ACADIA

Third Quarter 2022 Earnings Call

November 2, 2022

3Q22 Earnings Call Agenda

Introduction	**Mark Johnson** | Vice President, Investor Relations
CEO Opening Remarks	**Steve Davis** | Chief Executive Officer
Commercial Update	**Brendan Teehan** | Chief Operating Officer, Head of Commercial
Trofinetide Update	**Kathie M. Bishop, Ph.D.** | Chief Scientific Officer and Head of Rare Disease
R&D Update	**Serge Stankovic, M.D., M.S.P.H.** | President
Financial Update	**Mark Schneyer** | Chief Financial Officer
CEO Closing Remarks	**Steve Davis** | Chief Executive Officer
Q&A	

Forward-Looking Statements

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 schizophrenia 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 Parkinson's disease psychosis, schizophrenia and the potential use of trofinetide in Rett syndrome; (iv) potential markets for any of our products, including NUPLAZID and trofinetide; (v) our estimates regarding our future financial performance, cash position or capital requirements; and (vi) currently anticipated impacts of COVID-19 on Acadia's business, including its commercial sales operations, current and planned clinical trials, supply chain, and guidance for full-year 2022 NUPLAZID net sales and certain expense line items.

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, 2021 as well as our subsequent filings with the SEC. The forward-looking statements contained herein are made as of the date hereof, and we undertake no obligation to update them for future events.

CEO Opening Remarks

Steve Davis

CEO

Acadia's Growth Strategy

Grow and Maximize Value of NUPLAZID® Franchise

Deliver Trofinetide to Rett Community

Develop the Next Wave of Breakthroughs

Building a Leading CNS Company

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.
Provided November 2, 2022 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.

Drive Growth of NUPLAZID® in PDP

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Net Sales

Delivered net sales of $130.7M in 3Q22

- NUPLAZID demand growth of 2% QoQ
- Inventory reduction in 3Q impacted net sales by approximately -$7M

Market Dynamics

- Early signs of improvement in the long-term care channel
- In-office channel is unchanged
- Focus investment on highest ROI activities; maximize PDP commercial spend

Growth Opportunity

- Continuing to gain market share and outperform baskets of the top Parkinson's, neurology and LTC medicines since the beginning of the pandemic
- Real-world evidence supports use of NUPLAZID in PDP

PDP = Parkinson's disease psychosis.
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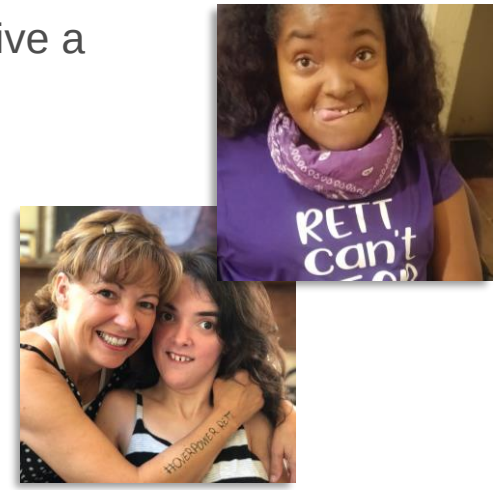
Advancing Late-Stage Opportunities

Rett syndrome (Trofinetide)

- PDUFA date assigned: March 12, 2023
- Priority review granted; no AdCom planned
- Fast track status, orphan drug designation and rare pediatric disease designation
  - If approved, should receive a rare pediatric disease priority review voucher
- Method of use patent with patent term extension provides exclusivity out to early 2036; *Additional patents pending*



Negative Symptoms of Schizophrenia (Pimavanserin)

- Positive pivotal study, ADVANCE-1
- Evaluating 34 mg dose of pimavanserin in second pivotal study, ADVANCE-2
- Phase 3 enrollment completion expected mid-2023

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Develop the Next Wave of Breakthroughs

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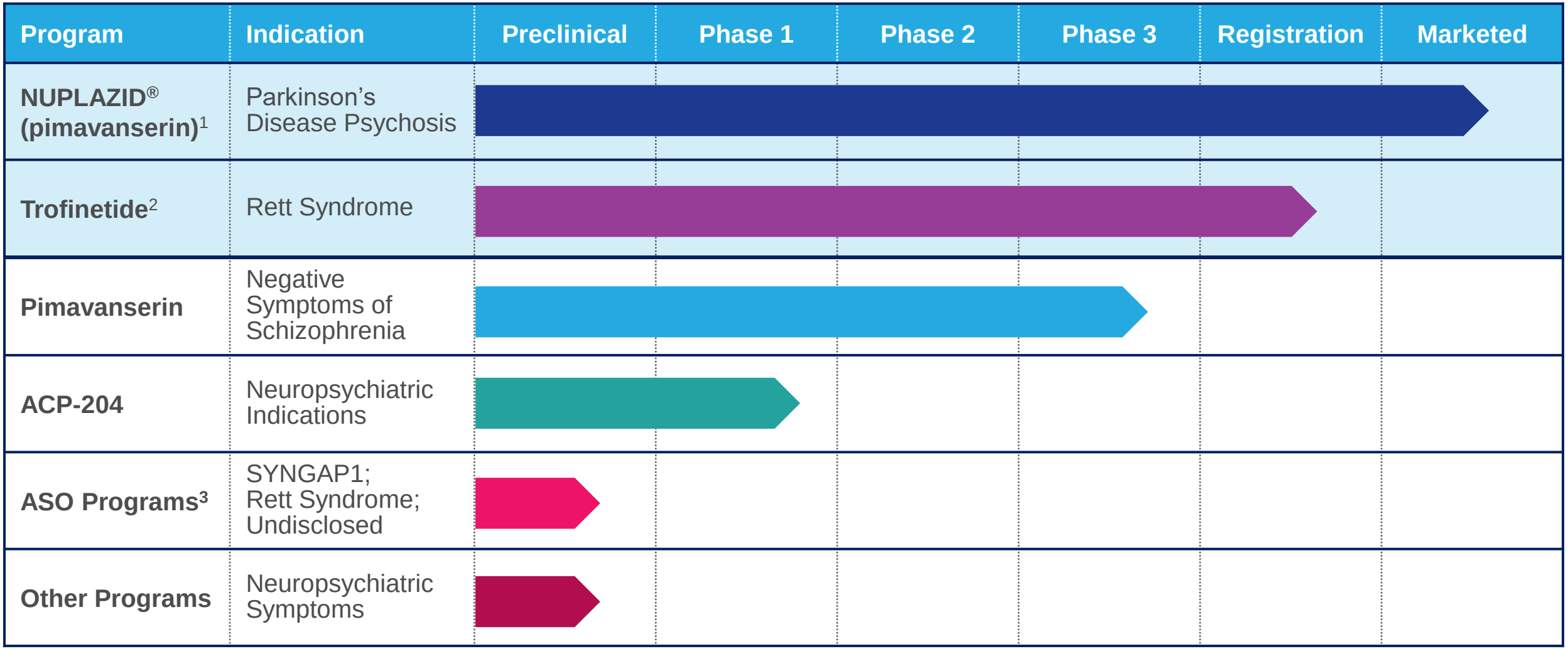

[1]NUPLAZID (pimavanserin) is only approved in the U.S. by the FDA for the treatment of hallucinations and delusions associated with Parkinson's disease psychosis.
[2]Acadia has an exclusive license to develop and commercialize trofinetide in North America from Neuren Pharmaceuticals.
[3]Acadia entered into a collaboration with Stoke Therapeutics to discover, develop and commercialize novel RNA-based medicines for the potential treatment of severe and rare genetic neurodevelopmental diseases.
ASO = Antisense oligonucleotide.
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Commercial Update

Brendan Teehan

Chief Operating Officer, Head of Commercial

Drive Growth and Maximize Value of NUPLAZID®

PDP Market Dynamics

$130.7M in net sales in 3Q22; demand growth up 2% QoQ

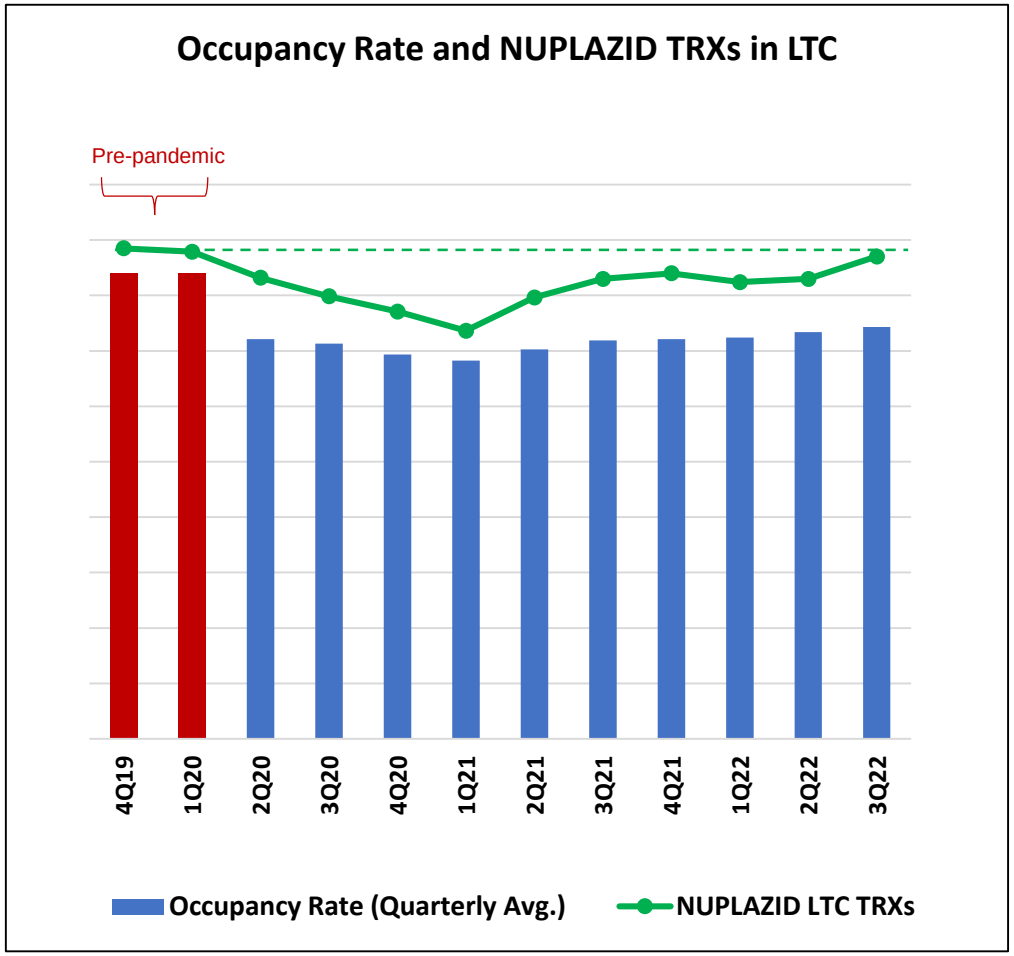
- ***LTC channel*** shows early signs of improvement; NUPLAZID outperforming early recovery in occupancy rates (rates remain significantly down)
- ***In-office channel*** unchanged with PD patients visits still significantly down

Focus investment on highest ROI activities; maximize PDP value

Growth Opportunities

Real-World Data	Real-world data from retrospective studies compare pimavanserin's favorable safety to off-label antipsychotics
Population Dynamics	PDP is a dynamic patient population; continue to grow market share at time of PDP diagnosis
Relative Outperformance	Since beginning of pandemic, NUPLAZID has gained market share in both the office-based and LTC channels

Early Signs of Recovery in LTC Channel



CMS/NIC (https://www.nic.org/snf-covid-tracker) and IQVIA (National Prescription Audit; excludes 'mail' channel).

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Trofinetide Pre-Launch Activities Ongoing

Disease State Awareness and Education	• Drive understanding of Rett syndrome and the unmet needs of core symptoms, such as hand wringing, purposeful eye gaze and communication
Build-out Rare Disease Commercial Team	• Hiring seasoned leadership team with rare disease expertise • ~4,500 Rett patients diagnosed in U.S., and cared for at IRSF-designated Centers of Excellence, non-COE academic institutions and other neurology practices
Rett Syndrome Awareness Month (October)	• Engagement at patient advocacy events across the country • Presented key clinical data at medical congresses

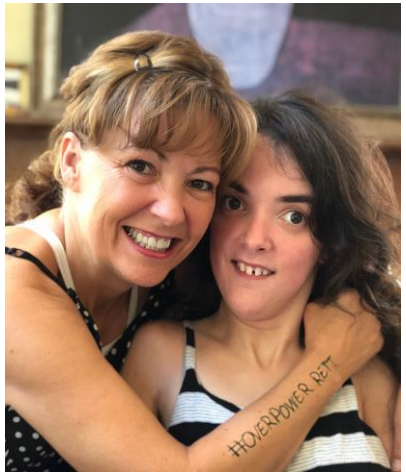
Disease Education and Scientific Exchange are Key to a Successful Launch Next Spring

Trofinetide Update

Kathie Bishop

CSO and Head of Rare Disease

Trofinetide for the Treatment of Rett Syndrome



No FDA-approved drug for the treatment of Rett syndrome

- Estimated 6,000 to 9,000 patients in the U.S.[1]
- ~4,500 patients diagnosed and treated for Rett in the U.S. today

Debilitating Symptoms[2]:

- Fine and gross motor impairment, hand stereotypies
- Loss of verbal and nonverbal communication
- Seizures, G.I. symptoms, including severe constipation
- Loss of independence and require 24/7 support

NDA Supported by Positive Phase 3 Lavender™ Results

- Statistically significant separation from placebo on:
  - *Co-primary endpoints: RSBQ (p=0.0175), CGI-I (p=0.0030)*
  - *Key secondary endpoint: CSBS-DP-IT–Social (p=0.0064)*
- Consistent efficacy observed across age ranges & disease severity

PDUFA Action Date of March 12, 2023

- Granted Priority Review

[1]U.S. prevalence estimate based on incidence rates from the National Institutes of Health – National Institute of Neurological Disorders and Stroke.
[2]Acadia market research, Neul JL et al, Annal Neurol. 2010;68;944-50 and and https://www.rettsyndrome.org/about-rett-syndrome/what-is-rett-syndrome/.
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R&D Update

Serge Stankovic

President

Pimavanserin for the Treatment of the Negative Symptoms of Schizophrenia

No FDA-approved treatment for the negative symptoms of schizophrenia

- Estimated 700K+ patients receiving treatment in the U.S. for schizophrenia have persistent negative symptoms

Negative symptoms include apathy, lack of emotion, social withdrawal, restricted speech, blunted affect and can lead to:

- Low social functioning
- Long-term disability
- Significant caregiver burden

Positive Pivotal Study, ADVANCE-1 Results:

- Primary endpoint: Improvement in NSA-16 vs. pbo at 26 weeks; *p=0.043*
- Patients on 34 mg vs. pbo on NSA-16; *p=0.0065 (unadjusted)*
- Positive results published in The Lancet Psychiatry

Based on the results of ADVANCE-1, Acadia is pursuing the optimal 34 mg dose in its second pivotal study ADVANCE-2

- Enrollment expected to complete mid-2023

[1]Studies suggest that ~40-50% of schizophrenia patients experience predominant negative symptoms; Patel et al. 2015, Haro et al., 2015, Bobes et al. 2010, and Chue and Lalonde, 2014.
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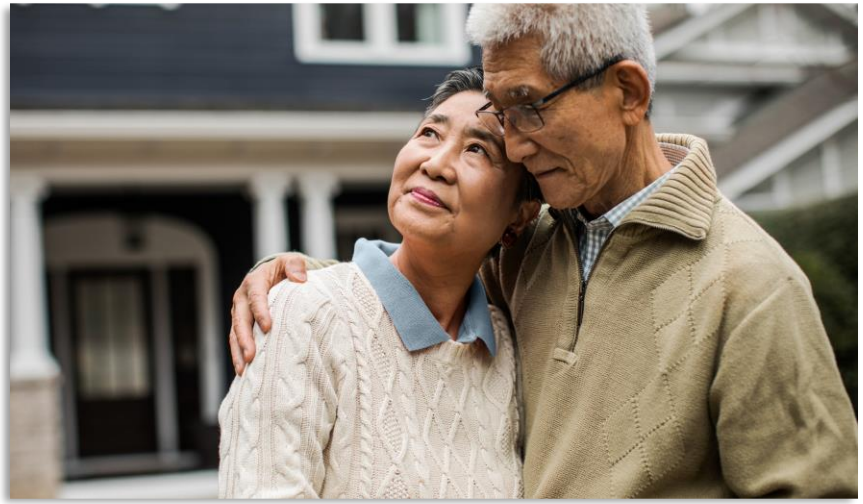
ACP-204:
Leveraging the Learnings from Pimavanserin

Program Objectives

- Leverage 5-HT_{2A} benefits and favorable safety/tolerability profile
- Minimize or eliminate QT signal
- Maximize the efficacy profile
- Improve onset of action



Phase 1 Development

- Phase 1 ongoing; evaluating higher dose ranges
- ACP-204 has potential in multiple unmet neuropsychiatric diseases
  - Alzheimer disease psychosis is our first priority

Finance Update

Mark Schneyer

Chief Financial Officer

3Q22 Financial Highlights

Millions, Except EPS	3Q22 (GAAP)	3Q21 (GAAP)	*YoY Change*	YTD-22 (GAAP)	YTD-21 (GAAP)	*YoY Change*
Total Revenue	$130.7	$131.6	*-1%*	$380.7	$353.4	*+8%*
R&D	$81.3[1]	$58.6	*+39%*	$285.8[2]	$172.5	*+66%*
SG&A	$78.1	$81.7	*-4%*	$264.7	$290.1	*-9%*
Net Income (Loss)	($27.2)	($14.5)		($174.3)	($124.8)	
EPS	($0.17)	($0.09)		($1.08)	($0.78)	
Cash Balance	$436.6					

[1] **R&D in 3Q22** includes $10M Neuren milestone accrual and ~$8M trofinetide commercial supply build
[2] **R&D in YTD-22** includes $60M Stoke upfront payment, $10M Neuren milestone accrual and ~$18M trofinetide commercial supply build

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Overall Impact of IRA for NUPLAZID Franchise

The overall impact of the Inflation Reduction Act (IRA) on NUPLAZID franchise value is modest

1. Pricing realization related to Medicare patients limited to inflation-adjusted 2021 price
2. Medicare Part D beneficiaries will benefit from improved access with lower out-of-pocket maximums (start 2025)
3. Acadia should qualify for small company 'phase-in' during initial years (2025-2030) of Medicare Part D redesign
4. Medicare negotiation not expected to impact NUPLAZID for PDP

Impact from recent pricing action

1. Net pricing benefit:
   - Acadia took a 9.4% price increase on NUPLAZID in August 2022 (~6% above inflation-adjusted 2021 price)
   - Acadia will realize a net pricing benefit of ~3% through 3Q23
   - This will be reassessed against an updated inflation-adjusted price on October 1st, 2023

2. Accounting treatment:
   - Acadia to accrue an additional Medicare rebate related to the difference in price as compared to the inflation-adjusted price and will be accounted for as an additional gross-to-net (GTN) adjustment

Acadia will realize a net pricing benefit of ~3% through 3Q23 in net sales from its latest pricing action

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FY22 Financial Guidance

	Previous FY22 Guidance *(8/8/2022)*	Updated FY22 Guidance *(11/2/2022)*	Commentary
NUPLAZID® Net Sales	$510 to $540M	$510 to $520M	• Midpoint reflects similar demand levels, 3Q inventory reduction and impact from IRA
NUPLAZID Gross-to-Net	19.5% - 20.5%	21% - 22%	• Due to accruing for future Medicare rebates
GAAP R&D Expense	$340 to $360M	$345 to $355M	• Midpoint of range remains unchanged
GAAP SG&A Expense	$360 to $380M	$365 to $375M	• Midpoint of range remains unchanged
YE Cash Balance[1]	$375 to $405M	$390 to $405M	• Bottom-end raised by $15M

[1]YE cash balance guidance range based on revenue guidance range and assumes midpoint of expense guidance ranges.
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CEO Closing Remarks

Steve Davis

CEO

Building a Leading CNS Company

Drive NUPLAZID® Growth in PDP

Maximize Franchise Value

Launch Potential 2nd Commercial Product

Trofinetide for Rett Syndrome

Advance Late-Stage and Early-Stage Pipeline

Execute Business Development

Key Strengths:

- Established infrastructure, commercial teams, clinical development
- Committed to investing in high-value CNS opportunities
- Optimized spend with focus on positive cash flow
- Strong balance sheet allowing execution without need for additional capital

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Q&A Session