
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(D)
of the Securities Exchange Act of 1934**

March 12, 2020
Date of report (Date of earliest event reported)

Axsome Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-37635
(Commission
File Number)

45-4241907
(IRS Employer
Identification No.)

200 Broadway, 3rd Floor
New York, New York
(Address of principal executive offices)

10038
(Zip Code)

Registrant's telephone number, including area code **(212) 332-3241**

(Former name or former address, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class:</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered:</u>
Common Stock, Par Value \$0.0001 Per Share	AXSM	The Nasdaq Global Market

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425).
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12).
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01. Other Events.

On March 12, 2020, Axsome Therapeutics, Inc. updated its presentation slide deck. A copy of the presentation slide deck is attached hereto as Exhibit 99.1 and incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Corporate Presentation.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Axsome Therapeutics, Inc.

Dated: March 12, 2020

By: /s/ Herriot Tabuteau, M.D.

Name: Herriot Tabuteau, M.D.

Title: President and Chief Executive Officer

 NASDAQ: AXSM

AXSOME

THERAPEUTICS

March 2020

© Axsome Therapeutics, Inc.

Forward-Looking Statements & Safe Harbor

Certain information contained in this presentation may include "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. We 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 success, timing and cost of our ongoing clinical trials and anticipated clinical trials for our current product candidates, including statements regarding the timing of initiation, pace of enrollment and completion of the trials (including our ability to fully fund our disclosed clinical trials, which assumes no material changes to our currently projected expenses), futility analyses and receipt of interim results, which are not necessarily indicative of the final results of our ongoing clinical trials and the number or type of studies or nature of results necessary to support the filing of a new drug application for any of our current product candidates; our ability to fund additional clinical trials to continue the advancement of our product candidates; the timing of and our ability to obtain and maintain U.S. Food and Drug Administration ("FDA") or other regulatory authority approval of, or other action with respect to, our product candidates (including, but not limited to, FDA's agreement with the Company's plan to discontinue the bupropion treatment arm of the ADVANCE-1 study in accordance with the independent data monitoring committee's recommendations); the Company's ability to obtain additional capital necessary to fund its operations; the Company's ability to generate revenues in the future; the potential for the MOMENTUM clinical trial to provide a basis for approval of AXS-07 for the acute treatment of migraine in adults with or without aura, pursuant to our special protocol assessment; the potential for the ASCEND clinical trial, combined with the GEMINI clinical trial results, to provide a basis for approval of AXS-05 for the treatment of major depressive disorder and accelerate its development timeline and commercial path to patients; 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 successful implementation of the Company's research and development programs and collaborations; the enforceability of the Company's license agreements; the acceptance by the market of the Company's product candidates, if approved; the Company's anticipated capital requirements, including the Company's anticipated cash runway; and other factors, including general economic conditions and regulatory developments, not within the Company's control. These factors could cause actual results and developments to be materially different from those expressed in or implied by such statements. Forward-looking statements are not guarantees of future performance, and actual results may differ materially from those projected. 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 circumstance.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about our 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.

Developing novel therapies for CNS disorders.

Axsome is addressing serious CNS disorders, where current treatment options are limited or inadequate, by creating novel therapeutics to improve the lives of patients.

Our Technologies

Enabling new and innovative medicines to treat CNS conditions



Chiral &
Formulation
Chemistry



MoSEIC™
Delivery



Metabolic
Inhibition



Chemical
Synthesis &
Analysis

Our CNS Candidates and Pipeline

- Four differentiated clinical-stage CNS assets targeting significant and growing markets
- Patent protection to 2034-2036, worldwide rights for most product candidates

Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-05 (DM + BUP)	Treatment Resistant Depression: Fast Track Designation			Ongoing
	Major Depressive Disorder: Breakthrough Therapy Designation			
	Agitation in Alzheimer's Disease: Fast Track Designation			Ongoing
	Smoking Cessation			
AXS-07 (MoSEIC™ Mx + Riz)	Migraine: Special Protocol Assessment			
AXS-12 (Reboxetine)	Narcolepsy: U.S. Orphan Designation			Phase 3 planned
AXS-14 (Esreboxetine)	Fibromyalgia			
AXS-09 (DM + S-BUP)	CNS Disorders			

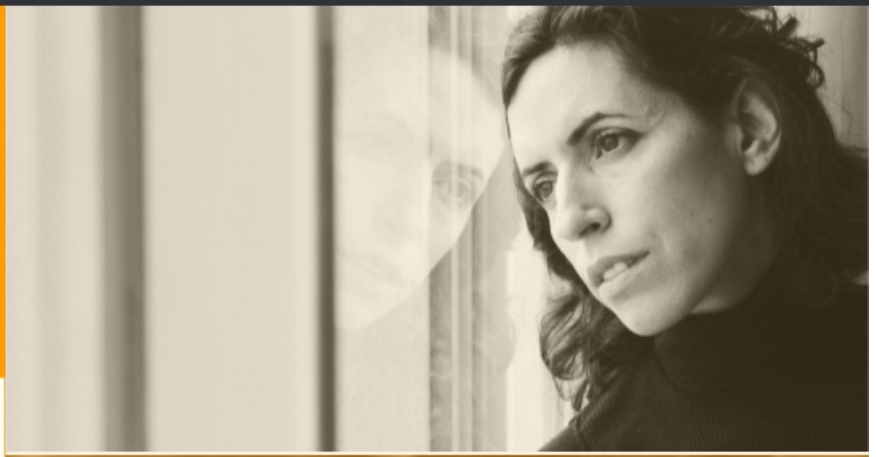
Abbreviations: BUP = Bupropion; CNS = Central Nervous System; DM = Dextromethorphan; Mx = Meloxicam; Riz = Rizatriptan; S-BUP = Esbupropion.

AXS-05

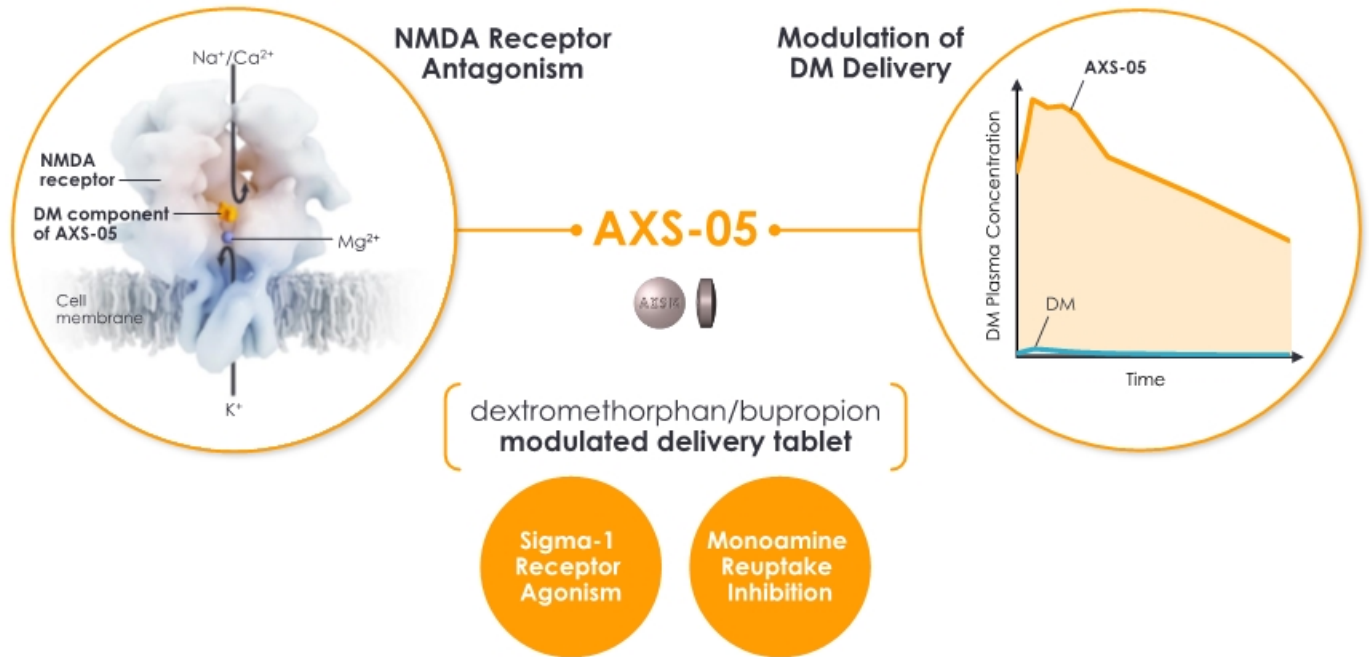
**(dextromethorphan/bupropion)
modulated delivery tablet**

Novel therapy for CNS disorders:

- Major Depressive Disorder (MDD)
- Treatment Resistant Depression (TRD)
- Agitation in Alzheimer's Disease (AD)
- Smoking Cessation



AXS-05: Novel, Oral, NMDA Receptor Antagonist with Multimodal Activity



Abbreviations: DM = Dextromethorphan; Mg2+=magnesium ion; Na+=sodium ion; Ca+2=calcium ion; K+=potassium ion. Axsome data on file

AXS-05: Depression Overview

- 63% and 44% of MDD patients have inadequate response to initial therapy and second line therapy, respectively.²
- AXS-05's novel antidepressant MOAs target glutamate and monoamine pathways.
- Substantial, rapid antidepressant effect demonstrated in completed ASCEND and GEMINI trials in patients with MDD.
- FDA Breakthrough Therapy Designation received for MDD.



17.3M patients
in the U.S.¹

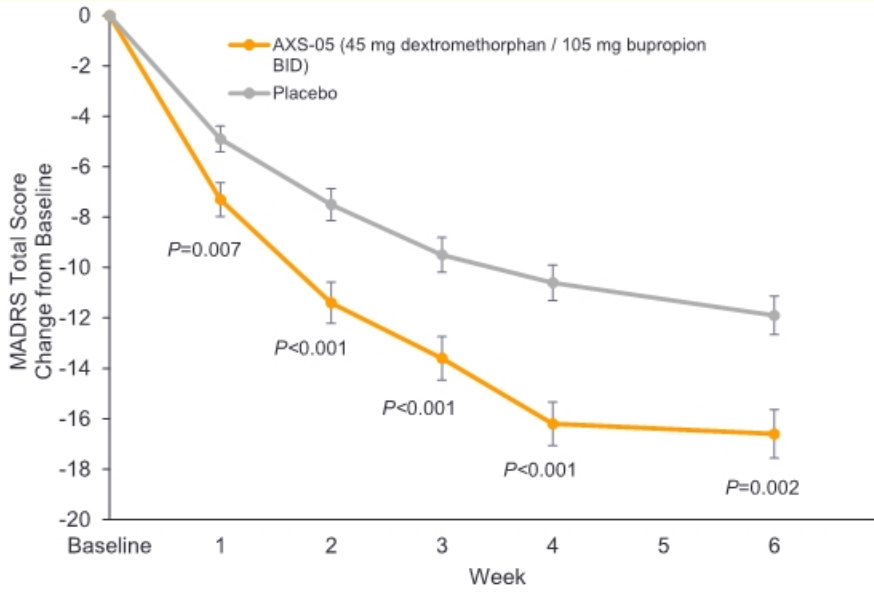
Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-05 (DM + BUP)	Treatment Resistant Depression: Fast Track Designation			Ongoing
	Major Depressive Disorder: Breakthrough Therapy Designation			

Abbreviations: DM = Dextromethorphan; BUP = Bupropion.

1. National Survey on Drug Use and Health (NSDUH), (2017).
 2. Rush AJ, et al. *Am J Psychiatry* 2006;163:1905-1917.

AXS-05:

Depression Results of GEMINI Trial in MDD



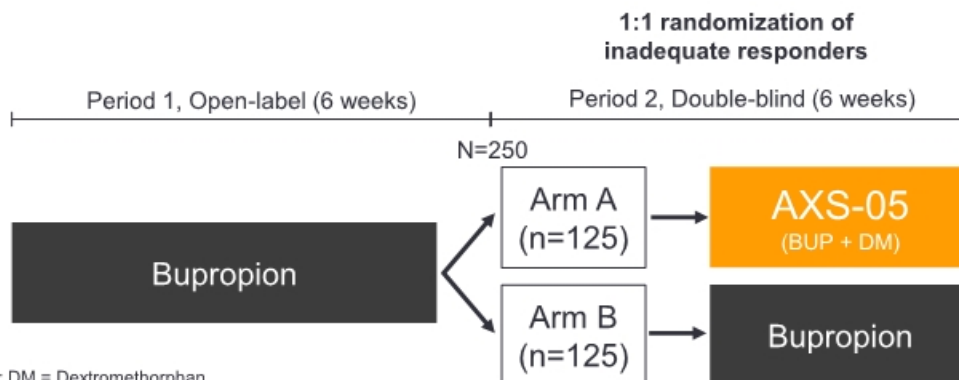
	AXS-05 (n=156)	Placebo (n=162)	Difference	P-Value
Primary Endpoint				
Change in MADRS Total Score at Week 6	-16.6	-11.9	-4.7	0.002
Key Secondary Endpoint				
Change in MADRS Total Score at Week 1	-7.3	-4.9	-2.4	0.007

Notes: P-values calculated from LSMeans. Abbreviations: BID = twice daily; MADRS = Montgomery-Åsberg Depression Rating Scale

AXS-05: TRD Phase 3 Design



A Phase 3 trial to assess the efficacy and safety of AXS-05 in the treatment of TRD.



BUP = Bupropion; DM = Dextromethorphan.

- **Primary Endpoint:** Change in depression score from randomization to end of study, measured using the Montgomery-Asberg Depression Rating Scale (MADRS).
- **Key Inclusion Criteria:**
 - Male or female 18-65 years old
 - History of inadequate response to 1 or 2 adequate antidepressant treatments
- **Interim futility analysis:** Conducted in April 2018. IDMC recommended trial continuation.

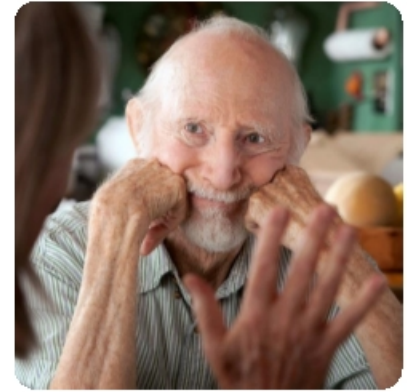
AXSOME THERAPEUTICS

© Axsome Therapeutics, Inc.

10

AXS-05: Agitation in AD Overview

- Agitation seen in approximately 70% of AD patients.²
 - Emotional distress, aggressive behaviors, disruptive irritability, disinhibition, and increased caregiver burden.⁴
- Associated with^{3,4}:
 - Accelerated cognitive decline
 - Earlier nursing home placement
 - Increased mortality
- No approved medication = high unmet medical need.
- Proof of concept: DM plus metabolic inhibitor reduced agitation in AD patients⁵.
- Phase 2/3 ongoing.



3.5M patients
in the U.S.^{1,2}

Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-05 (DM + BUP)	Agitation in Alzheimer's Disease: Fast Track Designation			Ongoing

Abbreviations: DM = Dextromethorphan; BUP = Bupropion.

1. Hebert, LE, et al. *Neurology*. 2013;80:1778-1783.
 2. Tractenberg R, et al. *J Neuropsychiatry Clin Neurosci*. 2002;14:11-18.
 3. Antonsdottir IM, et al. *Expert Opin Pharmacother*. 2015;11:1649-1656.

4. Rabins PV et al. *Alzheimers Dement*. 2013; 9:204-207.
 5. Cummings J, et al. *JAMA*. 2015;314:1242-1254.

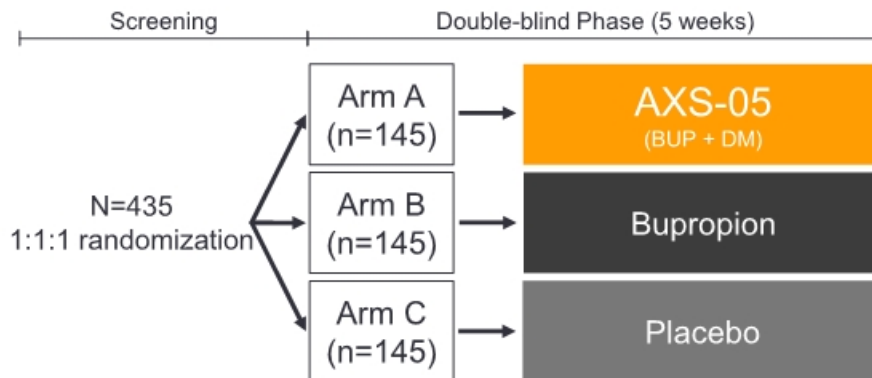
AXS-05:

Agitation in AD Phase 2/3 Design



ADVANCE
STUDY

A Phase 2/3 trial to assess the efficacy and safety of AXS-05 in the treatment of Agitation in AD.



BUP = Bupropion; DM = Dextromethorphan.

- **Primary Endpoint:** Cohen-Mansfield Agitation Inventory (CMAI).
- **Key Inclusion Criteria:**
 - Diagnosis of probable Alzheimer's disease
 - Clinically significant agitation
- **Interim futility analysis:** Conducted in December 2018. IDMC recommended continuation of AXS-05 arm, no further enrollment into bupropion arm.

AXS-05: Smoking Cessation Overview

- Smoking is single largest cause of preventable death in the U.S.¹
- 70% of smokers want to quit and only 3-5% who attempt to quit without assistance are successful for 6-12 months.²
- Positive Phase 2 trial results (Duke University collaboration):
 - 25% greater reduction in average cigarettes per day for AXS-05 versus bupropion (p=0.0016)
 - Greater percentage of smokers experiencing >50% reduction in expired carbon monoxide (52.0% for AXS-05 versus 30.4% for bupropion, p=0.15).
- AXS-05 represents a potentially new mechanism of action for smoking cessation.



40M patients
in the U.S.¹

Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-05 (DM + BUP)	Smoking Cessation			

Abbreviations: DM = Dextromethorphan; BUP = Bupropion.

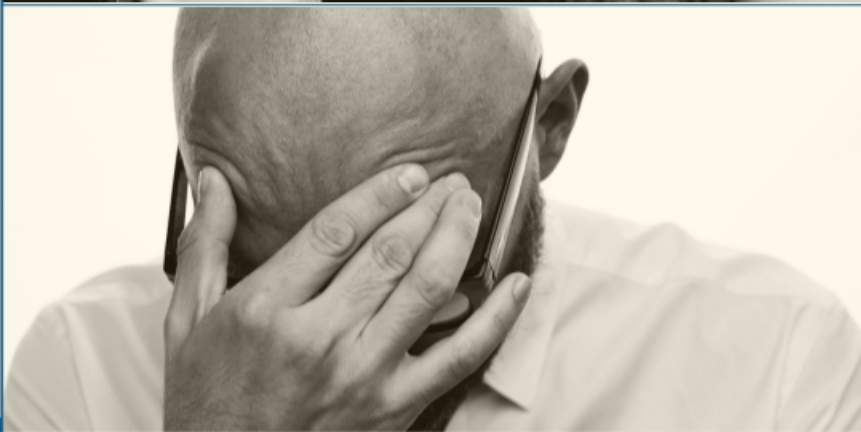
1. U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. A Report of the Surgeon General. 2014.
 2. Hughes JR, et al. *Addiction*. 2004;99(1):29-38.

AXS-07

(MoSEIC™ meloxicam/rizatriptan)

Novel therapy for:

- Migraine



AXSOME THERAPEUTICS

© Axsome Therapeutics, Inc.

14

AXS-07: MoSEIC™ Meloxicam + Rizatriptan for Migraine

- AXS-07 is a novel, oral, rapidly absorbed, multi-mechanistic investigational medicine for the acute treatment of migraine
- Positive results from MOMENTUM Phase 3 trial in patients with history of inadequate response:
 - Substantially greater and more sustained migraine pain relief with AXS-07 compared to rizatriptan and placebo
 - Rapid relief of migraine pain
- Positive MOMENTUM results support NDA filing, anticipated in 2020
- Ongoing INTERCEPT Phase 3 trial in the early treatment of migraine – results anticipated 1Q 2020



37M patients
in the U.S.¹

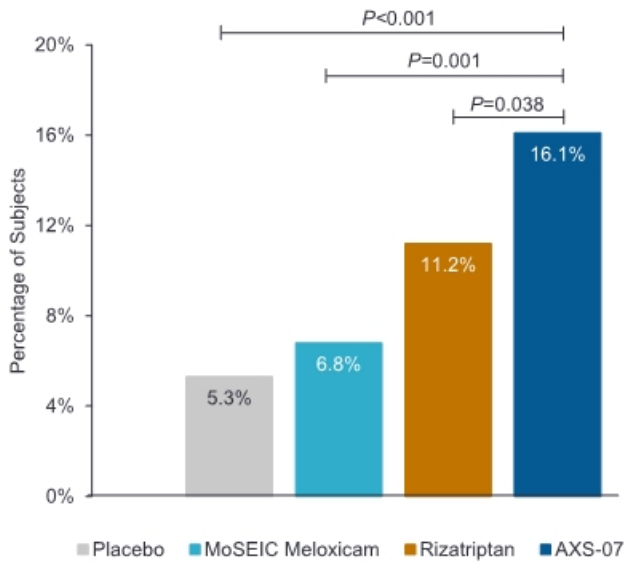
Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-07 (MoSEIC™ Mx + Riz)	Migraine: Special Protocol Assessment			

Abbreviations: Mx = Meloxicam; Riz = Rizatriptan; SPA = Special Protocol Assessment.

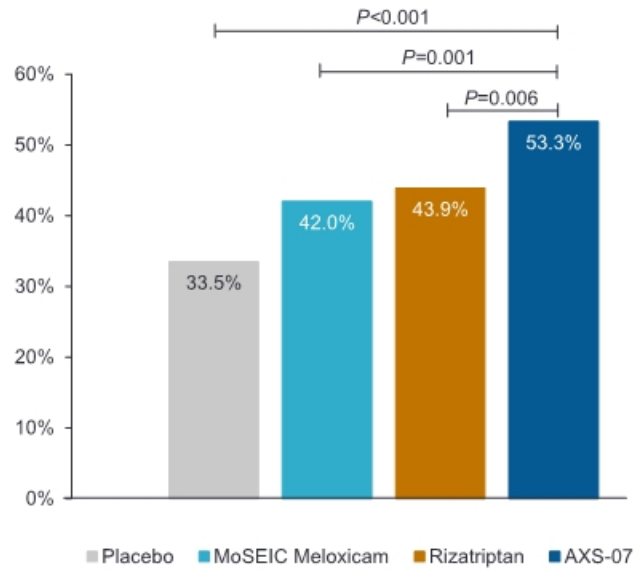
1. Pleis JR, et al., *Summary health statistics for U.S. adults: National Health Interview Survey, 2009*. National Center for Health Statistics. *Vital Health Stat 10(249)*. 2010.

AXS-07: Results of MOMENTUM Trial in Acute Migraine

Sustained Pain Freedom 2-24hrs Key Secondary



Sustained Pain Relief 2-24hrs

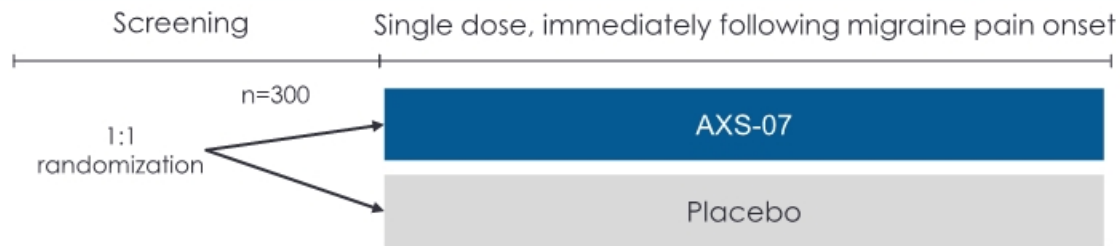


Co-Primary Endpoints

	AXS-07 (n=428)	Placebo (n=209)	Difference	P-Value
Endpoint 1: Pain Freedom 2 Hours after Dose, %	19.9%	6.7%	-13.2%	<0.001
Endpoint 2: Absence of Most Bothersome Symptom 2 Hours after Dose, %	36.9%	24.4%	-12.5%	0.002

AXS-07: Migraine INTERCEPT Phase 3 Trial Design

INTERCEPT: INItiating EaRly Control of MigrainE Pain & Associated SympToms
Phase 3 trial of AXS-07 for the acute treatment of migraine



Patient Population

- Adult subjects with an established diagnosis of migraine with or without aura
- Will initiate treatment at the first sign of migraine pain onset

✓ On track to report
topline results: Q1'20

Co-Primary Endpoints (AXS-07 vs placebo)

- Pain Freedom at 2 hours
- Freedom from MBS at 2 hours

Abbreviations: MBS, most bothersome migraine-associated symptom.

AXS-12

(reboxetine)

Novel therapy for:

- Narcolepsy



AXS-12 (reboxetine): Narcolepsy Overview

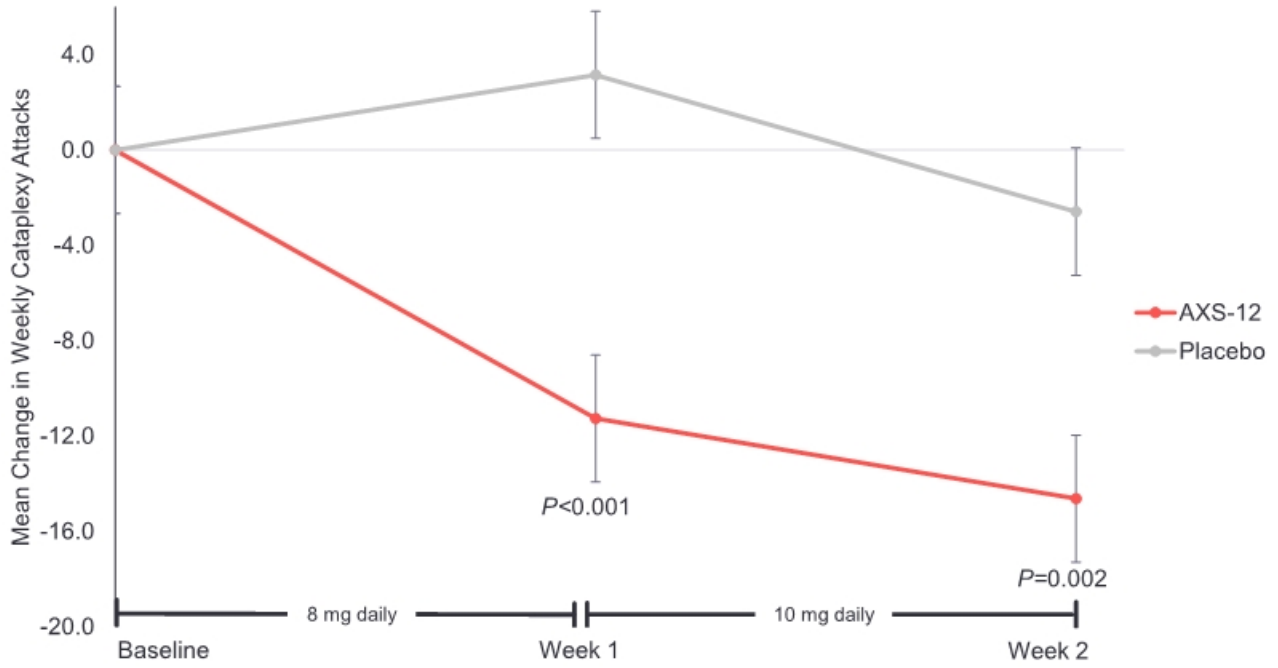
- Debilitating sleep disorder characterized by excessive daytime sleepiness (EDS) and cataplexy
- Limited treatment options
 - Only one approved agent for cataplexy
 - Most currently approved drugs are scheduled
- Positive Phase 2 efficacy results with AXS-12
 - Significant reduction in cataplexy attacks and EDS
 - Significant improvement in cognitive function
- Phase 3 trial initiation planned in 2020
- U.S. Orphan Drug Designation
- Axsome has 2 pending U.S. patents covering AXS-12



Orphan Disease
185,000 patients
in the U.S.

Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-12 (Reboxetine)	Narcolepsy; U.S. Orphan Designation			Phase 3 Planned

AXS-12 (reboxetine): Results of CONCERT Trial in Narcolepsy



Primary Endpoint	AXS-12	Placebo	P-value
Overall Change in Average Weekly Cataplexy Attacks	-13.0	-0.3	<0.001
Week 2 Change in Average Weekly Cataplexy Attacks	-14.6	-2.6	0.002

AXS-14

esreboxetine

Novel therapy for:

- Fibromyalgia



AXSOME THERAPEUTICS

© Axsome Therapeutics, Inc.

21

AXS-14 (esreboxetine): Fibromyalgia Overview

- Debilitating, chronic, CNS disorder characterized by widespread pain, fatigue, disturbed sleep, depression, and cognitive impairment; ~90% affected are women
- Limited treatment options—only 3 approved agents:
 - Current treatments has variable efficacy and do not address all symptoms
- AXS-14 (esreboxetine) is the SS-enantiomer of racemic reboxetine
- Positive Phase 3 and Phase 2 efficacy results with AXS-14 in fibromyalgia
- Axsome has 3 pending U.S. patents covering AXS-14



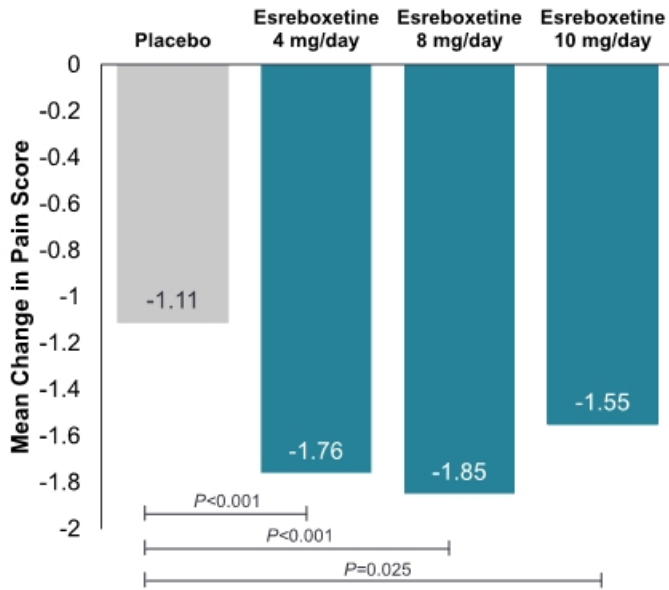
5M patients
in the U.S.¹

Product Candidate	Preclinical	Phase 1	Phase 2	Phase 3
AXS-14 (Esreboxetine)	Fibromyalgia			

1. Decision Resources Group 2019

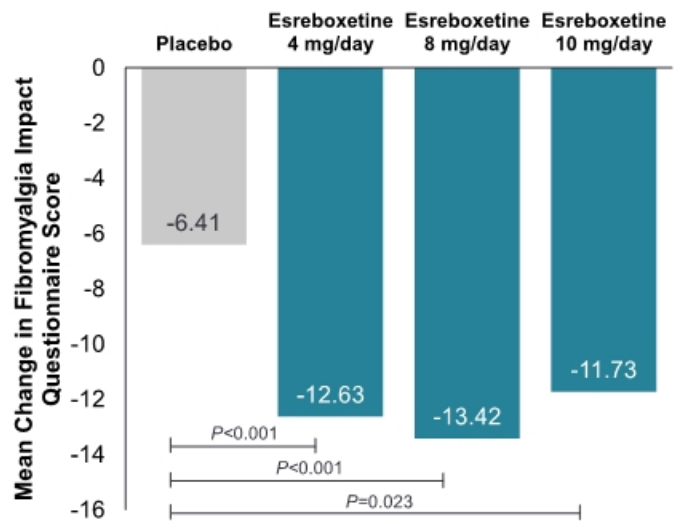
AXS-14 (esreboxetine): Phase 3 Efficacy Data in Fibromyalgia

Pain Reduction



Scale: 0 = no pain; 10 = worst pain
Baseline Scores: 6.5 (placebo), 6.4 (4mg), 6.5 (8mg), 6.5 (10mg)

Improvement in Function



Scale: 0 = no pain; 100 = max impairment
Baseline Scores: 55 (placebo), 54 (4mg), 55 (8mg), 56 (10mg)

- 4 mg/day (n=277), 8 mg/day (n=284), 10 mg/day (n=283), placebo (n=278)
- Primary Endpoints: Pain score, Function

Barriers to Entry

34 Issued U.S. Patents
8 Issued O-U.S. Patents
Claims extending to 2034
>45 pending

Proprietary
Manufacturing
Drug Product
Formulation

**AXS-05 /
AXS-09**

**MoSEIC™
Meloxicam**
(AXS-07, AXS-06)

24 issued U.S. Patents
3 issued O-U.S. Patent
Claims extending to 2036
>45 pending

Proprietary
Manufacturing
Drug Product
Formulation

AXS-14

AXS-12

3 pending U.S. Patents

2 pending U.S. Patents
Orphan Drug Designation

Our Team

Management

Herriot Tabuteau, MD
Founder & CEO

Nick Pizzie, CPA, MBA
Chief Financial Officer

Dave Marek
Chief Commercial Officer

Mark Jacobson, MA
Chief Operating Officer

Cedric O’Gorman, MD, MBA
SVP, Clinical Development & Medical Affairs

AXSOME THERAPEUTICS



IMMUCOR



A Member of the Roche Group



© Axsome Therapeutics, Inc.

Board of Directors

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

Myrtle Potter
 Former President, COO
Genentech
 Prior positions at Bristol-Myers Squibb and Merck

Mark Saad
 Former CFO
Bird Rock Bio, Inc.
 Former COO of the Global Healthcare Group at UBS

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

Herriot Tabuteau, MD
 Chairman

Key Financial Information

	As December 31, 2019
Cash:	\$220.0 Million
Debt (Face Value):	\$20.0 Million
Common Shares Outstanding:	36.9 Million
Options and Warrants Outstanding ¹ :	3.5 Million

- **Financial guidance:** Cash anticipated to fund operating requirements for at least two years.

1. Consists of 3.46 million options and 0.07 million warrants.

Our Clinical and Regulatory Milestones

Product Candidate	Indication	2019	2020
AXS-05 (DM + BUP)	TRD		<ul style="list-style-type: none"> ● STRIDE-1 Phase 3 topline results (1Q)
	AD Agitation		<ul style="list-style-type: none"> ● ADVANCE-1 Phase 2/3 topline results (3Q)
	MDD	<ul style="list-style-type: none"> ✓ ASCEND Phase 2 topline results ✓ FDA Breakthrough Therapy Designation ✓ GEMINI Phase 3 trial start ✓ GEMINI topline results 	<ul style="list-style-type: none"> ● NDA submission (4Q)
	Smoking Cessation	<ul style="list-style-type: none"> ✓ Ph 2 topline results 	
AXS-07 (MoSEIC™ Mx + Riz)	Migraine	<ul style="list-style-type: none"> ✓ FDA SPA Granted ✓ MOMENTUM Phase 3 trial start ✓ MOMENTUM topline results 	<ul style="list-style-type: none"> ● INTERCEPT Phase 3 topline results (1Q) ● NDA submission (4Q)
AXS-12 (Reboxetine)	Narcolepsy	<ul style="list-style-type: none"> ✓ CONCERT Phase 2 trial start ✓ CONCERT topline results 	<ul style="list-style-type: none"> ● Phase 3 trial start

Abbreviations: AD = Alzheimer's Disease; BUP = Bupropion; DM = Dextromethorphan; MDD = Major Depressive Disorder; Mx = Meloxicam; Riz = Rizatriptan; SPA = Special Protocol Assessment; TRD = Treatment Resistant Depression.

✓ Accomplished milestone.

● Upcoming milestone.

AXSOME

THERAPEUTICS

Thank you.

For more information, please contact

Mark Jacobson
SVP, Operations

212-332-3243
mjacobson@Axsome.com

axsome.com
