# EDUCATION

## AEVR Congressional Briefing Emphasizes Value of NEI's DRCR Retina Network

Featured speakers included DRCR Retina Co-Chairs Jennifer Sun, MD, MPH (Joslin Diabetes Center/Harvard Medical School) and Daniel F. Martin, MD (Cole Eye Institute/Cleveland Clinic)

Diabetic eye disease is the primary cause of vision loss and blindness in the industrialized world among individuals age 25-74, the "working age" population. The CDC estimated that, as of 2014, 29.1 million Americans had diabetes (9.3 percent of the population), with 8.1 million of these individuals unaware they have it. Another 86 million Americans are pre-diabetic. Diabetes-related blindness costs the United States $500 million annually.

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Diabetes causes damage to the blood vessels in the light-sensitive tissue in the back of the eye known as the retina. Damage to these vessels can lead to leakage of fluid into the center of the retina, known as the macula, and loss of healthy blood flow to the retina overall. Leakage or swelling in the macula is known as diabetic macular edema and is a common cause of central vision loss in people with diabetes. When capillary damage becomes more severe, blood flow is severely compromised leading to growth of abnormal blood vessels that can lead to severe bleeding inside the eye (vitreous hemorrhage), retinal detachment, and complete loss of vision if left untreated. These retinal changes, collectively known as diabetic retinopathy (DR), occurred in 7.7 million Americans in 2010 and this number is projected to grow to 14.6 million cases by 2050.

**In 2017, the DRCR Network was renamed the DRCR Retina Network and expanded to include study of all retinal diseases that result in vision loss.**

On May 15, AEVR's Congressional Briefing entitled *NEI's Diabetic Retinopathy Clinical Research (DRCR) Retina Network: Optimizing Treatment for Diabetic Eye Disease* focused on research and clinical practice to treat diabetic eye disease. JDRF and Lions Clubs International, which provided comments about their programs for patients with diabetic eye disease (see box right), were joined by RPB and ARVO in serving as co-hosts. NAEVR hosted the researchers in Congressional delegation visits.

The Briefing featured Daniel F, Martin, MD (Cole Eye Institute/Cleveland Clinic) and Jennifer Sun, MD, MPH (Joslin Diabetes Center/Harvard Medical School), who serve as the co-Chairs of the DRCR Retina Network and spoke about its past accomplishments and future plans. Founded initially in 2002 as the DRCR Network, it has been funded through the NEI and the Special Diabetes Program funding managed by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), leveraged with private funding from JDRF and industry. It has built on prior NEI-funded studies dating back to the 1970s, including:

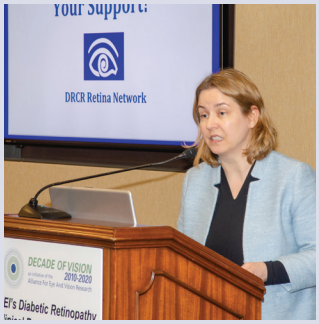
- **the Diabetic Retinopathy Study (DRS), which was the NIH's first-ever successful multicenter randomized clinical trial. This landmark study showed that laser photocoagulation is highly effective for reducing the risk of vitreous hemorrhage, retinal detachment, and loss of vision from diabetes.**
- **the Early Treatment Diabetic Retinopathy Study (ETDRS) followed the DRS and demonstrated that focal laser treatment is effective for preventing vision loss from diabetic macular edema and also refined criteria for laser treatment of more severe forms of DR.**

Among its many achievements, the DRCR Network was the first to report definitive studies showing that anti-VEGF (Vascular Endothelial Growth Factor) therapy is more effective than laser treatment for diabetic macular edema, that all three of the current anti-VEGF drugs are equally effective for treatment of mild macular edema but that one drug is more effective than the others for more severe disease, and that the most severe forms of DR can be effectively treated with anti-VEGF agents that results in reversal of DR in many cases. The Network has generated more than 100 published papers on diabetic eye disease management and has been recognized in Congressional Report Language.

In 2017, the DRCR Network was renamed the DRCR Retina Network and expanded to include study of all retinal diseases, such as age-related macular degeneration (AMD) and other common retinal conditions that result in vision loss. Embarking on its 30th multicenter study, the Network has 1,800 members, including investigators and support staff, and engages more than 500 retina specialists at over 160 participating sites across the US, including university and community health centers.

Because of their engagement with patients with diabetic eye disease, representatives from co-host organizations and AEVR members JDRF and Lion Clubs International spoke briefly about their programs.

Brian Sheehan, Lions Clubs International Third Vice President, spoke about the organization's SightFirst grant program that supports diabetic retinopathy screening and treatment programs, as well as projects that serve patients already diagnosed with the disease




Cynthia Rice, JDRF's Senior Vice President of Advocacy and Policy, spoke about JDRF's advocacy for the Special Diabetes Program that funds the DRCR Retina Network, as well as its direct support for Network activities

From left: Shefa Gordon, PhD, NEI's Director of the Office of Program Planning and Analysis, Dr. Sun, Dr. Martin, and Mary Hanlon-Tilghman, PhD, Health Science Policy Analyst in the Office of Scientific Program and Policy Analysis at the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)