Retina-Vitreous Associates Medical Group houses state of the art diagnostic equipment and treatment facilities, including a visual function laboratory that offers full service electrophysiology testing. The physicians at Retina-Vitreous Associates are nationally recognized leaders in their field and participate in clinical trials assessing new therapies for macular degeneration, diabetic retinopathy, and most other major retinal diseases. In addition to its clinical services, Retina-Vitreous Associates provides continuing education and consulting services to local, national, and international ophthalmic communities and other healthcare industries.

"This is hands down a world class retina hub! ...I was super nervous about everything but walked out feeling much calmer than when I went in. On top of the incredible care they provide for their patients, they also have a nonprofit foundation … as well as conducting research to help find treatments for incurable retinal diseases.

Big thumbs up and thank you so much for what you do!"
- Tony D., Victorville, CA

"Best possible experience! … He was incredibly knowledgeable and had a wonderful bedside manner.

Long story short he was able to give me a 99% sure diagnoses and calmed me down… I could not have had a better experience and would highly recommend them to everyone. Thank you RVA Group!"
- Kimberly S., Los Angeles, CA

We are committed to providing our clients with a positive experience, your feedback helps make that possible. Thank you!
CURRENTLY ENROLLING CLINICAL TRIALS

Retina-Vitreous Associates Medical Group has participated in clinical research for over 15 years and is committed to the development of novel diagnostic and therapeutic modalities for retinal disease. All of our physicians participate in clinical trials, giving patients unique and easy access to the latest developments in treatments of vitreoretinal diseases. We are committed to bettering the quality, efficacy and ease of treatment for our patients.

We are currently enrolling patients for the conditions below and are actively engaging in new trials.

**RETINITIS PIGMENTOSA (RP)**
A genetic condition causing progressive vision loss. Night blindness usually occurs first, followed by peripheral, central, and color vision loss.
We offer injections of human stem cell-derived retinal progenitor cells in the office that may offer long-term visual benefits to patients who otherwise have no other treatments available.

**MACULAR DEGENERATION (Age-related/AMD)**
The leading cause of vision loss in America, AMD is progressive disorder affecting the central vision in patients 50 years or older.
“Dry” macular degeneration: currently no treatment available.
“Wet” macular degeneration: current standard of care treatment includes frequent eye injections
We provide trials for both early and end stage dry and wet AMD using in-office as well as surgical treatments.

**DIABETIC RETINOPATHY**
Patients with type 1 and type 2 diabetes can suffer from damage to the blood vessels in the retina, causing mild to severe vision loss and potentially blindness.
Currently under investigation are an orally administered pill and a subcutaneous (underneath the skin) self-administered injection.

**DIABETIC MACULAR EDEMA (DME)**
An accumulation of swelling in the central retina that causes vision loss in diabetic patients. This is a component of diabetic retinopathy.
Our trials look for novel treatments for diabetic macular edema and in combination with current gold-standard treatment.

**RETINAL VEIN OCCLUSION (CRVO and BRVO)**
Commonly referred to as a “stroke in the eye”, a blood clot in the retinal blood vessels can cause vision loss and secondary glaucoma.
We are investigating multiple novel treatments to improve outcomes and decrease the number of necessary visits and procedures.

**UVEITIS: ANTERIOR, INTERMEDIATE, POSTERIOR, AND PAN-UVEITIS**
A broad term for inflammation of the eye, it can be classified based on the parts of the eye that are affected.
We offer a spectrum of treatments including eye drops, subcutaneous injections, and oral medication for various types of uveitis.

Transportation may be provided. Informed consents may be available in English, Spanish, Russian, Armenian, Chinese, Korean.
LA TIMES Features Our Trial and Patient:

This retinal implant may one day cure blindness caused by macular degeneration

For many of the 10 million Americans who are losing their vision to a thievish eye condition with no treatment, help may be on its way.

In a very early clinical trial, researchers have implanted a stem cell “patch” to repair failing retinal cells in four patients with a condition called “dry” macular degeneration.

Three of the four patients who got the bioengineered implant — all of whom had lost their central field of vision and were legally blind — reported some lightening in the previously dark center of their visual field, according to a study published Wednesday in the journal Science Translational Medicine. The three also saw some improvement in their ability to see shapes and focus on letters or other objects directly in front of them.

In a span of roughly five months, one patient’s ability to identify letters on a vision chart improved by 17 characters.

“It is remarkable when people can start seeing again,” said the study’s lead author, Dr. Amir H. Kashani of USC’s Roski Eye Institute at the Keck School of Medicine. Kashani conducted the trial with Dr. Mark S. Humayun, also a USC ophthalmologist, and a USC team that drew from many disciplines.

The modest improvements seen in this small group of patients offer hope in a field that has had nothing to offer patients yet, said Kashani, who is both an eye surgeon and stem cell scientist.

A treatment that would allow people with dry macular degeneration to look into the faces of loved one “would be the dream,” Kashani said. “I don’t think we’re there yet.”

The experimental therapy drew from advances in a wide range of fields.

Researchers started with human embryonic stem cells, which are capable of giving rise to any type of human cell. In a lab, they coax those cells to become retinal pigment epithelium, or RPE, cells, which play a key role in keeping the retina healthy.

On a sterile sheet of inert polymer material much less than a hair’s breadth thick (6 microns to be exact), they grew a single layer of these RPE cells. Then they cut out patches smaller than a penny to implant inside patients’ eyes.

Finally, the team devised a special tool and a procedure to deliver a patch to the site of a patient’s failing RPE cells.

The researchers introduced the implant through a tiny incision in one eye’s outer periphery using a minuscule set of forceps. After creating a pocket between the retina and the failing RPE cells, they unfurled the patch — “like a soft taco,” according to one expert — inside the space and flattened the retina on top to hold it in place.

Close to 10 years in the making, the procedure was done on an outpatient basis, and subjects went home afterward.

Theoretically, embryonic stem cells have no individual signature of ownership that might prompt an immune system attack, and a healthy eye is normally sealed off from the immune system anyway. But to ward off a possible immune response to the transplanted tissue, the experimental subjects got a low dose of anti-rejection drugs for six to seven weeks.

In followup periods that lasted four to 12 months, the researchers watched as the implants’ stem cells stayed put and successfully integrated with the patients’ own retinal tissue. The anatomical changes in these retinas suggested that the failing RPE cells that cause dry macular degeneration had sprung back to life and were beginning to work again.

The trial was primarily designed to test the safety of the potential therapy. However, the researchers were able to see some signs of improved visual function...

Currently, about 10 million Americans are thought to suffer from dry macular degeneration. Because it progresses very slowly, roughly 8 in 10 sufferers have vision that is partially or slightly impaired, particularly in the central field. The brain can compensate for a while, but eventually patients lose all but the most peripheral vision.

Anna Keuhl, a retired accountant in Palos Verdes, may offer a glimpse of the therapy’s effects on patients with disease that is less advanced. Now 78, she has a family history of dry macular degeneration, and first detected its earliest signs — a scarcely perceptible loss of central vision — just over 20 years ago.

Keuhl is not yet legally blind. But she has given up on driving, and she relies on her husband to make sure her t’s are crossed and her umlauts are in place in handwritten letters to friends in her native Germany.

During hikes in Palos Verdes last spring, she could still see the mariposa lilies in her peripheral vision. But when she bent down to focus on their velvety interiors, she would lose them in a widening spot that had gone gray.

Keuhl is part of the second wave of patients getting the experimental treatment in the lab of Kashani and Humayun. Since receiving her stem cell implant last October, “I notice little things,” she said. While watching TV, she can focus on faces better and follow plots that require distinguishing one character from another. She is better able to look, full-on, at her face in the mirror and apply makeup.

And this spring, as the mariposa lilies begin to bloom, “I’ll see those details,” she said.

“I don’t know how far this is going to go, how many cells are going to return,” she added. “We’ll see.”
RVA RECENT RESEARCH PUBLICATIONS


