

[Recently@Retina](#) is a monthly electronic newsletter with updates about the latest news at the Retina Foundation of the Southwest. We aim to keep you informed of our efforts to meet our ongoing mission, preventing and restoring vision loss through innovative research and treatment.

INSIGHT FROM ITALY Dr. David Birch presents his recent research findings and brings home a wealth of new scientific knowledge from the 47th Annual Symposium of the International Society for Clinical Electrophysiology of Vision. The July meeting, which was attended by representatives from 57 countries, was hosted by the University of Padua, the second oldest university in the world.



“It was inspiring to be at what was for so long the center of the intellectual universe”, says Dr. Birch. “For a scientist, nothing can rival the experience of walking in the footsteps of Galileo Gallilei and Leonardo DaVinci.”

While not likely to challenge the established order of the universe, Dr. Birch did discuss the relationship between retinal structure and visual loss in retinitis pigmentosa. He also presented early results from the ongoing treatment trial of encapsulated cell-therapy with CNTF. [Click here](#) to view a summary of the results.



RFSW RESEARCHERS IMPACT THE COMMUNITY

Dr. Yi-Zhong Wang and Gina Mitzel from the Macular Function Lab established a community outreach program for low to medium income areas of Dallas County. The program has been underway

for 2 years and has completed over 300 visual screenings for adults age 55 and older.

The program's main goals are to screen for early signs of age-related macular degeneration and to educate seniors about eye disease.

Approximately 150 seniors have been involved in the study thus far and 300 total are expected to be screened by the end of the summer. All screenings are free of charge and made by appointment. The final screening will be August 21 at Corinthians Retirement Community Center in Carrollton. [Read more](#) about the Jennie & Henry Jones Macular Function lab by visiting our website.



GRANTS AND GIFTS

- *The Max and Minnie Tomerlin Voelcker Fund* donated the second half of their pledge in the amount of \$100,000 to fund scientific equipment for our new T. Boone Pickens Scientist in age-related macular degeneration, Dr. Karl Csaky.
- *Delta Gamma Foundation* donated \$2,000 that will be used to fund new testing equipment for pediatric vision research in the Rose Silverthorne Lab to purchase a contact lens electrode and a new board for testing retinal function in kids with genetic eye disease.

EYESIGHT HIGHLIGHT: Each month, *Recently@Retina* will highlight an eye disease that is one of our focuses for our research studies. Any products and/or services mentioned within *Recently@Retina* are presented as a source of information and should not be misinterpreted as a recommendation of the Foundation.

Age-related Macular Degeneration

	DRY AMD	WET AMD
DESCRIPTION	Dry AMD occurs when the light-sensitive cells in the macula slowly break down. Over time, as less of the macula functions, central vision is gradually lost in the affected eye.	Wet AMD occurs when abnormal blood vessels behind the retina start to grow under the macula. These new blood vessels leak blood and fluid, which raise the macula from its normal place at the back of the eye. The onset of wet AMD can occur fairly rapidly, often in a matter of weeks, and it can progress to severe vision loss or

		blindness within a couple of years.
WHO IS AFFECTED?	1.75 million US citizens 40 years and older have advanced AMD. AMD is a leading cause of vision loss in Americans 60 years of age and older and more than 7 million Americans are at high risk of developing advanced AMD.	The dry form is a much more common form of AMD. More than 85% of all people with intermediate and advanced AMD combined have the dry form. However, if only advanced AMD is considered, about two-thirds of patients have the wet form.
RISK FACTORS	Old age, cardiovascular disease, obesity, cigarette smoking, race (Caucasians are at higher risk), gender (women are at higher risk), diet (high intake of saturated fats increases risk), excessive exposure to sunlight, and family history.	Same as dry AMD.
SYMPTOMS	The most common symptom of dry AMD is slightly blurred vision. As dry AMD gets worse, there may be a blurred spot in the center of one's vision, causing difficulty in recognizing faces and difficulty reading and performing other tasks in dim light. Dry AMD generally affects both eyes, but vision can be lost in one eye while the other eye seems unaffected.	An early symptom of wet AMD is that straight lines appear wavy. A small blind spot may also appear in wet AMD, resulting in loss of one's central vision.
TREATMENT	There are currently no approved treatments for dry AMD. Once the patient reaches the advanced stage of dry AMD, there is no form of treatment that can prevent vision loss. However, the NEI found that taking a specific high-dose formulation of antioxidants and zinc can delay and possibly prevent intermediate AMD from progressing to the advanced stage. There are also low-vision aids available to maximize the patient's use of their remaining vision.	Laser surgery, photodynamic therapy, or injections. Injections with anti-VEGF have revolutionized the treatment of wet AMD. Along with halting progression of the disease, vision may actually improve in many cases.

Studies have shown ways to reduce your risk of age-related macular degeneration include:

- Reducing your exposure to sunlight.
- Not smoking.

- Eating a healthy diet high in green leafy vegetables and fish.
- Diet low in cholesterol and saturated fats.
- Maintain a normal blood pressure.
- Exercise and maintain a healthy weight.

Current RFSW Research Study:

A Phase II Dry AMD (Geographic Atrophy) clinical trial was conducted sponsored by Neurotech Pharmaceuticals, Inc. Researchers at the Retina Foundation monitored patient visual acuity over time after a small capsule called NT-501 was implanted in one eye. The implant supplies dosages of a growth factor called ciliary neurotrophic factor (CNTF) directly to the back of the patient's eye in a controlled and continuous fashion. CNTF is a growth factor known to rescue and protect dying photoreceptors. Patients were randomized to one of three groups that received varying levels of dosage—high dose, low dose, and a sham treatment. After 12 months, the study showed significant results. The NT-501 implant slowed the loss of vision at a much higher rate for patients treated with the implant versus patients with the sham-treatment. [Click here](#) to read the full report.



Racing for Sight Photo - normal vision.



View with Age-related Macular Degeneration.

Visit the Retina Foundation's [Patient Information](#) page to find more information about other eye diseases, symptoms, risk factors and current standards of treatment.



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