Hope
Science
Life

NASDAQ: **NRXP**

BIO CEO 2024
Bringing HOPE to Life

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Key NRx Updates

Data end of Q1

Suicidal Bipolar Depression

NRX-101

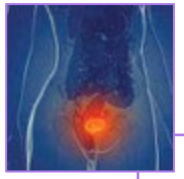
- FDA Breakthrough designated drug
- Alvogen has advanced first milestone payment
- Last Patient Visit Expected this week
- Trial has maintained 95% Rating Reliability
- Top Line Data expected end of 1Q24
- $330 million in potential milestones plus 15% royalty

Data end of Q1

Chronic Pain

NRX-101

- Enrollment terminated
- Study Completed June 2023*
- Extensive data collection with neuroimaging now complete
- Final statistical analysis plan expected in two weeks
- Top line data to follow
- NRx commercial IND is open with FDA



Seeking Partners

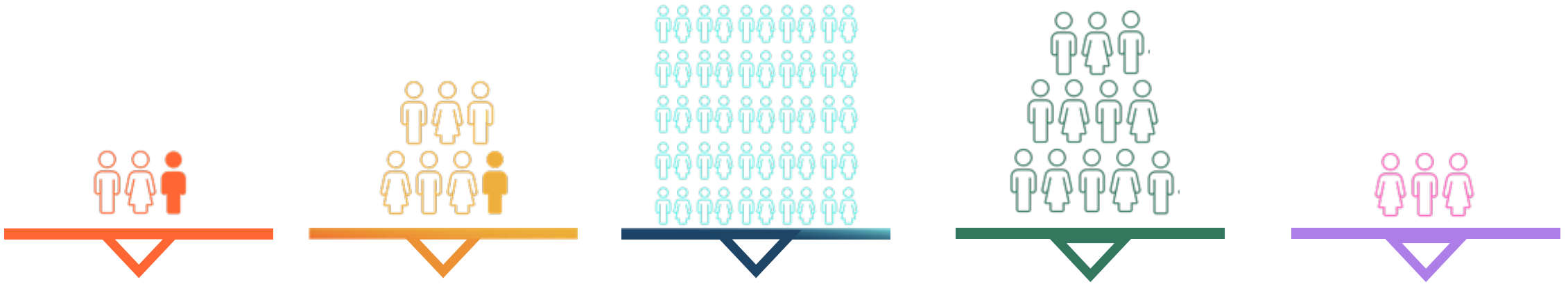
Complicated UTI

NRX-101

- IND granted in complicated UTI and Pyelonephritis
- Awarded FDA Qualified Infectious Disease Product and Fast Track Designation Jan 2024
- Clinical trial supplies on hand for phase 2
- 3 million cases/yr
- 90% of organisms are resistant to common antibiotics
- >$10 billion market at branded prices

* Clinicaltrials.gov NCT 03535688

Potential to Reach 75 Million Lives



Suicidal Depression 3.5 M

- 1 M Bipolar[1]
- 2.5 M Other forms of Depression
- Only approved treatment is ECT

Bipolar Depression 7 M

- 1 M Suicidal Depression[1]
- 6 M Non-Suicidal[1]

Chronic Pain 51 M[2]

Global Opioid Crisis

Congressional Funding for EPICNET and HEAL to find new medicines

PTSD 12 M[3]

Currently 2 indicated SSRI drugs:

- Neither relieves PTSD symptoms
- Suicide Warnings on both labels

Complex UTI 3 M

90% of organisms are resistant to common antibiotics

Costs of $4600 - $17,500 per episode

1. National Institute of Mental Health, https://www.nimh.nih.gov/health/statistics/bipolar-disorder
2. US Dept of Veteran Affairs, https://www.ptsd.va.gov/understand/common/common_adults...
3. Centers for Disease Control and Prevention, https://www.cdc.gov/mmwr/volumes/72/wr/mm7215a1.htm

We Do Things that Matter

Launching HOPE Therapeutics

Hope Therapeutics

an NRx Daughter Co.

HTX-100 (IV Ketamine)
for **Suicidal Depression**

HOPE. Science. Life.

NOTE: Investigational Therapy not currently approved by FDA

January 2024

Suicidality is a National Crisis

Suicidality kills ~50,000 Americans every year

Over
48,000
people died by suicide in 2021

1 death every
11 minutes

Many adults think about suicide or attempt suicide

12.3 million
Seriously thought about suicide

3.5 million
Made a plan for suicide

1.7 million
Attempted suicide

It often takes our best and brightest

https://www.cdc.gov/suicide/facts/index.html#:~:text=In%202021%2C%20an%20estimated%2012.3,and%201.7%20million%20attempted%20suicide.&text=Suicide%20affects%20people%20of%20all%20ages.

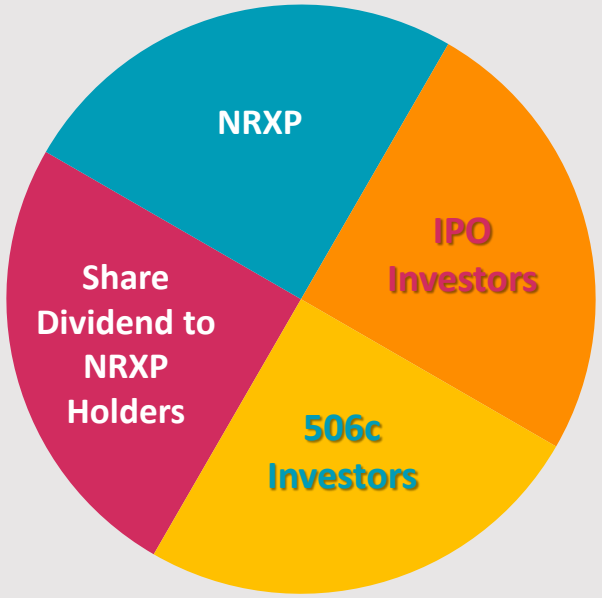
Why Spin Out a Separate Company?

1. NRx is a pre-commercial drug development company
   HOPE is a commercial company focusing on ketamine and digital therapeutics
2. Planned NDA filing for ketamine (HTX-100) in Q2 2024 when stability/sterility data are completed and 3 commercial lots have completed manufacture
3. **HOPE** aims to initiate sales of ketamine under current pharmacy laws by July 2024
4. Investor model is based on capital appreciation and royalty payment
5. **Potential for up to $300 million+ in sales starting January 2025**

Series A Investment (Reg 506c) Followed by Nasdaq Listing

Public Financing: $30 million term sheet for public capital in hand

Expected Cap Table post IPO



Projected cap table is subject to change based on market and commercial conditions

$25 million at public listing provides for all launch expenses and required cash reserves (shareholders equity) for Nasdaq Global Markets listing

Share Dividend

Q1 2024

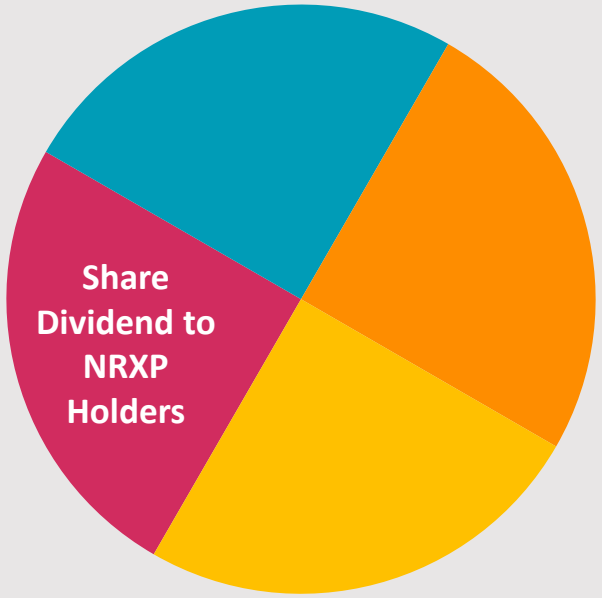
Reg 506c anticipated

Q2 2024

Nasdaq listing anticipated

Q3 2024

Share Dividend to NRXP Shareholders



Ex-dividend date anticipated March 24, 2024

Anticipate distributing 50% of founding shares in HOPE Therapeutics to existing NRXP shareholders

Dividend recipients will also receive a royalty coupon for sales of HTX-100

Dividend recipients will be required to sign a no-shorting covenant to be eligible for Share Dividend and Royalty Coupon

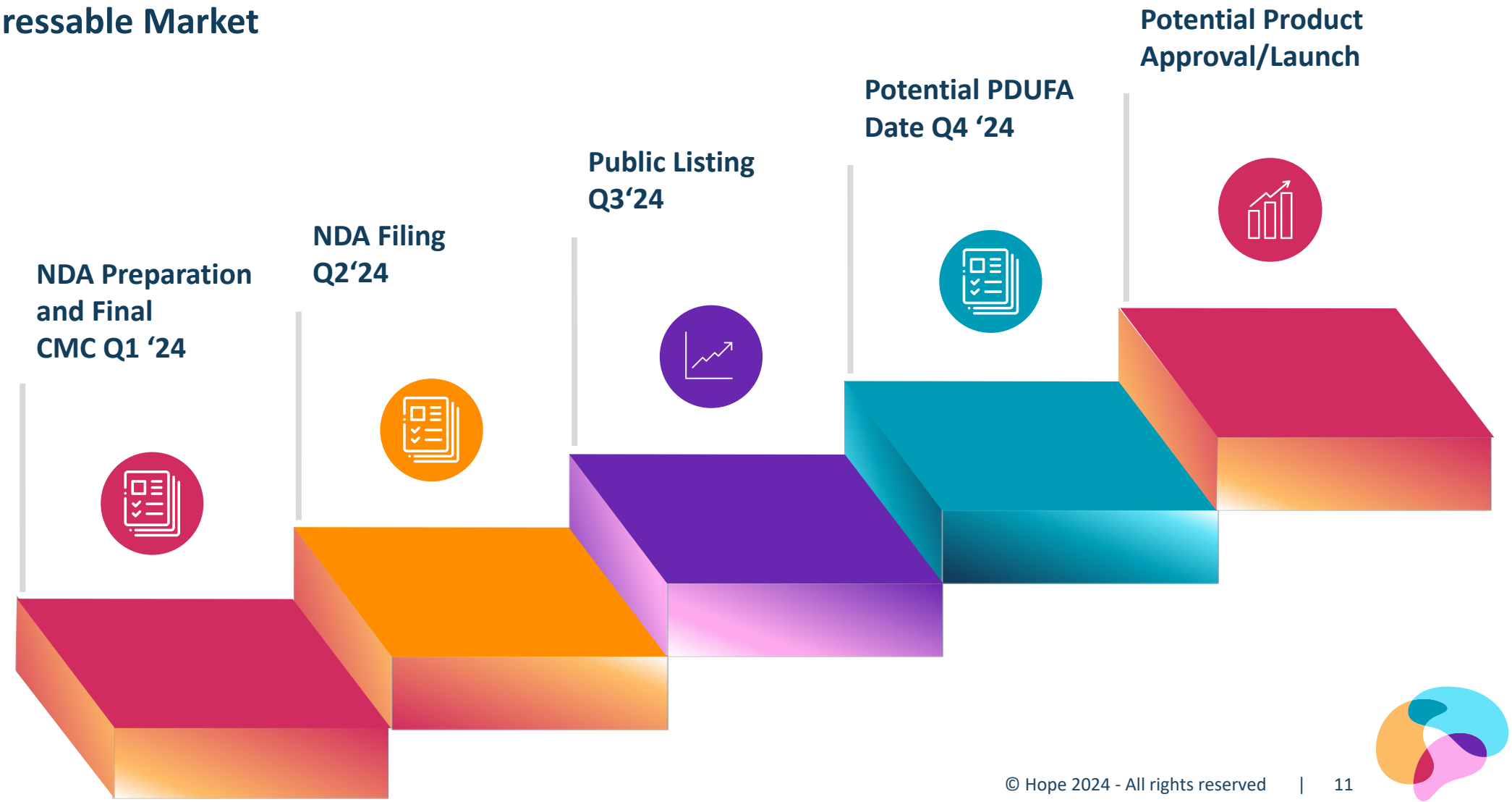
HOPE Royalty Coupon is not anticipated to be a liquid security and aims to provide a cash return to current NRXP shareholders

Short positions with "fails to deliver" will need to deliver both the HOPE share certificate and royalty coupon as of the ex-dividend date

**** These elements are subject to NRXP board approval***

Next Steps for HOPE

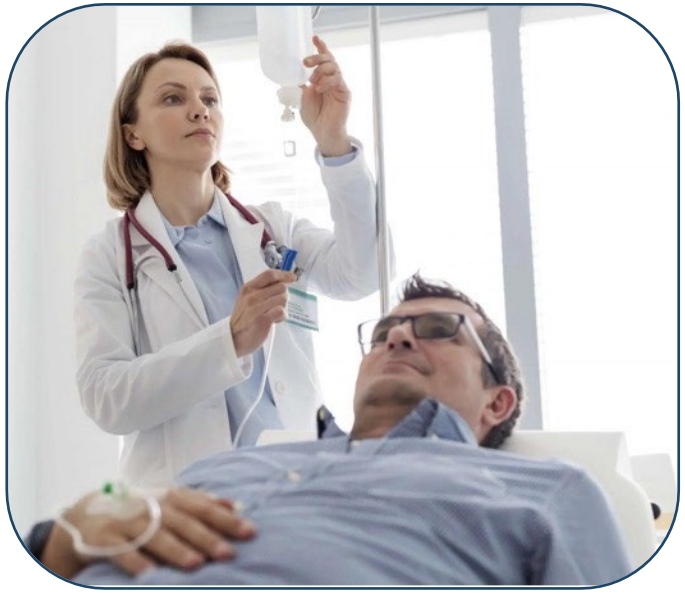
Bringing HTX-100 (IV Ketamine) to market in Q4 2024
$3.5 Billion Addressable Market



No FDA-Approved Medication Today for Acute Suicidality

Only FDA-approved therapy is Electro-Convulsive Therapy (ECT)

IV Ketamine is used off-label
But not FDA-approved
Not reimbursed by Payers
Inconsistent in quality



Esketamine is currently approved for treatment of depression in patients at risk of self-harm but may not be used in patients with bipolar depression

Data in Support of HTX-100 Approval for Suicidal Depression

1. NIH-funded ketamine dose-ranging trial establishing 0.5 mg/kg dose
2. French government-funded trial of 156 patients in 7 hospitals (P<.0001 on 1° endpoint)
3. NIH-funded Columbia University trial in 80 patients (P<.015 on 1° endpoint)
4. PCORI trial demonstrating advantage over ECT in 420 patients (P=.007)
5. Extensive literature of smaller trials demonstrating ketamine effect

Broad Support Within the Psychiatry Community

JAMA Psychiatry

Viewpoint
October 25, 2023

Choosing Between Ketamine and Electroconvulsive Therapy for Outpatients With Treatment-Resistant Depression—Advantage Ketamine?

Sanjay J. Mathew, MD; Manish K. Jha, MBBS; Amit Anand, MD

JAMA Psychiatry. 2023;80(12):1187-1188.
doi:10.1001/jamapsychiatry.2023.3979

Viewpoint
January 3, 2024

The Rapidly Shifting Ketamine Landscape in the US

Samuel T. Wilkinson, MD[1,2]; Joseph J. Palamar, PhD[3]; Gerard Sanacora, MD, PhD[1,2]

JAMA Psychiatry. Published online January 3, 2024.
doi:10.1001/jamapsychiatry.2023.4945

Beyond Sales of Ketamine

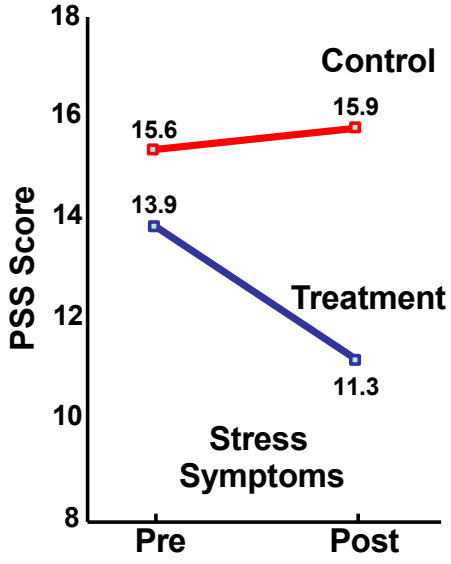
1. The pharmacologic effect of ketamine lasts for < 1 week
2. Patients need ongoing support and Cognitive-based therapy is insufficient
3. Research sponsored by DARPA demonstrates measurable benefit of Digital Therapeutic approach in reducing physiologic measures of depression and stress
4. Recent advances in consumer-targeted sensors (iWatch® and others) together with gaming app advances makes this deployable
5. Development of the “ketamine-clinic” creates a consumer platform

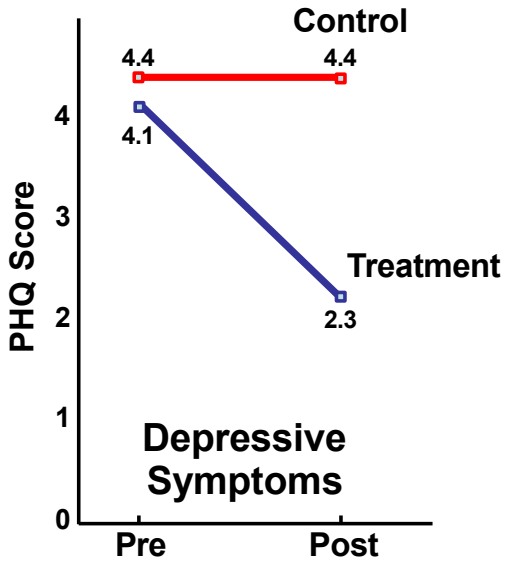
Digital Therapeutics are regulated by the FDA as medical devices and may not make claims of health benefit without FDA clearance or approval

Example of Digital Therapeutic Use in US Navy Personnel

Methodology:

- 71 personnel from US Navy Coastal and Riverine Expeditionary Group and Squadron
- 8-week Digital Therapeutic Use compared to Control
- Measures are Perceived Stress Scale, Patient Health Questionnaire and Usage Report





Participants demonstrated high acceptance and Digital Therapeutic Use (75%) compared to control

Key Results:

- *Large reductions in Perceived Stress and Depression compared to Control group*
- *Digital therapeutic use before and during stress events is significantly greater than for Control*
- *Quantitative improvements in both performance and mental health*

Five Elements of the HOPE Therapeutics Value Proposition

1. Sales of HTX-100 (IV ketamine)
2. Delivery of REMS (Risk Evaluation and Management Strategy) support to prescribers
3. Digital Therapeutic solutions to extend the HTX-100 clinical effect
4. Ongoing patient-engagement tools
5. Managed Care Reimbursement and full support program

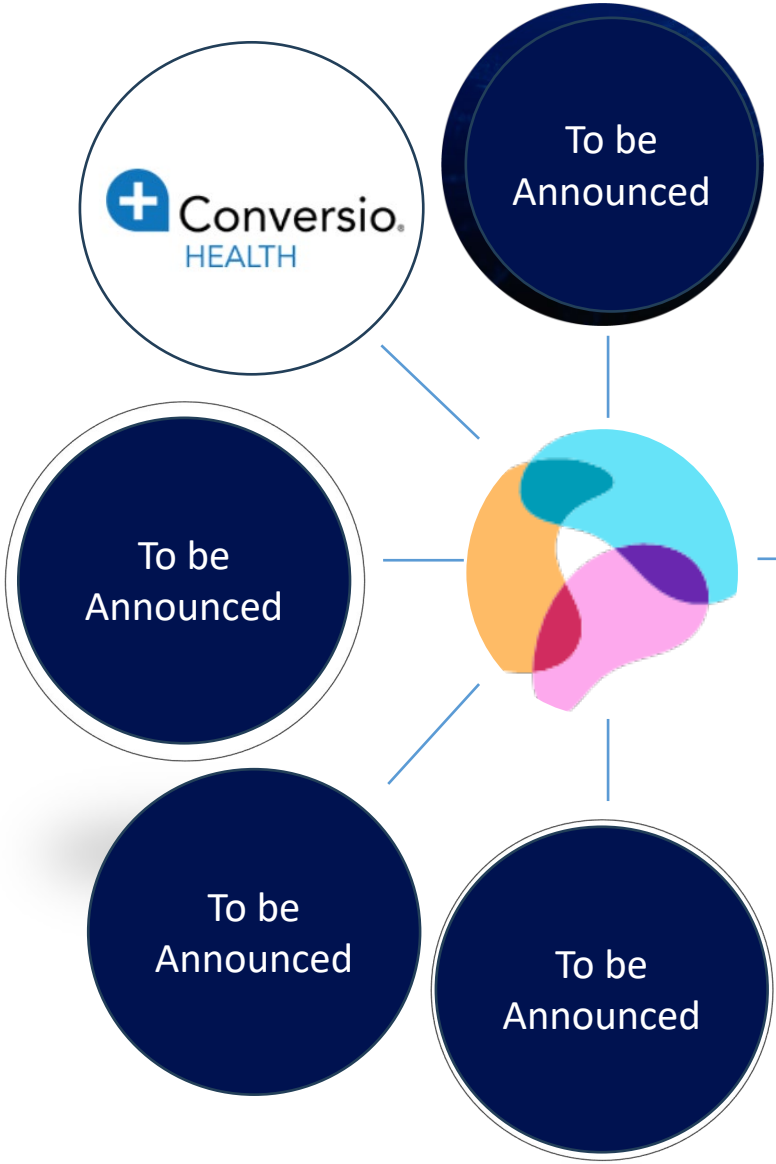
By the time HTX-100 loses market exclusivity, elements 2,3,4 & 5 will maintain a sustained marketplace advantage

HTX-100 Commercialization Partners

- Nationwide 503a Pharmacy and DEA licensure for ketamine sales pre-approval
- Extensive payer and market access relationships for managed care programs post-approval

- Psychiatry-specialized EMR
- Adopted in 600 practices
- Electronic implementation of existing REMS programs
- Patient portal/Patient app
- Digital therapeutics delivery

- Digital therapeutics development
- Based on DARPA-funded product proven in war-fighters and first responders
- Already approved for sale throughout DOD



- Supply chain management
- Sales management
- 3PL Logistics (delivery to any clinic in 6 hours)
- Medical Liaison
- Reimbursement strategy and support

- FDA inspected manufacturer
- Experienced in ketamine
- High capacity BFS capability

- Marketing and business support to 300 US ketamine clinics
- Trusted partner of ketamine Key Opinion Leaders
- Liaison to the provider community

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