3Q 2025 Corporate Presentation

November 3, 2025

Forward looking statements & safe harbor

Certain matters discussed in this presentation are “forward-looking statements”. The Company may, in some cases, use terms such as “predicts,” “believes,” “potential,” “continue,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should” or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. In particular, the Company’s statements regarding trends and potential future results are examples of such forward-looking statements. The forward-looking statements include risks and uncertainties, including, but not limited to, the commercial success of the Company’s SUNOSI®, AUVELITY®, and SYMBRAVO® products and the success of the Company’s efforts to obtain any additional indication(s) with respect to solriamfetol and/or AXS-05; the Company’s ability to maintain and expand payer coverage; the success, timing and cost of the Company’s ongoing clinical trials and anticipated clinical trials for the Company’s current product candidates, including statements regarding the timing of initiation, pace of enrollment and completion of the trials (including the Company’s ability to fully fund the Company’s disclosed clinical trials, which assumes no material changes to the Company’s currently projected revenues or expenses), futility analyses and receipt of interim results, which are not necessarily indicative of the final results of the Company’s ongoing clinical trials, and/or data readouts, and the number or type of studies or nature of results necessary to support the filing of a new drug application (“NDA”) for any of the Company’s current product candidates; the Company’s ability to fund additional clinical trials to continue the advancement of the Company’s product candidates; the timing of and the Company’s ability to obtain and maintain U.S. Food and Drug Administration (“FDA”) or other regulatory authority approval of, or other action with respect to, the Company’s product candidates, including statements regarding the timing of any NDA submission; the Company’s ability to successfully defend its intellectual property or obtain the necessary licenses at a cost acceptable to the Company, if at all; the Company’s ability to successfully resolve any intellectual property litigation, and even if such disputes are settled, whether the applicable federal agencies will approve of such settlements; the successful implementation of the Company’s research and development programs and collaborations; the success of the Company’s license agreements; the acceptance by the market of the Company’s products and product candidates, if approved; the Company’s anticipated capital requirements, including the amount of capital required for the commercialization of SUNOSI, AUVELITY, and SYMBRAVO and for the Company’s commercial launch of its other product candidates, if approved, and the potential impact on the Company’s anticipated cash runway; the Company’s ability to convert sales to recognized revenue and maintain a favorable gross to net sales; unforeseen circumstances or other disruptions to normal business operations arising from or related to domestic political climate, geo-political conflicts or a global pandemic and other factors, including general economic conditions and regulatory developments, not within the Company’s control. The factors discussed herein could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this presentation and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

This presentation contains statements regarding the Company’s observations based upon the reported clinical data. This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about the Company's industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Neither we nor any other person makes any representation as to the accuracy or completeness of such data or undertakes any obligation to update such data after the date of this presentation. In addition, these projections, assumptions and estimates are necessarily subject to a high degree of uncertainty and risk.

Axsome, AUVELITY, SUNOSI, SYMBRAVO, and MoSEIC, are trademarks or registered trademarks of Axsome Therapeutics, Inc. or its affiliates. Except as with respect to AUVELITY and SUNOSI for their approved indications, the development products referenced herein have not been approved by the FDA.

© Axsome Therapeutics, Inc.

Our Mission

Develop and deliver
transformative medicines
for the hundreds of millions
of people impacted by central
nervous system conditions

axsome

How we drive innovation in brain health

Deliver *novel mechanisms of action*

Develop *first-in-class or best-in-class* medicines

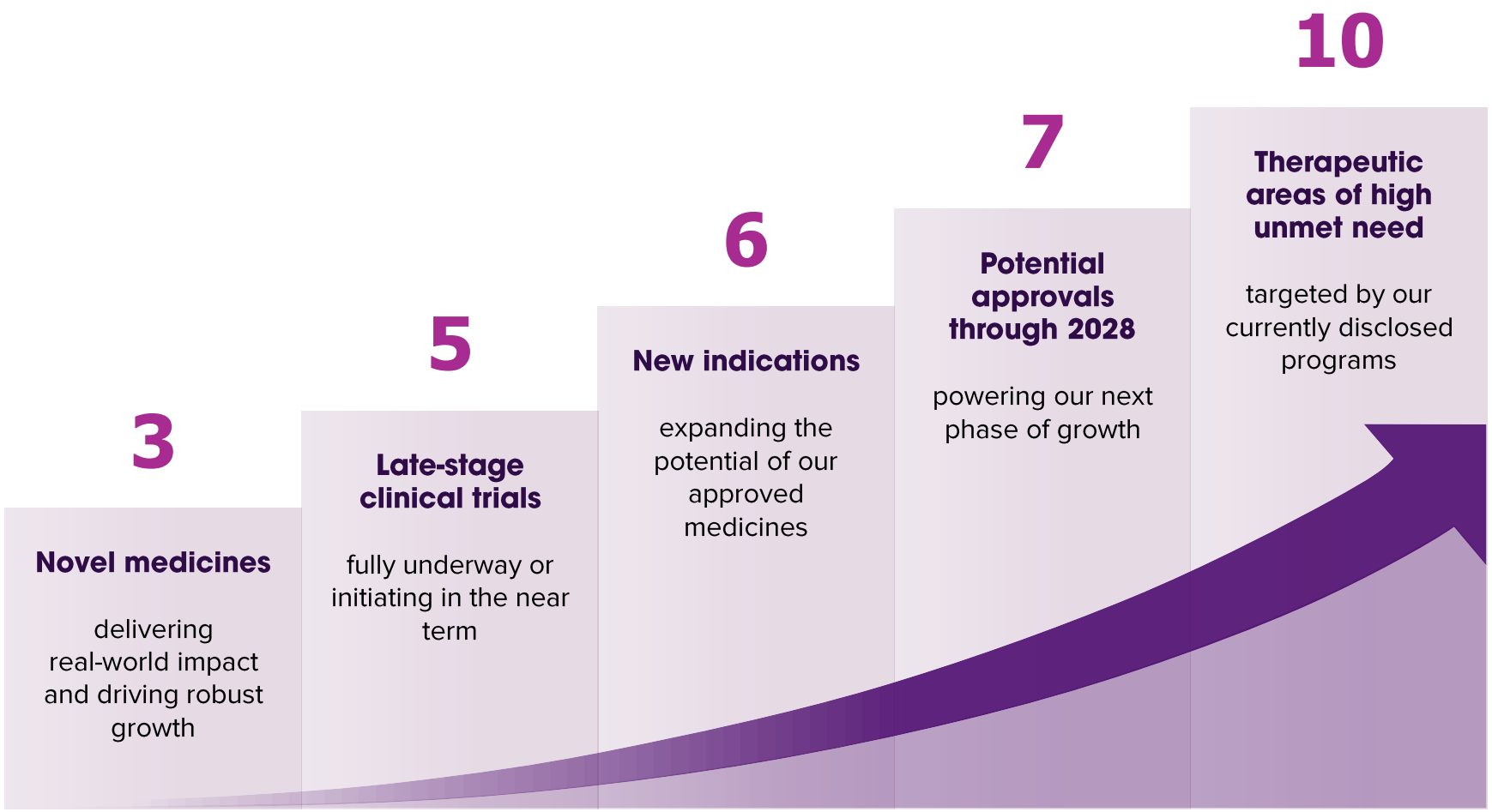
Apply *precision* approaches in novel, underserved indications

Enabled by *clinical research and regulatory innovation*

Leverage our *deep expertise* in neuroscience

© Axsome Therapeutics, Inc.

Positioned to deliver compounding growth and enduring value



>$16B
peak sales potential

>150M
Patients impacted

Robust intellectual property portfolio with patent protection through the **2040s**

© Axsome Therapeutics, Inc.

3Q 2025 performance

Execution

$171.0M (+63% YoY)

Total net product revenue

Auvelity® (dextromethorphan HBr and bupropion HCl) extended-release tablets 45mg/105mg

$136.1M (+69% YoY)

SUNOSI® (solriamfetol) (IV)

$32.8M (+35% YoY)

SYMBRAVO® (meloxicam and rizatriptan) 20 mg/10 mg tablets

$2.1M

Innovation

- sNDA for AXS-05 in Alzheimer's disease agitation submitted to the FDA
- NDA submission for AXS-12 for cataplexy in narcolepsy anticipated 4Q 2025
- Phase 3 trial of solriamfetol in children and adolescents with ADHD anticipated 4Q 2025
- Advancing multiple additional innovative late-stage programs in binge eating disorder, shift work disorder, depression associated with excessive daytime sleepiness, fibromyalgia, and smoking cessation

Discipline

$325.3M

Cash and cash equivalents†

50.3M

Shares outstanding†

†As of September 30, 2025

© Axsome Therapeutics, Inc.

Strategic focus across high-impact CNS conditions

Therapeutic areas driving today's growth

Major depressive disorder

- 21M+ people in the U.S. live with MDD[1]
- ~2/3 of patients fail to achieve remission from initial therapy[2]

Obstructive sleep apnea

- 22M+ U.S. adults are affected by OSA[3]
- ~80% of patients remain undiagnosed[4]

Migraine

- 39M+ U.S. adults experience migraine[5]
- >80% of patients discontinue their acute migraine treatment in the first 12 months[6]

Priority development areas poised for substantial value creation

Alzheimer's disease agitation

- 5M+ U.S. individuals with Alzheimer's experience agitation[7]
- 1 FDA-approved treatment

Narcolepsy

- 185K people in the U.S. are affected by narcolepsy[8]
- ~70% of patients suffer from cataplexy[9]

Fibromyalgia

- 17M+ people in the U.S. have fibromyalgia[10]
- >50% of patients discontinue treatment in the first year[11]

Growth opportunities expanding long-term value potential

Attention deficit hyperactivity disorder

- 22M+ people in the U.S. live with ADHD[12]
- >90% of patients diagnosed in childhood continue to exhibit symptoms into adulthood[13]

Binge eating disorder

- 7M+ people impacted in the U.S.[14]
- 1 FDA-approved treatment

Shift work disorder

- 15M+ working Americans may be impacted[15-17]
- 0 new medications approved since 2007

MDD with excessive daytime sleepiness

- ~50% of MDD patients have concomitant EDS[18]
- 0 FDA-approved treatments

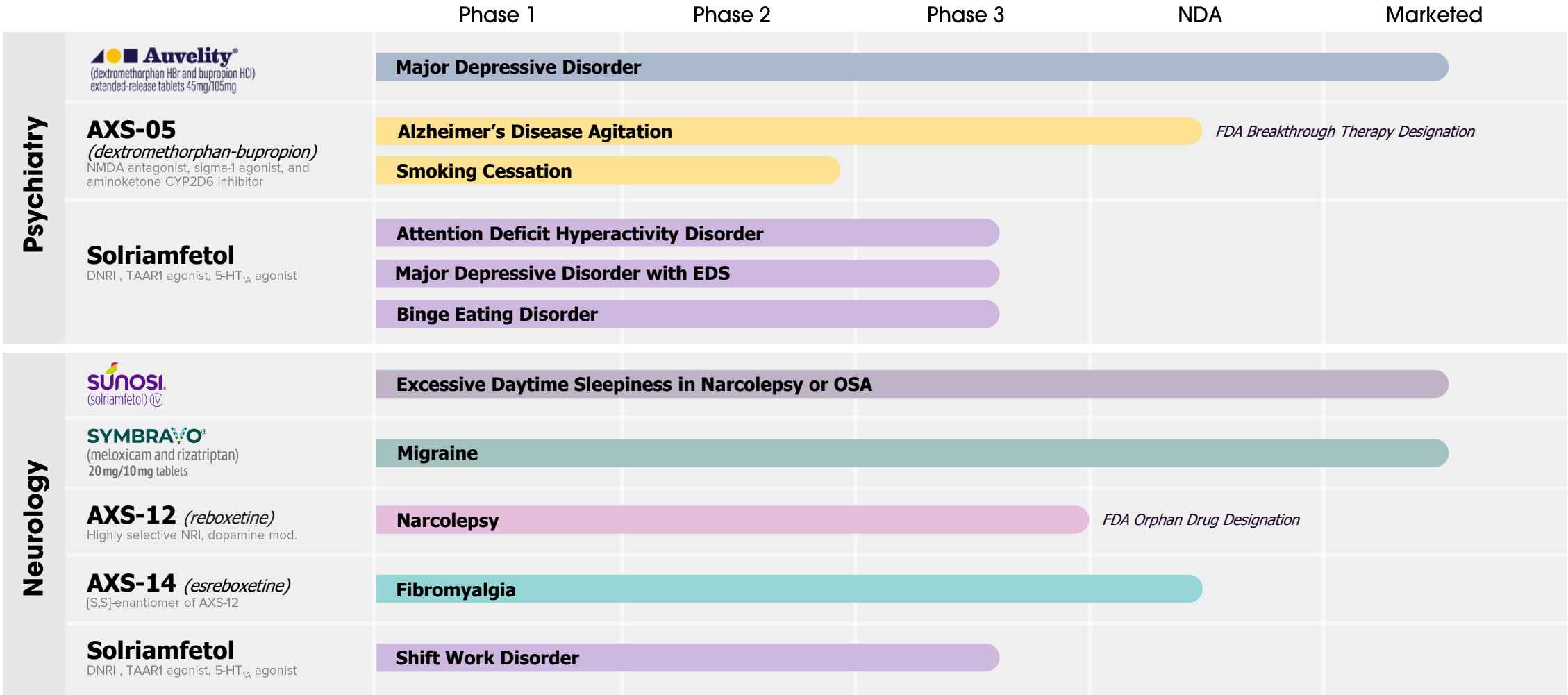
Smoking cessation

- 34M+ adults in the U.S. smoke cigarettes[19]
- ~70% of smokers say they want to quit[20]

1. Major Depression. *NIMH* 2023; 2. Rush AJ, et al. *Am J Psychiatry* 2006; 3. Benjafield AV, et al. *Lancet Respir Med.* 2020; 4. Watson N, et al. *Sleep* 2025; 5. American Migraine Foundation 2023; 6. Symphony Health Claims, New to Brand Patients 2022-2023; 7. 2025 Alzheimer's Disease Facts and Figures; 8. "About Narcolepsy." Narcolepsy Network 2024; 9. Swick TJ. *Nat Sci Sleep* 2015; 10. Vincent, et al. *Arthritis Care Res (Hoboken)* 2013; 11. Liu Y, et al. *J Manag Care Spec Pharm.* 2016; 12. Facts About ADHD in Adults. CDC 2024; 13. Sibley MH, et al. *Am J Psychiatry* 2022; 14. Hudson JI, et al. *Biol Psychiatry* 2007; 15. Sateia MJ. *Chest* 2014; 16. Alterman T, et al. *Am J Ind Med.* 2013; 17. Wickwire EM. *Chest* 2017; 18. Hein M, et al. *J Affect Disord.* 2019; 19. U.S. Department of Health and Human Services 2020; 20. Hughes JR, et al. *Addiction* 2004

© Axsome Therapeutics, Inc.

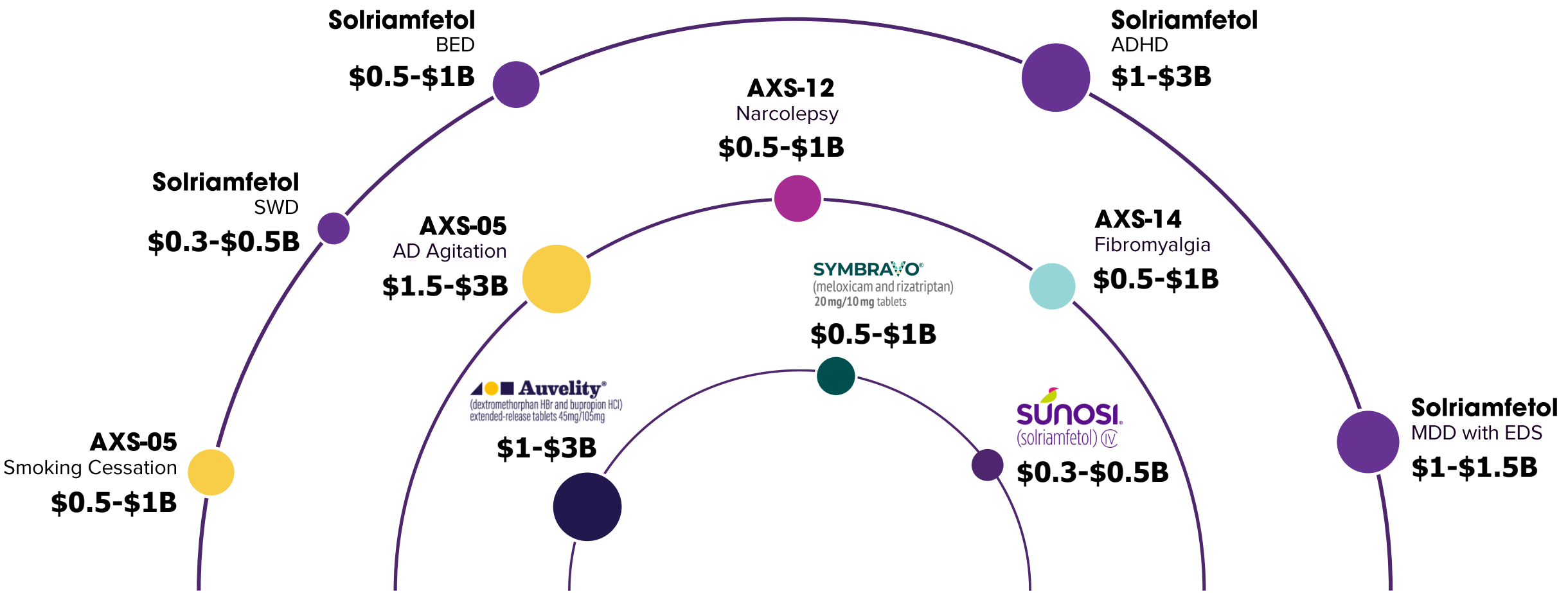
Advancing a diversified late-stage pipeline of potential first-in-class, best-in-class therapeutics



NMDA = N-methyl-D-aspartate; CYP2D6 = Cytochrome P450 Family 2 Subfamily D Member 6; DNRI = Dopamine-norepinephrine reuptake inhibitor; TAAR1 = Trace amine-associated receptor 1; 5-HT = 5-Hydroxytryptamine; NRI = Norepinephrine reuptake inhibitor;
Please see full Prescribing Information for AUVELITY, SUNOSI, and SYMBRAVO at www.AUVELITY.com, www.SUNOSI.com, and www.SYMBRAVO.com, respectively.

© Axsome Therapeutics, Inc.

Multiple differentiated paths to value creation with >$16B in combined peak sales potential



© Axsome Therapeutics, Inc.

Continued execution with key upcoming milestones ahead

	2025	2025 & 2026
Regulatory & Commercial	✓ Commercial launch of SYMBRAVO in the U.S. (June 2025) ✓ sNDA for AXS-05 in Alzheimer's disease agitation submitted to the FDA	• NDA submission for AXS-12 for cataplexy in narcolepsy (4Q 2025)
Clinical Trial Topline Results	✓ Positive topline results from EMERGE Ph 3 trial of SYMBRAVO in oral CGRP non-responders (1Q 2025) ✓ Positive topline results from FOCUS Ph 3 trial of solriamfetol in ADHD in adults (1Q 2025) ✓ Topline results from PARADIGM Ph 3 trial of solriamfetol in MDD (1Q 2025)	• ENGAGE Ph 3 trial of solriamfetol in BED (2026) • SUSTAIN Ph 3 trial of solriamfetol in SWD (2026)
Clinical Trial Initiations & Progress		• Initiate Ph 3 trial of solriamfetol in ADHD in pediatric patients (4Q 2025) • Initiate Ph 3 trial of solriamfetol in MDD with EDS (4Q 2025) • Initiate Ph 3 trial of AXS-14 in fibromyalgia (4Q 2025) • Initiate Ph 2/3 trial of AXS-05 in smoking cessation (4Q 2025)

© Axsome Therapeutics, Inc.

Shaping the frontier of differentiated innovation in brain health

axsome

3Q 2025 financial summary

$ millions	3Q 2025	3Q 2024	% Change	YTD 2025	YTD 2024	% Change
Net Product Revenue	$171.0	$104.8	63%	$442.5	$266.9	66%
AUVELITY Net Product Sales	$136.1	$80.4	69%	$352.0	$198.8	77%
SUNOSI Net Product Revenue†	$32.8	$24.4	35%	$88.0	$68.1	29%
SYMBRAVO Net Product Sales	$2.1	—	—	$2.5	—	—
R&D Expense	$40.2	$45.4	-11%	$134.5	$132.1	2%
SG&A Expense	$150.2	$95.6	57%	$401.3	$298.1	35%

3Q = three months ended September 30; †Includes royalty revenue associated with sales in out-licensed territories

© Axsome Therapeutics, Inc.

Financial snapshot

Runway to reach ***cash flow positivity***, based on the current operating plan

Cash Balance: (as of September 30, 2025)	$325.3M
Debt (Face Value): (as of September 30, 2025)	$190M
Market Cap: (as of October 31, 2025)	$6.7B
Shares Outstanding: (as of September 30, 2025)	50.3M
Options, RSUs, and Warrants Outstanding*:	9.3M

*Includes 7.6 M options, 1.5 M RSUs, 0.08 M warrants, and 0.08 M ESPP as of September 30, 2025

© Axsome Therapeutics, Inc.

Commercial Highlights

axsome®

Commercial execution driving accelerating growth across our expanding CNS portfolio

Auvelity® (dextromethorphan HBr and bupropion HCl) extended-release tablets 45mg/105mg

Major depressive disorder

- Continued strong demand growth and broadening prescriber reach
- Expanding market presence through strategic commercial investments
- Building on strong market access to drive durable, long-term growth

SUNOSI® (solriamfetol) (IV)

EDS in narcolepsy or OSA

- Continued strong sequential performance
- Steady demand growth across narcolepsy and OSA markets
- High patient satisfaction driving durable utilization

SYMBRAVO® (meloxicam and rizatriptan) 20 mg/10 mg tablets

Migraine with or without aura

- Foundational first full quarter supporting long-term growth potential
- Focused launch execution driving awareness and trial among clinicians
- Broadening patient access

~$5B combined peak sales potential

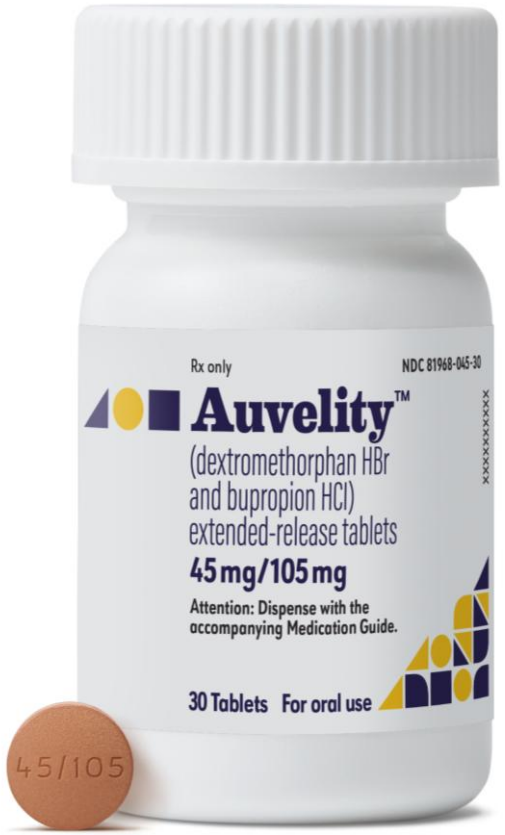
EDS = Excessive daytime sleepiness; OSA = Obstructive sleep apnea
Rx, sales, and revenue growth vs. comparable periods in 2024

© Axsome Therapeutics, Inc.

First and only oral NMDA receptor antagonist and sigma-1 receptor agonist for MDD in adults[1,2]

Auvelity®
(dextromethorphan HBr and bupropion HCl)
extended-release tablets 45mg/105mg

- Only oral antidepressant with rapid-acting efficacy reflected in FDA label[1]
- Rapid symptom improvement starting at week 1, sustained at week 6 vs. placebo[1]
- Rapid remission as early as week 2, sustained and increased vs. control through week 6[3]



NMDA = N-methyl-D-aspartate; MDD = Major depressive disorder

1. AUVELITY [Prescribing Information]. Axsome Therapeutics, Inc., New York, NY; 2. Thomas, D. & Wessel, C. BIO (2017); 3. Iosifescu, D.V. et al. *J Clin Psychiatry* (2022)

© Axsome Therapeutics, Inc.

Continued strong demand and expanding market access driving further growth

Auvelity®
(dextromethorphan HBr and bupropion HCl)
extended-release tablets 45mg/105mg

~209,000 (+46% YoY)
Total prescriptions in 3Q 2025

+50%
NBRx growth in primary care since Q1 expansion

~250,000
New patients since launch

~46,000
Unique writers since launch

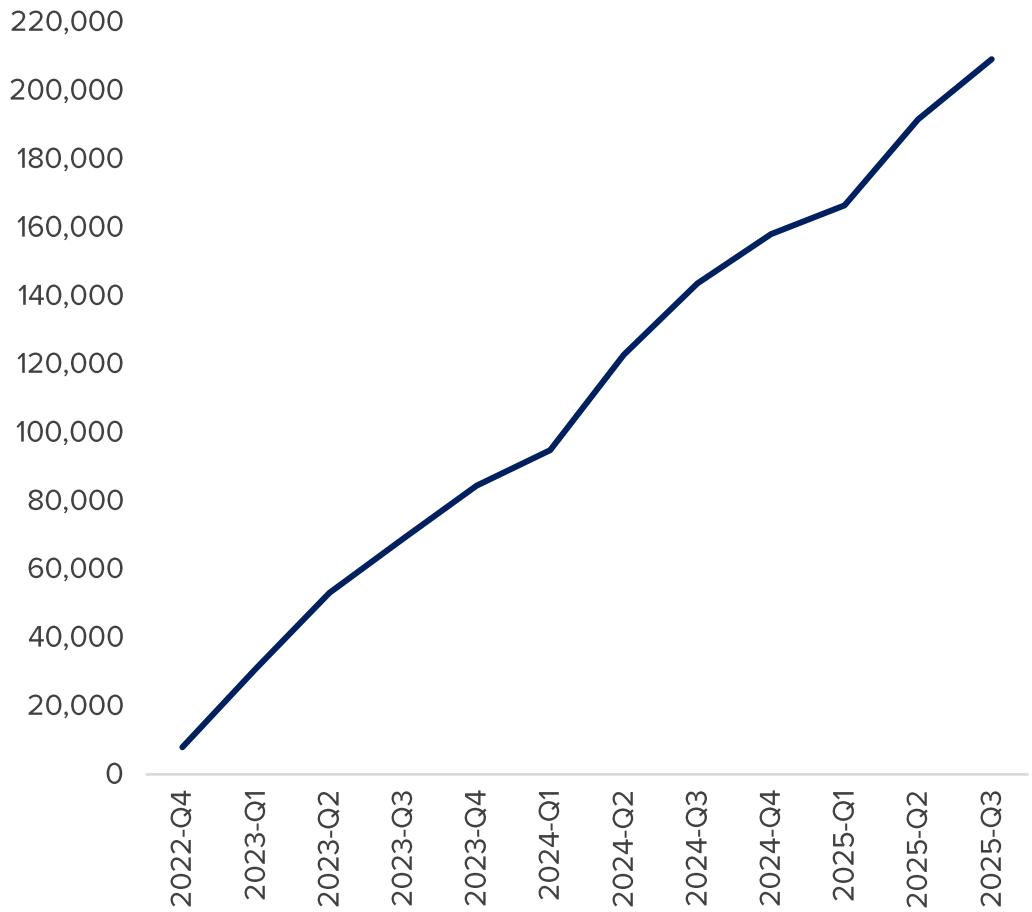
~75%
Covered commercial lives

~85%
Covered lives all channels

~50%
First-line or second-line use

~55%
Monotherapy use

Quarterly TRx Launch to Date



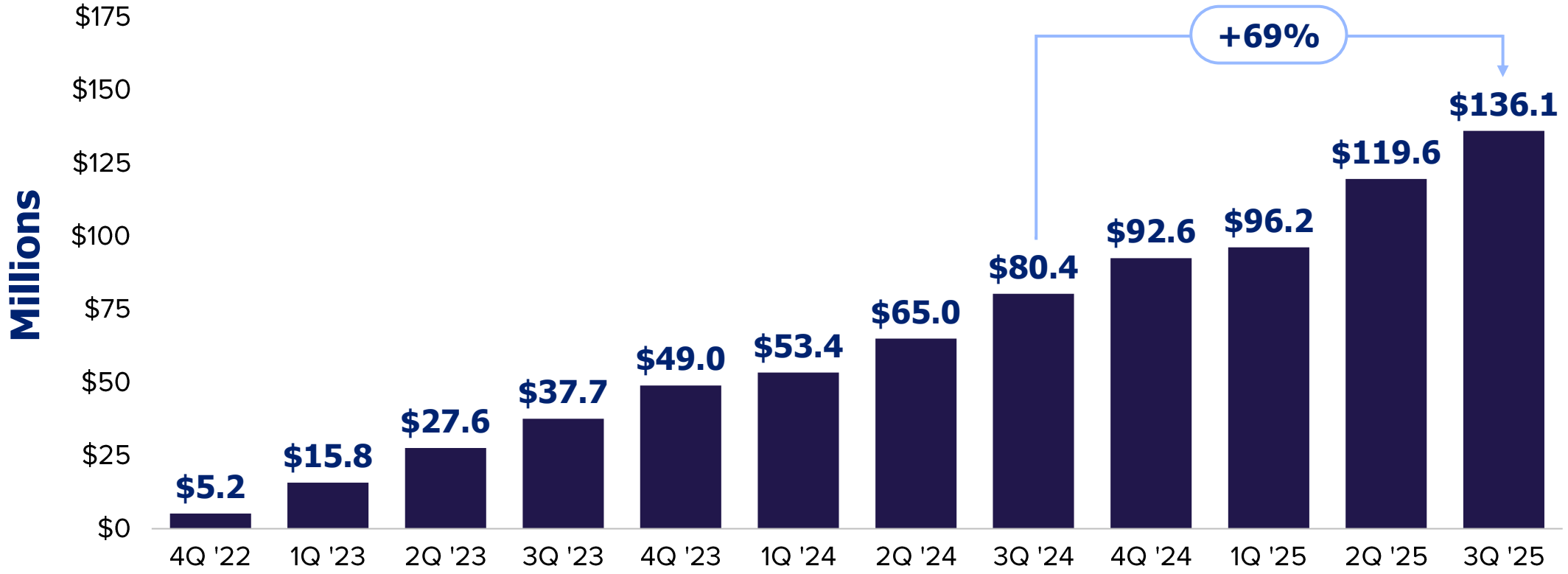
Source: Symphony METYS

TRx = Total prescriptions; NBRx = New-to-brand prescriptions

© Axsome Therapeutics, Inc.

AUVELITY® quarterly net sales performance

Auvelity®
(dextromethorphan HBr and bupropion HCl)
extended-release tablets 45mg/105mg



3Q 2025 net product sales of **$136.1M** represents ***69%*** YoY growth

axsome

© Axsome Therapeutics, Inc.

First and only dopamine and norepinephrine reuptake inhibitor for EDS associated with narcolepsy or OSA[1]

SUNOSI (solriamfetol) IV

- First and only wakefulness promoting agent proven to improve wakefulness through 9 hours[1]
- 90% of patients reported feeling better with SUNOSI 150 mg[2]
- Improvements in cognitive functioning vs. placebo demonstrated in clinical trials

axsome

EDS = Excessive daytime sleepiness; OSA = Obstructive sleep apnea; DNRI = Dopamine-norepinephrine reuptake inhibitor

1. SUNOSI [Prescribing Information]. Axsome Therapeutics, Inc., New York, NY; 2. Schweitzer, P.K. et al. *Am J Resp Crit Care Med.* (2019)

© Axsome Therapeutics, Inc.

Steady growth supported by durable demand and high patient satisfaction

~53,000 (+12% YoY)
Total prescriptions in 3Q 2025

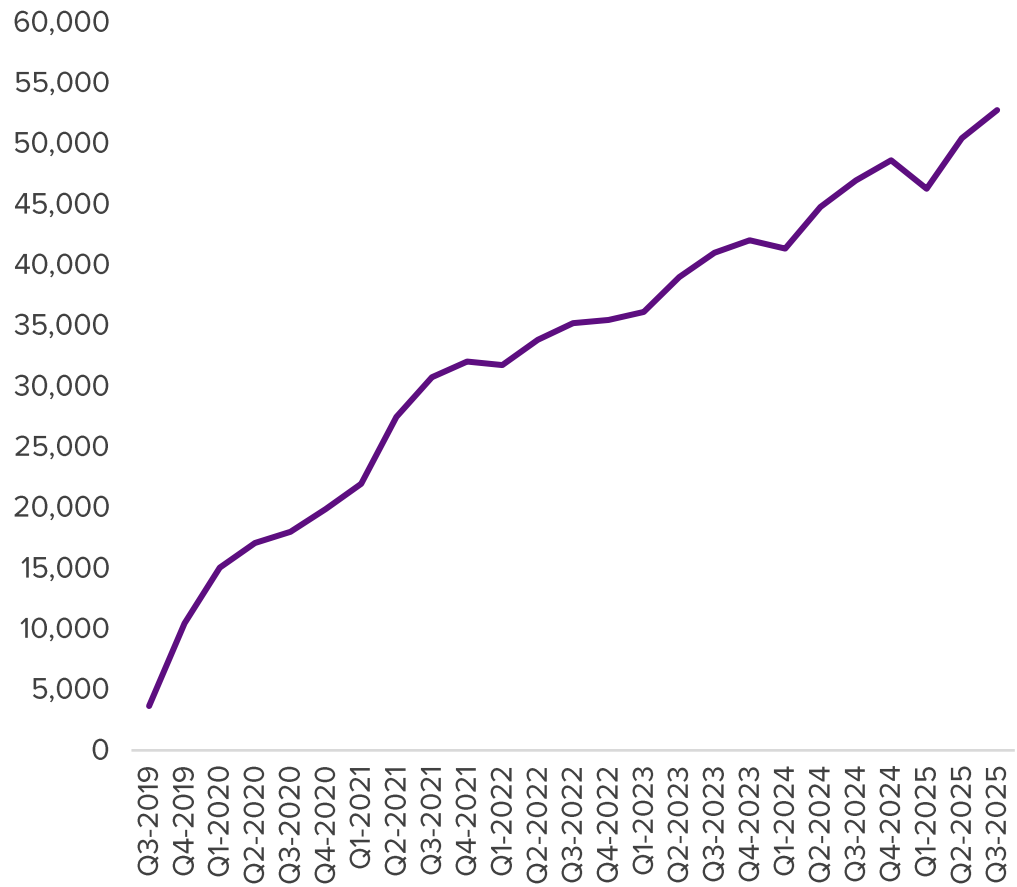
~94,000
New patients since launch

~15,100
Unique writers since launch

~83%
Covered lives all channels

>50%
Of patients who switch from or add on to their current treatment with SUNOSI come from other WPA agents

Quarterly nTRX Launch to Date

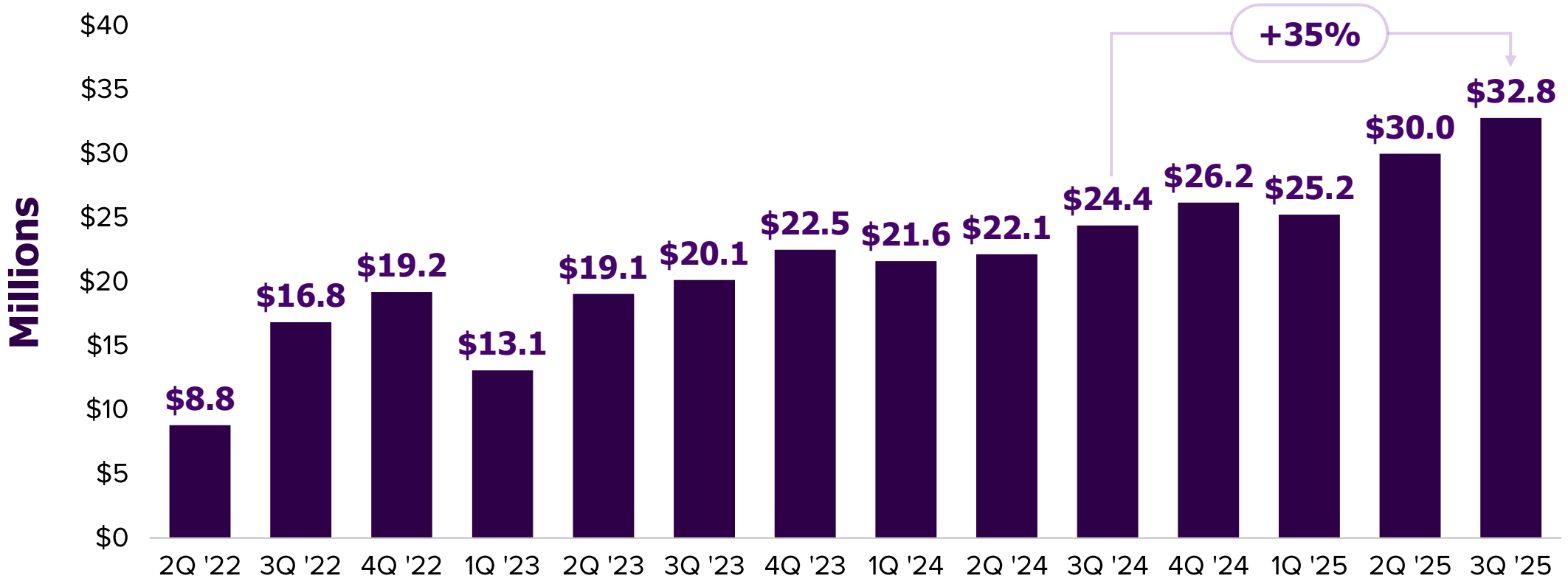


Source: Symphony METYS. nTRx normalizes number of pills in each Trx for 30-day period.

nTRx = Normalized total prescriptions

© Axsome Therapeutics, Inc.

SUNOSI® quarterly net revenue performance



3Q 2025 net product revenue of **$32.8M** represents ***35%*** YoY growth

© Axsome Therapeutics, Inc.

Novel, oral, rapidly-absorbed, multi-mechanistic approach for the acute treatment of migraine[1]

SYMBRAVO®
(meloxicam and rizatriptan)
20 mg/10 mg tablets

- Single, oral dose provided rapid migraine pain freedom and return to normal functioning within 2 hours[1]
- Superior efficacy demonstrated across a broad range of migraine severity (mild, moderate, severe)[1]
- Harnesses Axsome's MoSEIC™ rapid absorption technology to target multiple pathways underlying a migraine attack

1. SYMBRAVO [Prescribing Information]. Axsome Therapeutics, Inc., New York, NY

© Axsome Therapeutics, Inc.

Establishing a strong foundation with growing clinician awareness and broader patient access

SYMBRAVO®
(meloxicam and rizatriptan)
20 mg/10 mg tablets

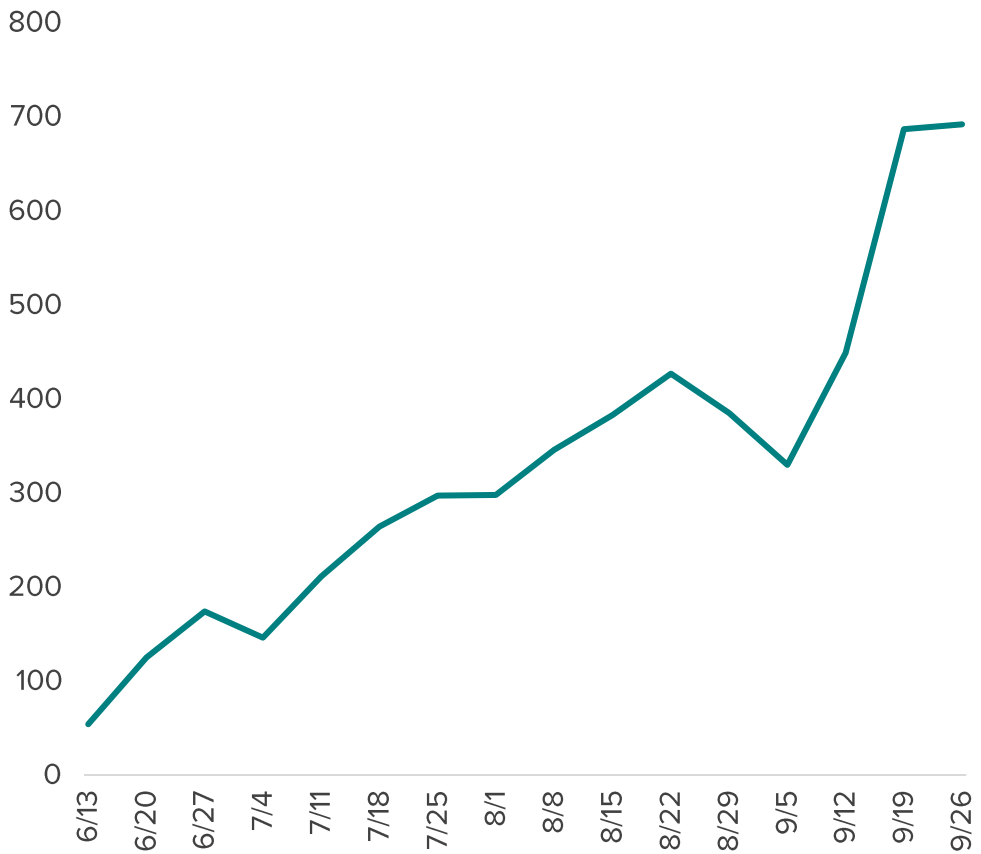
>5,000
Total prescriptions in 3Q 2025

>3,300
New patients in 3Q 2025

~48%
Covered commercial lives

~52%
Covered lives all channels

Weekly TRx Launch to Date



Source: Symphony METYS

TRx = Total prescriptions

© Axsome Therapeutics, Inc.

Development Pipeline

axsome®

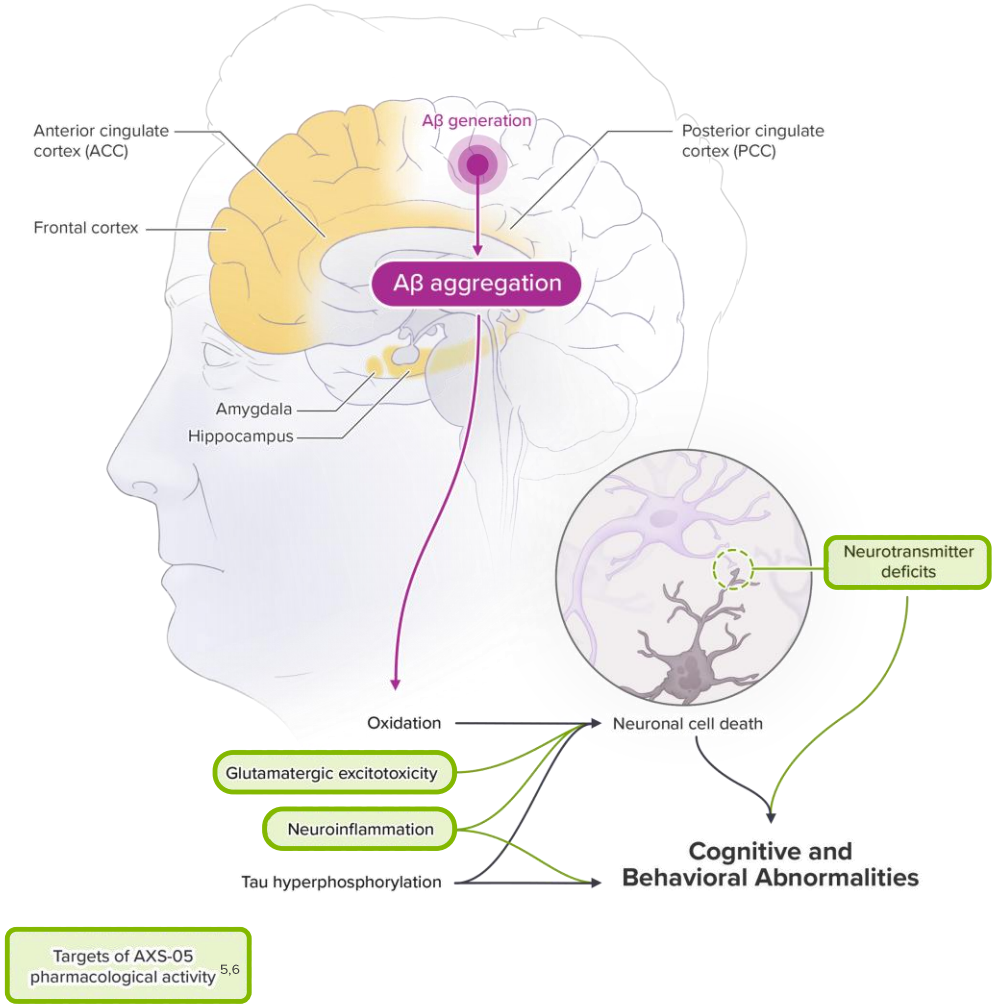
AXS-05 (dextromethorphan-bupropion)

Potentially first-in-class, best-in-class treatment for Alzheimer's disease agitation

In Alzheimer's disease, insoluble Aβ production and accumulation *triggers secondary steps* leading to synaptic loss and neuronal cell death[1,2]

Reductions in certain *neurotransmitters* are thought to contribute to cognitive and behavioral symptoms including agitation and aggression[1-4]

AXS-05 is believed to *modulate the function* of neurotransmitters and receptors implicated in Alzheimer's disease (glutamate, sigma-1, norepinephrine, and dopamine)[1-4]

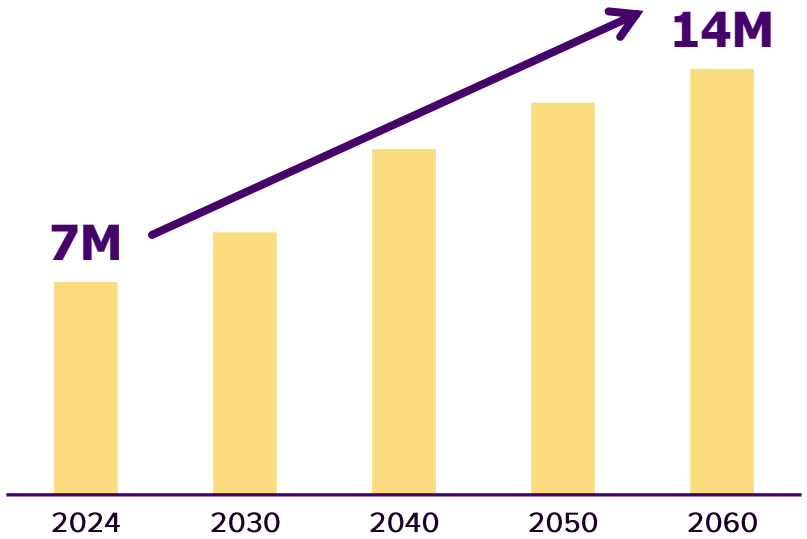


1. Cummings JL, *N Engl J Med.* 2004; 2. Querfurth HW & LaFerla FM, *N Engl J Med.* 2010; 3. Porsteinsson AP & Antonsdottir IM, *Expert Opin Pharmacother.* 2017; 4. Rosenberg PB, Nowrangi MA, & Lyketsos CG, *Mol Aspects Med.* 2015; 5. Stahl SM, *CNS Spectr.* 2019; 6. Cheng W, et al. *Mol Med Rep.* 2015

© Axsome Therapeutics, Inc.

Alzheimer's disease (AD) agitation

Number of U.S. adults aged 65+ with Alzheimer's dementia expected to double by 2060[1]



Alzheimer's disease (AD) is the most common form of dementia, affecting over ***7M*** people in the U.S.[1]

Agitation is one of the most common and debilitating neuropsychiatric symptoms affecting up to ***76%*** of people[1,2]

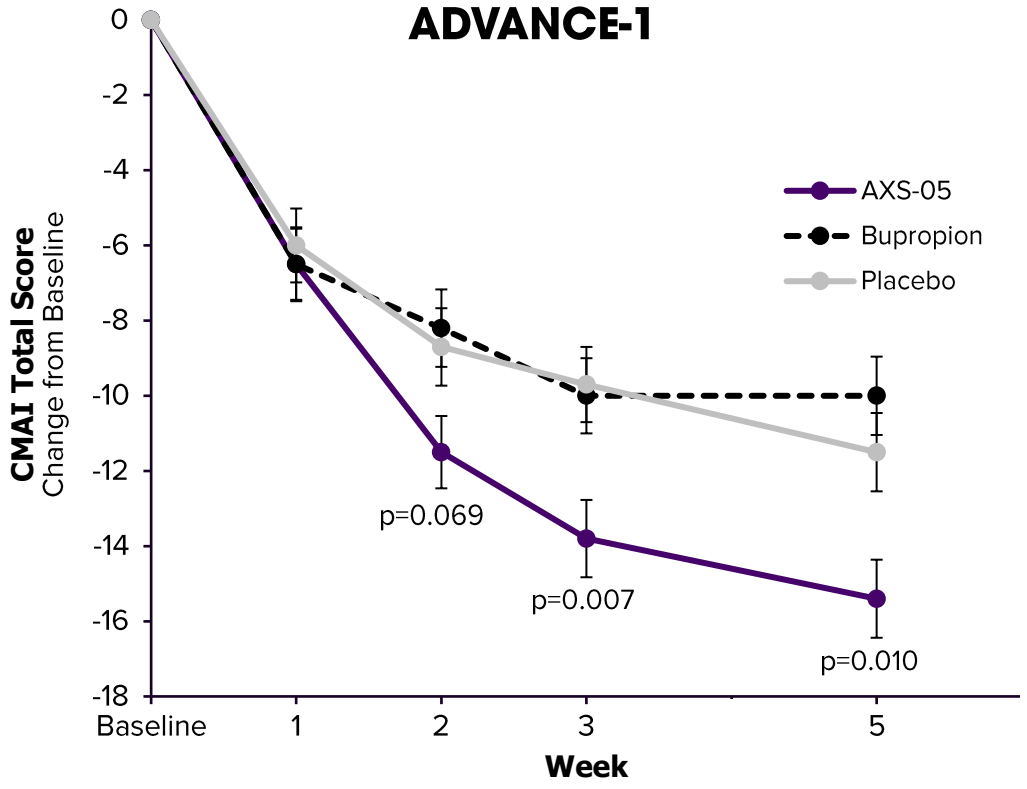
AD agitation is characterized by emotional distress, verbal and physical aggressiveness, disruptive irritability, and disinhibition[1,2]

1. 2025 Alzheimer's Disease Facts and Figures; 2. Trachtenberg et al. *J Neuropsychiatry Clin Neurosci.* 2002

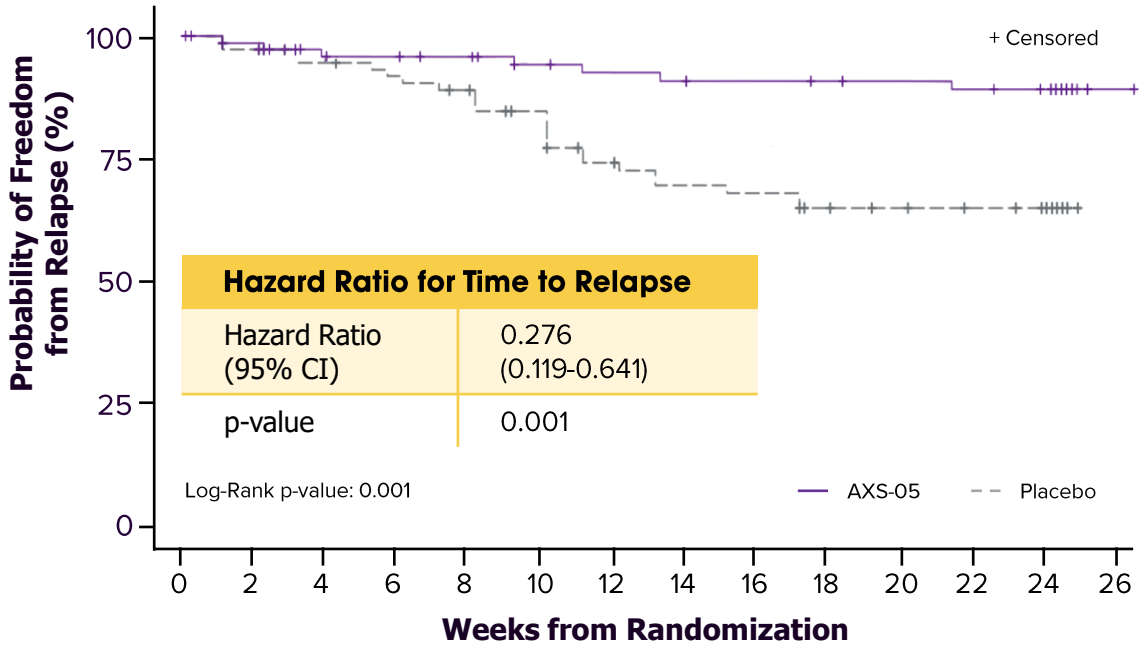
© Axsome Therapeutics, Inc.

Statistically significant and clinically meaningful improvements in Alzheimer's disease agitation

ADVANCE-1



ACCORD-2



Supplemental New Drug Application (sNDA) submitted to the FDA

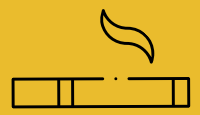
CMAI = Cohen-Mansfield Agitation Inventory

© Axsome Therapeutics, Inc.

Smoking cessation

70% of smokers want to quit[2]

Only *3-5%* who attempt to quit without assistance are successful for 6-12 months[2]



~34M adults in the U.S. smoke cigarettes, ~50% of whom live with a smoking-related disease[1]

Single ***largest cause*** of ***preventable disease*** and death in the U.S., accounting for nearly 1 in 5 deaths[1]

Associated with over ***$300 billion*** in annual costs in the U.S.[1]

1. U.S. Department of Health and Human Services 2020; 2. Hughes JR, et al. Addiction 2004

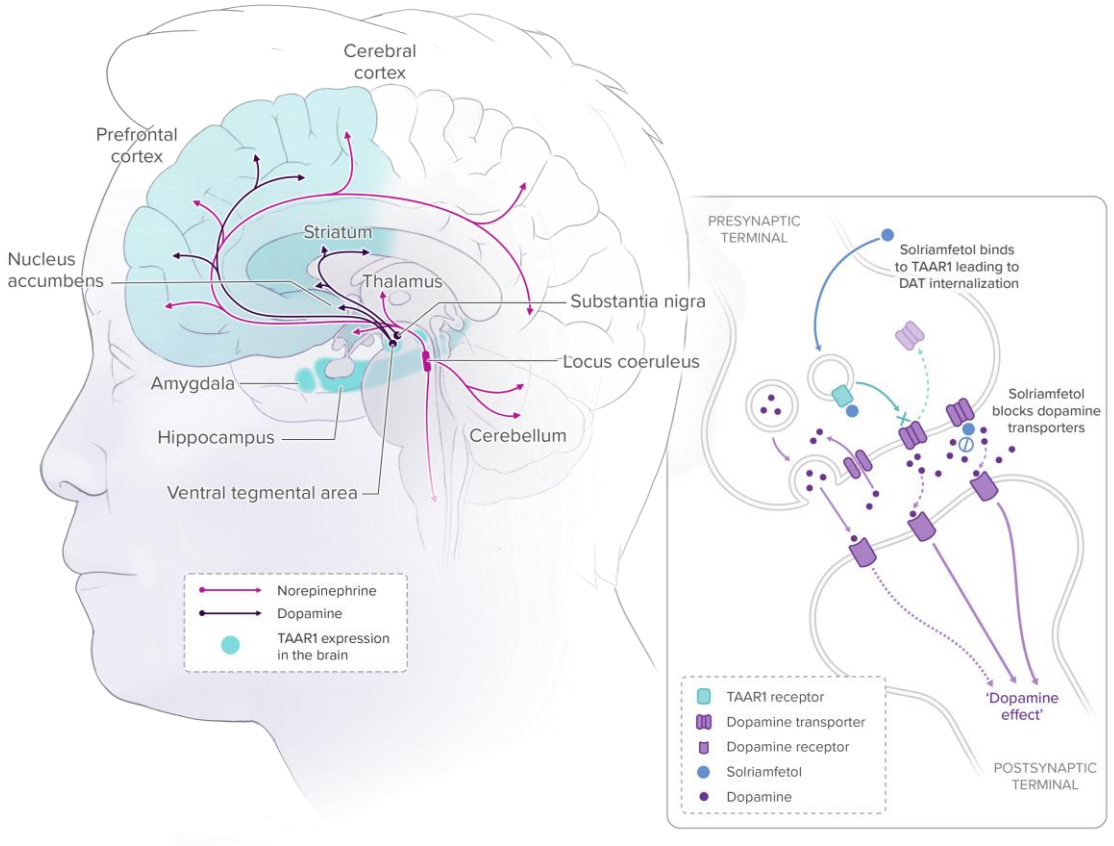
© Axsome Therapeutics, Inc.

Unique pharmacology of solriamfetol supports potential utility in a broad range of CNS conditions

Solriamfetol was initially developed as a dopamine and norepinephrine reuptake inhibitor (DNRI) with *wake-promoting effects*

Preclinical and clinical evidence[1,2] suggest TAAR1 plays a role in neuropsychiatric conditions related to the *dysregulation of monoaminergic transmission*

Multimodal activity of solriamfetol *selectively inhibits* the reuptake of dopamine and norepinephrine and exhibits *agonist activity* at TAAR1 receptors in the brain



1. Raony I, et al. *Prog Neuropsychopharmacol Biol Psychiatry* 2022; 2. Halff EF, et al. *Trends Neurosci.* 2023

© Axsome Therapeutics, Inc.

Solriamfetol Phase 3 development programs

Solriamfetol

ADHD

FOCUS
Phase 3 (N=516)

- ✓ Substantial and statistically significant improvements in ADHD symptoms and disease severity
- Initiation of Phase 3 pediatric trial anticipated in 4Q 2025

Complete

MDD

PARADIGM
Phase 3 (EDS subgroup n=51)

- ✓ Numerically greater improvements in depressive symptoms in prespecified subgroup of patients with severe EDS
- Initiation of Phase 3 trial in MDD with EDS anticipated in 4Q 2025

Complete

BED

ENGAGE
Phase 3 (N=450)

- Efficacy and safety of solriamfetol vs. placebo in adults with binge eating disorder
- 12-week, double-blind, randomized, placebo-controlled, parallel group trial

Topline data 2026

SWD

SUSTAIN
Phase 3 (N=450)

- Efficacy and safety of solriamfetol vs. placebo in adults with shift work disorder
- 12-week, double-blind, randomized, placebo-controlled, parallel group trial

Topline data 2026

ADHD = Attention deficit hyperactivity disorder; MDD = Major depressive disorder; BED = Binge eating disorder; SWD = Shift work disorder

© Axsome Therapeutics, Inc.

Attention deficit hyperactivity disorder (ADHD)

Chronic neurobiological and developmental disorder affecting an estimated ~***22M*** people in the U.S.[1], including ~7M children aged 3-17 years old[2]

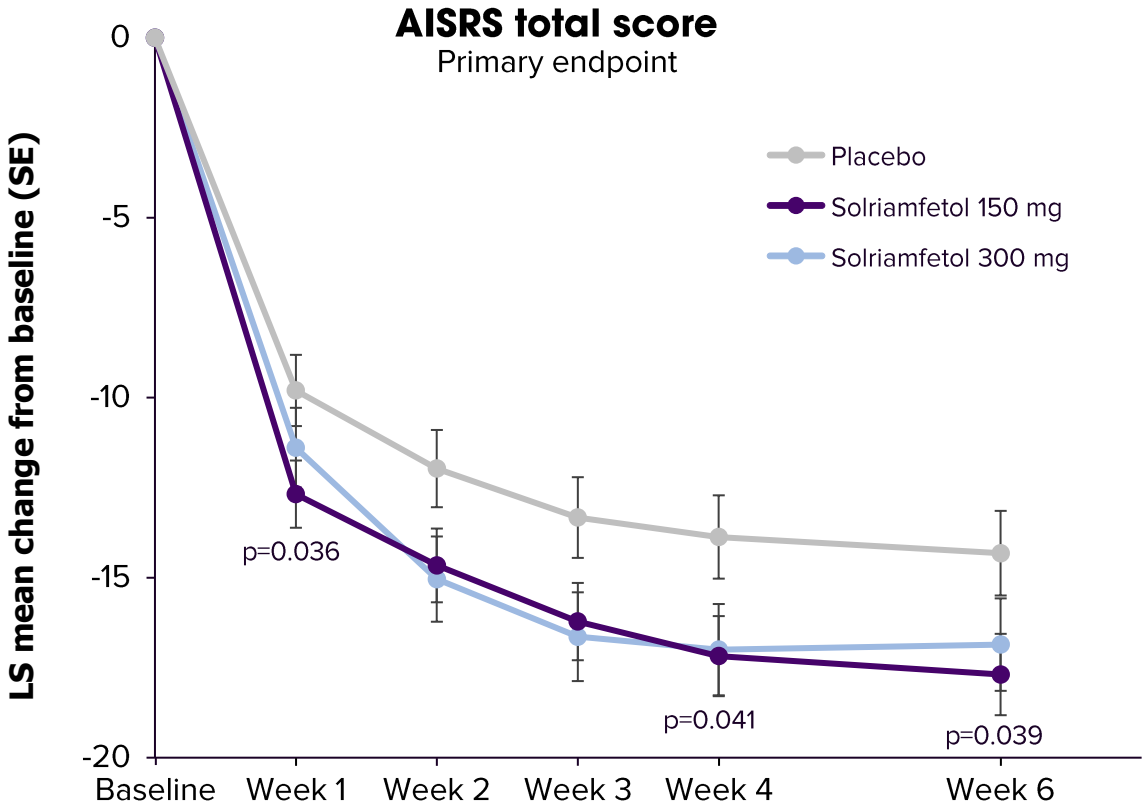
Characterized by a persistent pattern of inattention and/or hyperactive-impulsive behaviors[3]

Associated with significant impairment in social, academic, and occupational functioning and development[3]

1. Facts About ADHD in Adults. CDC 2024; 2. Data and Statistics on ADHD. CDC 2024; 3. Attention-Deficit/Hyperactivity Disorder. NIMH 2024

© Axsome Therapeutics, Inc.

Significant improvements in ADHD symptoms with solriamfetol treatment in FOCUS Phase 3 trial in adult patients



Initiation of Phase 3 pediatric trial anticipated in 4Q 2025

Substantial reduction in the AISRS score of 17.7 points at Week 6, representing a ***45% improvement*** in ADHD symptoms from baseline (p=0.039, solriamfetol 150 mg)

Significantly greater percentage of patients achieved a clinical response (≥30% reduction in AISRS) vs. placebo (p=0.024, solriamfetol 150 mg)

Improvements in severity of overall ADHD as measured by the CGI-S total score at Week 6 (p=0.017, solriamfetol 150 mg)

Well tolerated with a side effect profile ***consistent*** with the established safety profile of solriamfetol

1. p-values shown for solriamfetol 150 mg dose vs. placebo only (primary analysis)

© Axsome Therapeutics, Inc.

Major depressive disorder

~2/3 of patients experience inadequate response to first-line treatment[1]

Major depressive disorder (MDD) is one of the most common mental disorders in the U.S., impacting ***~21M*** adults each year[2,3]

Approximately 50% of patients with MDD also experience excessive daytime sleepiness (EDS)[4], for which there are no approved treatments

Initiation of Phase 3 trial of solriamfetol in MDD patients with EDS anticipated in 4Q 2025

1. Rush AJ, et al. *Am J Psychiatry* 2006; 2. Major Depression. NIMH 2023; 3. Hasin DS, et al. JAMA Psychiatry 2018; 4. Hein M, et al. J Affect Disord. 2019

© Axsome Therapeutics, Inc.

Binge eating disorder

>7 million people in the U.S. have BED[1]

BED is *1.75x more common* in women than in men[1]

Binge eating disorder (BED) is the most common eating disorder, affecting 2.8% of adults and 1.6% of adolescents in the US[1,2]

BED is thought to involve issues with food reward processing, impulse control, cognitive control, and appetite regulation[1,3]

Unmet medical need associated with a 2- to 3-fold increased risk of psychiatric and medical comorbidities[4]

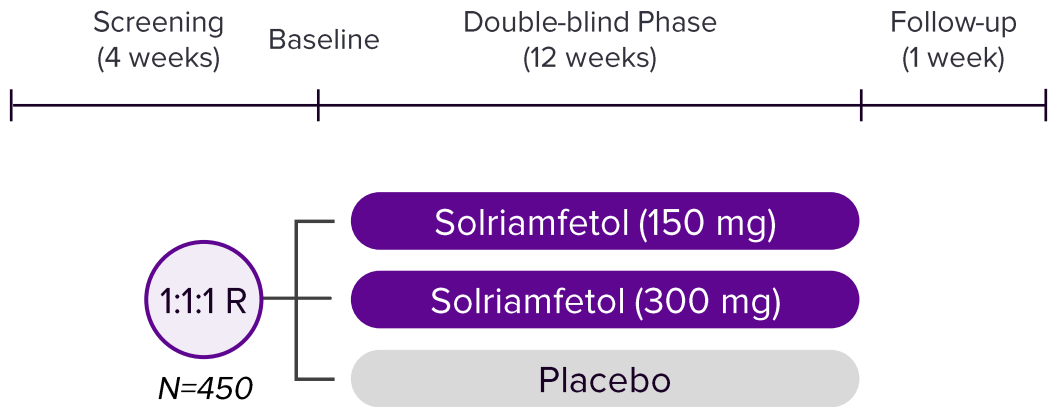
1. Hudson JI, et al. *Biol Psychiatry* 2007; 2. Swanson SA, et al. *Arch Gen Psychiatry* 2011; 3. Kessler RM, et al. *Neurosci Biobehav Rev.* 2016; 4. McElroy SL, et al. *J Clin Psychiatry* 2020;

© Axsome Therapeutics, Inc.

Ongoing Phase 3 trial of solriamfetol in patients with binge eating disorder

- Solriamfetol inhibits the reuptake of dopamine and norepinephrine, neurotransmitters implicated in the pathophysiology of binge eating disorder[1-3]
- Pre-clinical and clinical data support potential effects of solriamfetol on appetite, food consumption, and weight[4,5]
- Topline results from the ENGAGE Phase 3 trial of solriamfetol in binge eating disorder anticipated in 2026

ENGAGE Phase 3 Trial



Key eligibility criteria

- 18-55 years of age with diagnosis of BED (DSM-5)

Primary endpoint

- Change from baseline in days with binge eating episodes

TAAR1 = Trace amine-associated receptor 1

1. Giel KE, et al. Nat Rev Dis Primer 2022; 2. Bello NT and Hajnal A. Pharmacol Biochem Behav. 2010; 3. Pruccoli J, et al. Int J Mol Sci. 2021; 4. Malhotra A, et al. Sleep Med. 2022; 5. SUNOSI [Prescribing Information]. Axsome Therapeutics, Inc. New York, NY.

© Axsome Therapeutics, Inc.

Shift work disorder

~15 million U.S. workers may suffer from SWD

10-43% have SWD[1,3]

Approximately *1 in 3 people* working in the U.S. work an alternate shift[2]

Shift work disorder (SWD) is a combination of excessive sleepiness during wakefulness and persistent insomnia during daytime sleep when working outside a 7 a.m. to 6 p.m. workday[1]

Shift work has long been associated with multiple serious health complaints and a 23% greater risk of sustaining a work-related injury[4-5]

No new medications approved since 2007 and considerable residual sleepiness reported when medication is used[6]

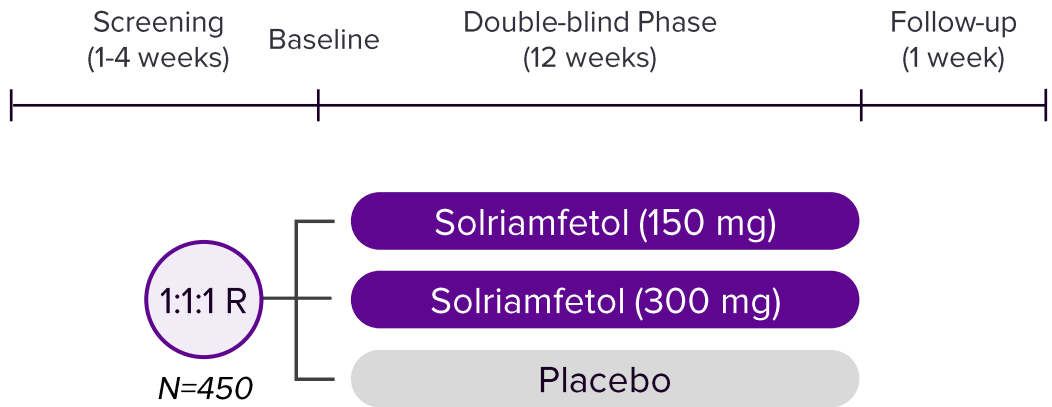
1. Sateia MJ. Chest 2014; 2. Alterman T, et al. Am J Ind Med. 2013; 3. Wickwire EM. Chest 2017; 4. Smith L, et al. Lancet 1994; 5. Akerstedt T & Wright KP. Sleep Med Clin. 2009; 6. Czeisler CA, et al. N Engl J Med. 2005

© Axsome Therapeutics, Inc.

Evaluating solriamfetol as a potential treatment for SWD

Topline results from the SUSTAIN Phase 3 trial of solriamfetol in shift work disorder anticipated in 2026

SUSTAIN Phase 3 Trial



Key eligibility criteria

- 18-65 years of age with diagnosis of SWD (ICSD-2 or ICSD-3)

Primary endpoint

- Change from baseline in CGI-C score

CGI-C = Clinical Global Impression - Change

© Axsome Therapeutics, Inc.

AXS-12 (reboxetine)

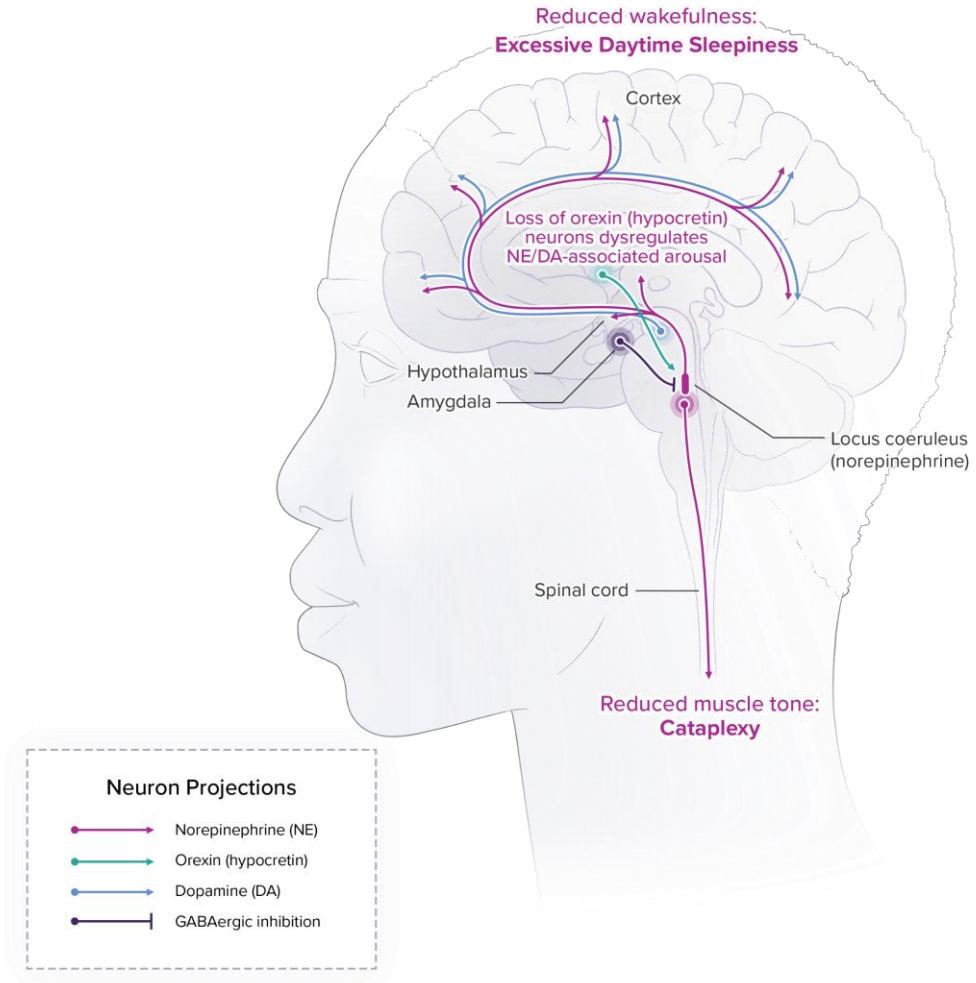
Novel pharmacological approach for the treatment of narcolepsy

Norepinephrine and dopamine play *important roles* in sleep-wake regulation (both) and in maintaining muscle tone during wakefulness (norepinephrine)[1-3]

The loss of orexin input *inhibits the production* of these neurotransmitters[1,2]

- Decreased norepinephrine signaling is thought to contribute to cataplexy, EDS, and cognitive impairment[1,4-7]
- Decreased dopamine signaling is thought to contribute to EDS and cognitive impairment[1,4]

AXS-12 *inhibits the reuptake* of both neurotransmitters, improving both norepinephrine and cortical dopamine signaling in the brain



1. Szabo ST, et al. *Sleep Med Rev.* 2019; 2. Krahn LE, Zee PC, & Thorpy MJ. *Adv Ther.* 2022; 3. Scammell TE. *N Engl J Med.* 2015; 4. Stahl SM & Grady MM. *J Clin Psychiatry* 2003; 5. Burgess CR & Peever JH. *Curr Biol.* 2013; 6. Wu MF, et al. *Neuroscience* 1999; 7. Bruinstroop E, et al. *J Comp Neurol.* 2012

© Axsome Therapeutics, Inc.

Narcolepsy

Rare and debilitating neurological condition that affects approximately ***185,000*** people in the U.S.[1]

Characterized by cataplexy, excessive daytime sleepiness (EDS), hypnagogic hallucinations, sleep paralysis, and disrupted nocturnal sleep[2-4]

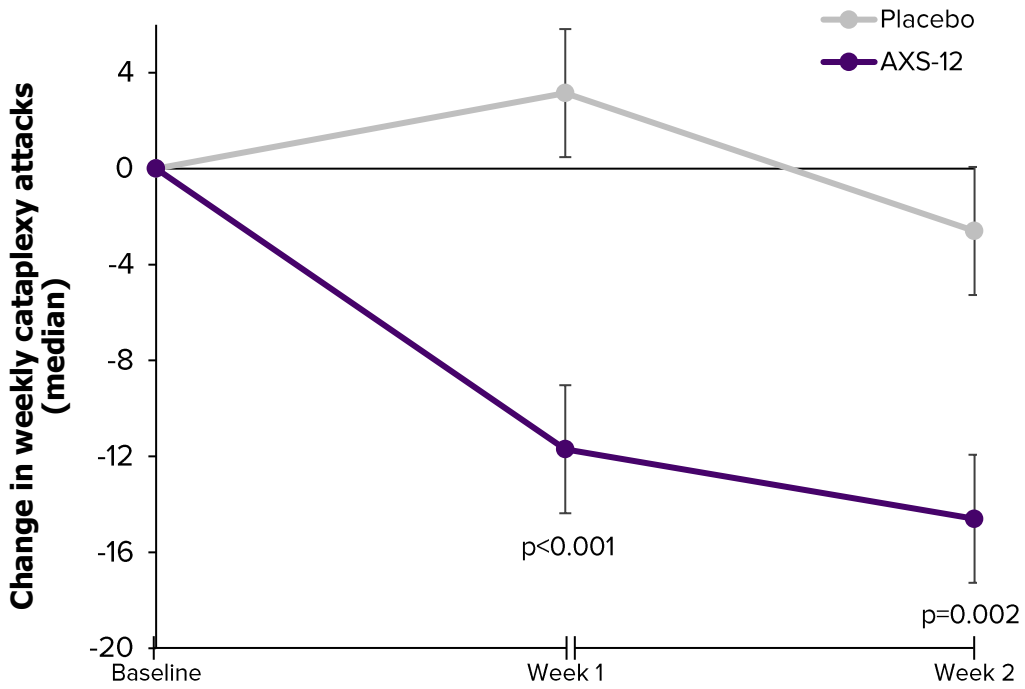
An estimated ***70%*** of patients suffer from cataplexy, or the sudden reduction or loss of muscle tone while awake[5]

1. “About Narcolepsy.” Narcolepsy Network 2024; 2. Sateia MJ. Chest 2014; 3. “Narcolepsy.” NINDS 2024; 4. España RA & Scammell TE. Sleep 2011; 5. Swick TJ. Nat Sci Sleep 2015

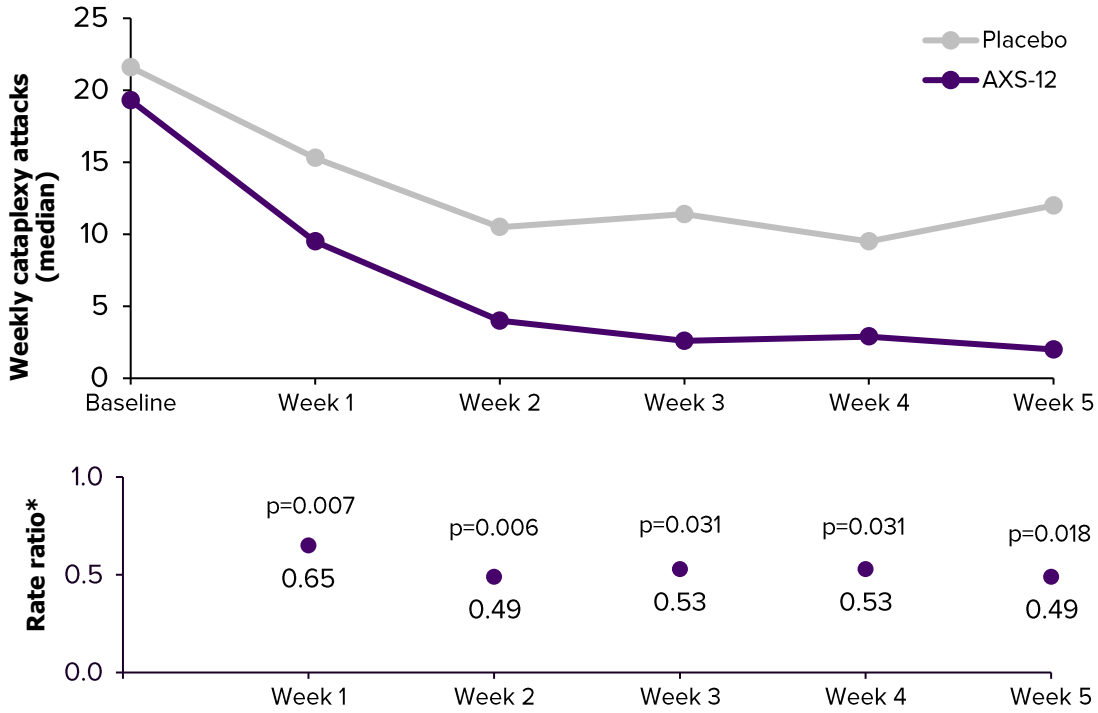
© Axsome Therapeutics, Inc.

Rapid and robust reductions in cataplexy with AXS-12 treatment

CONCERT



SYMPHONY



*Ratio of change in the AXS-12 group divided by the ratio of change in the placebo group (rate ratio of 1 = no difference)

New Drug Application (NDA) submission on track for 4Q 2025

© Axsome Therapeutics, Inc.

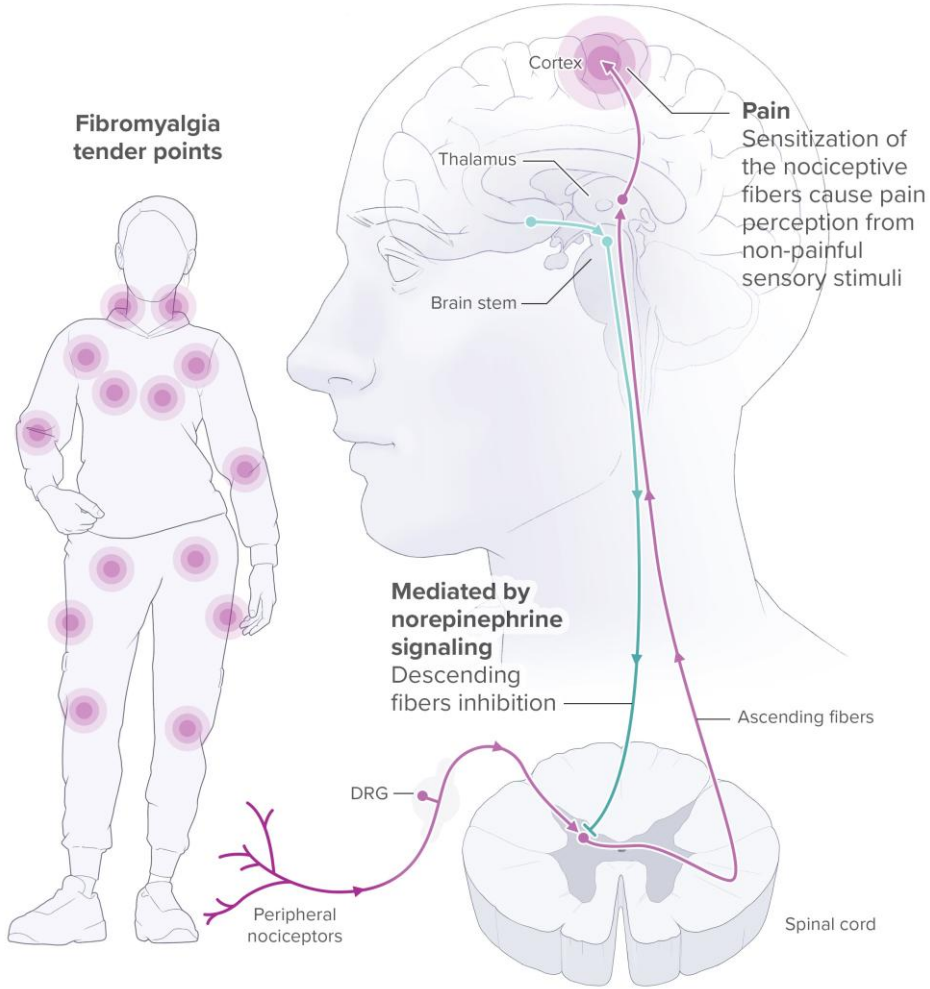
AXS-14 (esreboxetine)

Novel pharmacological approach for the management of fibromyalgia (FM)

Fibromyalgia pain is thought to be partially caused by *dysregulated signaling* in the descending analgesic system

Norepinephrine, one of the key neurotransmitters in this pathway, has predominantly *pain-inhibitory effects*

AXS-14 is a *more potent* and *selective* enantiomer of racemic reboxetine that inhibits the reuptake of norepinephrine, resulting in increased norepinephrine activity and decreased pain signaling



Adapted from Siracusa, R. et al. *Int. J. Mol. Sci.* (2021)

© Axsome Therapeutics, Inc.

Fibromyalgia

An estimated *~17 million* people in the U.S. are impacted by fibromyalgia[1]

Chronic and debilitating neurological pain syndrome resulting from a dysfunction in central pain processing[2,3]

Characterized by widespread musculoskeletal pain, fatigue, disturbed sleep, mood disturbances, cognitive impairment, and hypersensitivity to sensory sitmuli[4,5]

Associated with substantial physical disability and reduced emotional and social wellbeing, financial burden, and reduced quality of life[2,3]

1. Vincent, et al. *Arthritis Care Res (Hoboken)* 2013; 3. Choy E, et al. *BMC Health Serv Res.* 2010; 3. Arnold LM, et al. *Patient Educ Couns.* 2008; 4. Bair MJ & Krebs EE. *Ann Intern Med.* 2020; 5. Clauw DJ. *Ann Rheum Dis.* 2024

© Axsome Therapeutics, Inc.

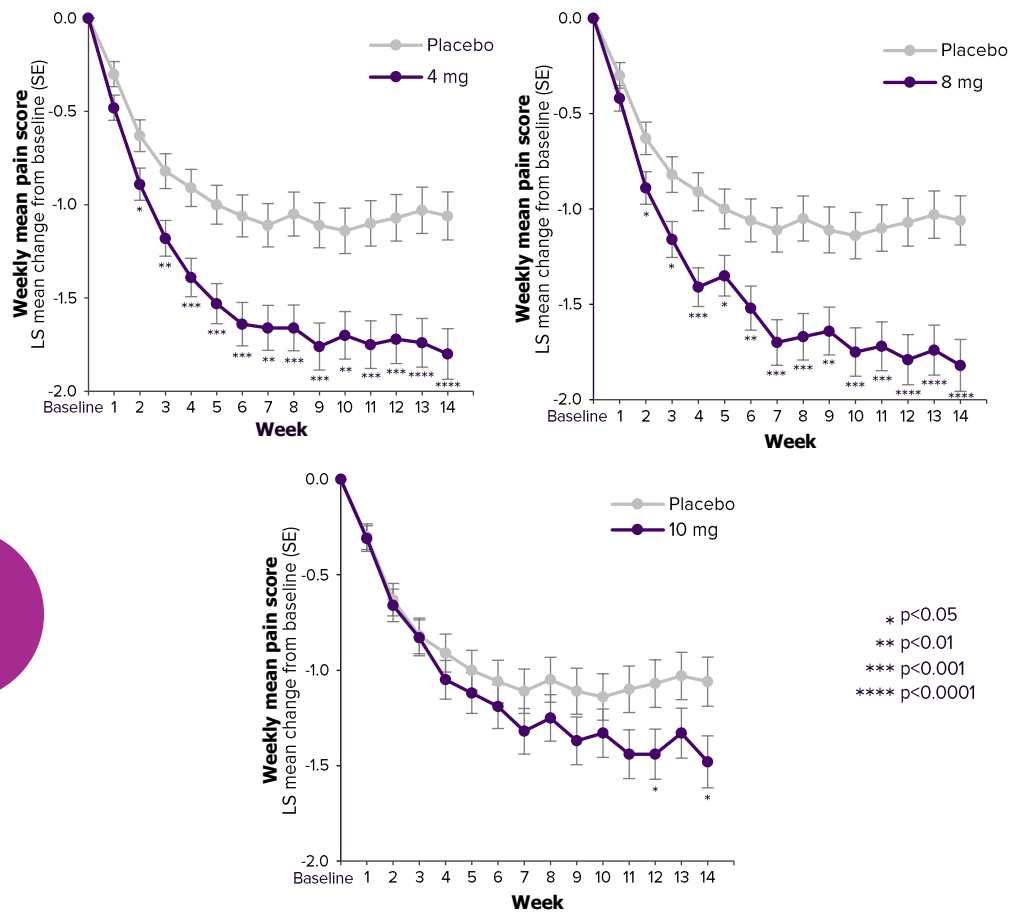
Rapid and robust efficacy demonstrated in Phase 2 and Phase 3 trials of AXS-14 in fibromyalgia

- Efficacy and safety of AXS-14 compared to placebo evaluated in >1,000 individuals with fibromyalgia across Phase 2 and Phase 3 clinical trials for up to 14 weeks
- Rapid and significant reductions in pain scores, improvements in patient-reported global functioning, fatigue, and overall symptom severity

Initiation of new Phase 3 trial anticipated in 4Q 2025

Pain reduction

Phase 3 efficacy results (N=1,122)



© Axsome Therapeutics, Inc.

Strong intellectual property and barriers to entry

Auvelity® (dextromethorphan HBr and bupropion HCl) extended-release tablets 45mg/105mg

- Protected by a robust patent estate extending to at least 2043; Multiple pending
- Proprietary drug product formulation and methods of treatment

SYMBRAVO® (meloxicam and rizatriptan) 20 mg/10 mg tablets

- Protected by a robust patent estate extending to at least 2041; Multiple pending
- Proprietary MoSEIC™ formulation, drug product formulation, and methods of treatment

SUNOSI® (solriamfetol) (IV) 75, 150 mg tablets

- Protected by a robust patent estate extending to at least 2042; Multiple pending
- Proprietary drug substance and drug product formulation

AXS-12

- Orphan Drug Designation
- Claims extending to at least 2039
- 9 issued U.S. patents and 4 issued O.U.S. patents; Multiple pending
- Proprietary drug substance, drug product formulation, and methods of treatment

AXS-05

- Claims extending to at least 2043
- >150 issued U.S. patents and >100 issued O.U.S. patents; Multiple pending
- Proprietary drug product formulation and methods of treatment

AXS-14

- Multiple pending U.S. patents
- Proprietary drug substance, drug product formulation, and methods of treatment

© Axsome Therapeutics, Inc.

Leadership team

Management

Herriot Tabuteau, MD
Founder & CEO

Goldman Sachs · BANK OF AMERICA

Nick Pizzie, CPA, MBA
Chief Financial Officer

Pierre Fabre · IMMUCOR · MERCK · Pfizer

Mark Jacobson, MA
Chief Operating Officer

Stemline

Hunter Murdock, JD
General Counsel

AUROBINDO · SUN PHARMA · KIRKLAND & ELLIS LLP

Ari Maizel
Chief Commercial Officer

abbvie · Allergan · Johnson&Johnson

Board of Directors

Roger Jeffs, PhD
CEO, Liquidia Corporation
Former President, Co-CEO, Director United Therapeutics Corp.
Prior positions at Amgen and Burroughs Wellcome

Mark Saad
CEO, NuLids, LLC
Former COO of the Global Healthcare Group at UBS

Susan Mahony, PhD
Former SVP of Eli Lilly and President Lilly Oncology
Prior positions at BMS, Amgen and Schering-Plough

Mark Coleman, MD
Medical Director, National Spine and Pain Centers
Diplomat of the American Board of Anesthesiology

Herriot Tabuteau, MD
Chairman

© Axsome Therapeutics, Inc.

Thank you

axsome