

August 14, 2023



# Trevena Reports Second Quarter 2023 Results and Provides Business Update

*Company announces database lock for TRV045 proof-of-concept TMS study evaluating potential for use in epilepsy; topline data expected 3Q 2023*

*TRV045 proof-of-concept study evaluating potential for use in acute and chronic pain advancing with topline data expected 3Q 2023*

*New respiratory data from VOLITION ~200 patient real-world outcomes study, using continuous respiratory monitoring, expected 3Q 2023*

*Company previously announced results of ARTEMIS study in which OLINVYK-treated patients had a statistically significant ~\$8,750 (19%) lower cost per admission and ~1.4 day (20%) reduced average length of hospital stay, compared to matched patients treated with other IV opioids*

*Company previously announced \$3 million milestone payment from Jiangsu Nhwa Pharmaceutical; anticipates receipt of additional \$15 million non-dilutive tranche from R-Bridge 3Q 2023*

CHESTERBROOK, Pa., Aug. 14, 2023 (GLOBE NEWSWIRE) -- Trevena, Inc. (Nasdaq: TRVN), a biopharmaceutical company focused on the development and commercialization of novel medicines for patients with central nervous system (CNS) disorders, today reported its financial results for the second quarter ended June 30, 2023 and provided an overview of its recent operational highlights.

"This is an exciting time for Trevena as we near completion of proof-of-concept studies evaluating the potential for use of TRV045 in both epilepsy and pain," said Carrie Bourdow, President and CEO of Trevena. "We anticipate achieving a range of other milestones in Q3, including new respiratory data for OLINVYK and receipt of a non-dilutive \$15 million tranche from our ex-US royalty based financing. We look forward to updating you as these developments occur."

## Second Quarter 2023 and Recent Corporate Highlights

- **Two TRV045 proof-of-concept studies near completion, exploring the potential for use in epilepsy and pain.** TRV045 is a novel S1P modulator selective for the S1P receptor subtype 1. The TRV045 Transcranial Magnetic Stimulation (TMS) Study has achieved database lock. The study is a randomized, double-blind, placebo-controlled, two-way cross-over, multiple dose study designed to evaluate the pharmacodynamic effects of TRV045 on cortical excitability in healthy male adults, using both EMG and EEG to measure brain function. The TRV045 Target Engagement study is a randomized, double-blind, placebo-controlled, four-way cross-over study designed to build on the nonclinical evidence of anti-inflammatory signaling and a potential

disease-modifying effect of TRV045.

The Company expects to announce data from each study in 3Q 2023. Subjects were enrolled at study sites outside of the United States and the studies are not being conducted under the Investigational New Drug Application (IND) for TRV045.

- **New respiratory data from ~200 patient VOLITION real-world outcomes study using continuous respiratory monitoring expected 3Q 2023.** The Company previously reported initial topline GI and delirium data from the VOLITION study, a real-world, open-label, multi-site study led by clinical outcomes research experts from Cleveland Clinic and Wake Forest Baptist Health Medical Center. The respiratory data from the VOLITION study will continue to add to our clinical understanding of OLINVYK in a real-world setting.
- **Previously announced Electronic Medical Records (EMR) data from the ARTEMIS study.** The Company recently reported data demonstrating OLINVYK-treated patients (n=201) had a statistically significant ~\$8,750 (19%) lower cost per admission and ~1.4 day (20%) reduced average length of hospital stay, compared to matched patients treated with other IV opioids (n=982). There was no statistically significant difference in the average duration of time in the post-anesthesia care unit (PACU). The study utilized client and health resource outcomes data from the Cleveland Clinic and Wake Forest Baptist Health. While an EMR analysis does not provide definitive data regarding group differences, as seen in a prospectively randomized study, the Company believes the EMR data bring a unique perspective to understanding how drugs may perform in the real world.
- **Previously announced receipt of \$3 million milestone payment for Chinese approval of OLINVYK; Company anticipates additional \$15 million non-dilutive financing tranche in 3Q 2023.** The Company recently reported receipt of a \$3 million milestone payment from its partner in China for the Chinese approval of OLINVYK. Jiangsu Nhwa Pharmaceutical Co. Ltd. (Nhwa) holds an exclusive license agreement to develop, manufacture, and commercialize OLINVYK in China. The Company also anticipates the receipt of a \$15 million non-dilutive financing tranche in 3Q 2023, in connection with its ex-US royalty based financing with R-Bridge.

## Financial Results for Second Quarter 2023

For the second quarter of 2023, the Company reported net revenue of \$3.0 million, and a net loss attributable to common stockholders of \$8.0 million, or \$0.69 per share, compared to \$15.0 million, or \$2.26 per share in the second quarter of 2022.

Cash and cash equivalents were \$28.1 million as of June 30, 2023, which the Company believes will be sufficient to fund the Company's operating expenses and capital expenditure requirements into 2024. This cash balance does not include a \$15 million non-dilutive tranche from the R-Bridge Financing that the Company anticipates receiving in the third quarter of 2023.

## About OLINVYK<sup>®</sup> (oliceridine) injection

OLINVYK is a new chemical entity approved by the FDA in August 2020. OLINVYK contains

oliceidine, an opioid, which is a Schedule II controlled substance with a high potential for abuse similar to other opioids. It is indicated in adults for the management of acute pain severe enough to require an intravenous opioid analgesic and for whom alternative treatments are inadequate. OLINVYK is available in 1 mg/1 mL and 2 mg/2 mL single-dose vials, and a 30 mg/30 mL single-patient-use vial for patient-controlled analgesia (PCA). Approved PCA doses are 0.35 mg and 0.5 mg and doses greater than 3 mg should not be administered. The cumulative daily dose should not exceed 27 mg. Please see Important Safety Information, including the BOXED WARNING, and full prescribing information at [www.OLINVYK.com](http://www.OLINVYK.com).

## **IMPORTANT SAFETY INFORMATION**

### **WARNING: ADDICTION, ABUSE, AND MISUSE; LIFE-THREATENING RESPIRATORY DEPRESSION; NEONATAL OPIOID WITHDRAWAL SYNDROME; and RISKS FROM CONCOMITANT USE WITH BENZODIAZEPINES OR OTHER CENTRAL NERVOUS SYSTEM (CNS) DEPRESSANTS**

**ADDICTION, ABUSE, AND MISUSE** – OLINVYK exposes patients and other users to the risks of opioid addiction, abuse, and misuse, which can lead to overdose and death. Assess each patient's risk before prescribing OLINVYK, and monitor all patients regularly for the development of behaviors or conditions.

**LIFE-THREATENING RESPIRATORY DEPRESSION** – Serious, life-threatening, or fatal respiratory depression may occur with use of OLINVYK. Monitor for respiratory depression, especially during initiation of OLINVYK or following a dose increase.

**NEONATAL OPIOID WITHDRAWAL SYNDROME** – Prolonged use of OLINVYK during pregnancy can result in neonatal opioid withdrawal syndrome, which may be life-threatening if not recognized and treated, and requires management according to protocols developed by neonatology experts. If opioid use is required for a prolonged period in a pregnant woman, advise the patient of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available.

**RISK FROM CONCOMITANT USE WITH BENZODIAZEPINES OR OTHER CNS DEPRESSANTS** – Concomitant use of opioids with benzodiazepines or other CNS depressants, including alcohol, may result in profound sedation, respiratory depression, coma, and death. Reserve concomitant prescribing for use in patients for whom alternative treatment options are inadequate; limit dosages and durations to the minimum required; and follow patients for signs and symptoms of respiratory depression and sedation.

## **INDICATIONS AND USAGE**

OLINVYK is an opioid agonist indicated in adults for the management of acute pain severe enough to require an intravenous opioid analgesic and for whom alternative treatments are inadequate.

### **Limitations of Use**

Because of the risks of addiction, abuse, and misuse with opioids, even at recommended doses, reserve OLINVYK for use in patients for whom alternative treatment options [e.g.,

non-opioid analgesics or opioid combination products]:

- Have not been tolerated, or are not expected to be tolerated
- Have not provided adequate analgesia, or are not expected to provide adequate analgesia.

The cumulative total daily dose should not exceed 27 mg, as total daily doses greater than 27 mg may increase the risk for QTc interval prolongation.

## **CONTRAINDICATIONS**

OLINVYK is contraindicated in patients with:

- Significant respiratory depression
- Acute or severe bronchial asthma in an unmonitored setting or in the absence of resuscitative equipment
- Known or suspected gastrointestinal obstruction, including paralytic ileus
- Known hypersensitivity to oliceridine (e.g., anaphylaxis)

## **WARNINGS AND PRECAUTIONS**

- OLINVYK contains oliceridine, a Schedule II controlled substance, that exposes users to the risks of addiction, abuse, and misuse. Although the risk of addiction in any individual is unknown, it can occur in patients appropriately prescribed OLINVYK. Assess risk, counsel, and monitor all patients receiving opioids.
- Serious, life-threatening respiratory depression has been reported with the use of opioids, even when used as recommended, especially in patients with chronic pulmonary disease, or in elderly, cachectic and debilitated patients. The risk is greatest during initiation of OLINVYK therapy, following a dose increase, or when used with other drugs that depress respiration. Proper dosing of OLINVYK is essential, especially when converting patients from another opioid product to avoid overdose. Management of respiratory depression may include close observation, supportive measures, and use of opioid antagonists, depending on the patient's clinical status.
- Opioids can cause sleep-related breathing disorders including central sleep apnea (CSA) and sleep-related hypoxemia with risk increasing in a dose-dependent fashion. In patients who present with CSA, consider decreasing the dose of opioid using best practices for opioid taper.
- Prolonged use of opioids during pregnancy can result in withdrawal in the neonate that may be life-threatening. Observe newborns for signs of neonatal opioid withdrawal syndrome and manage accordingly. Advise pregnant women using OLINVYK for a prolonged period of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available.
- Profound sedation, respiratory depression, coma, and death may result from the concomitant use of OLINVYK with benzodiazepines or other CNS depressants (e.g., non-benzodiazepine sedatives/hypnotics, anxiolytics, tranquilizers, muscle relaxants, general anesthetics, antipsychotics, other opioids, or alcohol). Because of these risks, reserve concomitant prescribing of these drugs for use in patients for whom alternative treatment options are inadequate, prescribe the lowest effective dose, and minimize the duration.
- OLINVYK was shown to have mild QTc interval prolongation in thorough QT studies

where patients were dosed up to 27 mg. Total cumulative daily doses exceeding 27 mg per day were not studied and may increase the risk for QTc interval prolongation. Therefore, the cumulative total daily dose of OLINVYK should not exceed 27 mg.

- Increased plasma concentrations of OLINVYK may occur in patients with decreased Cytochrome P450 (CYP) 2D6 function or normal metabolizers taking moderate or strong CYP2D6 inhibitors; also in patients taking a moderate or strong CYP3A4 inhibitor, in patients with decreased CYP2D6 function who are also receiving a moderate or strong CYP3A4 inhibitor, or with discontinuation of a CYP3A4 inducer. These patients may require less frequent dosing and should be closely monitored for respiratory depression and sedation at frequent intervals. Concomitant use of OLINVYK with CYP3A4 inducers or discontinuation of a moderate or strong CYP3A4 inhibitor can lower the expected concentration, which may decrease efficacy, and may require supplemental doses.
- Cases of adrenal insufficiency have been reported with opioid use (usually greater than one month). Presentation and symptoms may be nonspecific and include nausea, vomiting, anorexia, fatigue, weakness, dizziness, and low blood pressure. If confirmed, treat with physiologic replacement doses of corticosteroids and wean patient from the opioid.
- OLINVYK may cause severe hypotension, including orthostatic hypotension and syncope in ambulatory patients. There is increased risk in patients whose ability to maintain blood pressure has already been compromised by a reduced blood volume or concurrent administration of certain CNS depressant drugs (e.g., phenothiazines or general anesthetics). Monitor these patients for signs of hypotension. In patients with circulatory shock, avoid the use of OLINVYK as it may cause vasodilation that can further reduce cardiac output and blood pressure.
- Avoid the use of OLINVYK in patients with impaired consciousness or coma. OLINVYK should be used with caution in patients who may be susceptible to the intracranial effects of CO<sub>2</sub> retention, such as those with evidence of increased intracranial pressure or brain tumors, as a reduction in respiratory drive and the resultant CO<sub>2</sub> retention can further increase intracranial pressure. Monitor such patients for signs of sedation and respiratory depression, particularly when initiating therapy.
- As with all opioids, OLINVYK may cause spasm of the sphincter of Oddi, and may cause increases in serum amylase. Monitor patients with biliary tract disease, including acute pancreatitis, for worsening symptoms.
- OLINVYK may increase the frequency of seizures in patients with seizure disorders and may increase the risk of seizures in vulnerable patients. Monitor patients with a history of seizure disorders for worsened seizure control.
- Do not abruptly discontinue OLINVYK in a patient physically dependent on opioids. Gradually taper the dosage to avoid a withdrawal syndrome and return of pain. Avoid the use of mixed agonist/antagonist (e.g., pentazocine, nalbuphine, and buprenorphine) or partial agonist (e.g., buprenorphine) analgesics in patients who are receiving OLINVYK, as they may reduce the analgesic effect and/or precipitate withdrawal symptoms.
- OLINVYK may impair the mental or physical abilities needed to perform potentially hazardous activities such as driving a car or operating machinery.
- Although self-administration of opioids by patient-controlled analgesia (PCA) may allow each patient to individually titrate to an acceptable level of analgesia, PCA administration has resulted in adverse outcomes and episodes of respiratory

depression. Health care providers and family members monitoring patients receiving PCA analgesia should be instructed in the need for appropriate monitoring for excessive sedation, respiratory depression, or other adverse effects of opioid medications.

## **ADVERSE REACTIONS**

Adverse reactions are described in greater detail in the Prescribing Information.

The most common (incidence  $\geq 10\%$ ) adverse reactions in Phase 3 controlled clinical trials were nausea, vomiting, dizziness, headache, constipation, pruritus, and hypoxia.

## **MEDICAL INFORMATION**

For medical inquiries or to report an adverse event, other safety-related information or product complaints for a company product, please contact the Trevena Medical Information Contact Center at **1-844-465-4686** or email [MedInfo@Trevena.com](mailto:MedInfo@Trevena.com).

You are encouraged to report suspected adverse events of prescription drugs to the FDA. Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch) or call **1-800-FDA-1088**.

[Please see Full Prescribing Information, including Boxed Warning](#)

### **About TRV045**

TRV045 is a novel, selective sphingosine-1-phosphate subtype 1 (S1P<sub>1</sub>) receptor modulator being developed as a potential treatment for acute and chronic neuropathic pain secondary to diabetic peripheral neuropathy. Through a collaboration with the National Institutes of Health, Trevena is also exploring TRV045 as a potential treatment for epilepsy.

S1P receptors are located throughout the body, including the central nervous system, where they are believed to play a role in modulating neurotransmission and membrane excitability.

Trevena's discovery efforts have identified a family of compounds that are highly selective for the S1P<sub>1</sub> receptor. TRV045 reversed thermal hyperalgesia, a measure of neuropathic pain, in nonclinical models of diabetic peripheral neuropathy and chemotherapy-induced peripheral neuropathy. TRV045 was not associated with lymphopenia and produced no changes in blood pressure, heart rate, or respiratory function at or above pharmacologically active doses in nonclinical studies. TRV045 is an investigational product and is not yet approved by the FDA.

### **About Trevena**

Trevena, Inc. is a biopharmaceutical company focused on the development and commercialization of innovative medicines for patients with CNS disorders. The Company has one approved product in the United States, OLINVYK<sup>®</sup> (oliceridine) injection, indicated in adults for the management of acute pain severe enough to require an intravenous opioid analgesic and for whom alternative treatments are inadequate. The Company's novel pipeline is based on Nobel Prize winning research and includes three differentiated investigational drug candidates: TRV045 for diabetic neuropathic pain and epilepsy, TRV250

for the acute treatment of migraine and TRV734 for maintenance treatment of opioid use disorder.

For more information, please visit [www.Trevena.com](http://www.Trevena.com).

### **Forward-Looking Statements**

Any statements in this press release about future expectations, plans and prospects for the Company, including statements about the Company's strategy, future operations, clinical development and trials of its therapeutic candidates, plans for potential future product candidates and other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "suggest," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: the status, timing, costs, results and interpretation of the Company's clinical trials or any future trials of any of the Company's investigational drug candidates; the uncertainties inherent in conducting clinical trials; expectations for regulatory interactions, submissions and approvals, including the Company's assessment of discussions with FDA; available funding; uncertainties related to the Company's intellectual property; other matters that could affect the availability or commercial potential of the Company's therapeutic candidates and approved product; and other factors discussed in the Risk Factors set forth in the Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q filed with the Securities and Exchange Commission (SEC) and in other filings the Company makes with the SEC from time to time. In addition, the forward-looking statements included in this press release represent the Company's views only as of the date hereof. The Company anticipates that subsequent events and developments may cause the Company's views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so, except as may be required by law.

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**TREVENA, INC.**

## Condensed Statements of Operations

(Unaudited, in thousands except share and per share data)

	Three Months Ended Jun 30,		Six Months Ended Jun 30,	
	2023	2022	2023	2022
Product revenue	\$ 21	\$ -	\$ 27	\$ -
License revenue	3,000	-	3,000	20
Total revenue	3,021	-	3,027	20
Operating expenses:				
Cost of goods sold	88	216	214	423
Selling, general and administrative	5,138	10,306	11,227	21,320
Research and development	3,991	4,291	7,900	9,550
Total operating expenses	9,217	14,813	19,341	31,293
Loss from operations	minus(6,196)	minus(14,813)	minus(16,314)	minus(31,273)
Other income	minus(1,816)	minus(168)	483	minus(97)
Net loss	\$minus(8,012)	\$minus(14,981)	\$minus(15,831)	\$minus(31,370)
Per share information:				
Net loss per share of common stock, basic and diluted	\$ minus(0.69)	\$ minus(2.26)	\$ minus(1.49)	\$ minus(4.74)
Weighted average shares outstanding, basic and diluted	11,580,128	6,621,083	10,592,586	6,620,942

## TREVENA, INC.

### Condensed Balance Sheets

(Unaudited, in thousands)

	June 30, 2023	December 31, 2022
<b>Assets</b>		
Current assets:		



Cash and cash equivalents	\$	28,097	\$	38,320
Inventories		901		906
Prepaid expenses and other current assets		3,972		1,782
Total current assets		32,970		41,008
Restricted cash		540		1,960
Property and equipment, net		1,343		1,488
Right-of-use lease assets		3,955		4,224
Other assets		51		-
Total assets	\$	38,859	\$	48,680

### **Liabilities and stockholders' equity**

#### **Current liabilities:**

Accounts payable, net	\$	2,527	\$	2,372
Accrued expenses and other current liabilities		4,695		5,461
Current portion of lease liabilities		954		899
Total current liabilities		8,176		8,732
Loans payable, net		14,176		13,430
Leases, net of current portion		4,946		5,436
Warrant liability		1,779		5,483
Total liabilities		29,077		33,081

Common stock		14		8
Additional paid-in capital		573,371		563,362
Accumulated deficit		minus(563,603)		minus(547,772)
Accumulated other comprehensive income (loss)		-		1
Total stockholders' equity		9,782		15,599
Total liabilities and stockholders' equity	\$	38,859	\$	48,680



Source: Trevena, Inc.