Osmotica Pharmaceuticals plc Receives FDA Approval for Upneeq™ (oxymetazoline hydrochloride ophthalmic solution), 0.1% for Acquired Blepharoptosis (Droopy Eyelid) in Adults

July 9, 2020

-- First and only FDA-approved pharmacologic treatment for acquired blepharoptosis --

-- Company to host Investor Call at 10:00 a.m. ET today to discuss approval, key elements of the clinical data and commercial plans --

BRIDGEWATER, N.J, July 09, 2020 (GLOBE NEWSWIRE) -- Osmotica Pharmaceuticals plc (Nasdaq: OSMT) ("Osmotica" or the "Company"), a fully integrated biopharmaceutical company, announced today that the U.S. Food and Drug Administration (FDA) has approved Upneeq (oxymetazoline hydrochloride ophthalmic solution), 0.1%, formerly known as RVL-1201, its novel treatment for acquired blepharoptosis, or ptosis, a condition characterized by the abnormal drooping of the upper eyelid that can limit field of vision. Upneeq becomes the only FDA-approved medical treatment for ptosis.

The Company believes that millions of people have ptosis in the United States alone, and an even larger population may be affected in Europe, Japan and China. One study comprising adults over the age of 50 indicates prevalence of ptosis is ~11.5% of adult patients over the age of 50[1]. Upneeq is a safe and effective, first-in-class treatment for acquired ptosis, which often results from a partial or complete dysfunction of Müller's muscle, which in conjunction with the Levator superioris, elevates the eyelid. Upneeq demonstrated statistically significant improvements compared to placebo in both superior visual field, as measured by the Leicester Peripheral Field Test (LPFT), and eyelid lift, as measured by the Marginal Reflex Distance Test (MRD-1) in two pivotal double-masked efficacy studies. A third pivotal safety study successfully showed that Upneeq was well tolerated when administered once daily in the morning (to both eyes) over a 12-week period. The majority of adverse events were mild and self-limited.

"With the approval of Upneeq, eye care specialists now have a safe and convenient non-surgical option to treat their patients who have ptosis. Upneeq has garnered a great deal of interest from ophthalmic physicians and key opinion leaders, or KOLs, and we are prepared to commercialize Upneeq and engage providers through our medical education outreach. We look forward to launching Upneeq through our subsidiary, RVL Pharmaceuticals, Inc., and ensuring its widespread availability through the Company's pharmacy," stated Brian Markison, Chief Executive Officer.

"Upneeq's safety and efficacy profile and its once-a-day dosing provides a significant ophthalmic therapeutic innovation. Given the previous absence of any approved medical treatment options, ptosis has been often under-diagnosed or overlooked. Upneeq has the potential to address a significant unmet need in ptosis therapy," stated Tina deVries, Ph.D., Executive Vice President, Research and Development.

"This approval marks a critical milestone for Osmotica, as we continue to execute our corporate strategy. Looking ahead, we see Upneeq as a significant growth catalyst and an important opportunity to bring value to our shareholders while addressing a significant unmet medical need with a first-in-class product," concluded Markison.

Osmotica plans to make Upneeq commercially available next month to a selected group of ophthalmologists and optometrists through an early experience program.

The Company remains actively engaged in discussions with ex-U.S. partners to commercialize Upneeq in markets beyond the U.S.

Clinical Studies

Results from Upneeq's initial Phase III efficacy clinical trial showed that the formulation met its primary efficacy endpoints, which were a change in baseline visual field as measured by the LPFT, on Hour 6, Day 1 ($p=0.0003$) and Hour 2, Day 14 ($p< 0.0001$). Patients who received Upneeq once daily experienced a statistically significant improvement in visual field when compared to the placebo group. The 2:1 randomized, double-masked, placebo-controlled study was comprised of 140 patients with acquired blepharoptosis split into two treatment groups for 42 days.

Upneeq was well tolerated by patients in this clinical trial when administered once daily over a six-week period. There were no serious adverse events identified from treatment with Upneeq in this Phase III clinical trial.

The second Phase III efficacy trial was a six-week randomized, multicenter, double-masked, placebo-controlled study to evaluate the safety and efficacy of once-daily treatment of Upneeq compared with placebo for the treatment of acquired blepharoptosis. The primary endpoint for both trials was a measurement of the mean change from baseline of the number of points seen out of a total of 35 in the top four rows of the LPFT as measured in two time points: Hour 6, Day 1 and Hour 2, day 14. The secondary endpoint was a measurement of the distance between the center of the pupillary light reflex and the upper eyelid margin, or MRD-1. Topline results from the second Phase III efficacy trial showed that the trial met both the primary and secondary endpoints. The mean change from baseline on the LPFT on Hour 6, Day 1 was 6.3 for Upneeq versus 2.1 for vehicle ($p < 0.0001$) and on Hour 2, Day 14 was 7.7 for Upneeq versus 2.4 for vehicle ($p < 0.0001$). The results also showed a statistically significant improvement in MRD-1 at 5 and 15 minutes, and 2 and 6 hours post dose on days 1 and 14. The Company also completed a 12-week randomized, multicenter, double-masked, placebo controlled safety study to evaluate the safety of Upneeq compared with vehicle for the treatment of acquired blepharoptosis.

The Company will host a conference call as follows:

Date	Thursday, July 9, 2020
Time	10:00 a.m. ET
Toll free (U.S.)	(866) 672-5029
International	(409) 217-8312
Conference ID	7335925

Webcast (live and replay) www.osmotica.com under the "Investor & News" section

IMPORTANT SAFETY INFORMATION
UPNEEQ™ (oxymetazoline hydrochloride ophthalmic solution), 0.1% is indicated for the treatment of acquired blepharoptosis in adults.

WARNINGS AND PRECAUTIONS

- Alpha-adrenergic agonists as a class may impact blood pressure. Advise UPNEEQ patients with cardiovascular disease, orthostatic hypotension, and/or uncontrolled hypertension or hypotension to seek medical care if their condition worsens.
- Use UPNEEQ with caution in patients with cerebral or coronary insufficiency or Sjögren's syndrome. Advise patients to seek medical care if signs and symptoms of potentiation of vascular insufficiency develop.
- UPNEEQ may increase the risk of angle closure glaucoma in patients with untreated narrow-angle glaucoma. Advise patients to seek immediate medical care if signs and symptoms of acute narrow-angle glaucoma develop.
- Patients should not to touch the tip of the single patient-use container to their eye or to any surface, in order to avoid eye injury or contamination of the solution.

ADVERSE REACTIONS
Adverse reactions that occurred in 1-5% of subjects treated with UPNEEQ were punctate keratitis, conjunctival hyperemia, dry eye, blurred vision, instillation site pain, eye irritation and headache.

DRUG INTERACTIONS

- Alpha-adrenergic agonists, as a class, may impact blood pressure. Caution in using drugs such as beta-blockers, anti-hypertensives, and/or cardiac glycosides is advised. Caution should also be exercised in patients receiving alpha adrenergic receptor antagonists such as in the treatment of cardiovascular disease, or benign prostatic hypertrophy.
- Caution is advised in patients taking monoamine oxidase inhibitors which can affect the metabolism and uptake of circulating amines.

About Acquired Blepharoptosis

Acquired blepharoptosis, also known as ptosis, or droopy eyelid, is a unilateral or bilateral drooping of the upper eyelid that usually occurs from a partial or complete dysfunction of the muscles that elevate the upper eyelid. It can generally be classified as congenital or acquired, with the most common type being age-related aponeurotic ptosis. The current standard of care is surgery, which is often reserved only for severe cases.

About Upneeq

Upneeq (oxymetazoline hydrochloride ophthalmic solution), 0.1% is a novel, once-daily ophthalmic formulation of oxymetazoline, a direct-acting alpha adrenergic receptor agonist, which when administered to the eye, is believed to selectively target Müller's muscle and elevate the upper eyelid. Upneeq is the first and only FDA-approved pharmacologic treatment indicated for the treatment of acquired blepharoptosis (ptosis, or droopy eyelid).

About Osmotica Pharmaceuticals plc

Osmotica Pharmaceuticals plc (Nasdaq: OSMT) is a fully integrated biopharmaceutical company focused on the development and commercialization of specialty products that target markets with underserved patient populations. The company has a diverse portfolio consisting of four promoted products and approximately 30 non-promoted products, several of which incorporate Osmotica's proprietary Osmodex ® drug delivery system. RVL Pharmaceuticals, Inc. is the Company's ophthalmic subsidiary supporting Upneeq. Vertical Pharmaceuticals, LLC represents the Company's diversified branded portfolio and Trigen Laboratories, LLC represents the Company's non-promoted products, including complex generic formulations.

Osmotica has operations in the United States, Argentina, and Hungary.

Investor and Media Relations for Osmotica Pharmaceuticals plc
Lisa M. Wilson
In-Site Communications, Inc.
T: 212-452-2793
E: lwilson@insitecony.com

[1] A Community Survey of Ptosis of the Eyelid and Pupil Size of Elderly People. G. V. SRIDHARAN, R. C. TALLIS, B. LEATHERBARROW, W. M. FORMAN.

Source: Osmotica Holdings US LLC