My name is Sandee Kartchner and I met my husband Ray 20 years ago. I worked for an eye doctor’s office for many years, and one day he had come in for a simple eye infection. You could definitely say it was love at first sight because three months later we had married. I thought he was the most handsome man I had ever seen. For a number of years, we had lived a very active lifestyle together.

He started having eye problems in 2012, and was diagnosed with dry macular degeneration that became wet macular degeneration in his right eye several years later. He also developed glaucoma in the same right eye, unable to be controlled by drops alone. He had two glaucoma surgeries by Dr. Crandall and Dr. Zabriskie. That helped control his glaucoma and he continued getting shots in his right eye. He never ended up losing his vision.

For the last 2 ½ years, he had a number of hospitalizations, surgeries, and long-term rehabilitation. We decided to sell our home and move into a more senior-friendly community and that was very enjoyable. Ray was always trying to improve his health. When he suddenly passed away on May 15, 2021, the [Eye Bank Donor Coordinator] contacted me about organ donation. The first thing I thought was “Oh, you don’t want his eyes—they’re terrible!” But when they explained to me they really want his eyes to be used in a teaching setting, I thought that it would be wonderful, helping to find a cure for the very disease my husband had suffered. I spoke to both of our families and we all decided donation would be the best way to go. June 30th will be our 20th wedding anniversary. Job well done!
You might say researchers at the John A. Moran Eye Center’s Sharon Eccles Steele Center for Translational Medicine (SCTM) are making waves in the world of ophthalmology.

In the past year, the group has been publishing research that’s changing long-held beliefs about age-related macular degeneration (AMD), a leading cause of blindness for people over 55.

AMD causes central vision loss and has long been viewed as one disease with two stages, wet and dry. Wet AMD takes its name from the growth of abnormal blood vessels that rupture and leak in the eye. Both forms can have deposits of tiny protein clumps known as drusen.

In May 2021, a collaboration of scientists from institutions worldwide, including the Moran Eye Center, advocated in the prestigious journal Nature Reviews Disease Primers for a new way of thinking about and finding treatments for AMD. With Moran’s Monika Fleckenstein, MD, as the first author, the researchers point to a growing body of evidence that AMD is not one disease—as long thought—but is at least two biologically distinct diseases.

“This effort gathered an elite team of clinicians, translational researchers, and basic scientists to give different perspectives on AMD,” said Fleckenstein, a member of the SCTM. “We hope the publication will inspire our colleagues to see AMD not as one single disease, but rather as a disease spectrum.”

It’s a concept that’s been pursued vigorously by the SCTM for many years. The SCTM research has shown that the biology and clinical attributes of individuals with AMD directed by genes on chromosome 1 are distinctly different from that of chromosome 10-driven AMD.

Steffen Schmitz-Valckenberg, MD, who holds a Jon M. Huntsman Presidential Chair at the University of Utah and directs Moran’s Utah Retinal Reading Center, explained the conclusion is supported by two decades of research using thousands of donor tissue eyes, high-resolution retinal imaging techniques, and genetic studies.

“We hope the publication will inspire our colleagues to see AMD not as one single disease, but rather as a disease spectrum.”

In 2015, SCTM scientists and clinicians published in Investigative Ophthalmology & Visual Science that genetic risk at the chromosome 1 locus is associated with higher levels of immune system dysfunction at the human macular RPE-choroid interface. In December 2020, SCTM researchers published a paper in Scientific Reports analyzing differences in the retinal thickness of patients with chromosome 1- and chromosome 10-directed AMD. A third publication focused on chromosome 10 is forthcoming.

The SCTM, directed by Gregory S. Hageman, PhD, has developed a potential new therapy for chromosome 1-directed AMD and is working toward a clinical trial to test it in patients.

Since no other organism has AMD, SCTM researchers work with donated human eye tissue and study subjects. Reaching the clinical trial stage has required the support of nearly 10,000 tissue donors who have left their eyes to science. In addition, more than 4,800 AMD patients are enrolled in a SCTM genetics study.

To date, only wet AMD is treatable with laser therapy or regular injections that inhibit blood vessel growth.

“We are turning up the heat on this disease in the scientific community thanks to years of research, an extremely talented staff, and individuals within the community willing to support our work,” said Hageman.

MORE INFORMATION

• Read the primer: nature.com/articles/s41572-021-00265-2.
• Video interview with Monika Fleckenstein, MD, on AMD Disease Primer: youtu.be/xKAYFyKjDYY
Heart of the Lion Courier Program

After a hiatus of more than a year, the Heart of the Lion (HOL) Courier program will be returning in September of this year. Lions interested in resuming delivery operations should contact Wade McEntire to schedule driver training and to provide availability. We will also be looking for a Coordinating Lion for the 2021–22 term.

As the HOL was suspended last year, the annual recognition dinner was also postponed. We are tentatively planning on holding that event, pending University Health COVID-19 guidance, in October 2021; save the date cards will go out soon.

For inquiries or questions, please email Wade McEntire at wade.mcentire@hsc.utah.edu.

Bereavement Support Groups
For bereavement support group information, please contact the University of Utah College of Nursing 801.585.9522 healthcare.utah.edu/caring-connections

We would love to share your story.
If you are the recipient of a cornea, or have a story of a donor that you would like to share, please let us know. Email uleb.familyservices@hsc.utah.edu
Financial Gifts for Sight

The Utah Lions Eye Bank thanks the following individuals for their generous financial donations October 2020 – June 2021:

Holladay Lions Club
Utah Lions Foundation
Marilyn Albiston
Kent & Aleene Alder
Jim & Jean Anderson
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R. Burke Teichert
Sheila Van Wagoner
Mildred Waddell
Ann T. and D. Jesse Wagstaff
in honor of receiving two corneal transplants!
Gary and Garda Wardle
Janis M. and Thomas White
Judith & Phillip Yeates
John & Robbin Yee
in honor of Bruce Cutler & Randy Yee
John Zudis

Please use the enclosed envelope, or visit us online at www.utaheyebank.org, to give by credit card to make a donation in memory of, or in honor of, someone you love. Thank you for your generosity.