



## HARMONY BIOSCIENCES ANNOUNCES PUBLICATION OF DATA IN SLEEP FROM TWO CLINICAL STUDIES OF WAKIX® (PITOLISANT)

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### Studies evaluated the human abuse potential and long-term safety and efficacy of WAKIX

**PLYMOUTH MEETING, PA, November 20, 2019** —Harmony Biosciences, LLC (Harmony) announced today that data from two clinical studies evaluating the long-term safety and efficacy, as well as the human abuse potential of WAKIX® (pitolisant), have been published in *SLEEP*. WAKIX is a first-in-class medication with a novel mechanism of action and is approved for the treatment of excessive daytime sleepiness (EDS) in adult patients with narcolepsy. It is the first and only U.S. Food and Drug Administration (FDA) approved product for patients with narcolepsy that is not scheduled as a controlled substance by the U.S. Drug Enforcement Administration (DEA).

The manuscripts published in *SLEEP* are as follows:

- [Long-term use of pitolisant to treat patients with narcolepsy: HARMONY III Study](#)
  - An open-label, long-term (up to five years) study of pitolisant in patients with narcolepsy. The manuscript focuses on findings from a one-year analysis that assessed the long-term safety and efficacy of pitolisant in the treatment of excessive daytime sleepiness and cataplexy in adult patients with narcolepsy.
- [Evaluation of the abuse potential of pitolisant, a selective H3-receptor antagonist/inverse agonist, for the treatment of adult patients with narcolepsy with or without cataplexy](#)
  - Results from a randomized, double-blind, active- and placebo-controlled, four-sequence, four-way crossover study which evaluated the human abuse potential of single-dose pitolisant compared with the stimulant phentermine HCl (C-IV) and placebo in non-dependent, recreational stimulant users.

“We are pleased to see these data, which support the benefit/risk profile of WAKIX, published in *SLEEP*,” said Harmony’s Chief Medical Officer, Jeffrey Dayno, M.D. “These publications will provide healthcare professionals additional scientific evidence in support of WAKIX, including information on long-term safety and efficacy, as well as data on its lack of abuse potential, both of which are important considerations when treating people who live with narcolepsy.”

Data from both studies were also presented at the recent World Sleep 2019 meeting in Vancouver, Canada.

### About WAKIX (pitolisant)

WAKIX is a first-in-class medication approved by the U.S. Food and Drug Administration in August 2019 for the treatment of excessive daytime sleepiness in adult patients with narcolepsy. It was granted orphan drug designation for the treatment of narcolepsy in 2010. WAKIX is a selective histamine 3 (H<sub>3</sub>) receptor antagonist/inverse agonist. The mechanism of action of WAKIX is unclear; however, its efficacy could be mediated through its activity at H<sub>3</sub> receptors, thereby increasing the synthesis and release of histamine, a wake promoting neurotransmitter. WAKIX was designed and developed by Bioprojet Societe Civile de Recherche (Bioprojet), who has marketed the product in Europe since its approval by the European Medicines Agency in 2016. Harmony has an exclusive license from Bioprojet to develop, manufacture and commercialize pitolisant in the United States.

### INDICATIONS AND USAGE

WAKIX is indicated for the treatment of excessive daytime sleepiness (EDS) in adult patients with narcolepsy.

### IMPORTANT SAFETY INFORMATION

#### Contraindications

WAKIX is contraindicated in patients with severe hepatic impairment.

#### Warnings and Precautions

WAKIX prolongs the QT interval; avoid use of WAKIX in patients with known QT prolongation or in combination with other drugs known to prolong the QT interval. Avoid use in patients with a history of cardiac arrhythmias, as well as other circumstances that may increase the risk of the occurrence of torsade de pointes or sudden death, including symptomatic bradycardia, hypokalemia or hypomagnesemia, and the presence of congenital prolongation of the QT interval.

The risk of QT prolongation may be greater in patients with hepatic or renal impairment due to higher concentrations of pitolisant; monitor these patients for increased QTc. Dosage modification is recommended in patients with moderate hepatic impairment and moderate or severe renal impairment (see full prescribing information). WAKIX is not recommended in patients with end-stage renal disease (ESRD).

### **Adverse Reactions**

In the placebo-controlled clinical trials conducted in patients with narcolepsy with or without cataplexy, the most common adverse reactions ( $\geq 5\%$  and twice placebo) for WAKIX were insomnia (6%), nausea (6%), and anxiety (5%). Other adverse reactions that occurred at  $\geq 2\%$  and more frequently than in patients treated with placebo included headache, upper respiratory infection, musculoskeletal pain, heart rate increased, hallucinations, irritability, abdominal pain, sleep disturbance, decreased appetite, cataplexy, dry mouth, and rash.

### **Drug Interactions**

Concomitant administration of WAKIX with strong CYP2D6 inhibitors increases pitolisant exposure by 2.2-fold. Reduce the dose of WAKIX by half.

Concomitant use of WAKIX with strong CYP3A4 inducers decreases exposure of pitolisant by 50%. Dosage adjustments may be required (see full prescribing information).

H1 receptor antagonists that cross the blood-brain barrier may reduce the effectiveness of WAKIX. Patients should avoid centrally acting H1 receptor antagonists.

WAKIX is a borderline/weak inducer of CYP3A4. Therefore, reduced effectiveness of sensitive CYP3A4 substrates may occur when used concomitantly with WAKIX. The effectiveness of hormonal contraceptives may be reduced when used with WAKIX and effectiveness may be reduced for 21 days after discontinuation of therapy.

### **Use in Specific Populations**

WAKIX may reduce the effectiveness of hormonal contraceptives. Patients using hormonal contraception should be advised to use an alternative non-hormonal contraceptive method during treatment with WAKIX and for at least 21 days after discontinuing treatment.

There is a pregnancy exposure registry that monitors pregnancy outcomes in women who are exposed to WAKIX during pregnancy. Patients should be encouraged to enroll in the WAKIX pregnancy registry if they become pregnant. To enroll or obtain information from the registry, patients can call 1 800-833-7460.

The safety and effectiveness of WAKIX have not been established in patients less than 18 years of age.

WAKIX is extensively metabolized by the liver. WAKIX is contraindicated in patients with severe hepatic impairment. Dosage adjustment is required in patients with moderate hepatic impairment.

WAKIX is not recommended in patients with end-stage renal disease. Dosage adjustment of WAKIX is recommended in patients with moderate or severe renal impairment.

Dosage reduction is recommended in patients known to be poor CYP2D6 metabolizers; these patients have higher concentrations of WAKIX than normal CYP2D6 metabolizers.

Please see the [Full Prescribing Information](#) for WAKIX for more information.

To report suspected adverse reactions, contact Harmony Biosciences, LLC at 1-800-833-7460 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).

### **About Narcolepsy**

Narcolepsy is a rare, chronic, debilitating neurologic disorder of sleep-wake state instability that impacts up to 200,000 Americans and is primarily characterized by excessive daytime sleepiness (EDS) and cataplexy – its two cardinal symptoms – along with other manifestations of REM sleep dysregulation, which intrude into wakefulness. EDS is the inability to stay awake and alert during the day and is the symptom that is present in all people living with narcolepsy. In most patients, narcolepsy is caused by the loss of hypocretin, a neuropeptide in the brain that supports sleep-wake state stability. This disorder affects men and women equally, with typical symptom onset in adolescence or young adulthood; however, it can take up to a decade to be properly diagnosed.

### **Harmony Biosciences, LLC**

Harmony Biosciences, LLC, is a private biopharmaceutical company headquartered in Plymouth Meeting, PA. The company was established in October 2017 with a vision to provide novel treatment options for people living with rare and orphan diseases, with an emphasis on central nervous system disorders, starting with patients living with narcolepsy. Harmony Biosciences is committed to advancing the understanding of narcolepsy and providing information and resources to both the individuals who live with this disorder, and to the healthcare professionals who treat them. For more information on Harmony Biosciences, visit [www.harmonybiosciences.com](http://www.harmonybiosciences.com).

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