Sage Therapeutics®

Fourth Quarter and Full Year 2023 Financial Results

February 14, 2024

Safe Harbor Statement

- The slides presented today and the accompanying oral presentations contain forward-looking statements, which may be identified by the use of words such as "may," "might," "will," "should," "can," "expect," "plan," "anticipate," "believe," "estimate," "project," "intend," "future," "opportunity", "goal", "mission", "potential," "target", or "continue," and other similar expressions.
- Forward-looking statements in this presentation include statements regarding: plans, expectations and goals for commercialization of ZURZUVAE as a treatment for women with PPD, including our goal for ZURZUVAE to become first line therapy and standard of care in this indication and our reimbursement, access and time to shipment goals; our belief in the potential benefit and profile of ZURZUVAE in the treatment of PPD; the potential for success of our commercialization of ZURZUVAE for women with PPD and our belief in the size of the potential market opportunity in PPD and the role of ZURZUVAE in unlocking such potential; the potential for success of our other product candidates in various indications, including the potential profile and benefit of our other product candidates; our clinical development plans, including expected timelines for activities and our expectations as to potential results; our estimates as to the number of patients with disorders and diseases of interest to us and that we hope to help; the potential drivers of value in our business and the potential for value creation; the opportunity, mission, goals and vision for our business; and our expectations with respect to maintaining a strong financial foundation.
- These forward-looking statements are neither promises nor guarantees of future performance, and are subject to a variety of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from those contemplated in these forward-looking statements, including the risk that:
  - We may not be successful in our commercialization efforts with respect to ZURZUVAE in the treatment of women with PPD; the market size and market acceptance for ZURZUVAE as a treatment for women with PPD by healthcare professionals, patients and payers may be significantly smaller than we expect; we may encounter reimbursement, market access or other market-related issues in the course of our commercialization activities; early positive signs may not be a signal of future success; ZURZUVAE may not achieve the clinical benefit in the treatment of women with PPD that we expect; we may not generate revenue from sales of ZURZUVAE at the levels or on the timing we expect.
  - Our clinical trials may not meet their primary endpoints or key secondary endpoints. Success in non-clinical studies or in prior clinical trials of our product candidates may not be repeated or observed in ongoing, planned or future studies involving the same compound or other product candidates. Non-clinical and clinical results from ongoing or future trials may not support further development of the product candidate, our planned regulatory pathway, or filing for or obtaining regulatory approval on the timelines we expect or at all and we may be required to conduct additional clinical trials or nonclinical studies which may not be successful. We may experience slower than expected enrollment in our clinical trials or may encounter other delays or problems, including in analyzing data or requiring the need for additional analysis, data or patients, or due to timing and results of consultation with regulatory authorities, and such issues with any trial could cause delay in completion of the trial, availability of results and timing or success of future activities.
  - We may encounter unexpected safety or tolerability issues with respect to any of our product candidates or marketed products; we may encounter different or more severe adverse events at higher doses, different frequency or length of dosing or in new indications.
  - At any stage, regulatory authorities may ask for additional clinical trials, nonclinical studies or other data in order for us to proceed further in development or to file for or obtain regulatory approval. Other decisions or actions of the FDA or other regulatory authorities may affect the initiation, timing, design, size, progress and cost of clinical trials or development efforts and our ability to proceed with further development.
  - Even if our other product candidates are successfully developed and approved, the number of patients with the diseases or disorders our products treat or the subset of such patients we believe will use our products, the need for new treatment options, and the actual market for such products may be smaller than our current estimates.
  - The anticipated benefits of our collaborations, including our collaboration with Biogen, may never be achieved. The need to align with our collaborators may hamper or delay our development and commercialization efforts or increase our costs; our business may be adversely affected and our costs may increase if any of our key collaborators fails to perform its obligations or terminates our collaboration.
  - We may not be able to obtain and maintain adequate intellectual property protection or other forms of data and marketing exclusivity for our products, or to defend our patent portfolio against challenges from third parties.
  - We may face competition from others developing products or with approved products for similar uses as those for which our product candidates are being developed.
  - Our operating expenses may be higher than forecasted and we may face unexpected expenses which could cause us to change our plans. Our revenues may be lower than we expect, including if we do not achieve market acceptance of ZURZUVAE in the treatment of women with PPD or if we do not achieve our access/reimbursement goals in this indication, or if our launch for other reasons is not as successful as we expect. We may not achieve expected milestones that trigger cash payments on the timing we expect, or at all. For these and other reasons, our expectations with respect to financial strength may not prove to be accurate. We may need or choose to raise additional funding, which may not be available on acceptable terms, or at all.
  - We may not be able to establish and maintain key business relationships with third parties on acceptable terms or we may encounter problems with the performance of such third parties.
  - We may encounter technical and other unexpected hurdles in the manufacture, development or commercialization of our products.
  - Any of the foregoing or other factors may negatively impact our ability to achieve our goals, mission, opportunities, plans or expectations for our business and the potential for value creation.
- For additional disclosure regarding these and other risks Sage faces, see the disclosure contained in the "Risk Factors" section of our most recent report, and in our other public filings, with the Securities and Exchange Commission, available on the SEC's website at http://www.sec.gov. Any forward-looking statement represent our views only as of today, and should not be relied upon as representing our views as of any subsequent date. We undertake no obligation to update or revise the information contained in this presentation, whether as a result of new information, future events or circumstances or otherwise.

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Sage Therapeutics call participants

Barry Greene

Chief Executive Officer

Chris Benecchi

Chief Business Officer

Laura Gault

Chief Medical Officer

Kimi Iguchi

Chief Financial Officer

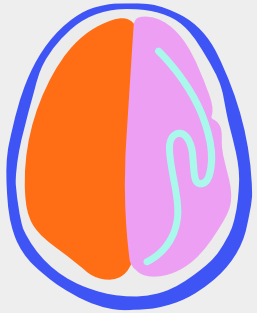
Mike Quirk

Chief Scientific Officer

Opportunity to become the leader in brain health

Patient inspired, patient led, *patient first*

ZURZUVAE™
First and only oral product approved by the FDA specifically for postpartum depression *(second approved product)*



Differentiated pipeline driven by patient need, science, and external insights

Scientific and therapeutic leadership within GABA and NMDA opportunities – strong product engine

Strong financial foundation to help create value for sustained growth

Value-driven culture focused on doing what's right for patients

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Is Now Available

ZURZUVAE (50mg) is approved for the treatment of postpartum depression in adults. A full course of ZURZUVAE includes 14 days of treatment.

Important Safety Information

ZURZUVAE may cause serious side effects, including decreased awareness and alertness, which can affect your ability to drive safely or safely do other dangerous activities. Do not drive, operate machinery, or do other dangerous activities until at least 12 hours after taking each dose. You may not be able to tell on your own if you can drive safely or tell how much ZURZUVAE is affecting you. ZURZUVAE may cause central nervous system (CNS) depressant effects including sleepiness, drowsiness, slow thinking, dizziness, confusion, and trouble walking. Taking alcohol, other medicines that cause CNS depressant effects such as benzodiazepines, or opioids while taking ZURZUVAE can make these symptoms worse and may also cause trouble breathing. ZURZUVAE is a federally controlled substance schedule IV because it contains zuranolone, which can be abused or lead to dependence. Tell your healthcare provider right away if you become pregnant or plan to become pregnant during treatment with ZURZUVAE. You should use effective birth control (contraception) during treatment with ZURZUVAE and for 1 week after the final dose. ZURZUVAE and other antidepressant medicines may increase the risk of suicidal thoughts and actions in people 24 years of age and younger. ZURZUVAE is not for use in children. The most common side effects of ZURZUVAE include sleepiness or drowsiness, dizziness, common cold, diarrhea, feeling tired, weak, or having no energy, and urinary tract infection.

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COMPOUND	TARGET INDICATIONS	PHASE 1	PHASE 2	PHASE 3	STATUS
Postpartum Depression Commercial Products					
ZURZUVAE™* (zuranolone) CIV	Postpartum Depression				MARKETED
ZULRESSO® (brexanolone) CIV injection	Postpartum Depression				MARKETED
Pipeline					
Zuranolone* (SAGE-217)	Major Depressive Disorder**			IN PHASE 3	
Dalzanemdor (SAGE-718)	Huntington's Disease Cognitive Dysfunction		IN PHASE 2		
	Parkinson's Disease Cognitive Dysfunction		IN PHASE 2		
	Alzheimer's Disease Mild Cognitive Impairment and Mild Dementia		IN PHASE 2		
SAGE-324*	Essential Tremor		IN PHASE 2		
Programs In Evaluation					

SAGE-689
Acute GABA Hypofunction

SAGE-421
NMDA Hypofunction

SAGE-319
GABA Hypofunction

**Collaboration Partners: Biogen Inc. and Shionogi for zuranolone and Biogen Inc. for SAGE-324*
***The FDA issued a CRL on August 4, 2023, related to the NDA for the treatment of adults with MDD stating that the application did not provide substantial evidence of effectiveness to support the approval of zuranolone for the treatment of MDD and that an additional study or studies will be needed. No Phase 3 trials are currently ongoing.*

Please refer to the U.S. Prescribing Information for ZULRESSO and the U.S. Prescribing Information for ZURZUVAE
Safety and efficacy for investigational uses or compounds have not been established. There is no guarantee that the outcome of these studies will be positive or result in approval by a Health Authority.

PPD poses a substantial burden to patients and their families; Significant unmet needs remain and require urgent treatment

PPD symptoms are one of the **most common complications** of pregnancy and childbirth[1]

Perinatal depression is **inconsistently diagnosed** and may be an undertreated condition[1-4]

Mothers with perinatal depression often face **significant challenges** with functioning and infant-bonding[5-9]

The **economic burden** associated with perinatal depression is vast and impacts patients, their families, employers, and health care payers[10-12]

The **COVID-19 Pandemic** had a significant effect on perinatal mental health outcomes[13-15]

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1. Bauman BL, Ko JY, Cox S, et al. MMWR Morb Mortal Wkly Rep. 2020;69(19):575-581 2. Ukatu N, et al. Psychosomatics. 2018;59(3):211-219. 3. Wang Z, et al. Transl Psychiatry. 2021;11(1):543. 4. Fonseca A, et al. J Affect Disord. 2020;274:167-173. 5. Beck CT, et al. Am J Nurs. 2006;106(5):40-50. 6. Wouk K, et al. Pediatrics. 2016;137(1). 7. Lilja G, et al. Scand J Caring Sci. 2012;26(2):245-253. 8. Gaglardi L, et al. Arch Dis Child. 2012;97(4):355-357. 9. Kerstis B, et al. Arch Womens Ment Health. 2016;19(1):87-94 10. Epperson CN et al. Curr Med Res & Opinion. 2020;36(10):1707-1716 11. Moore-Simas TA et al. J Med Economics. 2020; 23(2):174-183. 12. Luca DL et al. Math Pol Res. 2019. 13. Farewell CV, Jewell J, Walls J, Leiferman JA. A mixed-methods pilot study of perinatal risk and resilience during COVID-19. J Prim Care Community Health. 2020;11:2150132720944074. 14. Liu CH EC, Mittal L. Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 pandemic. Psychiatry Res. 2021;295:113552.15. Gustafsson HC, Young AS, Doyle O, et al. Trajectories of perinatal depressive symptoms in the context of the COVID-19 pandemic. Child Dev. Sep 2021;92(5):e749-e763.

ZURZUVAE Q4 2023 PPD Launch Update

ZURZUVAE™
(zuranolone) capsules Ⓒ IV
20 mg • 25 mg • 30 mg

PRESCRIPTION DATA*

- Approximately 120 prescriptions of ZURZUVAE written
- 50 prescriptions shipped/delivered in December

PHYSICIAN TRENDS*

- Majority of prescribing across OBGYNs and psychiatrists, smaller percentage of prescriptions from PCPs
- HCPs reached through omnichannel efforts (personal and/or digital promotion)
- Continued enthusiasm from HCPs to learn more

COVERAGE UPDATES*

- Discussions progressing with national, regional and government payers
- Vast majority of prescriptions covered by payers in the early launch

Data as of December 31, 2023; reflects demand from around 10 days when patients could access HCP offices

Approval of ZURZUVAE has the potential to be a major catalyst for positive change for women with PPD

HISTORIC GAPS	MEASURABLE PROGRESS
Lack of awareness and stigma associated with PPD; limited platforms available for speaking out	Increased awareness, media attention and social media conversations are **helping to destigmatize PPD.**
Gaps in care/challenges with continuity of care post-delivery.	**Greater awareness and ACOG guidelines are mobilizing HCPs,** including OBGYNs, to screen, diagnose and treat PPD.
PPD is particularly **underdiagnosed and undertreated among Black and Brown women**.	Increased public and HCP education around maternal mental health; **mobilization around better access to care.**
Lack of acceptance and consensus of PPD as a **serious mental illness requiring urgent intervention**	A new, rapid acting oral therapy **may improve patient accessibility to treatment for women with PPD.**

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Data expected across all 3 dalzanemdor (SAGE-718) indications over the course of 2024

EARLY 2024 (Q1/Q2)

- Topline data from the **PRECEDENT Study in PD**

MID 2024 (Q2/Q3)

- Topline data from the **SURVEYOR Study in HD**

LATE 2024 (Q3/Q4)

- Topline data from the **LIGHTWAVE Study in AD**
- Topline data from the **DIMENSION Study in HD**

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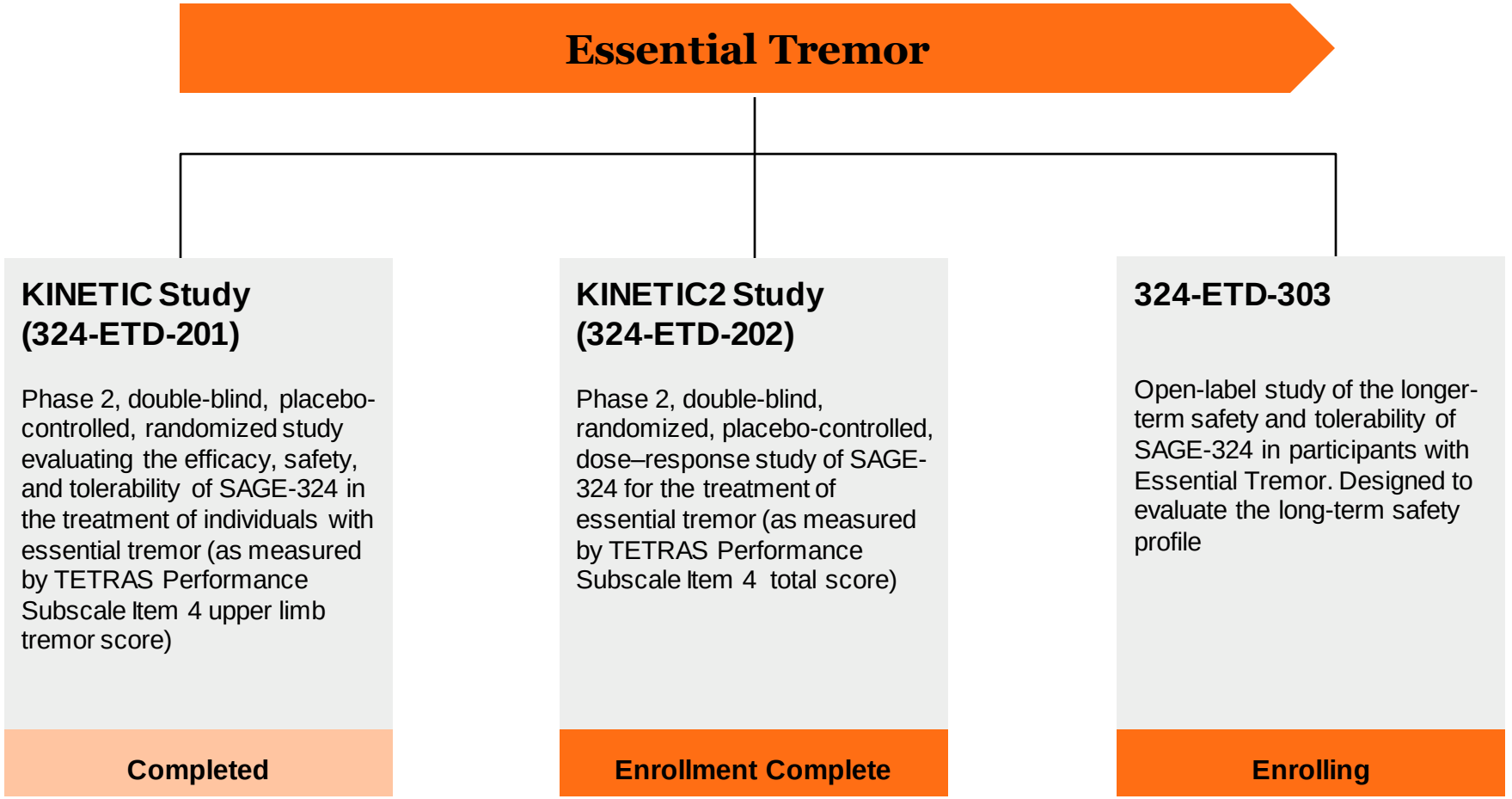
The SAGE-324 clinical development program



Other potential areas of growth within the GABA and NMDA platforms

Profile of SAGE-319

GABA Receptor PAM

- Extra-synaptic GABAA receptor preferring positive allosteric modulator
- Profile supporting daily, oral, chronic dosing
- Differentiated clinical EEG signature compared to zuranolone and SAGE-324

Potential indications:

NEURODEVELOPMENTAL / MOTOR DISORDERS

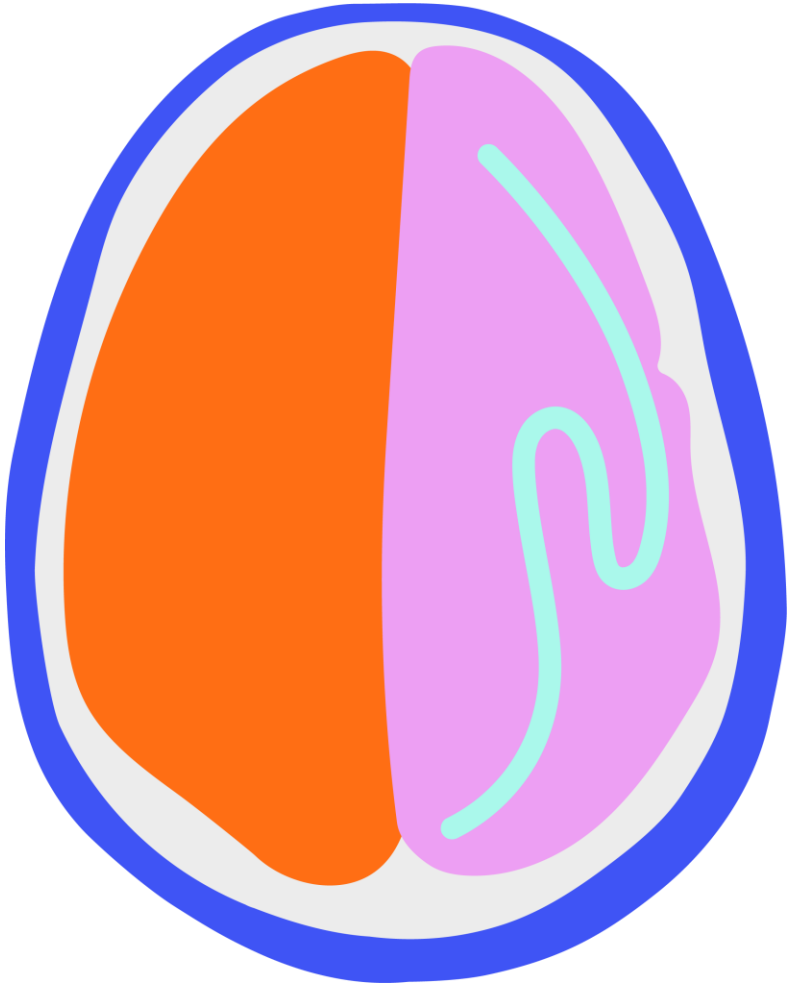
Preclinical profile of SAGE-421

NMDA Receptor PAM

- NMDA receptor positive allosteric modulator
- Profile supporting daily, oral, chronic dosing

Potential indications:

COGNITIVE IMPAIRMENT, SCHIZOPHRENIA



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Fourth Quarter and Full Year 2023 and 2022 Financial Results

Strong financial position with $0.8B in cash at the end of 2023

Item	Q4 '23	Q4 '22	Full Year '23	Full Year '22
Product revenue, net	$2.0M	$2.9M	$10.5M	$7.7M
License and milestone revenue - related party*	$75.0M	-	$75.0M	-
Collaboration revenue - related party	$0.8M	-	$0.8M	-
Other Collaboration revenue	$0.2M	-	$0.2M	-
Total Revenue	*$78.0M*	*$2.9M*	*$86.5M*	*$7.7M*
Cost of Revenues	$0.8M	$0.1M	$2.2M	$0.8M
R&D Expense	$64.3M	$89.3M	$356.2M	$326.2M
SG&A Expense	$55.1M	$67.3M	$274.5M	$227.7M
Restructuring	($0.2M)	$0.0M	$33.4M	$0.0M
Total Operating Costs and Expenses	$120.0M	$156.8M	$666.3M	$554.7M
Net Loss	($32.7M)	($147.1M)	($541.5M)	($532.8M)
Cash and Marketable Securities	$0.8B	$1.3B	$0.8B	$1.3B

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**The $75.0 million milestone was recorded within collaboration receivable – related party on our consolidated balance sheets as of 12/31/2023. Payment for the milestone was received in January 2024.*

Potential Value Creating Catalysts

Anticipated Events		
ZURZUVAE*	Broader complement of commercial capabilities	EARLY 2024
	Present additional analyses of data from NEST clinical program, including health economics and patient reported outcomes	2024
Dalzanemdor (SAGE-718)	Topline data from the PRECEDENT Study in PD	EARLY 2024
	Topline data from the SURVEYOR Study in HD	MID 2024
	Topline data from the LIGHTWAVE Study in AD	LATE 2024
	Topline data from the DIMENSION Study in HD	LATE 2024
	Present additional analyses of data from clinical development program as well as disease state and burden of disease research in HD, PD and/or AD	2024
SAGE-324*	Topline data from Phase 2 KINETIC 2 Study in ET	MID 2024
	Present additional analyses of data from clinical development program as well as disease state and burden of disease research in ET	2024
Additional Expected Milestones		
Cash Balance[1]	Maintain strong financial foundation	2024

PPD = postpartum depression, ET = essential tremor, HD = Huntington's disease, PD = Parkinson's disease, AD = Alzheimer's disease

**Collaboration Partners: Biogen Inc. and Shionogi for zuranolone and Biogen Inc. for SAGE-324*

[1] In December we achieved the milestone from Biogen related to first commercial sale of ZURZUVAE for PPD. We received the $75M payment in January 2024.

Q&A