Zevra Therapeutics Presents Full Data Set on the Cardiovascular Safety and Pharmacokinetics of SDX, the sole API in KP1077, in Healthy Volunteers at Psych Congress 2023

September 9, 2023

CELEBRATION, Fla., Sept. 09, 2023 (GLOBE NEWSWIRE) -- Zevra Therapeutics, Inc. (NasdaqGS: ZVRA) (Zevra, or the Company), a rare disease therapeutics company, today announced a poster presentation featuring study data that underscores the cardiovascular safety profile of serdexmethylphenidate (SDX), the sole active pharmaceutical ingredient (API) in KP1077, Zevra's investigational candidate for the treatment for idiopathic hypersomnia (IH), at the Psych Congress 2023 taking place September 6-10, 2023, in Nashville, Tennessee.

"The study results affirm that SDX is safe and well-tolerated at higher doses and has no greater cardiovascular safety risk than other methylphenidate products currently being used off-label for the treatment of IH while providing higher overall exposure levels of d-MPH. These data play an important role in the development of KP1077 as we work to address the unmet needs of people living with rare sleep disorders," said Rene Braeckman, Ph.D., Sr. Vice President of Clinical Development at Zevra.

In recognition of the research presented in the poster, Zevra's work was selected as a finalist for display at the Psych Congress Poster Award Reception on Saturday, September 9, from 6:45 p.m. to 8:00 p.m. CT.

The poster presentation titled, "*Cardiovascular (CV) Safety and Pharmacokinetics (PK) of Serdexmethylphenidate (SDX), a Prodrug of d-Methylphenidate (d-MPH), Compared to Ritalin and Ritalin LA in a Single-Dose Crossover Study in Healthy Volunteers,*" will report on the cardiovascular effects and pharmacokinetics of the 80 mg and 200 mg dose levels of SDX, a prodrug of d-methylphenidate (d-MPH), compared to immediate-release racemic methylphenidate (Ritalin®) and long-acting racemic methylphenidate (Ritalin LA®) from an open-label, single-dose, 4-treatment, 4-period, randomized, crossover study in healthy volunteers. The immediate-release Ritalin total dose (2 x 40 mg), the 80 mg dose of Ritalin LA and 80 mg dose of SDX represent approximately the same amount of d-MPH, the active ingredient of interest. Results of the study demonstrate that at an SDX dose (200 mg) 2.5-fold higher than the molar-equivalent Ritalin doses (80 mg), the peak exposure to d-MPH occurred later and was lower. In addition, both doses of SDX were generally better tolerated compared to Ritalin and fewer subjects experienced cardiovascular adverse events after SDX compared to Ritalin. Lastly, vital signs after a single oral dose of 200 mg SDX (the highest dose tested) were comparable to Ritalin IR 80 mg and Ritalin LA 80 mg. The results demonstrate a robust safety profile for SDX, positioning it as a promising option for treating sleep disorders characterized by excessive daytime sleepiness.

Details of Zevra's poster presentation are as follows:

Title:	Cardiovascular (CV) Safety and Pharmacokinetics (PK) of Serdexmethylphenidate (SDX), a Prodrug of d-Methylphenidate (d-MPH) Compared to Ritalin and Ritalin LA in a Single-Dose Crossover Study in Healthy Volunteers
Poster Presentation:	Friday, September 8, and Saturday, September 9, 2023, 1:30 p.m. – 3:00 p.m. CT
Speaker:	Rene Braeckman, Ph.D. Sr. Vice President of Clinical Development, Zevra Therapeutics
Location:	Exhibit Hall A and B

About Idiopathic Hypersomnia (IH):
Idiopathic hypersomnia (IH) is a rare sleep disorder characterized by excessive daytime sleepiness. Patients with IH experience daytime lapses into sleep, or an irrepressible need to sleep that persists even with adequate or prolonged nighttime sleep. Additionally, those with IH have extreme difficulty waking, otherwise known as "sleep inertia," severe "brain fog", and often fall asleep unintentionally or at inappropriate times. These symptoms of IH often lead to further, even more debilitating problems such as memory lapses, difficulty maintaining focus, and depression.

It is estimated that approximately 37,000 patients in the United States are currently diagnosed with IH and seeking treatment, although the total patient population may be much larger due to some patients not seeking treatment or being undiagnosed or

misdiagnosed.

About Narcolepsy:
Narcolepsy is a chronic debilitating central disorder of hypersomnolence. The primary symptom of narcolepsy is excessive daytime sleepiness characterized by daily episodes of an irrepressible need to sleep or daytime lapses into sleep. Patients with narcolepsy have an abnormal rapid eye movement (REM) sleep phase which can cause disrupted nighttime sleep, sleep paralysis and sleep-related hallucinations during sleep-wake transitions. Narcolepsy has severe personal, social, and economic consequences. Patients with narcolepsy experience substantial impairment of their mental and physical wellbeing, and depression and anxiety are common. Cognitive dysfunctions such as difficulty to focus and memory lapses (also referred to as 'brain fog') are frequently reported. The many symptoms experienced by patients with narcolepsy result in a high disease burden and poor quality of life.

Narcolepsy is categorized in to two types: narcolepsy type 1 (NT1) and type 2 (NT2). NT1 is considered a distinct disease entity characterized in part by loss of hypocretin neurons and symptoms of cataplexy (sudden, brief attacks of muscle weakness sometimes resulting in the body to fall uncontrollably, often triggered by strong emotions). When narcolepsy presents without cataplexy and with normal hypocretin-1 concentrations in the cerebrospinal fluid (CSF), it is categorized as NT2 (Hypocretin-1 is also known as orexin-A, a neuropeptide involved in regulating sleep-wake cycles).

The combined worldwide prevalence of both types of narcolepsy has been estimated to be 25-50 per 100,000 people. Epidemiological studies using well-defined criteria for assessing the prevalence of narcolepsy (both NT1 and NT2) estimate incidence rates ranging from 31 to 79 per 100,000 people corresponding to approximately 100,000 to 260,000 total patients in the United States.

About SDX and KP1077:
Serdexmethylphenidate (SDX) is Zevra's proprietary prodrug of d-methylphenidate (d-MPH) and the sole active pharmaceutical ingredient (API) in KP1077, Zevra's lead clinical candidate being developed as a treatment for idiopathic hypersomnia (IH) and narcolepsy. Zevra is currently enrolling a multicenter, dose-optimizing, double-blind, placebo-controlled, randomized-withdrawal Phase 2 clinical trial to evaluate safety and efficacy of KP1077 as a treatment for IH. For more information regarding the Phase 2 trial, visit www.clinicaltrials.gov.

SDX is also the primary API in AZSTARYS®, a once-daily product for the treatment of attention deficit hyperactivity disorder (ADHD) in patients ages six and older being commercialized in the U.S. by Corium, Inc.

KP1077 has been granted Orphan Drug Designation by the U.S. Food and Drug Administration (FDA) for the treatment of IH, and the U.S. Drug Enforcement Agency (DEA) has classified SDX, the sole API in KP1077, as a Schedule IV controlled substance based on evidence suggesting SDX has a lower potential for abuse when compared to d-MPH, a Schedule II controlled substance.

About Zevra Therapeutics:

Zevra Therapeutics is a rare disease company melding science, data, and patient need to create transformational therapies for diseases with limited or no treatment options. With unique, data-driven clinical, regulatory, and commercialization strategies, the Company is overcoming complex drug development challenges to bring much-needed therapies to patients. With both regulatory and clinical stage product candidates, the Company is building its commercial capability to make new therapies available to the rare disease community.

Cautionary Note Concerning Forward-Looking Statements:
This press release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include all statements that do not relate solely to historical or current facts, and which 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 forward-looking statements include without limitation statements regarding senior leadership and board member transitions and refreshment, or the timing thereof, and our strategic and product development objectives, the potential sale of the Priority Review Voucher, the promise and potential impact of our preclinical or clinical trial data, including without limitation the initiation, timing and results of any clinical trials or readouts, the content, information used for, timing or results of any IND applications and NDA submissions or resubmissions for arimoclomol, KP1077, or any other product candidates for any specific disease indication or at any dosage, the potential achievement of commercial sales or revenue milestones for AZSTARYS and the timing thereof, the sufficiency of our cash, cash equivalents and investments to fund our operating activities for any specific period of time, and our strategic and product development objectives, including with respect to becoming a leading, commercially-focused rare disease company. Forward-looking statements are based on information currently available to Zevra and its current plans or expectations. They are subject to several known and unknown uncertainties, risks, and other important factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. These and other important factors are described in detail in the "Risk Factors" section of Zevra's Annual Report on Form 10-K for the year ended December 31, 2022, as updated in Zevra's Quarterly Report on Form 10-Q for the quarter ended June 30, 2023, and Zevra's other filings with the Securities and Exchange Commission. 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

cannot assure that such expectations will prove correct. These forward-looking statements should not be relied upon as representing our views as of any date after the date of this press release.

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