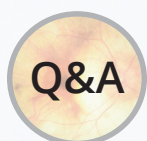


RETINA CAFÉ



A chat with Dr. Peter Kaiser about Iveric Bio, a leader in the retina scene.



Q: So, we understand that you've been advising Iveric Bio, a young company, developing therapies for retina diseases. What can you tell us about them?

PK: Well, I work with many companies, but most of them work on a number of different ophthalmic indications or are developing therapies for multiple body systems. Iveric Bio is focusing exclusively on developing transformative therapies for diseases of the retina. And they've built a team with deep experience in the retina space to help them execute on their plans, people like Pravin Dugel, a world-renowned retina specialist, Dhaval Desai and Chad Clatterbaugh, from Novartis' ophthalmics group, and, most recently, Chris Simms, who has deep commercial experience in retina therapies from both Genentech and Novartis.

Q: Iveric's lead asset is Zimura, a complement inhibitor in development for the treatment of geographic atrophy (GA) secondary to age-related macular degeneration (AMD). I'm not sure everyone is familiar with the molecule, but we understand that it is in late-stage development. What can you tell us?

PK: Genome-wide association studies (GWAS) have shown us that complement is a key factor in the risk of developing macular degeneration. Zimura targets complement factor C5, which is central to all 3 pathways of the complement cascade. Blocking C5 may provide effective retinal protection from the harmful effects of the complement pathway, while still preserving some of the beneficial immune system effects of complement that may be inhibited when we block other parts of the cascade.

How this plays out in terms of efficacy and safety remains to be seen, but Zimura is already being studied in a second phase 3 clinical trial, which, in fact, reached full enrollment in July of this year.

We already have the results of the first phase 3 study, called GATHER1. The second phase 3 study, GATHER2, is ongoing, and what is encouraging is that, despite the COVID-19 pandemic, we see excellent patient retention in the study so far, with over 95% injection fidelity as of June of this year. Iveric Bio has to take some credit for this, as they have really done everything they could to help sites and patients, making recruitment and retention as easy as possible.

Q: It's exciting to hear that we may have a treatment option for our GA patients in the future. Is the Zimura GA program the only thing that is happening at Iveric?

PK: Zimura for GA is certainly the lead program at the company, but Iveric is also exploring Zimura in other diseases where complement is implicated, and that includes autosomal recessive Stargardt disease. Use of Zimura as monotherapy in earlier stages of dry AMD is under consideration.

In addition, Iveric is taking another "shot on goal" in dry AMD. As we know HtrA1 polymorphisms have been directly linked to GA, and the company has an HtrA1 inhibitor that they are developing for dry AMD.

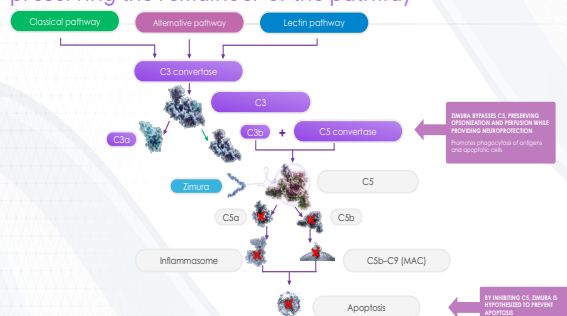
Iveric has several earlier-stage gene therapy programs looking at inherited retinal diseases, such as Leber congenital amaurosis, and others.

Q: Well, thank you for the update, Dr. Kaiser. Any final thoughts?

PK: You're welcome. I have to say that it's an exciting time at Iveric Bio, and it's good to be working with an experienced team who is just as focused on solving diseases of the retina as we are in the retina physician community.

Sneak Peek at the Science

Zimura targets C5, inhibiting the 2 triggers of cell death, preserving the remainder of the pathway



Zimura is a pegylated RNA aptamer that functions as a high-affinity, high-specificity inhibitor of complement C5. C5 is a component of the complement signaling pathway that plays a key role in driving inflammation and cell lysis in multiple retinal pathologies, including GA.¹⁻⁴ Zimura inhibits the cleavage of C5 within the complement cascade, which then prevents the formation of key proteins C5a and C5b.¹ C5a is thought to play an important role in the priming of the inflammasome, while C5b forms a part of the membrane attack complex (MAC, C5b-9).¹ Both C5a and C5b eventually lead to cell lysis and apoptosis.¹ By inhibiting a central component of the complement cascade (C5), Zimura has the potential to slow the progression of retinal cell degeneration by blocking the pathway before cell death occurs.

Did you know?

- AMD is the leading cause of central vision loss in the population over age 50 in developed countries.⁵
- While wet AMD accounts for much of the vision loss due to AMD, it comprises only about 10% of the entire AMD population.⁶ The 90% of AMD patients that suffer from dry AMD can also suffer devastating vision loss when end-stage GA develops.
- GA severely affects vision and often threatens complete vision loss in an estimated 1.5 million individuals in the United States and up to 5 million worldwide.²
- Trends project GA prevalence to rise in the coming years, with estimates of 18.6 million cases globally by the year 2040.⁷
- The progression of GA is irreversible, and there are currently no approved treatments.

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