

# ADDRESSING UNACCEPTABLE OUTCOMES IN ADHD

## CINGULATE Precision-Timed-Release (PTR)

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### SOCIETAL IMPACT OF ADHD

22 Million US ADHD Patients  
12 Million Adults & 10 Million Children/Adolescents

#### Burden and Issues<sup>1-5</sup>

Estimated annual incremental costs of ADHD \$143 to \$266 billion in the United States

>40% higher rate of car accidents

2x greater divorce rate

2x greater incidence of accidental death

2x higher incarceration rate

**Underdiagnosed:** Black Children are 40% Less Likely to be diagnosed with ADHD

**Misdiagnosed:** Black Children are More Likely to be diagnosed with ODD and CD<sup>6</sup>

**Cultural Stigma and Systemic Bias:** 2 x More likely to be suspended for behaviors consistent with ADHD compared to white students.

**Implicit Bias:** Educators and Health Care Providers are the drivers of underdiagnosis and punitive discipline.

**Disparate treatment:** 66% of white children vs 35% of black children receive medication.

**Treatment discontinuation:** 40%-60% of children continue treatment of ADHD into adolescence.

### ADHD UNMET NEEDS

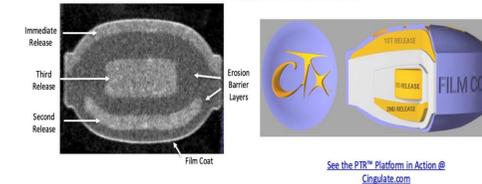
ADHD BRANDS	APPROVED	ATTRIBUTES <sup>1</sup>	UNMET NEEDS <sup>1</sup>				
		Onset	Duration (less onset)	Fast Onset of Action ≤ 30 min	Entire Active-Day Efficacy*	Reduced Crash/Rebound	Avoid Booster <sup>2</sup>
Vyvanse®	2007	1 ½ - 2 hours	8-9 hours	✗	✗	✗	✗
Adderall® XR	2001	1 ½ hours	7-8 hours	✗	✗	✗	✗
Concerta®	2000	2 hours	6-7 hours	✗	✗	✗	✗
Focalin® XR	2005	30 mins	7-8 hours	✓	✗	✗	✗

\* Entire-active day efficacy defined as less than or equal to a 30 min onset of action with true 12 hours of duration vs. baseline  
<sup>1</sup> Information based upon product Package Inserts, and Summary Basis of Approvals for the approved products in chart and Am C. Childress, Nathalie Beltran, Carl Supnet & Margaret D. Weiss (2021) Reviewing the role of emerging therapies in the ADHD armamentarium, Expert Opinion on Emerging Drugs, 26:1, 1-16.  
<sup>2</sup> Outside the Box: Rethinking ADHD in Children and Adults A Practical Guide, First Edition, p. 185 Thomas E. Brown, PhD  
<sup>3</sup> Symphony Data. 12-months rolling through Sept 2023

### ADHD Entire Active Day: CTx-1301 DELIVERY SYSTEM, PTR™

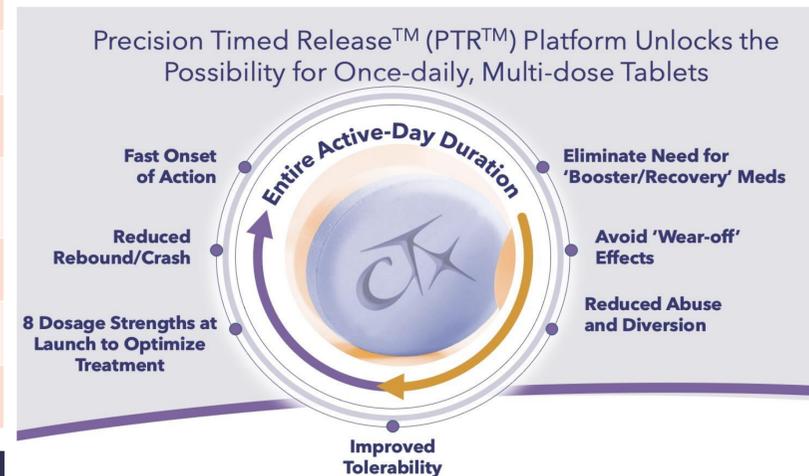
CTx-1301 is Cingulate Therapeutics' once-daily, tri-modal extended-release formulation of dexamethylphenidate, developed using its proprietary Precision-Timed Release™ (PTR™) technology. The formulation is engineered to release the active ingredient in three distinct phases: an immediate-release (IR) layer that provides rapid onset within 30 minutes, a delayed-release (DR) pulse that activates during mid-morning to maintain therapeutic levels during peak activity hours, and an extended-release (XR) phase designed to sustain drug exposure into the late afternoon and early evening. This targeted delivery is achieved through pH-sensitive coatings and controlled polymer layers, allowing precise timing of each release independent of food or gastric emptying. The result is a consistent trimodal delivery from a single dose, designed to improve adherence, symptom control, and patient convenience.

Precision Timed Release™ (PTR™) Platform Unlocks the Possibility for 'True' Once-daily, Multi-dose Tablets



### CTx-1301 Efficacy and Safety in ADHD

#### Addressing Unmet Need



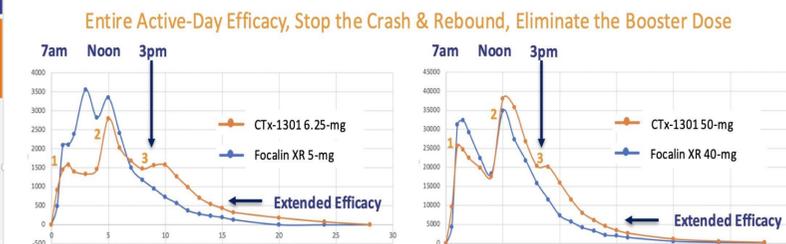
#### Adverse Event Rates: CTx-1301 vs Focalin XR

28.6% Reduction TEAE's related to CTx-1301 versus Focalin XR (14.3% difference)

	Focalin XR 5 mg (n=41)	CTx-1301 6.25 mg (n=39)	Focalin XR 40 mg (n=43)	CTx-1301 50 mg (n=42)	All CTx-1301 (n=42)	All Focalin XR (n=44)
Patients with at least one						
Treatment Emergent Adverse Events	7 (17.1%)	4 (10.3%)	22 (51.2%)	14 (33.3%)	17 (40.5%)	25 (56.8%)
Mild	7 (17.1%)	4 (10.3%)	20 (46.5%)	14 (33%)	17 (40.5%)	23 (52.3%)
Moderate	0	0	2 (4.7%)	0	0	2 (4.5%)
Severe	0	0	0	0	0	0
TEAE Related to Study Drug (Treatment Emergent Adverse Events)	5 (12.2%)	3 (7.7%)	20 (46.5%)	13 (31.0%)	15 (35.7%)	22 (50.0%)
AE Leading to Study or Drug Withdrawal	1 (2.4%)	0	1 (2.3%)	0	0	2 (4.5%)

There were no serious adverse events.  
 Source: CSR CTx-1301-001 Listing 16.2.7.1  
 Presented at The American Professional Society of ADHD and related Disorders (APSARD), 15-17 January 2021

#### Pharmacokinetics: CTx-1301 vs Focalin XR

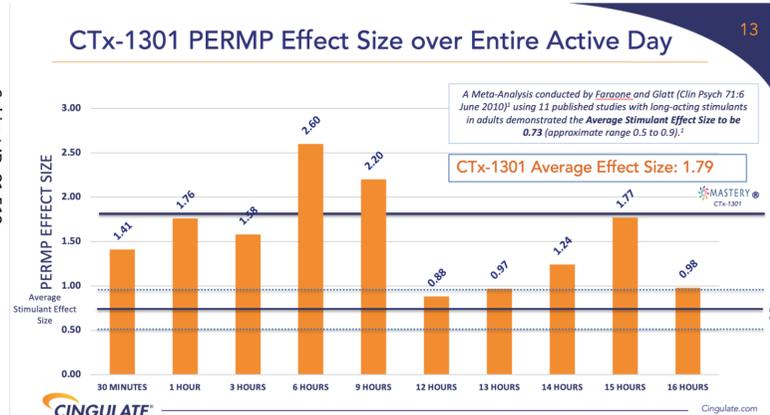


CINGULATE	TARGET ATTRIBUTES		UNMET NEEDS			
	Onset	Duration	Fast Acting (≤ 30 min)	Entire Active-Day Efficacy	Avoid Crash/Rebound	Avoid Booster
CTx-1301 (d-MPH)	30 mins	Up to 16 hours	✓	✓	✓	✓
CTx-1302 (d-AMP)	30 mins	Up to 16 hours	✓	✓	✓	✓

6.25-mg 12.5-mg 18.75-mg 25-mg 31.25-mg 37.5-mg 43.75-mg 50-mg

Source: CSR CTx-1301-001 Listing 16.2.7.1  
 Presented at The American Professional Society of ADHD and related Disorders (APSARD), 15-17 January 2021

#### CTx-1301 PERMP Effect Size over Entire Active Day



Source: CSR CTx-1301-022  
 Presented at American Professional Society for ADHD and Related Disorders, January 20, 2024.  
 Poster ID: S18

### TODAYS CURRENT MARKET

Stimulants 91% of Prescriptions

80 Million Prescriptions per Year<sup>1</sup>

#### Methylphenidates

- CTx-1301 (d-MPH)
- Ritalin® / LA
- Concerta®
- Focalin® / XR

#### Amphetamines

- CTx-1302 (d-AMP)
- Vyvanse®
- Adderall® / XR
- Dexedrine®

Non-Stimulants: 9%

### FUTURE DIRECTION: CINGULATE PTR™

Identified Targets for PTR™ Platform Pipeline  
 Significant Unmet Needs in Billion Dollar Markets

- |   |  |  |
|---|--|--|
| <b>In Development</b> <ul style="list-style-type: none"> <li>ADHD</li> <li>CTx-1301</li> <li>CTx-1302</li> <li>Anxiety</li> <li>CTx-2103</li> </ul> | <b>Near-Term Targets Identified</b> <ul style="list-style-type: none"> <li>Insomnia</li> <li>Depression</li> <li>Bipolar Disorder</li> <li>Movement Disorders</li> <li>Cardiovascular Disorders</li> <li>Xerostomia (dry mouth)</li> </ul> | <b>Future Therapeutic Areas</b> <ul style="list-style-type: none"> <li>Migraine</li> <li>Hypothyroidism</li> <li>Oral Oncology Medicines</li> <li>Psychosis</li> <li>Alzheimer's Disease</li> <li>Pain (Non-Opioid)</li> </ul> |
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### ACKNOWLEDGEMENTS

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