



Opthea Announces Publication on VEGF-C and D Signaling Pathways as Potential Targets for Treatment of Wet AMD

Research underpins sozinibercept's potential as novel, first-in-class VEGF-C/D 'trap' to prevent blood vessel growth and vascular leakage in the retina

Published in peer-reviewed journal Ophthalmology and Therapy

Melbourne, Australia and Princeton, NJ, July 9, 2024 -- Opthea Limited (ASX/NASDAQ: OPT "Opthea", the "Company"), a clinical-stage biopharmaceutical company developing novel therapies to treat highly prevalent and progressive retinal diseases, including wet age-related macular degeneration (wet AMD), today announced the publication of a scientific review in the peer-reviewed journal *Ophthalmology and Therapy*. The publication, [*Vascular Endothelial Growth Factor \(VEGF\) C and D Signaling Pathways as Potential Targets for the Treatment of neovascular \(wet\) AMD*¹](#) supports the scientific rationale for sozinibercept (OPT-302) as a potential treatment for wet AMD.

The article reviews the growing body of evidence that in retinal diseases, such as wet AMD, the pathophysiology is broader than dysregulation or overproduction of VEGF-A. While therapeutic approaches in wet AMD have mostly focused on targeting VEGF-A signaling, research has shown that VEGF-C and VEGF-D signaling pathways are also important to the pathogenesis of retinal diseases. This review highlights the important therapeutic advances and remaining unmet needs for improved therapies targeting additional mechanisms beyond VEGF-A. It also discusses the role of VEGF-C and VEGF-D signaling involvement in both health and disease, as well as strategies for targeting VEGF-C/D signaling pathways to address one of the major remaining unmet needs in wet AMD — better visual outcomes.

"This review underpins sozinibercept's potential as a novel, first-in-class VEGF-C/D 'trap' to prevent blood vessel growth and vascular leakage in the retina and deliver superior visual outcomes in wet AMD patients when combined with standard-of-care anti-VEGF-A therapies," said Frederic Guerard, PharmD, Chief Executive Officer of Opthea. "Our fully enrolled sozinibercept Phase 3 clinical program in wet AMD is designed to assess the safety and superior efficacy of sozinibercept in combination with standard-of-care anti-VEGF-A therapies compared to standard-of-care alone. We expect to report topline data for the COAST trial in early Q2 and for the ShORe trial in mid CY 2025."

Wet AMD remains the leading cause of vision loss in the elderly, impacting about 3.5 million people in the US and Europe alone. The unmet medical need in wet AMD is significant, with many patients failing to achieve optimal vision outcomes despite treatment with anti-VEGF-A therapies.

1. Leitch, I.M., Gerometta, M., Eichenbaum, D. et al. Vascular Endothelial Growth Factor C and D Signaling Pathways as Potential Targets for the Treatment of Neovascular Age-Related Macular Degeneration: A Narrative Review. *Ophthalmol Ther* 13, 1857–1875 (2024). <https://doi.org/10.1007/s40123-024-00973-4>

About Opthea's Clinical Development Program

The Company's pivotal Phase 3 wet AMD program is comprised of two fully enrolled, concurrent, multicenter, double-masked, randomized clinical trials, COAST (Combination OPT-302 with Aflibercept Study) and ShORe (Study of OPT-302 in combination with Ranibizumab). The trials are designed to assess the safety and superior efficacy of sozinibercept combination therapy versus standard-of-care anti-VEGF-A in wet AMD. The Phase 3 program is designed to support a broad label and, if successful, enable sozinibercept to be approved for use in combination with any anti-VEGF-A therapy in wet AMD patients. Sozinibercept has received Fast Track Designation from the US FDA for the treatment of wet AMD. To learn more about Opthea's Phase 3 clinical trial program, please visit ClinicalTrials.gov for COAST, [NCT04757636](#), and ShORe, [NCT04757610](#).

In Opthea's prospective, randomized and controlled Phase 2b trial, including 366 treatment-naïve wet AMD patients, sozinibercept was administered in combination with standard-of-care ranibizumab for the treatment of wet AMD. Sozinibercept combination therapy met the pre-specified primary efficacy endpoint of a statistically superior gain in visual acuity at 24 weeks, compared to ranibizumab alone. In addition, secondary outcomes were positive with the combination therapy, including more patients gaining vision of 10 or more letters, improved anatomy, with a reduction in swelling and vascular leakage, and a favorable safety profile. These statistically significant results were published in [Ophthalmology](#) in February 2023.

About Opthea

Opthea (ASX/NASDAQ:OPT) is a biopharmaceutical company developing novel therapies to address the unmet need in the treatment of highly prevalent and progressive retinal diseases, including wet age-related macular degeneration (wet AMD) and diabetic macular edema (DME).

Opthea's lead product candidate, sozinibercept, is being evaluated in two fully enrolled pivotal Phase 3 clinical trials (COAST, NCT04757636, and ShORe, NCT04757610) for use in combination with standard-of-care anti-VEGF-A monotherapies to improve overall efficacy and deliver superior vision gains compared to standard-of-care anti-VEGF-A agents. To learn more, visit our website at www.opthea.com and follow us on X and LinkedIn.

Forward-looking Statements

This ASX announcement contains certain forward-looking statements, including within the meaning of the US Private Securities Litigation Reform Act of 1995. The words "expect", "believe", "should", "could", "may", "will", "plan" and other similar expressions

are intended to identify forward-looking statements. Forward-looking statements in this ASX announcement include statements regarding the potential importance of VEGF-C and VEGF-D signaling pathways to the pathogenesis of retinal diseases, sozinibercept's potential as a novel, first-in-class VEGF-C/D 'trap' to prevent blood vessel growth and vascular leakage in the retina, sozinibercept's potential to deliver superior visual outcomes in wet AMD when combined with standard-of-care anti-VEGF-A therapies, the potential for the registrational program for sozinibercept in wet AMD, and the potential for the results of the COAST and ShORe Phase 3 wet AMD trials to support a broad label and, if successful, enable sozinibercept to be approved for use in combination with any anti-VEGF-A for the treatment of wet AMD patients. Forward-looking statements, opinions and estimates provided in this ASX announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current conditions. Forward-looking statements are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. They involve known and unknown risks and uncertainties and other factors, many of which are beyond the control of Opthea and its directors and management and may involve significant elements of subjective judgment and assumptions as to future events that may or may not be correct. These statements may be affected by a range of variables which could cause actual results or trends to differ materially, including but not limited to future capital requirements, the development, testing, production, marketing and sale of drug treatments, regulatory risk and potential loss of regulatory approvals, ongoing clinical studies to demonstrate sozinibercept safety, tolerability and therapeutic efficacy, clinical research organization and labor costs, intellectual property protections, and other factors that are of a general nature which may affect the future operating and financial performance of the Company including risk factors set forth in Opthea's Annual Report on Form 20-F filed with the US Securities and Exchange Commission (the "SEC") on September 28, 2023, Opthea's 2024 Half Year Report included as an exhibit to the Form 6-K filed with the SEC on February 29, 2024, and other future filings with the SEC. Actual results, performance or achievement may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Subject to any continuing obligations under applicable law or any relevant ASX listing rules, Opthea disclaims any obligation or undertaking to provide any updates or revisions to any forward-looking statements in this ASX announcement to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any such statement is based, except as otherwise required by applicable law.

Authorized for release to ASX by Frederic Guerard, CEO

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