness--with a potentially improved cardiovascular profile compared to MDMA
INDICATIONS	Primary: Post-traumatic Stress Disorder Potential: General Anxiety Disorder
CURRENT STATUS	Phase 1 trial anticipated to initiate in mid '22
INTELLECTUAL PROPERTY	Filed provisional on formulation, combination approach
HIGHLIGHT	EMP-01 is aimed to be an improved version of MDMA to treat PTSD symptoms, through an improved cardiovascular profile and potential digital therapeutic support

MDMA-assisted psychotherapy significantly reduced PTSD symptoms in 90 severe PTSD patients

PRIOR EVIDENCE IN HUMANS (THIRD PARTY STUDY[2])

MDMA-assisted therapy significantly reduced CAPS-V scores in PTSD patients (primary endpoint), (n=90)



Note: Change in CAPS-V total severity score from T1 to T4 ($P < 0.0001$, $d = 0.91$, $n = 89$ (MDMA $n = 46$)), as a measure of the primary outcome. Primary analysis was completed using least square means from a mixed model repeated measure (MMRM) analysis model; (n=90)

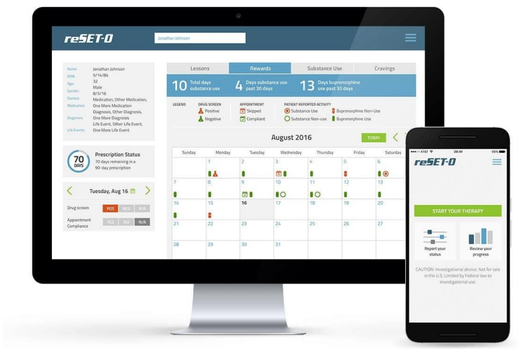
1. Unless otherwise indicated herein, ownership percentage based on ownership of securities with voting rights as of September 30th, 2021.
2. Mitchell et al., "MDMA-assisted therapy for severe PTSD: a randomized, double-blind, placebo-controlled phase 3 study" (2021)

Deep dive Introspect: Powerful digital therapeutics strategies across the pipeline with goal to improve treatment outcomes

Introspect

Pear Tx created a precedent | **Positive regulatory sentiment** | **atai's opportunity**

reSET-O © from Pear Therapeutics is the first prescription digital therapeutic that obtained FDA approval for treatment of patients with OUD (2018)

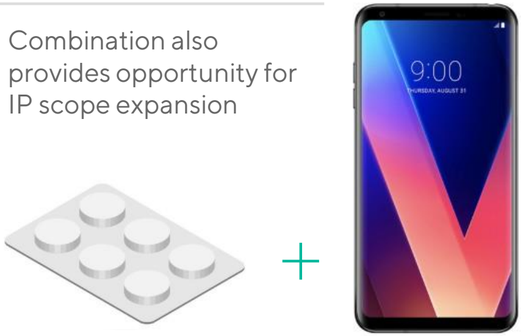


FDA is supporting and stimulating Digital Health initiatives[1]:

Aimed at improved therapeutic outcomes

Regulatory exclusivity possible through development of combination product (i.e., digital app + drug)

Combination also provides opportunity for IP scope expansion



1. FDA, "Digital Health Innovation Action Plan" (2018)

Financial Position

Issuer (ticker)	ATAI Life Sciences N.V. (NASDAQ: ATAI)
Market capitalization	~$649M(1)
Outstanding shares	160.7M(2)
Cash & cash equivalents	• $334.9 million as of March 31st, 2022 • atai is well financed to fund planned operations through 2023

(1) Market capitalization assumes closing price of $4.04 as of May 16th, 2021
(2) Shares outstanding as of March 31st, 2021

atai
LIFE SCIENCES

Investor Contact:
Greg Weaver
Chief Financial Officer
Email: greg.weaver@atai.life

atai LIFE SCIENCES

Appendix

ATAI PLATFORM

INDICATION DEEP DIVES:

- Overview
- Depression
- CIAS
- SUD
- Anxiety
- mTBI
- MoA

The atai approach:
We are leveraging a platform approach to to aim for improved **probability of clinical success**

Process

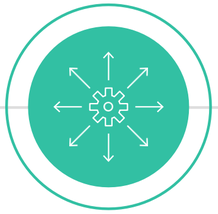
People

Enabling Technologies

Our process is designed to aim for effective program selection, drug development and value capturing

Disciplined New Program Selection

- Prior evidence in humans to increase probability of success
- Differentiated treatment effect to address unmet patient needs
- Significant commercial potential and complementary to drug candidates already in pipeline



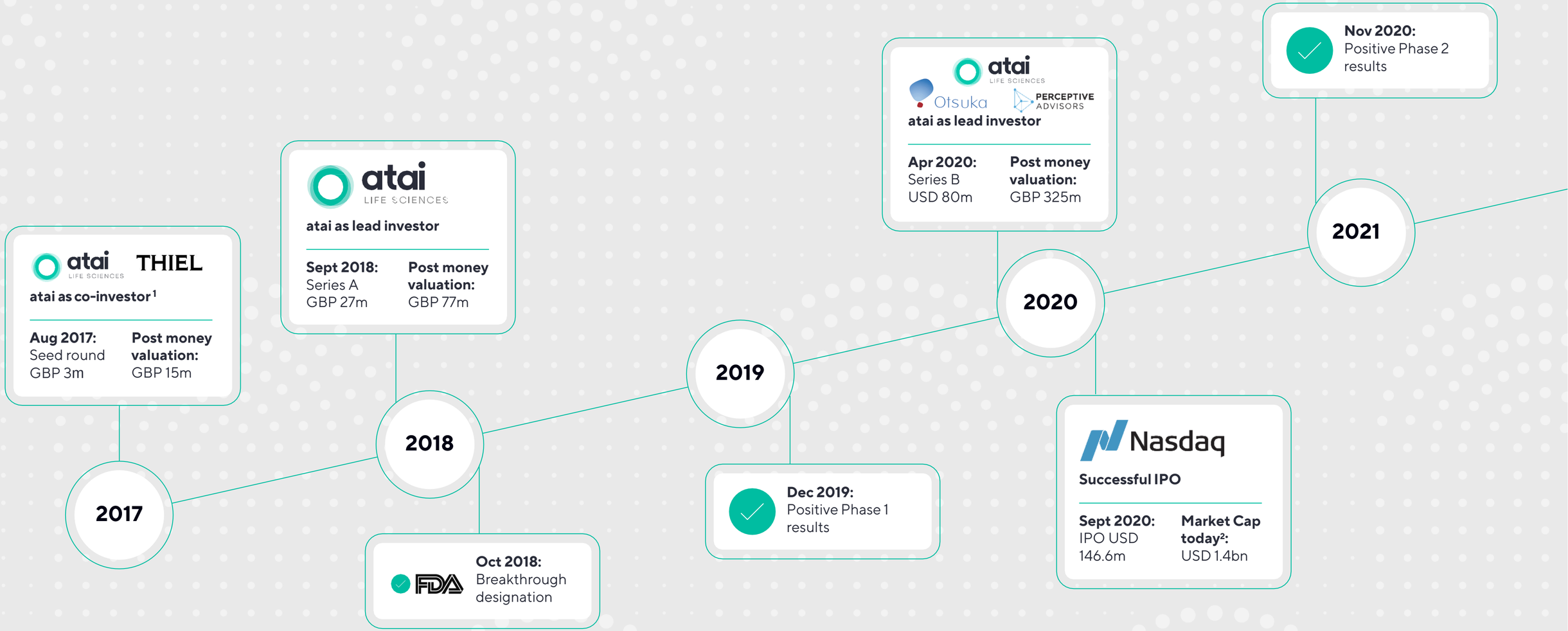
Capital Allocation and Decentralized Operations

- Small teams with entrepreneurial autonomy develop our drugs
- Access to milestone-based funding, shared services and enabling tech
- Economies of scope and cross-fertilization across our development programs

Optionality and Strategic Value Capture

- Internal Development
- Strategic Partnerships
- IPO

Case study: COMPASS Pathways creates a precedent for atai's companies: From foundation in 2017 to public company today



1. atai co-founder, Christian Angermayer (though his family office, Apeiron) was initial investor into Compass which shareholding was contributed to atai upon atai's incorporation
2. Market Cap as of November 11, 2021

Our enabling technologies are designed to drive efficient drug discovery and improved treatment outcomes

Digital Therapeutics

Introspect

- **Wholly owned digital therapeutics platform** dedicated to providing more comprehensive, personalized care management with potential to secure stronger IP protection

Psyber

- **Utilizes digital combination tools** to empower atai's programs, such as remote monitoring and remote counseling

AI Enabled Drug Discovery

EntheogeniX

- **Joint venture with Cyclica**, with atai currently owning 80%
- **AI-enabled computational biophysics platform** designed to optimize and accelerate drug discovery
- **Potential to be a product engine** for atai supporting the next generation of novel programs

Formulation & Biomarker Stratification

PsyProtix

- **Metabolomics based biomarker approach** to develop precision psychiatry

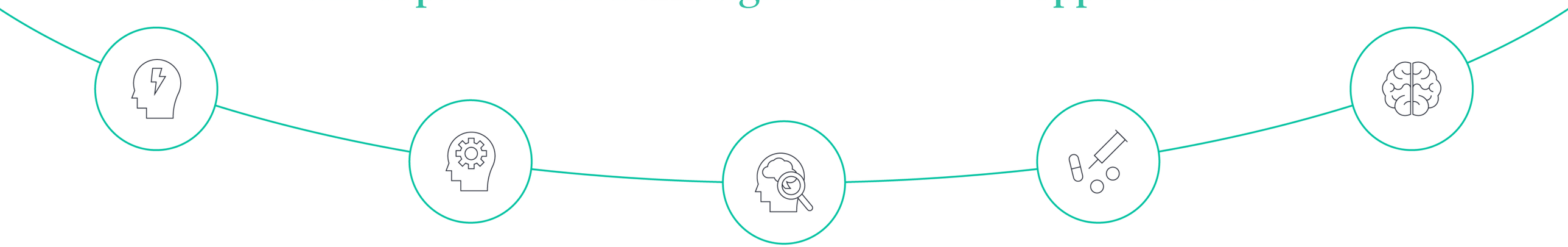
InnarisBio

- **Joint venture with Uniquest** to advance direct-to-brain drug delivery technology

IntelGenx Corp.

- **Partnership with IntelGenx** to develop Innovative transmucosal formulations

We are initially focused on mental health disorders (DSM-V) with current unmet patient need and significant market opportunities



~300m

Patients with Depression (global)[1]

~33% of patients are resistant to front line treatments

~40m

Patients with Anxiety Disorders (US)[2]

Current treatments have slow onset (4- 12 weeks) or side effects including sedation

~18m

Patients with Cognitive Impairment Associated with Schizophrenia (global)[3]

No pharmacological treatments approved for CIAS

~20m

Patients with Substance Use Disorder (US)[4]

~75% of patients relapse within one year of treatment

~1.7m

Patients with TBI (US)[5]

No pharmacological treatments approved for mild TBI

1. World Health Organization (2020)
2. Anxiety and Depression Association of America (2020)
3. Using CSCI Criterion; Reichenberg et al., "Neuropsychological Function and Dysfunction in Schizophrenia and Psychotic Affective Disorders" (2009)
4. SAMSHA - National Survey on Drug Use and Health (2017)
5. Georges et al, "Traumatic Brain Injury", NCBI (2020)

Robust Ability to Block Strategy: IP, regulatory and restrictive covenants create framework for excluding would-be competitors

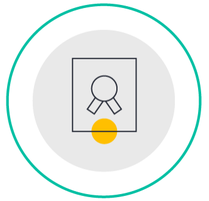
Robust Specialty Pharma IP Strategy

Drug & Digital Combo Therapeutics Exclusivity Strategy

New Chemical Entity Engine

Differential De-scheduling

Strategic Restrictive Covenants



Pursuit of Extensions of Patent Scope

Leading IP and Regulatory Advisors

Depression

Depression

Opportunity Overview

Treatment resistant depression (TRD) is diagnosed after two failed courses of antidepressants.

First onset depression (MDD) → **Persistent depression (MDD)** → **Treatment resistant depression (TRD)**

Treatment options for TRD

- Antidepressants
- Augmentation therapy[1]
- S-ketamine
- Somatic therapy[2]
- High-intensity psychological interventions

~300m
Global sufferers of depression[3]

~60-70%
Likelihood of relapse from current SoC[4]

~100m
Global TRD patients[5]

2
Approved drugs for TRD (Spravato, Symbyax)

$8bn+
Relative market opportunity (antidepressant sales by 2025)[6]

1. Includes mood stabilizers, atypical antipsychotics, and esketamine.
2. Includes rTMS (repetitive transcranial magnetic stimulation), tDCS (transcranial direct current stimulation), ECT (electroconvulsive therapy), and DBS (deep-brain stimulation).
3. World Health Organization (2020)
4. Hasler et al., Acute psychological and physiological effects of psilocybin in healthy humans: a double-blind, placebo-controlled dose effect study (2004)
5. Pandarakalam, 2018; Sussman et al., 2018; Gaynes et al., 2019
6. Evaluate Pharma (as of 19.03.2021)

atai is targeting depression via multiple complementary approaches

		Depression			
	Company	COMPASS Navigating Mental Health Pathways	VIRIDIA LIFE SCIENCES	PERCEPTION NEUROSCIENCE	REVIXIA LIFE SCIENCES
	Compound	COMP360	DMT	R-ketamine	Salvinorin A
Population / Drug class	**Indication**	TRD	TRD	TRD	TRD
	MoA Target / Drug Class	5-HT2A-R agonist	5-HT2A-R agonist	Glutamatergic modulator	Kappa opioid agonist
Convenience / Use	**Potential for at home use**	✗	✗	✓	✗
	Potential for concomitant use with SSRIs	✗	✗	✓	✓
	In-clinic duration	6-8 hours	~2 hours	N/A	~2 hours
Commercial	**Distribution channels**	New clinics infrastructure	S-ketamine/ psilocybin clinics	Pharmacies	S-ketamine/ psilocybin clinics

Cognitive Impairment Associated with Schizophrenia

Cognitive Impairment Associated with Schizophrenia (CIAS)

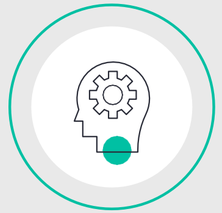
Opportunity Overview

Schizophrenia is a chronic, psychiatric disorder characterized by a heterogeneous combination of symptoms, including psychosis, social withdrawal, flat emotional affect and cognitive impairment. Nearly all schizophrenia patients are affected by CIAS, limiting both social and non-social cognitive functions.

To date, there are no pharmacological treatments approved for CIAS

~21m

Global sufferers of schizophrenia [1]



80%+

of schizophrenia patients suffer from significant cognitive impairment[2]

~20 yrs

Lost life expectancy compared to general population (schizophrenia patients)[3]

~$155bn+

Estimated annual US economic burden due to schizophrenia[4]

$13bn+

Relative market opportunity (antipsychotic sales by 2025)[5]

1. Charlson et al., "Global Epidemiology and Burden of Schizophrenia: Findings From the Global Burden of Disease Study" (2016)
2. Using CSCI Criterion; Reichenberg et al., "Neuropsychological Function and Dysfunction in Schizophrenia and Psychotic Affective Disorders" (2009)
3. Laursen, Nordentoft & Mortensen, "Excess early mortality in schizophrenia" (2014)
4. Cloutier et al., "The Economic Burden of Schizophrenia in the United States in 2013" (2016)
5. EvaluatePharma (as of 19.03.2021)

PIPELINE SUMMARY

9 Clinical Stage Therapies in Development for CIAS

12 Pre-Clinical Stage Therapies in Development

17 Different Mechanisms of Action

RL-007 is well positioned, combining a history of safety with a signal of pro-cognitive effects in humans

Overview of Leading Clinical Stage Competitors for Cognitive Impairment Associated with Schizophrenia (CIAS)

	RECOGNIFY LIFE SCIENCES	Boehringer Ingelheim	Pfizer	Biogen	Neurocrine Biosciences	sunovion	cerevel
Therapy	**RL-007**	BI-425809	PF-03463275	BIIB-104	NBI-1065844	SEP-363856	CVL-231
Primary Indication	**CIAS**	CIAS	CIAS	CIAS	Schizophrenia	Schizophrenia	Schizophrenia
MoA	**GABA / nicotinic modulator**	GlyT1 inhibitor	GlyT1 inhibitor	AMPA agonist	DAAO inhibitor	TAAR1 agonist	M4 PAM
Current Phase	**II**	II	II	II	II	III	I
Notes	**Previously assessed in over 500 subjects for other indications with no serious adverse events observed**	Completed Phase II with positive results; recruiting for Ph III	Ongoing Phase II	Ongoing Phase II, US and Japan Only	Failed to achieve primary endpoint of easing the negative symptoms of schizophrenia, but met secondary endpoints of cognitive improvement	Breakthrough therapy designation, being developed for schizophrenia but recently demonstrated small improvements in cognitive measures	Recently completed Phase Ib in patients with schizophrenia with positive results; progressing to Phase II

Note: GABA = Gamma aminobutyric acid; TAAR1 = trace amine-associated receptor; GlyT1 = Glycine Transporter 1,; AAO = D Amino Acid Oxidase; AMPA = α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid; M4 = muscarinic acetylcholine 4; PAM = positive allosteric modulator
Sources: GlobalData, Evaluate Pharma (both as of 2021)

Substance Use Disorder

Substance Use Disorder (SUD)

Opportunity Overview

Substance use disorders are highly prevalent disorders characterized by an inability to control the use of a legal or illegal drug, medication or other psychoactive compound

Treatment options for Opioid Use Disorder (OUD)

Synthetic opioid receptor agonists (methadone and buprenorphine)

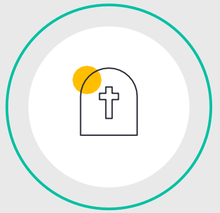
Opioid antagonists (naltrexone and naloxone)

~20m+

US sufferers of SUD in 2019[1]

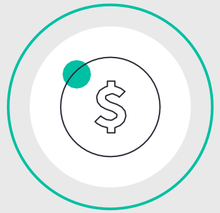
~3m

US sufferers of OUD in 2020[2]



~70k

US deaths from opioid drug overdose in 2020[3]



$787bn

Societal cost associated with OUD in US[4]

~75%

of patients undergoing OUD therapy experience relapse within one year[5]

1. SAMSHA - Key Substance Use and Mental Health Indicators in the United States: Results from the 2019 National Survey on Drug Use and Health)
2. Azadfard et al., "Opioid Addiction" (2020)
3. Ahmad FB, Rossen LM, Sutton P. "Provisional drug overdose death counts". National Center for Health Statistics (2021)
4. Murphy, "The cost of opioid use disorder and the value of aversion" (2020)
5. Sinha, "New Findings on Biological Factors Predicting Addiction Relapse Vulnerability" (2011)

SUMMARY

DMX-1002 could potentially become a paradigm-shifting therapy for Opioid Use Disorder

Current standard of care for OUD is medication therapy, requiring opioid substitutes that carry significant side effects

Current strategies for withdrawal support have high rates of relapse

DMX-1002 has the potential to become the first disease-modifying treatment for OUD, minimizing risk of relapse

	Therapy	Mechanism of Action	Single Therapeutic Episode	No Opioid Side Effects	Minimal Abuse Potential	High Adherence / Low Risk of Relapse
Disease Modification Single dose administered in monitored setting, providing both withdrawal support and oneiric experience with goal of complete remission	Ibogaine (DMX-1002) DemeRx	Mixed MoA	✓	✓	✓	✓
Withdrawal Support[2] Therapies given for symptomatic management during supervised withdrawal (detoxification)	Clonidine	Alpha-2 agonist	✓	✓	✓	
	Lofexidine	Alpha-2 agonist	✓	✓	✓	
Medication Assisted Therapy[1] Daily therapy given in substitution of opioid in outpatient setting in attempt to wean off from opioid	Methadone	Mu-agonist				✓
	Buprenorphine	Partial Mu-agonist				✓
	Naltrexone	Mu-antagonist		✓	✓	

Source: GlobalData, Evaluate Pharma (both as of 2021)
1. Current Standard of Care
2. Rarely used given high rates of relapse. Used primarily in institutional or penitentiary settings

Anxiety

Anxiety

Opportunity Overview

Anxiety disorders develop when feelings of apprehension and unease persist over an extended period and potentially worsen over time

- Generalized Anxiety Disorder (GAD)
- Social Anxiety Disorder (SAD)
- Obsessive-Compulsive Disorder (OCD)
- Panic Disorder
- Post-Traumatic Stress Disorder (PTSD)

Treatment options for anxiety disorders

Antidepressants (SSRIs)

Benzodiazepines

Psychotherapy

~40m

Anxiety disorder sufferers in the US[1]

#1

Most common mental health disorder in the US[1]

~7m

GAD sufferers in the US[2]

<50%

Less than half of patients with Anxiety disorder in the US receive treatment[2]

$42bn+

Annual societal cost of anxiety disorders in the US[3]

1. National Alliance on Mental Illness (2021)
2. Anxiety and Depression Association of America (2021)
3. DeVane et al., "Anxiety Disorders in the 21st Century: Status, Challenges, Opportunities, and Comorbidity With Depression", AJMC (2005)

GRX-917 can fill unmet need in Generalized Anxiety Disorder (GAD) with rapid onset and favorable safety profile

SUMMARY

There is an unmet need in GAD for therapies with rapid onset, high efficacy, and minimal side effects

SSRI's are current standard of care for GAD but require 4-6 weeks for onset of effect and have several disadvantages[1]:

1. SSRI/SNRI-specific inadequacy
2. Lack of tolerability
3. Patient nonadherence to medications that fail to relieve symptoms of anxiety quickly

Benzodiazepines are second-line treatment, offering fast and effective relief, but carrying significant risk of:

1. Sedation
2. Impaired cognition
3. Dependence/addiction

Overview of Current Therapeutic Options for Generalized Anxiety Disorder

Class	Examples	Mechanism of action	Favorable safety profile	Rapid Onset	High Efficacy	Minimal Side Effects	Non-addictive
Benzoxazine	deu-etifoxine (GRX-917) gaba	$GABA_A$ Channel and TSPO Potentiation	✓	✓	✓	✓	✓
Selective Serotonin Reuptake Inhibitor (SSRI)	Escitalopram	SERT blockade	✓				✓
Serotonin and Norepinephrine Reuptake Inhibitor (SNRI)	Venlafaxine	SERT AND NET blockade	✓				✓
Benzodiazepines	Alprazolam	$GABA_A$ Potentiation		✓	✓		
Tricyclic Antidepressant (TCA)	Imipramine	Mixed MoA					✓
Azapirones	Buspirone	partial 5-HT1A agonist	✓				✓
Gabapentinoid	Pregablin	VDCC inhibition	✓				✓

Anticipated pharmacological profile based on etifoxine

Note: GABA = Gamma aminobutyric acid, SERT = serotonin transporter , NET = serotonin transporter; MoA = Mechanism of Action; 5HT1a = serotonin 1A receptor; VDCC = voltage dependent calcium channel; TSPO = mitochondrial translocator protein

Source: GlobalData, Evaluate Pharma (both as of 19.03.2021)

1. DeMartini et al., "Generalized Anxiety Disorder" (2019)

Traumatic Brain Injury

Traumatic Brain Injury (TBI)

Opportunity Overview

Traumatic brain injury typically occurs when a sudden force impacts the head or body, resulting in damage and functional impairment of the brain. atai initially focuses on mild traumatic brain injuries.

To date, there are no pharmacological treatments approved for Traumatic Brain Injury

~1.7m

People sustain TBI each year in US[1]

~57k

Annual TBI-related deaths in US[2]

70-80%

Mild TBI accounts for 70 - 80% of all reported TBIs

5.3m

Americans live with TBI related disabilities[3]

70-90%

of patients continue to exhibit prolonged neurocognitive dysfunctions[4]

1. Georges et al, “Traumatic Brain Injury”, NCBI (2020)
2. CDC, “Surveillance Report of Traumatic Brain Injury-related Emergency Department Visits, Hospitalizations, and Deaths” (2014)
3. Thurman et al., “Report to Congress: Traumatic Brain Injury in the United States”, CDC (1999)
4. Hoffer et al., “Repositioning drugs for traumatic brain injury”, Journal of Biomedical Science (2017)

While **mental health is the initial focus**, adjacent indications may allow for **significant expansion**

Anti-inflammatory properties make psychedelics potentially interesting for a variety of therapeutic indications[1]

Selected CNS indications of interest for psychedelic therapeutics

Indication	Estimated 2026 Market Size ($BN)	Academic Publications
Eating disorders	7.4*	Positive effects of psychedelics on depression and wellbeing scores in individuals reporting an eating disorder[2]
Obsessive-Compulsive Disorder	3.7*	Safety, tolerability, and efficacy of psilocybin in 9 patients with obsessive-compulsive disorder[5]
Attention Deficit Hyperactivity Disorder	3.3	Perceived outcomes of psychedelic microdosing as self-managed therapies for mental and substance use disorders[3]
Autism Spectrum Disorders	1.4*	Lysergic acid diethylamide (LSD) promotes social behavior through mTORC1 in the excitatory neurotransmission[4]
Multiple Sclerosis	21.1	Psychedelics and immunomodulation: novel approaches and therapeutic opportunities[10]
Ischemic/ Hypoxic Brain Injury	20.0	The Endogenous Hallucinogen and Trace Amine N,N-Dimethyltryptamine (DMT) Displays Potent Protective Effects against Hypoxia via Sigma-1 Receptor Activation in Human Primary iPSC-Derived Cortical Neurons and Microglia-Like Immune Cells[6]
Alzheimer's Disease	10.6	Psychedelics as a Treatment for Alzheimer's Disease Dementia[7]
Migraine Headache	9.6	Exploratory Controlled Study of the Migraine-Suppressing Effects of Psilocybin[11]
Parkinson's Disease	2.4	Neuroprotective potential of Ayahuasca and untargeted metabolomics analyses: applicability to Parkinson's disease[8]
Amyotrophic lateral sclerosis	1.0	Psychedelics as a novel approach to treating autoimmune conditions[9]
Cluster Headache	0.3	Response of cluster headache to psilocybin and LSD[12]
	80	

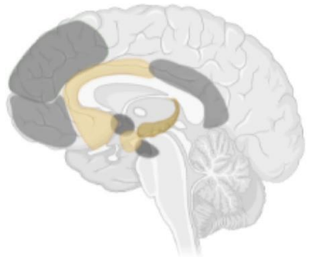
* Company estimate based on worldwide incidence

Source: EvaluatePharma for all indications with exception of Eating disorders, Autism spectrum disorder, and obsessive-compulsive disorder, for which there are no currently marketed therapies. Market size was calculated based on estimated worldwide incidence and current yearly average cost of antidepressant therapy

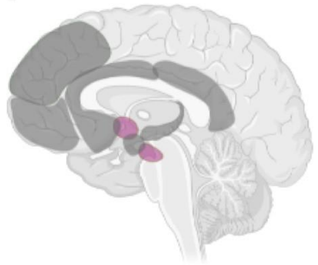
1. Flanagan & Nichols, "Psychedelics as anti-inflammatory agents" (2018). 2. Spriggs et al., "Positive effects of psychedelics on depression and wellbeing scores in individuals reporting an eating disorder" (2020). 3. Lea et al., "Perceived outcomes of psychedelic microdosing as self-managed therapies for mental and substance use disorders" (2020). 4. De Gregorio et al., "Lysergic acid diethylamide (LSD) promotes social behavior through mTORC1 in the excitatory neurotransmission" (2021). 5. Moreno et al., "Safety, tolerability, and efficacy of psilocybin in 9 patients with obsessive-compulsive disorder" (2006). 6. Szabo et al., "The Endogenous Hallucinogen and Trace Amine N,N-Dimethyltryptamine (DMT) Displays Potent Protective Effects against Hypoxia via Sigma-1 Receptor Activation in Human Primary iPSC-Derived Cortical Neurons and Microglia-Like Immune Cells" (2016). 7. Vann Jones & O'Kelly, "Psychedelics as a Treatment for Alzheimer's Disease Dementia" (2020) 8. Katchborian-Neto et al., "Neuroprotective potential of Ayahuasca and untargeted metabolomics analyses: applicability to Parkinson's disease" (2020). 9. Thompson et al., "Psychedelics as a novel approach to treating autoimmune conditions" (2020). 10. Szabo A., "Psychedelics and immunomodulation: novel approaches and therapeutic opportunities" (2015). 11. Schindler et al., "Exploratory Controlled Study of the Migraine-Suppressing Effects of Psilocybin" (2020). 12. Sewell et al., "Response of cluster headache to psilocybin and LSD" (2006)

atai aims to develop novel disease-modifying strategies to restore mental health by focusing on neuroplasticity

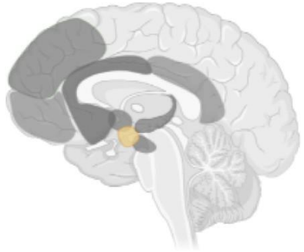
Standard of Care



1 **SSRIs** localized to serotoninergic pathways with slow onset, mainly **↓AN:** reduced stress, emotional blunting.

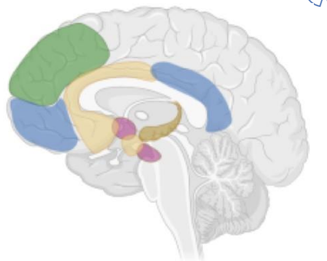


2 **Buprenorphine**
↓RN Opioid receptor agonists for maintenance; drawbacks: respiratory depression and maintained dependency.



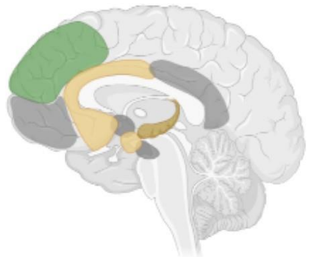
3 **Benzodiazepines**
↓AN: sedation, amnesia, impaired motor performance; withdrawal

atai LIFE SCIENCES



PERCEPTION NEUROSCIENCE
DemeRx IB
VIRIDIA LIFE SCIENCES

1 **Pleiotropic re-set of DMN & AN.**
2 Increased neuroplasticity combined with psychedelic experience facilitates **regaining control of CC and RN** and "unlearning" negative behaviors.



gaba THERAPEUTICS

3 **Modulatory (+/-) effect on AN.**
Restoration of top-down control of emotions from **CC**.

Default Mode Network **(DMN)**: Self awareness

Cognitive Control **(CC)**: Decision making, executive functions

Reward Network **(RN)**: Pleasure

Affective Network **(AN)**: Fear response, social interaction, learning, processing emotions

“Watching my best friend and business partner suffer, being let down by existing treatments and finally finding comfort in psychedelic therapies, was all the inspiration I needed to commit my life to this cause.”

Florian Brand | CEO | atai life sciences