



THE ALLIANCE FOR EYE AND VISION RESEARCH

In conjunction with:
Research to Prevent Blindness
Blinded Veterans Association
Association for Research in Vision and Ophthalmology

continues its series of educational briefings on exciting new developments in eye and vision research

*By inviting you to a Luncheon Briefing focusing
On Vital Defense-related Vision Research*

*Deployment-Related Vision Trauma Research:
Whole Eye Transplantation—From Experimental Model to
Clinical Translation*

Thursday, March 29, 2018

12 Noon - 1:15 pm

House Rayburn 2045

Featuring Speaker
Kia Washington, MD
University of Pittsburgh School of Medicine

Please R.S.V.P. to
Dina Beaumont @ 202-407-8325 or dinabeau@aol.com

AEVR, a 501(c)3 Non-Profit Educational Foundation, is pleased to host this widely attended event featuring an eye-healthy luncheon.

***Deployment-Related Vision Trauma Research:
Whole Eye Transplantation—From Experimental Model to Clinical Translation***
March 29, 2018
12:00 – 1:15 pm, House Rayburn 2045
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What are examples of deployment-related eye trauma and their impact?

Traumatic eye injury from penetrating wounds and Traumatic Brain Injury (TBI) ranks second only to hearing loss as the most common injury among active military.

- Traumatic eye injuries have accounted for upwards of 16 percent of all injuries in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF);
- Male soldiers aged 20-24 account for 97% of visual injuries;
- Eye-injured soldiers have only a 20 percent return-to-duty rate as compared to an 80 percent rate for other battle trauma injuries; and
- The Joint Department of Defense (DOD)/Department of Veterans Affairs (VA) Vision Center of Excellence (VCE) reports more than 197,000 OEF and OIF veterans with eye injuries since 2000, as well as that upwards of 75 percent of all TBI patients experience short- or long-term visual disorders (double vision, sensitivity to light, and inability to read print) and other cognitive impairments.

A 2017 study using published data from 2000-2017 estimated that deployment-related eye injuries and blindness have cost the U.S. \$45.5 billion, with \$44.4 billion of that cost reflecting the present value of a lifetime of long-term benefits, lost wages, and family care. Research to effectively treat acute eye damage can have long-term implications for an individual's vision health, productivity, and quality of life for the remainder of military service and into civilian life.

Since Fiscal Year (FY) 2009, when Congress first funded peer-reviewed vision research in DOD appropriations, the Vision Research Program (VRP) has awarded 77 grants for a total of \$66.5 million to researchers addressing penetrating eye injuries, corneal healing, retinal/corneal protection, TBI-related visual dysfunction, eye blast phenomenon, and vision rehabilitation — all areas addressing DOD-identified research gaps.

What is the potential for whole eye transplantation?

Blindness caused by ocular trauma cannot be cured because of damage to the optic nerve, which is the nerve that contributes to the ability to see and is part of the central nervous system. Unlike nerves in the hands and legs, the optic nerve does not have the ability to repair itself after it is injured. The goal of Dr. Washington's research is to reverse blindness that occurs in wounded warriors through the study of whole eye transplantation (WET). Similar to face and hand transplantation, whole eye transplantation restores form and function by using tissue from a cadaver donor. WET offers the potential to provide viable retinal ganglion cells, which are cells that carry visual information from the eye through the optic nerve to the brain.

Who will speak?

Kia Washington, MD is an assistant Professor in the Department of Plastic Surgery at the University of Pittsburgh School of Medicine and also serves as Co-Director of the Vascularized Composite Allotransplantation and Microsurgery (VCAM) Laboratory in the Department of Plastic Surgery. She serves as Section Chief of Plastic Surgery in the VA Pittsburgh Healthcare System, and was recently named Director of a newly-established interdisciplinary research program at the The University of Pittsburgh School of Medicine that focuses on the science of whole eye transplantation.

Dr. Washington is a twice-funded DOD researcher. She received a Hypothesis Development Award in FY2013 from the VRP for her research into Whole Eye Transplantation, and a Joint Warfighter Program (JWP) award in FY2016 based on the work done in her original VRP grant.

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