

Oxurion Announces Preclinical Data on THR-687 for the Treatment of Diabetic Macular Edema at the 2022 Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting

Leuven, BELGIUM, Boston, MA, US – May 3, 2022 – 7:10 PM CET – [Oxurion NV](#) (Euronext Brussels: OXUR), a biopharmaceutical company developing next generation standard of care ophthalmic therapies, with a clinical stage portfolio in vascular retinal disorders, presented preclinical data from a study evaluating THR-687 for treatment of diabetic macular edema (DME) at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting being held in Denver, Colorado on May 1-4th and virtually on May 11-12th.

Preclinical data shows THR-687s potent inhibition of vascular permeability, inflammation and reactive gliosis in diabetic rats supporting evidence of clinical utility of THR-687 in multiple retinal diseases.

THR-687 is a highly selective pan-RGD integrin antagonist that is initially being developed as a potential first line therapy for DME patients and may have the potential to deliver improved treatment outcomes for patients with wet macular degeneration (wet AMD) and macular edema following retinal vein occlusion (ME-RVO). Targeting RGD-binding integrins is known to affect multiple disease hallmarks such as vascular leakage, inflammation, angiogenesis and fibrosis. The preclinical study investigated the therapeutic potential of THR-687, a potent pan-RGD integrin antagonist, in the streptozotocin (STZ)-induced diabetes rat model.

Following STZ-induced diabetes, different doses of THR-687 (6.7, 16.7 or 75 µg/eye) or its vehicle were administered via 3 consecutive intravitreal injections in both eyes (with 1-week interval, n=7 rats/group). Untreated, non-diabetic rats served as controls (n=5 rats). At 4 weeks after diabetes-induction, the effect of THR-687 was investigated by histological analysis for retinal vascular leakage (using the tracer FITC-BSA), for inflammatory cell activation (Iba1 immunoreactivity) and Müller cell gliosis (vimentin immunoreactivity). Statistical analysis was performed with a one-way analysis of variance using a Bonferroni multiple comparison test.

The updated data shows:

- THR-687 reduced diabetes-induced increases in retinal permeability versus vehicle in a dose-dependent manner. The highest dose (75 µg/eye) completely prevented vascular leakage ($p < 0.001$) while the mid dose (16.7 µg/eye) significantly decreased this pathology by $34 \pm 21\%$ ($p < 0.05$) and the low dose (6.7 µg/eye) had no effect.
 - All doses of THR-687 also significantly reduced the number of inflammatory cells, as compared to vehicle. Indeed, a reduction of $57 \pm 12\%$ was seen after administration of the highest dose ($p < 0.01$), a decrease of $43 \pm 19\%$ for the mid dose ($p < 0.05$) and the low dose induced a reduction of $51 \pm 13\%$ ($p < 0.05$).
 - The highest dose of THR-687 also reduced the diabetes-induced increase in vimentin expression within the Müller cells back to baseline ($p < 0.05$ versus vehicle), whereas no significant differences following injections of the mid or low dose were observed.
- RGD-integrin antagonism using THR-687 potently inhibits vascular permeability, inflammation and gliosis induced by STZ in the diabetic rat retina. Given its broad mode of action, THR-687

is a promising drug candidate for the treatment of vision-threatening retinal pathologies and is currently in a Phase 2 clinical trial in DME patients (INTEGRAL - NCT05063734).

- A copy of the ARVO presentation is available under [Conferences and Events](#) within the [Investors](#) section of the Company’s website.

Oxurion is currently evaluating THR-687 in a two-part Phase 2 clinical trial (“INTEGRAL”) in patients with DME. Part A dose optimization data from the INTEGRAL trial is anticipated this quarter. If successful, the efficacy and safety of THR-687 versus aflibercept (the current standard of care) will be evaluated in Part B of the INTEGRAL Phase 2 clinical trial in both treatment-naïve and treatment-experienced patients with DME with data expected in the second half of 2023.

About Oxurion

Oxurion (Euronext Brussels: OXUR) is a biopharmaceutical company developing next generation standard of care ophthalmic therapies, which are designed to better improve and preserve vision in patients with retinal vascular disorders including diabetic macular edema (DME), the leading cause of vision loss in diabetic patients worldwide as well as other conditions, including wet age-related macular degeneration (wet AMD) and macular edema following retinal vein occlusion (ME-RVO). Oxurion is aiming to build a leading global franchise in the treatment of retinal vascular disorders based on the successful development of its two novel therapeutics. THR-149 is a potent plasma kallikrein inhibitor being developed as a potential new standard of care for the up to 50% of DME patients showing suboptimal response to anti-VEGF therapy. THR-687 is a highly selective pan-RGD integrin antagonist that is being developed as a potential first line therapy for DME patients as well as wet AMD and potentially ME-RVO. Oxurion is headquartered in Leuven, Belgium, with corporate operations in Boston, MA. More information is available at www.oxurion.com.

Important information about forward-looking statements

Certain statements in this press release may be considered “forward-looking”. Such forward-looking statements are based on current expectations, and, accordingly, entail and are influenced by various risks and uncertainties. The Company therefore cannot provide any assurance that such forward-looking statements will materialize and does not assume any obligation to update or revise any forward-looking statement, whether as a result of new information, future events, or any other reason. Additional information concerning risks and uncertainties affecting the business and other factors that could cause actual results to differ materially from any forward-looking statement is contained in the Company’s Annual Report. This press release does not constitute an offer or invitation for the sale or purchase of securities or assets of Oxurion in any jurisdiction. No securities of Oxurion may be offered or sold within the United States without registration under the U.S. Securities Act of 1933, as amended, or in compliance with an exemption therefrom, and in accordance with any applicable U.S. state securities laws.

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