

Ocular Drug Delivery: The Evolution of Retina Practice Continues

Surgery has been and always will be an important part of retina practice, but our field is becoming increasingly pharmacologic in nature. The introduction of specialized diagnostic modalities about 2 decades ago permitted not only earlier diagnosis in the clinic, but also new understandings of the pathophysiology of age-related macular degeneration, diabetic macular edema, retinal vein occlusion, uveitis, and other pathologies affecting our patients.

Armed with this new knowledge, our industry partners quickly realized the unmet medical needs and untapped potential in retina medicine, and investment into the ophthalmic space—and into retina research in particular—accelerated tremendously. Savvy and dynamic biotechnology firms backed by venture capital investors sprung up seemingly overnight, and thus a new mechanism for developing ophthalmic technologies was born. What has resulted is the development of new drugs and drug classes (ie, anti-VEGF agents) and refined treatment protocols, such that patients can now not only hope to preserve vision, but also have a reasonable expectation to regain some sight lost to retina diseases.

Modern retina practice is a highly technical and advanced field of medicine, and as this issue of *Retina Today* demonstrates, the evolution is accelerating.

Ocular drug delivery is the next wave of innovation in retina practice, and the first indications of the future are already upon us. The likes of Ozurdex (dexamethasone 0.7 mg intravitreal implant, Allergan) and Retisert (fluocinolone acetonide 0.59 mg intravitreal implant, Bausch + Lomb) are no longer just lofty ideas presented at annual conferences; they are in our clinics and in our patients' eyes, helping to resolve inflammatory conditions. Hopefully other innovations, such as the Iluvien implant (Alimera Sciences), are close to approval so that our patients can benefit from additional options.

The cover articles in this issue feature a number of intriguing innovations in ocular drug delivery that have the potential to again reshape posterior-segment medicine. These are admittedly early-stage products, and much work is yet to be done to verify their safety and efficacy. At the same time, it was not all that long ago that the products we use in regular clinical practice were considered early-stage candidate technologies. It is a good bet that 1 or 2 of the technologies discussed in this

issue will make it from bench to bedside, but even if they do not, it is without question that our subspecialty (and our patients) will continue to benefit from the wealth of research being conducted. ■



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