

AN ERA OF CUSTOMIZED RETINA CARE



Physicians recognize that every patient is unique and that we can't rely on one single treatment to have the same effect on all patients with the same disease. That's why, more and more, clinicians in all areas of medicine make an effort to tailor treatments to individual patients. In retina, gene therapy is proving to be the perfect platform for delivering customized care for certain diseases, and retina specialists are leading the entry of medicine into an age of precision care delivery.

Ah, but gene therapy is a weighty topic with many layers. Understanding as much as we are able can only benefit us, so we tasked four retina specialists renowned for their expertise in this area with tackling the subject of gene therapy for rare and inherited diseases from slightly different angles. From the top, Benjamin Bakall, MD, PhD, and Szilárd Kiss, MD, detail the gene therapy treatment options for inherited retinal diseases on pages 40 and 47, respectively. While Dr. Bakall gets into the strategies used in several current and upcoming clinical trials, Dr. Kiss zeroes in on the mechanics of gene therapy for retinal diseases. He also touches on the potential treatment of acquired disorders such as age-related macular degeneration and diabetic retinopathy with gene therapies, perhaps in the not-too-distant future. Next, Thomas Ciulla, MD, MBA, breaks down how the development of therapies for rare and inherited diseases differs from that of traditional treatments, as well as how payment models will have to be adjusted to reimburse for these one-time treatments that can potentially convey lifelong benefits (see page 51).

While we're on the topic of gene therapy, we would be remiss not to also touch upon the importance of genetic testing, which plays an increasingly important role in the diagnosis and management of inherited retinal diseases. Christine Kay, MD, goes into detail on this topic on page 55.

Gene therapy is an exciting new technology, and, despite some roadblocks in the past, many current trials and new vectors are promising. As Dr. Kiss says in his article, "Targeted gene therapy has the potential not only to treat inherited retinal diseases, but also to transform our approach to much more prevalent conditions, such as wet age-related macular degeneration." We look forward to seeing how many lives this technology can change in the coming years. ■

Robert L. Avery *Christine Kay*

CHIEF MEDICAL EDITOR

ASSOCIATE MEDICAL EDITOR

FOUR FAVORITES

Retina Today's choice takeaways from this issue.

1 "Approximately half of those requiring surgical intervention to reverse the condition in one eye will require surgery in the fellow eye."
—Zachary Bodnar, MD; and Prithvi Mruthyunjaya, MD, MHS, on the management of uveal effusion syndrome

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2 "The addition of [indocyanine green] could possibly lower the laser fluence and irradiance threshold required for standard [transpupillary thermotherapy]."
—Lin Liu, MD; Babak Masoomian, MD; and Carol L. Shields, MD, on treating a 7-month-old patient with resistant retinoblastoma

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3 "In the anti-VEGF era, macular translocation may be employed in patients either with advanced AMD or with disease recalcitrant to anti-VEGF therapy."
—Emiliano Di Carlo, MD; and Albert J. Augustin, MD, on the role of surgery in managing severe complications of wet AMD

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4 "PPV has been used to treat many complications of uveitis, such as rhegmatogenous or tractional retinal detachment, epiretinal membrane, macular hole, cystoid macular edema, and vitreous opacity."
—Thomas Albini, MD, on diagnosing and treating uveitis using vitrectomy

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