February 5, 2024

Ocuphire Pharma Announces Presentation on APX3330 at the Annual Angiogenesis, Exudation, and Degeneration 2024 Conference

FARMINGTON HILLS, Mich., Feb. 05, 2024 (GLOBE NEWSWIRE) -- Ocuphire Pharma, Inc. (Nasdaq: OCUP), a clinical-stage ophthalmic biopharmaceutical company focused on developing and commercializing small-molecule therapies for the treatment of retinal and refractive eye disorders, today announced that clinical data from its ZETA-1 trial on a person-level scale evaluating APX3330 in diabetic retinopathy (DR) were presented at the 21st Annual Angiogenesis, Exudation, and Degeneration 2024 Conference, which took place virtually on Saturday, February 3, 2024. The presentation, titled *APX3330 Oral Treatment to Slow the Progression of Diabetic Retinopathy Using a Binocular DRSS Severity Scale as a Registrational Endpoint*, was delivered by Veeral Sheth, M.D., M.B.A., a practicing retina specialist at University Retina, and Clinical Assistant Professor at the University of Illinois.

Presentation Highlights

- Dr. Sheth reviewed the current treatment paradigm for diabetic retinopathy. The majority of patients who are diagnosed have non-proliferative diabetic retinopathy (NPDR), but there is a high likelihood of progression to proliferative diabetic retinopathy (PDR) over time. Most physicians today use a “Wait and Monitor” approach for NPDR. Early intervention, therefore, remains an important unmet need.
- ZETA-1 was a Phase 2 trial of oral APX3330 in DR. It was a multi-center, randomized, double-masked, placebo-controlled trial that enrolled 103 subjects. Topline results were announced by Ocuphire in January 2023.
- In November, a successful end-of-phase 2 meeting outcome was announced with an agreement on Phase 3 primary endpoint of 3-step worsening on a binocular 17-step person-level scale using the Diabetic Retinopathy Severity Scale (DRSS)
- Analysis of ZETA-1 Phase 2 results using the person-level scale, showed only 5% of subjects treated with APX3330 had a clinically meaningful ≥ 3-step worsening in DRSS at Week 24 on this binocular person-level scale, compared with 13% of placebo patients (p=0.18).
- APX3330 showed favorable safety and tolerability in diabetic patients that continued dosing their medications through the study durations to manage their diabetic comorbidities.

“Ocuphire was pleased to present at the 21st annual Angiogenesis meeting highlighting the reduction of DR worsening with 24 weeks of oral APX3330 treatment when measured on the FDA agreed upon registration endpoint of a 3-step change on a DRSS person-level scale,”

said George Magrath, M.D., M.B.A, M.S, CEO of Ocuphire. “We plan to finalize the protocol and statistical analysis plan for the Phase 3 program with the FDA through a Special Protocol Assessment submission. Given its favorable safety profile, APX3330 may represent a promising oral treatment option for delaying or preventing disease progression in patients with NPDR who otherwise are monitored and untreated until they progress to sight-threatening disease. We look forward to advancing our oral APX3330 program.”

About Ocuphire Pharma

Ocuphire Pharma, Inc. is a clinical-stage ophthalmic biopharmaceutical company focused on developing and commercializing small-molecule therapies for the treatment of retinal and refractive eye disorders.

Ocuphire’s lead retinal product candidate, APX3330, is a first-in-class small-molecule inhibitor of Ref-1 (reduction oxidation effector factor-1 protein). Ref-1 is a regulator of the transcription factors HIF-1a and NF-kB. Inhibiting REF-1 reduces levels of vascular endothelial growth factor (“VEGF”) and inflammatory cytokines which are known to play key roles in ocular angiogenesis and inflammation. Through inhibition of Ref-1, APX3330 normalizes the levels of VEGF to physiologic levels, unlike biologics that deplete VEGF below the levels required for normal function. APX3330 is an oral tablet to be administered twice per day for the treatment of DR. A Phase 2 study in subjects with DR and an End-of-Phase 2 meeting have recently been completed, and a Special Protocol Assessment is planned to be submitted with the FDA.

DR affects approximately 10 million people with diabetes and is projected to impact over 14 million Americans by 2050. DR is classified as NPDR, the early stage of the disease in which symptoms may be mild or non-existent or PDR, which is the more advanced stage of diabetic eye disease that can be highly symptomatic with loss of vision. Approximately 80% of DR patients have NPDR that will progress to PDR if left untreated. Despite the risk for visual loss associated with this disease, over 90% of NPDR patients currently receive no course of treatment apart from observation by their eye care specialist until they develop sight-threatening complications. This is due to the treatment burden of the frequent eye injections required with currently approved therapies for this disease. APX3330 as an oral tablet has the potential to be an early, non-invasive treatment for the 8 million NPDR patients in the U.S. Treatment with APX3330 is expected to delay or prevent progression of NPDR, thereby reducing the need for expensive intravitreal injections with anti-vascular endothelial growth factor (VEGF) therapies and reducing the likelihood of vision loss due to DR.

Ocuphire has also in-licensed APX2009 and APX2014, which are second-generation analogs of APX3330. The novel mechanism of action of these Ref-1 inhibitors that reduces both angiogenesis and inflammation could potentially be beneficial in treating other retinal diseases such as age-related macular degeneration and geographic atrophy. Ocuphire is currently evaluating local delivery routes in addition to the systemic (oral) route as part of its pipeline expansion in retinal therapies.

Ocuphire has a partnership with Viatris, Inc. to develop and commercialize phentolamine ophthalmic solution 0.75%. Phentolamine is a non-selective alpha-1 and alpha-2 adrenergic antagonist designed to reduce pupil size by uniquely blocking the alpha-1 receptors found on the iris dilator muscle without affecting the ciliary muscle. In September 2023, the FDA approved RYZUMVI™ (phentolamine ophthalmic solution 0.75%) to treat pharmacologically

induced mydriasis produced by adrenergic agonists (e.g., phenylephrine) or parasympatholytic agents (e.g., tropicamide). Phentolamine ophthalmic solution 0.75% is also in Phase 3 clinical development for the treatment of presbyopia and for the treatment of decreased visual acuity in dim light conditions.

For more information, visit www.ocuphire.com.

Forward Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements concerning the End-of-Phase 2 meeting with the FDA to confirm Phase 3 registration endpoints, study parameters for Phase 3 pivotal studies, Phase 3 development, FDA agreement on Special Protocol Assessment, the potential for APX3330 to be the first non-invasive and early treatment to delay or prevent progression to vision-threatening complications. These forward-looking statements are based upon Ocuphire's current expectations and involve assumptions that may never materialize or may prove to be incorrect. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of various risks and uncertainties, including, without limitation: (i) the success and timing of regulatory submissions and pre-clinical and clinical trials, including enrollment and data readouts; (ii) regulatory requirements or developments; (iii) changes to clinical trial designs and regulatory pathways; (iv) changes in capital resource requirements; (v) risks related to the inability of Ocuphire to obtain sufficient additional capital to continue to advance its product candidates and its preclinical programs; (vi) legislative, regulatory, political and economic developments, (vii) changes in market opportunities, (viii) risks that the phentolamine ophthalmic solution partnership may not facilitate the commercialization or market acceptance of Ocuphire's product candidates; (ix) the success and timing of commercialization of any of Ocuphire's product candidates and (x) the maintenance of Ocuphire's intellectual property rights. The foregoing review of important factors that could cause actual events to differ from expectations should not be construed as exhaustive and should be read in conjunction with statements that are included herein and elsewhere, including the risk factors detailed in Ocuphire's most recent Annual Report on Form 10-K and in other filings with the Securities and Exchange Commission (the "SEC"). All forward-looking statements contained in this press release speak only as of the date on which they were made. Ocuphire undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

Contacts

Corporate	Investor Relations
George Magrath M.D., M.B.A., M.S. CEO ir@ocuphire.com	Corey Davis, Ph.D. LifeSci Advisors cdavis@lifesciadvisors.com

Source: Ocuphire Pharma