2026 Areas of Interest for Ophthalmology

Ophthalmology AOIs

Clinical

1. Clinical database studies to understand current clinical practice outcomes for DME & nAMD patients, including switching practices between anti-VEGF treatment options for incomplete response or other reason (what drives switching today?), and patient outcomes over time in real world practice. Differences between the impact of full treatment response and no or incomplete response.

2. Database studies to define the early "incomplete responders" to anti-VEGF or to anti-VEGF/anti-ANG2 treatment. Identifying the clinical characteristics and time it takes to identify a patient unlikely to have a complete response to treatment. When/if switched, are improvements seen? Do improvements persist? Do patients adhere to treatment when they have an incomplete response?

3. A. Database studies investigating Health Care Resource Utilization (HCRU) and annual costs before and following VEGF treatment initiation. What are the differences between responding patients and those that have insufficient/no response and require treatment intervention

   B. Database studies investigating HCRU and annual costs before and following VEGF treatment switch. What are the differences between responding patients and those that have insufficient/no response and require treatment intervention

4. Studies investigating potential predictors for and/or biomarkers of anti-VEGF true response and incomplete response, including imaging and molecular biomarkers utilizing Artificial Intelligence and Machine Learning.

5. Studies investigating the predictive value of early multimodal imaging beyond SD-OCT for the clinical outcomes (BCVA and other) during treatment with anti-VEGF and anti-VEGF/anti Ang2. May/can be combined with #6.

6. Studies investigating AI/ML applications for quantitative analysis of treatment outcomes and prediction of treatment response to anti-VEGF. May/can be combined with #5.

7. Studies to investigate the best way to image and define retinal non-perfusion / ischemia in DME patients.

Pre-clinical

8. Preclinical studies investigating the role of Norrin/Wnt/β-catenin signaling in vascular stability, inflammation, establishment and maintenance of blood-retinal barrier (BRB) using a Wnt agonist antibody, focusing on the biology and functions related to the pathogenesis of and/or therapeutic effect of Wnt agonism in DME and wet AMD.
9. Studies investigating retinal neuroprotective function of Norrin/Wnt/β-catenin signaling using a Wnt agonist antibody that may translate into a potential therapeutic benefit independent from BRB stabilization.
10. Studies investigating role of Norrin/Wnt/β-catenin signaling in DR-associated leukostasis and capillary occlusion that may translate into improvement of capillary perfusion and reduction of vascular inflammation in DR.
11. Studies investigating biological overlap between inhibition of the VEGF pathway by anti-VEGF molecules and Wnt pathway agonism by a Wnt agonist antibody in preclinical models focusing on vascular health, function, and BRB stability.
12. Studies to investigate the differences and similarities between inhibiting Ang2 and activating Tie2 receptor by a Tie2 activating AB, focusing on endothelial cell health and function, restoration of BRB stability related to the pathogenesis of and/or therapeutic effect in DME and wet AMD.
13. Studies investigating biological and functional interplay between three major pathways controlling vascular stability: Norrin/Wnt, Tie2 and VEGF, using a Wnt agonist antibody and a Tie2 activating AB for the Wnt and Tie2 pathways respectively and anti-VEGF molecules.