#### **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): March 5, 2024

#### **Zevra Therapeutics, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation)

1180 Celebration Boulevard, Suite 103, Celebration, FL (Address of Principal Executive Offices)

001-36913 (Commission File Number)

20-5894398 (I.R.S. Employer Identification No.)

> 34747 (Zip Code)

Registrant's Telephone Number, Including Area Code: (321) 939-3416

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

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)) 

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	ZVRA	The Nasdaq Stock Market LLC
		(Nasdaq Global Select Market)

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 7.01 Regulation FD Disclosure.

#### Investor Presentation

On March 5, 2024, Zevra Therapeutics, Inc. released a presentation that it intends to use from time to time in meetings with investors. A copy of the presentation is attached hereto as Exhibit 99.1.

The information set forth in this item 7.01 and in the attached Exhibit 99.1 is being "furnished" and shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of Section 18, nor shall it be deemed incorporated by reference into any filing of the company under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language in any such filing.

#### Item 9.01. Financial Statements and Exhibits.

Exhibits

(d)

Exhibit No.

Description

 March 2024 Investor Presentation

 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.

#### Zevra Therapeutics, Inc.

Date: March 5, 2024

By: /s/ Timothy J. Sangiovanni Timothy J. Sangiovanni, CPA Senior Vice President, Corporate Controller

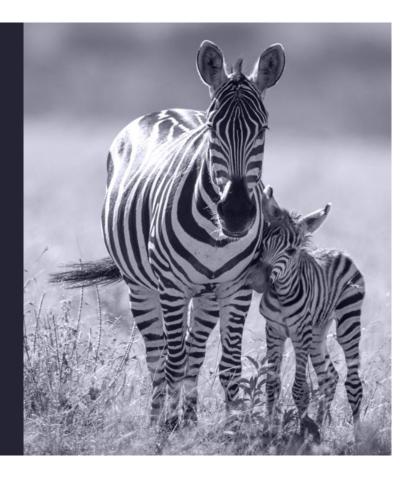


## **Corporate Presentation**

March 2024

A Rare Approach to Therapeutics

NasdaqGS: ZVRA



# Cautionary Note Regarding Forward-Looking Statements



This presentation may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forwardlooking statements include all statements that do not relate solely to historical or current facts, including without limitation and can be identified by the use of words such as "may," "will," "expect," "project," "estimate," "anticipate," "plan," "believe," "potential," "should," "continue," "could," "intend," "target," "predict," or the negative versions of those words or other comparable words or expressions, although not all forward-looking statements contain these identifying words or expressions. Forward-looking statements are not guarantees of future actions or performance. These forwardlooking statements include statements regarding the promise and potential impact of our preclinical or clinical trial data, including without limitation the timing and results of any clinical trials or readouts, our anticipated financial performance, our industry, business strategy, plans, goals and expectations concerning our market position, future operations, the timing or results of any Investigational New Drug applications and NDA submissions, including the resubmission of the New Drug Application (NDA) for arimoclomol, communications with the FDA, the potential uses or benefits of arimoclomol, KP1077, SDX or any other product candidates for any specific disease indication or at any dosage, the potential benefits of any of' Zevra's product candidates, the success or timing of the launch or commercialization of any products or related sales milestones, and our strategic and product development objectives. These forward-looking statements are based on information currently available to Zevra and its current plans or expectations and are subject to a number of known and unknown uncertainties, risks and other important factors including those discussed under the caption "Risk Factors" in our Annual Report on Form 10-K filed with the SEC on March 7, 2023, as updated by our Quarterly Report on Form 10-Q filed with the SEC on November 7, 2023, and in our other filings with the SEC could cause actual results, performance, or achievements to differ materially from those indicated by the forward-looking statements made herein.

While we may elect to update such forward-looking statements at some point in the future, except as required by law, we disclaim any obligation to do so, even if subsequent events cause our views to change. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to this presentation.

This presentation also may contain 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. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

### Becoming a Leading Rare Disease Company



3

Focused on Key Pillars for Strategic Growth



Experienced team with rare disease expertise

#### **Our Mission:**

Bringing life-changing therapeutics to people living with rare diseases



Commercial excellence to ensure patient access to therapeutics



Growing pipeline with potential to bring new products and deliver value for patients

## **Experienced Team with Rare Disease Expertise**



Our Mission: Bringing life-changing therapeutics to people living with rare diseases



Neil F. McFarlane CEO and President



Adrian W. Quartel, MD FFPM Chief Medical Officer



Joshua Schafer Chief Commercial Officer & EVP of BD



Sven Guenther, Ph.D. Chief Scientific Officer



#### **PRODUCT LAUNCH EXPERIENCE**







4

Cholbam<sup>®</sup>



Chief Development Officer & Co-Founder



R. LaDuane Clifton, CPA CFO, Secretary & Treasurer



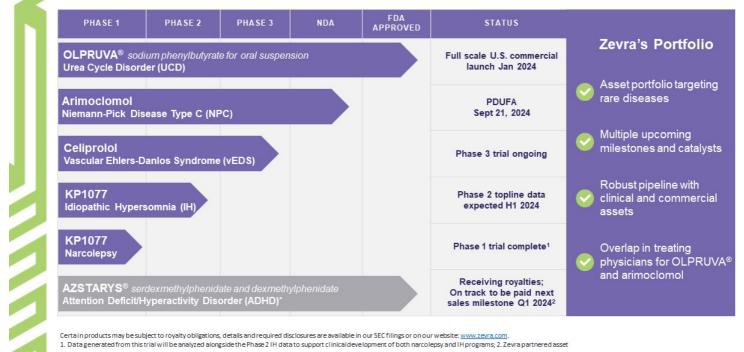
(sodium phenylbutyrate) for oral suspension

XOSPATA gilteritinib tekt



# Diversified Portfolio with Potential to Bring New Products and Deliver Value for Patients







# **Commercial Excellence to Ensure Patient Access**

### Launch Excellence to Ensure Patient Access to Rare Disease Therapies



Overlap in Prescribers and Centers of Excellence for  $\textsc{OLPRUVA}^{\$}$  and arimoclomol allow for efficient team approach



Rare Disease Sales Specialists calling on prescribing physicians and Centers of Excellence



Patient Services and Resources support to assist patients navigate reimbursement and treatment journey



Marketing team to define appropriate patient identification and product positioning in treatment landscape

$-\times$	

Account Management team to ensure market access and contracting with payors



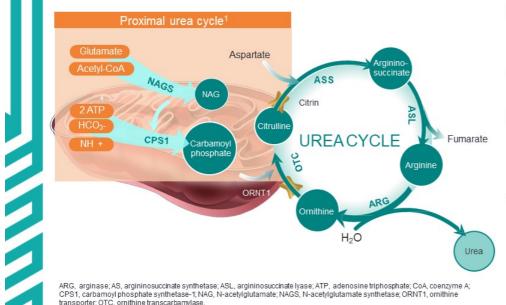
Medical Affairs and Patient Advocacy team to work with Key Opinion Leaders and Advocacy Groups to advance scientific knowledge, and patient care

8

### Urea Cycle Disorders Cause Hyperammonemia, Leading to Brain Damage or Death



OLPRUVA® is a nitrogen scavenger that removes excess ammonia



1. Summar ML, Mew NA. Pediatr Clin North Am. 2018;65(2):231-246.

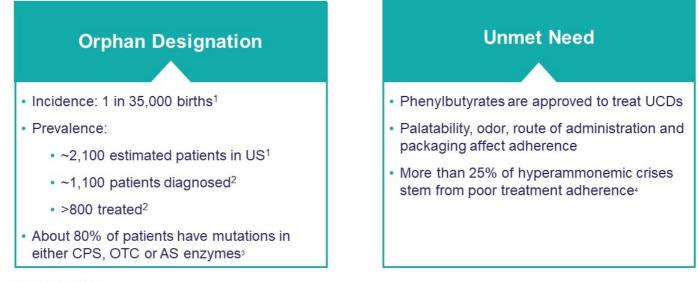
- Defect in one of the 6 enzymes or 2 transporters in the urea cycle leads to accumulation of ammonia
- A clinical hallmark of UCDs is hyperammonemic (HAC) crises
- Elevated ammonia levels can be neurotoxic, leading to neurocognitive damage, potentially coma and even death, if untreated
- Duration and severity of HAC correlates with brain damage, often requiring emergency visits and hospitalization

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## **Unmet Need in Urea Cycle Disorders**



Poor treatment adherence can lead to neurocognitive damage, coma and even death



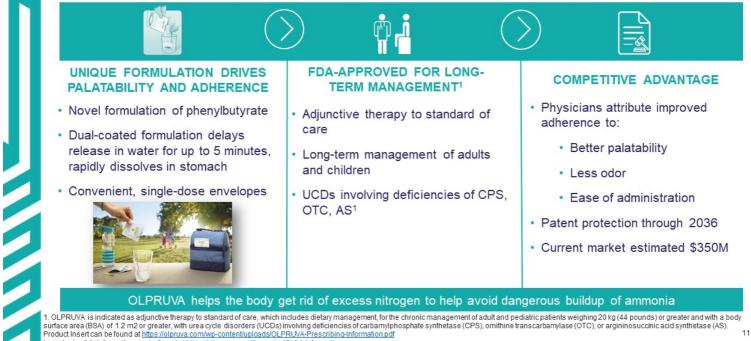
#### United States (U.S.) Market

0.1.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4364413/ 2. HealthVerify Payer Claims data analysis 2021 3. carbamylphosphate synthetase (CPS), ornithine transcarbamylase (OTC), or argininosuccinic acid synthetase (AS) 4. Enns GM, Porter MH, Francis-Sedlark M, Burdett A, Vockley J. 2019

### **OLPRUVA®** Designed to Address Unmet Needs in Treatment of UCDs



Unique formulation in single-dose envelopes for "ammonia control on the go"



Important safety information can be found at https://olpruva.com/#ImportantSafetyInformation

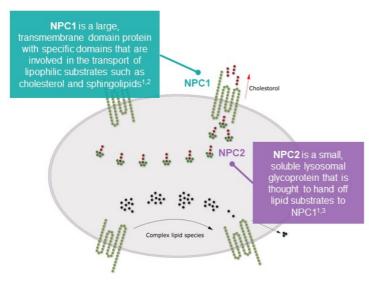


# **Growing Pipeline in Rare Diseases**

### Niemann-Pick Disease Type C is a Progressive Lysosomal Storage Disorder



Cholesterol buildup leads to cell death; arimoclomol may enhance cholesterol metabolism through improved lysosomal function



- NPC gene mutations produce abnormal, absent or non-functional NPC proteins<sup>4</sup>
- Progressive lipid accumulation and cellular impairment leads to cell death and ultimately organ dysfunction in the spleen, liver and brain
- Disease results in impairment and loss of cognition, speech, swallow ability, fine motor skills and ambulation
- Heterogenous onset and rate of progression, always fatal

NPC, Niemann-Pick disease type C. 1. Carstea ED et al. Science. 1997;277:228-231.2. Platt FM et al. Annu Rev Genomics Hum Genet. 2014;15:173-194.3. Ingemann L, Kirkegaard T J Lipid Res. 2014;55:2198-2210.4. Geberhiwot T, et al. Orphanet J Rare Dis. 2018 Apr 6;13(1):50.

### No Approved NPC Treatments in the U.S.



Ultra-rare, relentlessly progressive and fatal neurodegenerative disease

# **Orphan Designation**

- Incidence: 1 in 120,000 live births<sup>1</sup>
- Prevalence:

- 1,800 patients estimated in EU and US
- 900 patients estimated in US<sup>2</sup>
- 300-350 US patients currently diagnosed or treated<sup>2</sup>

#### **Significant Unmet Need**

- · Neurocognitive decline adversely impacts daily living
- · Irreversible and fatal disease
- Mean age of death is 13 years<sup>2</sup>
- No approved treatments exist in the U.S.

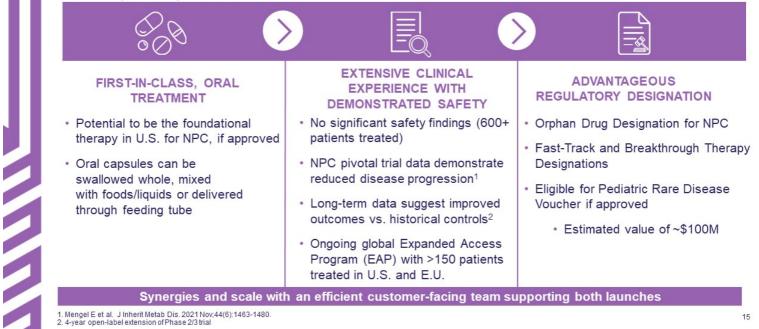
https://link.springer.com/article/10.1186/1750-1172-5-16

https://link.springer.com/article/10.1186/1750-1172-5-16
 <u>Burton et.al., Molecular Genetics and Metabolism Volume 134, Issues 1–2</u>, September–October 2021, Pages 182-187

### Arimoclomol is Positioned to Become First-Line Treatment for NPC Patients

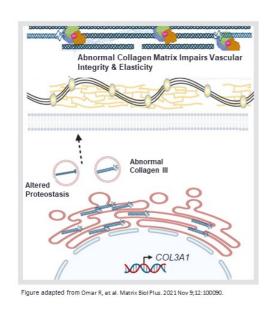


Evidence indicates that arimoclomol acts on multiple fronts to help reduce lipid build-up in cells with improved lysosomal function



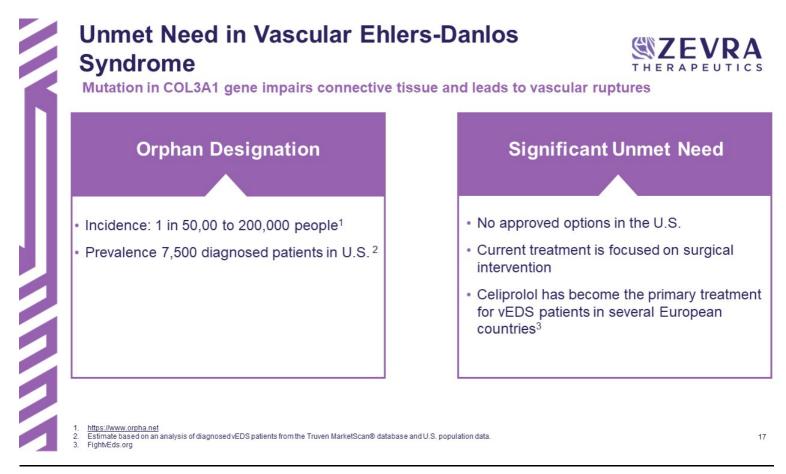
### Vascular Ehlers-Danlos Syndrome Impairs Connective Tissue and Leads to Vascular Ruptures

Celiprolol designed to reduce the mechanical stress on collagen fibers within the arterial wall



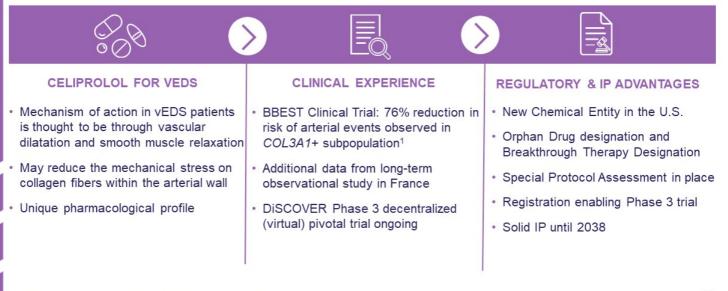
1. Pepin M, et al. Genet Med. 2014 Dec; 16(12):881-8.

- vEDS (EDS type IV) is the severe subtype:
  - · Characterized by aneurysms, dissections and/or ruptures
  - · Large and medium sized arteries
  - Hollow organs (e.g., gastrointestinal, uterine)
- Autosomal dominant (50%); spontaneous mutations (50%)
- Diagnosed by clinical symptoms and confirmed by presence of mutations in the COL3A1 gene
- Events occur in 25% of patients before the age of 20, and 90% by the age of 40
- The median survival age is 51 years, with arterial rupture being the most common cause of sudden death<sup>1</sup>



### Celiprolol is a Selective Adrenergic Modulator for SEVRA Potential Treatment of Patients with COL3A1+ vEDS

Phase 3 primary endpoint: time to first occurrence of primary cardiac or arterial clinical event



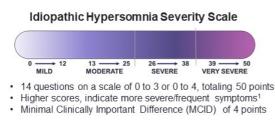
1. https://www.sciencedirect.com/science/article/pii/S0735109719336939

### Idiopathic Hypersomnia (IH) Causes Excessive **Daytime Sleepiness, Sleep Inertia and Brain Fog**



19

KP1077 may provide optimal exposure of methylphenidate to better address these unmet needs







Higher scores, indicate more severe daytime sleepiness • 2- to 3-point change is considered MCID in sleep disorders<sup>5</sup>

- IH is a rare, debilitating, chronic neurologic disorder with an unknown pathophysiology
- Characterized by excessive daytime sleepiness (EDS)
- Excessively long sleep times
- Sleep inertia or difficulty waking
- Long and unrefreshing naps<sup>3</sup>
- Brain fog, memory problems, errors in habitual activities, mind blank and attention problems

\*Idiopathic Hypersomnia Severity Scale is a self-report instrument designed to measure the severity of key symptoms of hypersomnolence 1. Dauvilliers Y, Evangelista E, Barateau L, et al. Measurement of symptoms in idiopathic hypersomnia: the Idiopathic Hypersomnia Severity Scale. *Neurology*. 2019;92(15):e1754-e1762. 2. Rassu AL et al. Idiopathic hypersomnia severity scale to better quantify symptoms severity and their consequences in idiopathic hypersomnia. *J Clin Sleep Med*. 2022;18(2):617-629.

3. ~25% of patients "long sleepers," >10hrs.

. Johns MW. A new method for measuring daytime sleepiness: the Epworth Sleepiness Scale. Sleep. 1991;14(6):540–545 . Patel S, et al. The Epworth Sleepiness Scale: Minimum Clinically Important Difference in Obstructive Sleep Apnea. Am J Respir Crit Care Med. 2018 Apr 1;197(7):961-963. doi: 10.1164/rccm.201704-0672LE.

### **Unmet Need in Idiopathic Hypersomnia**



IH is a rare, debilitating, chronic neurologic disorder with an unknown pathophysiology

#### **Orphan Designation**

- Incidence: 10.3 per 100,000 people in the US<sup>1</sup>
- Prevalence: ~37,000 patients diagnosed<sup>2</sup>
- · Total population may be much larger

#### **Current Treatments Don't Address Needs**

- · Patients rated current medication effectiveness as poor (5.4 on a 10-point scale)<sup>3</sup>
- · Tolerable stimulant treatment doses currently available are inadequate to treat brain fog
- Comorbidities complicate treatment (cardiovascular and patient demographics)
- · Potential DDIs with contraceptives, antidepressants, antihistamines

 1. <u>https://doi.org/10.1093/sleep/zsy061.624</u>

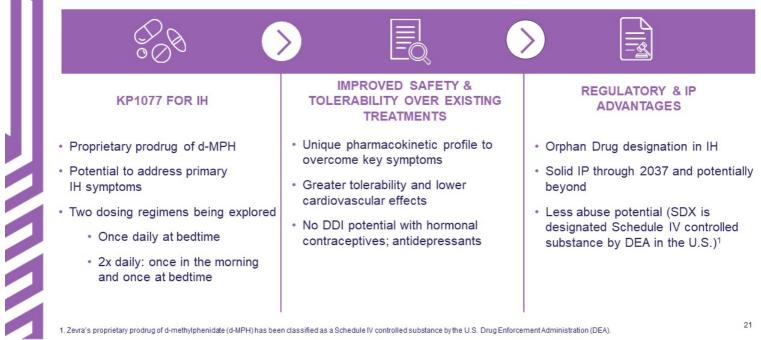
 2. <u>https://www.sleepcountshcp.com/what-is-idiopathic-hypersomnia</u>

 3. https://www.sleepcountshcp.com/idiopathic-hypersomnia-treatment-options

## KP1077 is a Novel Approach to Treating IH



Unique PK profile and dosing regimen designed to address EDS and sleep inertia



## Focused on Key Pillars for Strategic Growth



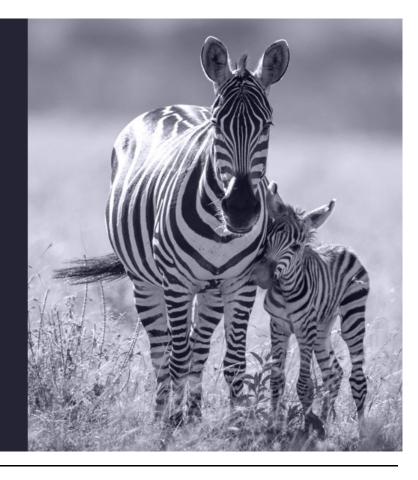
**Our Mission: Bringing** life-changing therapeutics to people living with rare diseases



	Rare Disease Team	Commercial Excellence	Growing Pipeline	
	<ul> <li>Strong experience in rare disease commercial launches</li> <li>Track record of success in drug development and in overcoming complex regulatory challenges</li> </ul>	<ul> <li>Growing capabilities in-line with vision for a bespoke patient services approach</li> <li>Immediate focus on driving awareness and demand for OLPRUVA®</li> <li>Preparing for arimoclomol launch</li> </ul>	<ul> <li>Arimoclomol: PDUFA is Sep 21, 2024</li> <li>Celiprolol: Ongoing Ph. 3 program</li> <li>KP1077: Topline results H1 2024</li> </ul>	
Financial strength to execute on our key priorities				
			22	

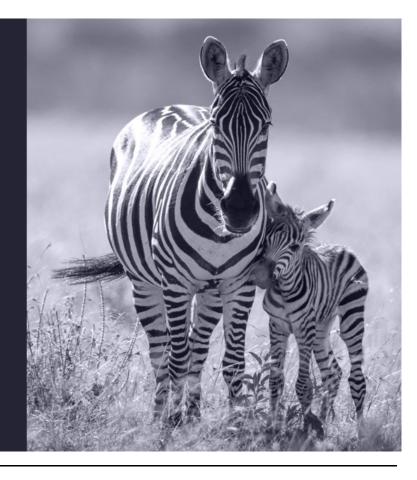
# **Thank You**





# Appendix





### Arimoclomol NDA Resubmitted to FDA

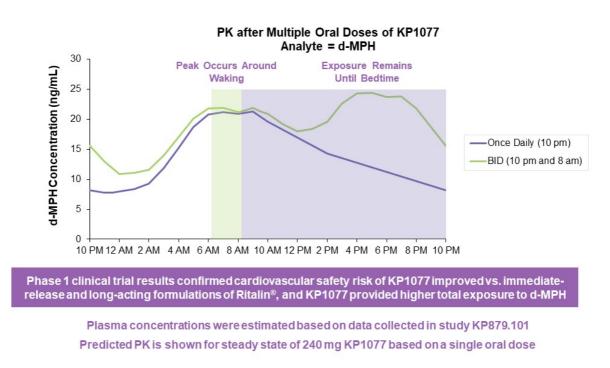


Complete Response Letter (CRL) and FDA feedback gathered through multiple interactions/meetings has provided added clarity on resubmission package.

CRL		ZEVRA'S ONGOING RESPONSE
1 Sufficiency of validation and reliability of the Niemann-Pick type C Clinical Severity Scale (NPCCSS) instrument	$\rangle\rangle\rangle$	Additional evidence being provided to support use of the NPCCSS as the primary instrument in measuring NPC disease progression
2 Appropriateness of how to handle data affected by certain patient events and method of primary endpoint analysis	$\rangle\rangle\rangle$	Using FDA preferred primary analysis and supportive additional analyses
3 Robustness of confirmatory evidence to support single efficacy trial	$\rangle\rangle\rangle$	Additional data from multiple new nonclinical studies being provided, data from the 4-year open label extension of the Phase 2/3 clinical trial
PDUFA: S	Sept 21,	2024

### Two Dosing Regimens Being Explored to Achieve Sustained Symptom Management in IH





## Phase 2 Clinical Trial of KP1077 in IH



Multi-center, dose-optimizing, double-blind, placebo-controlled, randomized-withdrawal study to evaluate safety of KP1077, as well as potential efficacy endpoints

#### Part 1:

Five-week open-label titration phase Patients optimized to one of the four doses of KP1077 (80, 160, 240, or 320 mg/day)

#### Part 2:

- Two-week randomized, doubleblind, withdrawal phase
- 2/3 receive KP1077; 1/3 placebo 50% receive single daily dose;
- 50% receive half daily dose upon awakening and at bedtime

#### INTERIM DATA:

To inform the design of the Phase 3 trial

- Potential key differentiators: 1.Alignment of peak efficacy
- with patient need through dose optimized timing 2.Expanded exposure range

through unique PK

- PRIMARY ENDPOINT
- Safety and tolerability of KP1077
- MAJOR SECONDARY ENDPOINT
   Change in Epworth Sleepiness Scale (ESS) total score

#### ADDITIONAL EXPLORATORY ENDPOINTS

- Patient Global Impression of Severity (PGI-S)
- · Clinical Global Impression of Severity (CGI-S)
- Change in total score on the Idiopathic Hypersomnia Severity Scale (IHSS)
- Sleep Inertia at 1 hour after awakening
- New scale to assess the symptoms and severity of "Brain Fog"