ALLIANCE FOR EYE AND VISION RESEARCH
In conjunction with:
Research to Prevent Blindness
American Macular Degeneration Foundation
Association for Research in Vision and Ophthalmology (ARVO)

Invite you to a globally streamed Congressional Briefing recognizing
International AMD Awareness Week 2021 and Healthy Aging Month

Latest on Clinical Practice and Research for Age-Related Macular Degeneration (AMD) Patients

Tuesday, September 21, 2021
Streamed 12 Noon – 1:00 pm Eastern

Featuring
Amir H. Kashani, MD, PhD (Wilmer Eye Institute/Johns Hopkins)
Kapil Bharti, PhD (National Eye Institute)
Speaker Panel Moderated by Matthew Levine, American Macular Degeneration Foundation and James Jorkasky, AEVR

R.S.V.P. to Dina Beaumont @ 202-407-8325 or dinabeau@aol.com
Event link: https://www.arvo.org/advocacy/NAEVR-virtual-events/

AEVR, a 501(c)3 Non-Profit Educational Foundation, is pleased to host this widely attended global event, with streaming support by ARVO and event management support by Novartis.
What is the Burden of AMD?
AMD is a leading cause of blindness and low vision in the United States and the developed world. It destroys central vision through proliferation of new blood vessels (“wet” or neovascular AMD) or gradual breakdown of cells (“dry” AMD or geographic atrophy) in and around the light-sensitive retina. AMD vision loss makes it difficult to read, drive, and perform everyday tasks, thereby affecting productivity, independence, and quality of life and adding to the total US cost burden of eye disease, projected to reach $717 billion annually by year 2050 (inflation-adjusted). The National Eye Institute (NEI) within the National Institutes of Health (NIH) estimates that 200,000 Americans each year develop advanced AMD.

What Research Has Emerged to Treat Patients with both “Wet” and “Dry” Forms of AMD?
NEI intramural researchers and grantees, as well as researchers in private industry, have made great strides in studying “wet” and “dry” AMD through genetics, biological pathways, and biomarkers using such tools as intravitreal injections, imaging technologies, and Artificial Intelligence (AI). Through research, clinicians have made significant progress in treating “wet” AMD patients as a result of:

- NEI-funded research helped show that a protein called Vascular Endothelial Growth Factor (VEGF) stimulates abnormal blood vessel growth that occurs in advanced stages of AMD. This has resulted in Food and Drug Administration (FDA)-approved anti-VEGF drug therapies that stabilize vision loss and may improve lost vision. NEI has funded comparison trials of the anti-VEGF drugs to provide doctors and patients with information to choose best treatment options.
- NIH funded research developed a non-invasive imaging technology called Optical Coherence Tomography (OCT) that creates three-dimensional images of the retina. In its advanced form, it can detect blood flow in the eye at the capillary level.
- NEI funded researchers are using OCT images in AI to detect both “wet” and “dry” AMD, classify severity, and predict the risk of progression to the late stage of the disease. AI is even being used to assist retina specialists in making treatment decisions.

A treatment for “dry” AMD has proven more elusive. However, in late 2019, the NEI began a first-in-human clinical trial of an induced pluripotent stem cell (iPSC)-based therapy to treat geographic atrophy. The therapy takes a patient’s blood cells and converts them into induced pluripotent stem cells that are programmed to become retinal pigment epithelial (RPE) cells—the type that dies in AMD. The therapy “shores up” remaining RPE cells necessary to nurture the light-sensing photoreceptor cells in the retina.

About the Featured Speakers and their presentations……
Amir H. Kashani, MD, PhD, an Associate Professor of Ophthalmology at the Wilmer Eye Institute at Johns Hopkins University, will address clinical care of AMD patients and efforts to diagnose the disease at an earlier stage to minimize vision loss, as well as his stem cell research in dry AMD.

Kapil Bharti, PhD, a Senior Investigator in the Ocular and Stem Cell Translational Research Unit at the NEI, will discuss the latest in federally funded and private research to diagnose and treat AMD as well as NEI’s AMD Integrative Biology Initiative for personalized medicine approaches to AMD treatments.

The Briefing begins AEVR’s Seventh Annual Emerging Vision Scientists Day on Capitol Hill activities, held virtually in 2021 and featuring videos from 28 early-stage vision investigators about their research and impact for patients and a 30-minute video Moving Beyond COVID in My Career Pathway.

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