# 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

Date of Report (Date of earliest event reported): January 13, 2020

# **ACADIA Pharmaceuticals Inc.**

(Exact name of registrant as specified in its charter)

(Exact nul	ne of registrant as specified in its end	
Delaware (State or other jurisdiction of incorporation or organization)	000-50768 (Commission File Number)	06-1376651 (IRS Employer Identification No.)
3611 Valley Centre Drive, San Diego, Califori (Address of principal executiv	nia	92130 (Zip Code)
Registrant's telepl	none number, including area code: (8	58) 558-2871
(Former na	N/A me or former address, if changed since last rep	port.)
Check the appropriate box below if the Form 8-K is intende provisions (see General Instruction A.2. of Form 8-K):	d to simultaneously satisfy the filing of	oligation of the registrant under any of the following
$\square$ Written communications pursuant to Rule 425 u	nder the Securities Act (17 CFR 230.4	25)
☐ Soliciting material pursuant to Rule 14a-12 und	er the Exchange Act (17 CFR 240.14a-	12)
☐ Pre-commencement communications pursuant to	o Rule 14d-2(b) under the Exchange A	ct (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to	o Rule 13e-4(c) under the Exchange Ad	ct (17 CFR 240.13e-4(c))
Securities registered pursuant to Section 12(b) of the Act:		
Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	ACAD	The Nasdaq Stock Market LLC
Indicate by check mark whether the registrant is an emergin chapter) or Rule 12b-2 of the Securities Exchange Act of 19	0 U	405 of the Securities Act of 1933 (§ 230.405 of this
Emerging growth company $\ \Box$		
If an emerging growth company, indicate by check mark if t	0	1 100

#### Item 2.02 Results of Operations and Financial Condition.

On January 13, 2020, in advance of meetings and its presentation at the J.P. Morgan Healthcare Conference in San Francisco, California, ACADIA Pharmaceuticals Inc. is making publicly available a corporate presentation that includes information and updates regarding its business. A copy of the presentation is attached as Exhibit 99.1 hereto.

The information in this Item 2.02 and the exhibit hereto are being furnished and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liability of that section, nor shall they be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing.

#### Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	<u>Description</u>
99.1	Presentation of ACADIA Pharmaceuticals Inc., made available on January 13, 2020.
104	Cover page Interactive Data File (embedded within the Inline XBRL document).

#### 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.

Date: January 13, 2020 ACADIA Pharmaceuticals Inc.

By: /s/ Austin D. Kim

Name: Austin D. Kim

Title: Executive Vice President, General Counsel & Secretary





Steve Davis, CEO

38<sup>th</sup> Annual J.P. Morgan Healthcare Conference

JANUARY 14, 2020

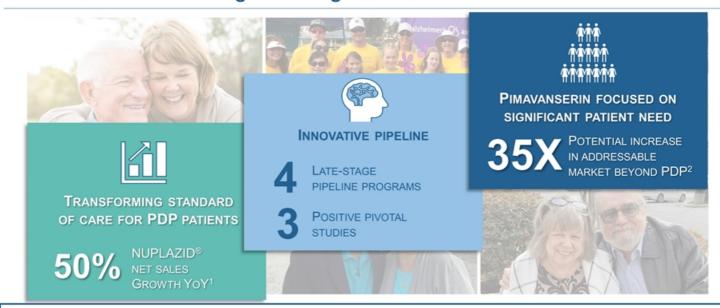
### Forward-Looking Statement

This presentation contains forward-looking statements. These statements relate to future events and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed in or implied by such forward-looking statements. Each of these statements is based only on current information, assumptions and expectations that are inherently subject to change and involve a number of risks and uncertainties. Forward-looking statements include, but are not limited to, statements about (i) plans for, including timing and progress of commercialization of, NUPLAZID® or for the clinical development of our product candidates, including pimavanserin and trofinetide; (ii) benefits to be derived from and efficacy of our product candidates, including the use of pimavanserin in dementia-related psychosis, schizophrenia, depression or other neurological or psychiatric indications, potential advantages of NUPLAZID versus existing antipsychotics or antidepressants, and expansion opportunities for NUPLAZID; (iii) estimates regarding the prevalence of PD, PD Psychosis, dementia-related psychosis, schizophrenia or depression and the potential use of trofinetide in Rett syndrome; (iv) potential markets for any of our products, including NUPLAZID and trofinetide; and (v) our estimates regarding our future financial performance, cash position or capital requirements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "potential" and similar expressions (including the negative thereof) intended to identify forward-looking statements. Given the risks and uncertainties, you should not place undue reliance on these forward-looking statements. For a discussion of the risks and other factors that may cause our actual results, performance or achievements to differ, please refer to our annual report on Form 10-K for the year ended December 31, 2018 as well as our subsequent filings with the SEC. The forwardlooking statements contained herein are made as of the date hereof, and we undertake no obligation to update them for future events.



### ACADIA in 2020 - Building a Leading CNS Platform



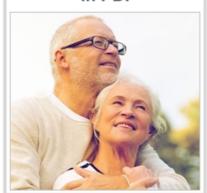
# Dedicated to Improving Lives of Patients, Families, and Caregivers

12019 net sales guidance of \$330-340M, represents a 50% increase in revenue and 38% volume growth year-over-year at the mid-point of the range.
2ACADIA Market Research based on estimated U.S. treated populations for patients with dementia-related psychosis (DRP), adjunctive treatment for major depressive disorder (MDD), and the negative symptoms eschizophrenia (NSS).
Provided January 14, 2020 as part of an oral presentation and is qualified by such; contains forward-looking statements; actual results may vary materially. ACADIA disclaims any duty to update.



# 2020 Strategic Pillars

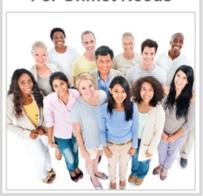
Drive NUPLAZID® Growth in PDP



Deliver
DRP Opportunity
to the Market



### Develop Innovative Treatments For Unmet Needs



Successful Execution and Strong Balance Sheet Position ACADIA for Significant Long-term Growth

ACADIA\*
Pharmaceuticals

# The Potential of Pimavanserin A Novel Selective Serotonin Inverse Agonist

### Current - NUPLAZID®

- First and only FDA-approved treatment for PDP
- FDA Breakthrough Therapy
- Patent protection into 2030¹



### Future - Pimavanserin

- Robust efficacy in pivotal studies across 3 additional CNS indications:
  - DRP (FDA Breakthrough Therapy)
  - MDD (adjunctive treatment)
  - Negative symptoms of schizophrenia

#### Safety in Late-Stage Clinical Trials

- DRP No negative impact on cognition or impairment of motor function
- MDD Improved symptoms of sexual dysfunction with no increased sedation or weight gain
- Schizophrenia No effect on vital signs, weight, and metabolic syndrome

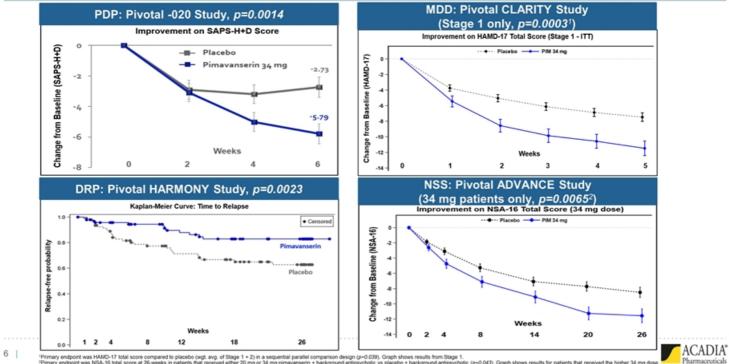


12030 reflects composition of matter patent including Hatch-Waxman patent term extension.

NUPLAZID (pimavanserin) is only approved in the U.S by the FDA for the treatment of hallucinations and delusions associated with Parkinson's disease psychosis.

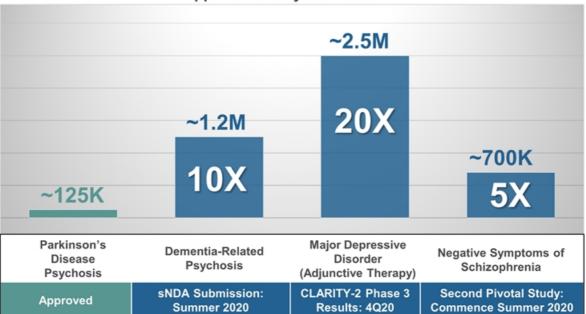
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# Pimavanserin - Robust and Consistent Efficacy Across Four Disease Areas



# Pimavanserin - Potential to Provide Meaningful Advances for Patients

U.S. Addressable Market Opportunities by Indication1



<sup>1</sup>ACADIA Market Research based on estimated U.S. treated populations for patients with Parkinson's disease psychosis, dementia-related psychosis, adjunctive treatment for major depressive disorder, and the negative symptoms of schizophrenia.

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# 2020 Strategic Pillars

**Drive NUPLAZID®** Growth in PDP

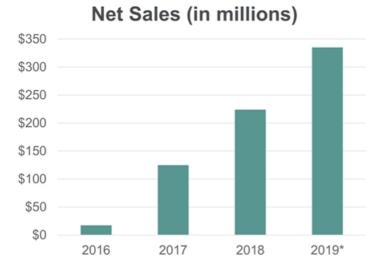


Deliver **DRP Opportunity** to the Market





### Drive NUPLAZID® Growth in Parkinson's Disease Psychosis



- 2019 net sales guidance: \$330-340M¹ +50% revenue / +38% volume YoY
- High teens market penetration exiting 2019
- Continued growth leveraging:
  - MDS Evidence based guidelines2
    - NUPLAZID only therapy recognized as clinically useful and acceptable level of safety risk without specialized monitoring
  - New caregiver burden and long-term clinical safety data
  - Digital and patient/caregiver campaigns

### Significant Future Growth Opportunity in PDP

12019 net sales guidance of \$330-340M, represents a 50% increase in revenue and 38% volume growth year-over-year at the mid-point of the range; "\$335M represents mid-point of the range."

2\*\*Update on Treatments for Non-motor Symptoms of Parkinson's Disease". Seppi et al. Movement Disorders 2019 Volume 34, Issue 2;180-1998.

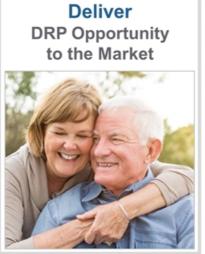
NUPLAZID (pilmavanserin) is only approved in the U.S by the FDA for the treatment of hallucinations debusions associated with Parkinson's disease psychosis.

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# 2020 Strategic Pillars



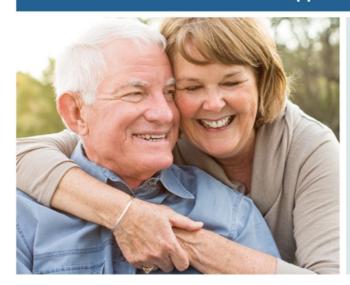






# **Deliver New Opportunity for Dementia-Related Psychosis**

# No FDA-approved treatments for DRP



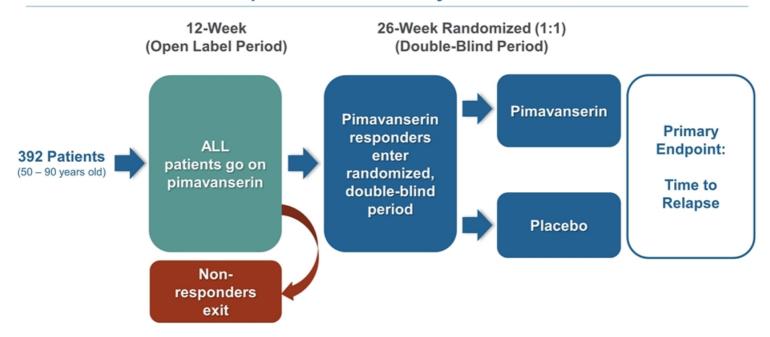
Pimavanserin has Breakthrough Therapy Designation for the treatment of DRP

### Today, antipsychotics used off-label<sup>1</sup>:

- · Accelerate cognitive decline
- · Impair motor function
- · Cause extrapyramidal symptoms
- · Increase sedation
- · Cause orthostatic hypotension



# Phase 3 HARMONY Relapse Prevention Study in DRP



NUPLAZID (pimavanserin) is only approved in the U.S by the FDA for the treatment of hallucinations and delusions associated with Parkinson's disease psychosis.

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#### Robust Positive Phase 3 HARMONY Results

### **Achieved Meaningful Primary Endpoint**

- Pimavanserin significantly reduced the risk of relapse of psychosis by 2.8 fold
- Hazard Ratio = 0.353
- One-sided p-value = 0.0023

# **Strong Open-Label Efficacy Results**

- 61.8% of eligible patients met the pre-specified response criteria at weeks 8 and 12
- 75.2% improvement from baseline on SAPS-H+D1 score at week 12

### 9-Month Safety and Tolerability Results

- Well-tolerated in chronic treatment of frail and elderly patients with significant comorbidities
- No worsening of <u>cognition</u><sup>2</sup>
- No worsening of motor function3

'SAPS-H+D (Scale for the Assessment of Positive Symptoms-Hallucinations and Delusions). As measured by MMSE (Mini-Mental State Examination)<sup>2</sup> and ESRS-A (Extrapyramidal Symptom R Data originally presented at CTAD 2019 on 12/4/2019.

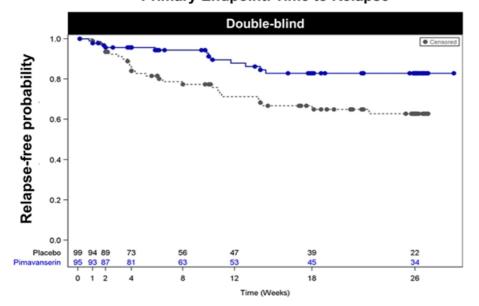
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\*ACADIA

# 2.8 Fold Reduction in Risk of Relapse of Psychosis

# **Primary Endpoint: Time to Relapse**



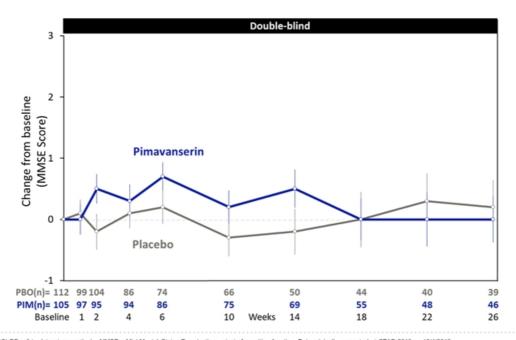
Hazard Ratio = 0.353

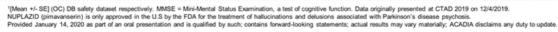
One-sided p-value = 0.0023





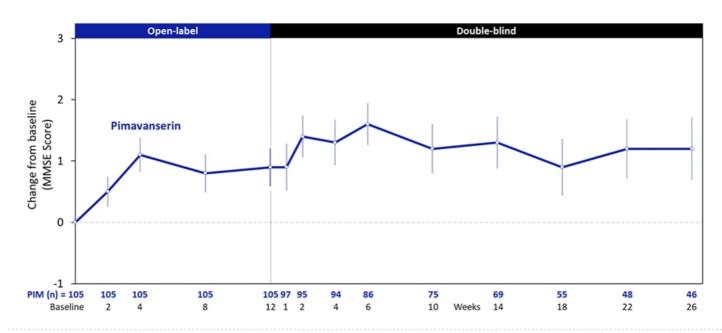
# No Negative Impact on Cognition (MMSE) Over 6 Months Compared to Placebo<sup>1</sup>







# No Negative Impact on Cognition (MMSE) Over 9 Months of Treatment<sup>1</sup>



16 | '[Mean \*/- SE] (OC) OL and DB safety dataset respectively. MMSE = Mini-Mental Status Examination, a test of cognitive function. Data originally presented at CTAD 2019 on 12/4/2019.

NUPLAZID (pimavanserin) is only approved in the U.S by the FDA for the treatment of hallucinations and delusions associated with Parkinson's disease psychosis.

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### **DRP Next Steps**

1. Pre-sNDA meeting request submitted 🗸



# 2. Plan to submit sNDA in summer 2020

sNDA will include the following:

### **Pivotal Efficacy**

Positive Phase 3 **HARMONY Study** 

### **Supportive Efficacy**

Positive Phase 2 (019) Alzheimer's Disease Psychosis Study<sup>1</sup>

Positive data in PDP (020) patients with dementia<sup>2</sup>

#### **Large Safety Database**

Safety and Tolerability Data from Completed & Ongoing Studies

Pimavanserin has Breakthrough Therapy Designation for the Treatment of DRP

\*ACADIA

# 2020 Strategic Pillars









# **Innovative Late-Stage Pipeline**

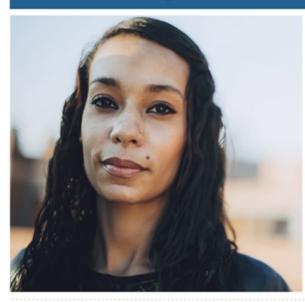
COMPOUND/ PROGRAM	INDICATION	PHASE 1	PHASE 2	PHASE 3	MARKETED
NUPLAZID® (pimavanserin)¹	Hallucinations and Delusions associated with PD Psychosis				
Pimavanserin	Dementia-Related Psychosis				
Pimavanserin	Major Depressive Disorder Adjunctive Therapy				
Trofinetide <sup>2</sup>	Rett Syndrome				
Pimavanserin	Negative Symptoms of Schizophrenia				





# **Major Depressive Disorder – Adjunctive Therapy**

### High unmet need for differentiated adjunctive therapy



- ~17M patients in the U.S. have MDD¹
  - · Majority of patients with MDD do not respond to initial antidepressant therapy
- ~2.5M treated with adjunctive therapy<sup>2</sup>
- · Adjunctive use of existing antipsychotics can lead to significant side effects:
  - · Sexual dysfunction
  - Sedation
  - · Weight gain
  - · Cognitive impairment
  - · Extrapyramidal symptoms
  - · Rare but serious tardive dyskinesia



'National Institute of Mental Health. (2017). Major Depression. Retrieved from <a href="http://www.nimh.nih.gow/health/statistics/major-depression.shtml">http://www.nimh.nih.gow/health/statistics/major-depression.shtml</a>.

Place NSP, NPA, NDTI MAT-24 month data through Aug-2017; PLOS One, Characterization of Treatment Resistant Depression Episodes in a Cohort of Patients from a US Commercial Claims Database, Oct 2013, Vol. 8, Issue 10.

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### **Advancing Adjunctive Treatment for MDD**

#### **CLARITY Results**

### Meaningful Efficacy:

Primary endpoint achieved - Depression<sup>1</sup>

HAMD-17 (p-value=0.039)

Robust effect in the parallel design Stage 1

HAMD-17 (p-value = 0.0003;
 Effect size = 0.63)

Key secondary endpoint achieved - Disability<sup>1</sup>

SDS (p-value=0.004)

#### Secondary Outcome Findings:

- Early and sustained antidepressant treatment effect<sup>2</sup>
- Improvement in sexual dysfunction symptoms
- Improvement in daytime sleepiness
- · No meaningful weight gain
- No cognitive side effects observed
- No extrapyramidal symptoms observed
- · No tardive dyskinesia observed

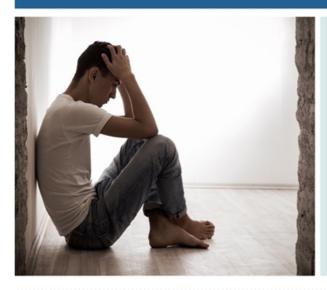
### CLARITY-2 Phase 3 Study Results Expected 4Q 2020

Two ongoing Phase 3 studies with only one additional positive study necessary for sNDA



# **Negative Symptoms of Schizophrenia**

# No FDA-approved treatment for the negative symptoms of schizophrenia



- ~40 50% of schizophrenia patients experience predominant negative symptoms<sup>1</sup>
- Negative symptoms include apathy, lack of emotion, social withdrawal, restricted speech, and blunted affect and can lead to:
  - · Low social functioning
  - Long-term disability
  - Significant caregiver burden



# **Summary of Top-line ADVANCE Results**

- The study achieved statistical significance on the primary endpoint
  - Improvement in NSA-16¹ total score compared to placebo at 26 weeks p-value = 0.043
  - Freater improvement on NSA-16 was observed in patients on the higher 34 mg dose (n=107) vs. placebo *unadjusted p-value* = 0.0065
  - Second pivotal study will evaluate 34 mg vs. placebo
    - Study to commence in summer 2020
- Pimavanserin was well-tolerated when added to background antipsychotic therapy with low rates of AEs, SAEs, and discontinuations

ACADIA\* Pharmaceuticals

<sup>1</sup>NSA-16: Negative Symptom Assessment-16.
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# **Trofinetide for the Treatment of Rett Syndrome**

# No FDA-approved treatment for Rett syndrome



- · Debilitating neurologic rare disease
- 6,000 to 9,000 patients in the U.S.1
- · Symptoms manifest primarily in young females:
  - Cognitive, sensory, emotional, and motor impairment
  - · Loss of independence
  - · Loss of purposeful hand use
  - · Loss of spoken communication



### **Trofinetide Clinical Program**

#### Phase 2 Study

### Phase 2 study:

- Statistically significant improvements in RSBQ and CGI-I
- Positive Phase 2 study results published in Neurology®1

### **Clinical Program**

### LAVENDER Phase 3 study ongoing:

- ~180 females (ages 5 20) with Rett syndrome
- Double-blind, placebo-controlled
- Co-primary endpoints: RSBQ and CGI-I
- 12-week study duration

#### **LILAC** 9-month extension study:

To evaluate LT tolerability and safety of trofinetide

# **LAVENDER Results Expected in 2021**



RSBQ = Rett Sydnrome Behaviour Questionnaire (caregiver assessment) in girls 5 –15 years of age.

[SGI = Clinical Global Impression Scale-Improvement (physician assessment) in girls 5 –15 years of age.

[Saze D, et al. Meurology, Apr 2019, 92 (16) e1912-e1925.

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# **Upcoming Clinical and Regulatory Milestones**

COMPOUND	INDICATION	MILESTONE	EXPECTED TIMING
Pimavanserin	Dementia-Related Psychosis	Pre-sNDA Meeting Request Submitted sNDA Submission	1Q20 ✓ Summer 2020
Pimavanserin	Major Depressive Disorder Adjunctive Therapy	CLARITY-2 Results Expected  CLARITY-3 Results Expected	4Q20 1H21
Pimavanserin	Negative Symptoms of Schizophrenia	Initiate ADVANCE-2	Summer 2020
Trofinetide	Rett Syndrome	LAVENDER Results Expected	2021







Improving lives for patients, caregivers and families







