

Demetrios Vavvas, MD, PhD is the Monte J. Wallace Ophthalmology Chair in Retina, Associate Director of Retina Service, Associate Professor of Ophthalmology Co-Director of the Ocular Regenerative Medicine Institute at Harvard Medical School. He has also served as the director of the eye trauma service at MEEI. He holds several patents and has received numerous awards.

Dr. Vavvas' clinical work focuses on macular degeneration, diabetic retinopathy, trauma and complex surgical cases. He was the first to describe use of small gauge vitrectomy for complications of cataract surgery and trauma and has described a modified approach to scleral buckle in order to make it more predictable and easier to teach to trainees. He has performed a Phase I/II clinical trial of high dose statins as a potential to reverse high risk features in age related macular degeneration. In 2009 along with Dr Loewenstein he co-founded the Annual Fellows vitrectomy course tailored for first year vitreoretinal fellows from over 20 different programs in the nation; now in its 10th year. He was selected in the Ophthalmologist 2019 Top 50 Power list (Top 10 Mentors Worldwide)

Dr Vavvas is actively committed to research, serving as Co-Director in the Angiogenesis Laboratory. He is especially involved in research of cell death mechanisms and neuroprotection strategies and his lab identified receptor interacting protein kinases (RIPK) mediated programmed necrosis as significant mode of photoreceptor cell loss and showed that simultaneous inhibition of both RIP kinase and caspase pathways is necessary for effective neuroprotection. He is investigating the regulation of the energy sensor of the cell AMP dependent kinase and the potential of its small molecule activator, AICAR, to suppress intraocular inflammation, IOP and tumor growth.

Dr. Vavvas has won multiple awards and has published more than 220 peer reviewed manuscripts and several book chapters. His research is well funded, with support from Research to Prevent Blindness, Alcon Research Institute, an R01 and R21 from the National Eye Institute, and funding from several foundations. His work has resulted in 11 patent fillings with 6 issued and 5 pending.

