AbbVie: Honoring Its Legacy to Guide Its Future







Building on 75 years of innovation, AbbVie continues its strong investment in eye care.

FEATURING RAMIN VALIAN, TARA CAPALBO, AND HORIA IJACU, MD

ore than 75 years ago, pharmacist Gavin S. Herbert and chemist Stanley Bly, the scientists who formed Allergan—now AbbVie made their first scientific breakthrough in the form of antihistamine nose drops. The product was eventually reformulated to become the first antihistamine eye drop in the United States, thereby fulfilling an unmet need in the marketplace. Decades later, AbbVie continues to demonstrate the same pioneering spirit in developing innovative treatments to address eye care's unmet needs. Today, having launched more than 125 eye care products in the US since its inception, the company has been at the forefront of many meaningful breakthroughs in retina, glaucoma, ocular surface disease, and ocular surgery (Figure 1).

A HISTORY OF "FIRSTS" IN EYE CARE

According to Ramin Valian, Vice President of Eye Care and Pipeline Commercialization Strategy for AbbVie, the company's legacy has included a lot of "firsts" built on science and innovation toward its mission of patient care. "With each successful launch," he said, "AbbVie created new markets in vision care. We have been pioneers in the management of dry eye disease, presbyopia, and interventional glaucoma."

And AbbVie's Eye Care team is not resting on its laurels. In addition to

an active drug discovery program, the company is pursuing opportunities in drug delivery and gene therapy. These efforts include progressive drug delivery systems that look to address one of the main challenges of drop compliance in glaucoma. AbbVie is also involved in several strategic alliances including:

- An option to license to develop, manufacture and commercialize a potential treatment option for dry eye disease (DED), from Aldeyra Therapeutics, Inc.;
- A collaboration with Capsida Biotherapeutics, Inc., to develop genetic-based therapies for neurodegenerative and serious eye diseases; and
- A licensing agreement with REGENXBIO Inc. to develop and commercialize a potential gene therapy for chronic retinal conditions.

INNOVATION

Although innovation is the company's methodology, patient care is the driving force behind the AbbVie Eye Care team's commitment to developing transformative medications. As Mr. Valian stressed: "Developing innovative treatments to address unmet ocular needs is a core tenet of AbbVie's values." In service to this guiding principle, its impressive pace

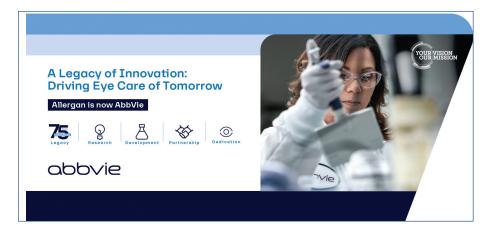


Figure 1. AbbVie is continuing its legacy of innovations in eye care.

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-RAMIN VALIAN

of innovation is one of its proudest achievements. Currently, AbbVie's Eye Care team is focused on building upon its legacy in four key areas: retina, ocular surface disease, glaucoma, and consumer healthcare. In glaucoma, AbbVie boasts exciting branded portfolios in three categories surgical, drops, and sustained-release treatments. AbbVie's over-the-counter (OTC) drops and ointments remain a primary line of preserved and preservative-free topical treatments that doctors recommend for dry eye symptom relief. In retina, AbbVie is investing heavily to develop therapies to potentially treat wet age-related macular degeneration (AMD) and diabetic macular edema.

Retina

Retina is an area with significant unmet need. Currently, retinal diseases, such as wet AMD and diabetic retinopathy, are the leading cause of vision loss. Patients often need frequent injections, as often as once per month. Without these injections, patients' sight can rapidly decline. Ongoing research involves previously inaccessible areas of the eye; it therefore may offer a meaningful paradigm shift. Mr. Valian described the company's anticipation for researching and developing innovative treatments within the retinal disease market. "AbbVie is excited.

for a way to address the burden of multiple injections."

Horia Ijacu, MD, who serves as Vice President, US & Global Pipeline Eye Care at AbbVie, described how the company is examining ways to enhance diagnostic feedback, particularly on optical coherence tomography (OCT), and with artificial intelligence (AI). "Embedding AI into an OCT machine may help clinicians standardize their measurements and get as much information as they can on many more biomarkers than what they can see visually," he said.

AbbVie's Eye Care team is also researching neuroprotective therapies that may help preserve the retinal ganglion cells from degeneration. "We are exploring neurodegeneration and neurorepair, which extends to the degeneration of the optic nerve in glaucoma. In the foreseeable future, we are going to apply these learnings to potentially create truly transformational treatments for patients that could go beyond controlling intraocular pressure (IOP)," said Mr. Ijacu.

Glaucoma and Ocular Surface Disease

Tara Capalbo, General Manager of Glaucoma & Ocular Surface Disease at AbbVie, sees vast opportunities to develop therapies in these areas. In glaucoma in the near term, Ms. Capalbo is most excited about sustained release therapies that may address patient compliance and ocular surface disease with straight-forward, in-office treatments. The team is investing in the research and development of different sustained release platforms and medications, as well as surgical treatments that may potentially help reduce patients' reliance on medications. "We know that doctors are excited about having additional options to manage glaucoma in a space that avoids the diseased tissue," commented Ms. Capalbo. Longer term, the holy grail in glaucoma is protecting the optic nerve, and the team is using its expertise in neuroscience to look at different neuroprotective assets for the future.

If successfully brought to market, these potential therapies would complement AbbVie's existing glaucoma portfolio, which includes topical and interventional treatment. The company's goal is to give ophthalmic surgeons more options to cover the broad spectrum of glaucoma severity seen in everyday clinical practice.

"For ocular surface disease," continued Ms. Capalbo, "the most urgent unmet need is having a product that works quickly to alleviate signs and symptoms, yet treats the underlying causes of inflammation." Her team is excited for the potential of investigative treatments that offer a different mechanism of action from other DED formulations. "We are a huge supporter of eyecare societies and educational forums. To be able to leverage that infrastructure and those relationships to bring potential products to market to meet the needs of suffering patients is very exciting," she explained.

Meeting the Evolving Needs of Consumer Health Care

As populations and their demographics change over time, new pressures on public health care emerge. When asked what he considers the



Figure 2. Refresh® Relieva® PF Xtra.

greatest unmet patient needs within the field of eye care, Mr. Ijacu referred to the large segment of the population who are aging but also living longer than previous generations. Meeting these individuals' needs, he said, requires three important components: (1) access to care, including annual eye exams and access to payor coverage for treatments; (2) treatments better suited to long-term use for a population that's living longer; and (3) less burdensome treatments for those with mobility issues and poor sight.

Mr. Ijacu explained, "It behooves us to focus on early identification of disease. I don't know that enough people have access to or even the call to action to get their sight checked as regularly as they should. As with any chronic disease, the sooner our eye care professionals (ECPs) can catch pathology and treat it, the better position they are in to preserve patients' vision for the rest of their lives."

According to Mr. Ijacu, AbbVie is making efforts to raise awareness about the importance of annual eye checkups throughout the US, especially in less-populated areas, and to educate at-risk and historically underserved populations about age-related diseases like glaucoma.

Toward the goal of reducing the burden of treatment for patients on drops, Mr. Ijacu noted that new treatments have made progress. Still, more advanced treatments for both glaucoma and retinal diseases are underway with the expectation that patients will be living with these diseases longer. "Since we are faced with a big subset of our population aging and perhaps experiencing eye pathology, we need to take different approaches to treatments," said Mr. Ijacu.

In time, he expects novel therapies to challenge the traditional models of medication access currently in place. "If we reach an injection frequency of once per year, or a gene therapy that may work for 2 or 3 years, the equations for access and pricing will be a little bit different for payors."

In the OTC marketplace, AbbVie is expanding its portfolio of OTC eye drops. Currently, Refresh® remains the No. 1 doctor-recommended and No. 1 selling preservative-free brand of artificial tears. ^{1,2}

Joining the portfolio this year are two new preservative-free options, Refresh® Relieva® PF Xtra (Figure 2) and Refresh Tears® PF (Figure 3), to lubricate and relieve dry eye symptoms. These both come in soft-squeeze, multidose bottles.

The multidose bottles of these two options will help reduce the plastic waste associated with single-use eye drops. AbbVie has committed to reducing consumer waste in landfills by redesigning its bottling and packaging materials.

A COMMITMENT TO EYE CARE PROFESSIONALS

Throughout its more than 75 years in vision care. AbbVie has cultivated partnerships of trust and collaboration with ECPs, both tenured practitioners and those just launching their careers. Through various partnerships with optometry schools, medical schools, and fellowship programs, the company invests in establishing educational relationships during the training years that broaden and deepen over time. In 2012, AbbVie established the OPTOMETRY JUMPSTART® program to ensure optometrists-in-training have access to AbbVie products and education on disease states. This program also gives graduates access to a sales representative once they start in clinical practice. Last year, AbbVie launched the Glaucoma Fellows Institute to help contribute to glaucoma fellows' education about and exposure to diagnostics, as well as treatment options.



Figure 3. Refresh Tears® PF.

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By maintaining strong communication with its ECP partners, as well as researchers in academia and private practice, AbbVie is able to respond to their clinical needs and produce innovative products that significantly help their patients. "One of the things that I'm most proud of at AbbVie," commented Ms. Capalbo, "is that, because of our legacy in the eye care space, we partner closely with physicians and researchers, and we tend to be among the first companies these folks approach with innovative product ideas."

Mr. Valian stressed, however, that AbbVie's relationships extend to all professionals in eye care who contribute to getting patients the medications they need. "The patient is certainly the north star of our organization," he explained, "but our access point is not only through the eye care professional, but the office staff and others who interact with all aspects of the patients' experience, from finding the right treatment option, to prescribing, to reimbursements, to even managing patients' expectations."

Mr. Ijacu thought that the feedback loop AbbVie cultivates with its ECPs is remarkable. "I have found that eye care practitioners are very good at understanding and articulating what their patients are looking for and what good outcomes look like to them. That's a brilliant feedback gift that they're giving us." The counterpoint in those relationships, he said, was AbbVie's ongoing contributions to the practice of ocular care. "We seek to provide the right information that helps these experts give their patients the best outcomes. Whether it's education on our products, or sharing surgical techniques and interventional treatments that are at the core of the success of many of our ECPs, we are honoring our commitment. At the end of the day, we're all united in the goal of preserving and saving patients' sight."

A PROUD LEGACY, A BRIGHT FUTURE

AbbVie's legacy of innovation and investment in ocular science and its importance to the eye care marketplace is a matter of pride for Mr. Valian. When patients see the AbbVie name, he wants them to make the following

associations: "Quality, trust, innovation, and reliable satisfaction. I want patients to see us as the eye care company that is constantly thinking about how to make their lives better." He stressed that the legacy of AbbVie starts and ends with patients, in trying to save their sight. "We live our mission statement, which is, 'Your Vision, Our Mission." It's the Eye Care team's dedication to this mission that differentiates AbbVie from competitors, Mr. Valian said.

Like Mr. Valian, who is an 18-year veteran of Allergan/AbbVie, much of the team has worked within eye care exclusively. He hailed the breadth of their knowledge and experience: "The people behind the organization make the organization. This team really cares about outcomes, they care about quality, and they care about making an impact, not only with patients, but with customers."

As AbbVie continues to invest in research and development and strives to maintain its pace of innovation in vision care, the company will keep collaborating with both patients and ECPs to ensure that each group has the optimal experience when choosing AbbVie products and services.

- 1. Allergan Data on File 2023.
- 2. Allergan Data on File 2021.

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