

## AEVR HOSTS AMD WEEK CONGRESSIONAL BRIEFING FOCUSING ON NEW THERAPIES



*Neena Haider, PhD, Addresses the Audience*

On September 20, AEVR partnered with the American Macular Degeneration Foundation (AMDF) to host its fourth *Research Saving Sight, Restoring Vision* Congressional Briefing of 2023, entitled *Advancements in Macular Degeneration: New and Upcoming Therapies*. The briefing was held as part of *Healthy Aging Month*.

The briefing featured speakers Neena Haider, PhD, who is an Associate Professor at Harvard Medical School and has been involved in the field of genetics and retinal disease for over 15 years, and Mark Roser, an engineer and researcher who developed an at-home vision evaluation tool to provide early identification of vision loss and has been living with AMD since he was diagnosed at 25 years old.

Dr. Haider explained that there are two types of AMD—dry AMD which is more common, and wet AMD which, although less common, usually causes faster vision loss. AMD is a common condition that can lead to blurring and loss of central vision, typically in older adults. AMD is diagnosed through regular eye exams which are vital to be able to intervene early to avoid as much vision loss as possible.

Worldwide, over 196 million people have AMD with that number expected to grow to 288 million people by 2040. In the United States,

15 million Americans are living with AMD with that figure expected to double to 30 million by 2050. Additionally, 200,000 cases of wet AMD are diagnosed every year in the United States.

Dr. Haider highlighted how research for new treatments to address AMD is often initiated by NEI-funded projects and then picked up by industry to further develop and bring new treatments to market.

Dr. Haider emphasized that exciting things are happening in the treatment of AMD mentioning the newest FDA-approved therapy to market for AMD, Syfovre, which is an injection to treat Geographic Atrophy (GA), an advanced form of dry AMD. Anti-VEGF (Vascular Endothelial Growth Factor) injections have often been used to mitigate additional vision loss for patients with AMD, and new treatments are looking at other avenues to improve outcomes and potentially restore vision.

In addition to Syfovre, Dr. Haider mentioned Izervay which is also an injection that targets a different component of the immune system and is the latest to receive FDA approval for GA. She shared that the pharmaceutical industry continues to advance new treatments for AMD with multiple research studies and clinical trials in development and that a new focus on gene



*Patient-Advocate Mark Roser Shares His Experiences with AMD*

therapy was providing encouraging results. Dr. Haider detailed the growth in gene therapy research and the potential that it has for AMD by identifying genes that may impact AMD to replace a “mutant gene” with a normal gene, cut out the mutant gene, or correct the mutated gene. Dr. Haider described how new studies have shown novel genes and pathways that are linked to AMD which have focused on the Retinal Pigment Epithelium (RPE) — the outermost layer of the retina— and the macula.

Dr. Haider summarized that AMD is a complex disease affected by both genetics and the environment and everyone’s experience with AMD is unique. Genetic components of AMD arise from multiple genetic perturbations and there are several clinical trials underway for wet and dry AMD. Dr. Haider again highlighted the two innovative FDA-approved treatments for dry AMD, and that OCU410 has been approved for trials for Stargardt disease and Dry AMD.

Finally, Dr. Haider shared the importance of NEI funding in research implications for AMD. Emphasizing that NEI-funded research is often foundational to advancing new treatments and therapies and is often the groundwork needed for industry partners to move forward, explaining that expanding grant mechanisms with additional funding for research could further support NEI researchers as they work on new and novel approaches.

After Dr. Haider spoke, AMDF and Prevent Blindness patient advocate Mark Rosen spoke about his experience living with AMD and the importance of early detection and intervention. Mark shared how he was diagnosed with AMD in his 20s and received laser eye surgery which was one of the early treatments for AMD before the development of anti-VEGF injections and the newest therapies.

Mark explained how important early detection is and how, as an engineer and researcher himself, he helped develop an approved early detection tool that is available through AMDF for patients to track and identify AMD from home which can encourage individuals to go to an eye doctor if

changes are noticed. With vision loss impacting Mark throughout his adulthood, he emphasized how important vision research is and the NEI is to develop a better understanding and ultimately new treatments and therapies to treat AMD and other vision loss.

In addition to the presentation from its speakers and partners, AEVR expressed its appreciation to VisionAid for providing a mixed-reality experience for attendees and provided attendees with an NEI virtual reality experience to help in understanding what a patient experiences when they have AMD. Through the VisionAid virtual reality goggles and NEI’s VR app “See What I See,” attendees were able to experience AMD in different settings. The NEI app can also be downloaded from the Apple App Store and Google Play Store for an at-home experience.

AEVR was pleased to be able to host this Congressional Briefing and thanks AMDF for partnering in raising awareness about AMD. AEVR also thanks its supporters who helped make this event possible, including:

- American Macular Degeneration Foundation (AMDF) (partner and lunch sponsor)
- Association for Research in Vision and Ophthalmology (ARVO)
- Research to Prevent Blindness
- Apellis
- Genentech (event support)



*Briefing Attendees Experience Vision with AMD Using VisionAid’s Virtual Reality Technology*