Contributions to the World’s Glaucoma Patients

Santen will fully harness our strengths as a specialized pharmaceutical company to contribute to patients being identified early and receiving treatment and aims to make a greater contribution to the treatment of glaucoma, an area where the medical need is high.

Source: Market Scope, Santen analysis

<table>
<thead>
<tr>
<th>Year</th>
<th>Global Glaucoma Patient Population</th>
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</thead>
<tbody>
<tr>
<td>2013</td>
<td>70.1 million people</td>
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<tr>
<td>2015</td>
<td>80.4 million people</td>
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<tr>
<td>2020 (forecast)</td>
<td>90.6 million people</td>
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</tbody>
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Proportion of Revenue from Glaucoma Products (Fiscal year ended March 31, 2017) 27%

Source: Market Scope, Santen analysis
In glaucoma, the field of vision is gradually reduced due to damage to the optic nerve caused by factors including elevated intraocular pressure. Disease onset is usually in middle or older ages. Most patients are unaware of gradual changes in vision, but early detection and treatment is vital as the condition can eventually cause blindness if left untreated. Lowering intraocular pressure is the basis of treatment, with the goal of long-term control.
We are working to reinforce R&D in glaucoma to develop more effective therapies while also offering a broad selection of treatments. We are developing DE-117 (omidepag isopropyl) and DE-126 (sepetaprost) as next-generation glaucoma and ocular hypertension treatments following on our key product Tapros (tafluprost). An EP2 receptor agonist DE-117, a novel mechanism of action differentiated from the prostaglandin analogues often prescribed as first-line therapies, has completed Phase 2 trials in the U.S., is in Phase 2b/3 trials in Japan, and is in Phase 3 trials in Asia. DE-126, a novel prostaglandin analogue and an FP/EP3 dual receptor agonist is expected to lower intraocular pressure more effectively than FP receptor agonist Tapros. Phase 2b trials for DE-126 are in progress in the U.S. and Japan.

We are also focusing on the development of products catering to specific medical needs as part of maximizing the value of our current portfolio. One example is the combination drug Tapcom (tafluprost/timolol maleate), which is available in Japan, Europe and Korea. Another is a preservative-free, single-dose formulation of Tapros currently available in Japan and Singapore, for which Santen is filing NDAs (New Drug Applications) across markets in Asia.

In addition, we are developing the InnFocus MicroShunt (DE-128) as a surgical implant for lowering intraocular pressure by promoting better drainage of aqueous humor from the eye. Designed using an innovative and bio-inert material, the device is implanted using minimally invasive surgery. DE-128 is expected to offer a new surgical option for treating glaucoma.

Looking ahead, we will continue to develop innovative new products and therapies to help enhance QOL for patients worldwide.
Santen aims to use its uniquely broad product lineup and specialist knowledge to contribute further to patient treatment.

Initiatives in Japan Business

Over 4 million Japanese are thought to have glaucoma, making it the single largest segment of the Japanese ophthalmic market. Santen’s product lineup spans more than 10 different types of treatment for glaucoma and ocular hypertension, including Tapros, Tapcom and Cosopt (dorzolamide hydrochloride/timolol maleate). These offer a range of therapeutic options depending on the patient’s symptoms and disease progression. In addition to supplying superior products, Santen has established trust with ophthalmologists by providing high-quality information about these drugs. We also seek to create opportunities for ophthalmologists to provide information, give talks or otherwise assist patients to understand the disease and related treatment options.

Lifetime efforts to control intraocular pressure are required once a patient is diagnosed with glaucoma. We are working to provide clinics with the necessary information for patients to help improve the sustainability of treatment. Going forward, by leveraging our specialist expertise and experience in the field, we will continue to address the challenge of making a contribution to glaucoma treatment.

High Hopes for Santen to Continue Developing Products Attuned to the Needs of Glaucoma Patients

In the past few years, innovation in glaucoma treatment in Japan and other developed countries has advanced tremendously. In drug treatments, we have seen progress in terms of an increase in the types of ophthalmic solutions available, greater market penetration of combination ophthalmic solutions, and enhanced convenience for patients. In surgical treatments, we are entering an era of minimally invasive glaucoma surgery using specialized devices. There has been an increase in surgical methods that are able to deliver sustained treatment efficacy and safety, and efforts are being made to expand the indications for treatment. This progress in glaucoma treatment is highly beneficial to maintaining the visual function of patients. Santen is Japan’s leading company in marketing superior ophthalmic solutions that fit the needs of a wide range of glaucoma patients with medicines, such as Tapros, Cosopt, Tapcom and Sanpilo. I have learned that Santen is working to develop new drug treatments and an implant device for glaucoma. Glaucoma is a chronic disease that requires treatment over several decades. I have high hopes that Santen will continue to develop and market products from the point of view of patients.
Feature: Contributions to the World’s Glaucoma Patients

Global Contribution to Treatment of Glaucoma

Santen provides a range of therapeutic options for glaucoma across Asian and EMEA markets tailored to regional customer needs.

Initiatives in the Asia Business

Led by the advanced countries in the region, Asia’s rapidly aging population is increasing the need for glaucoma therapies. However, a wide disparity in healthcare levels has brought about significant differences in glaucoma treatment across the region. While some countries take advanced approaches, other countries have a need to provide ophthalmologists with more scientific findings on glaucoma. Santen tailors its approach across the region, using the experience and expertise gained in Japan to provide relevant services while also seeking to upgrade local product lineups.

In China, which is driving the growth of the ophthalmic market in Asia, we are working to increase the market penetration of Tapros after its March 2016 launch. In Korea, we are building Santen’s market presence with the products Taflotan (tafluprost) and Taptiqom (tafluprost/timolol maleate), along with the ophthalmic lineup acquired from Merck.

In ASEAN countries, in addition to introducing Taflotan/Saflutan, Taptiqom/Tapcom and the Merck ophthalmics lineup, we are actively promoting educational activities to increase glaucoma awareness. These activities seek to maximize the strengths of Santen, including sharing information from Japan and Korea across the broader region.

Helping Ophthalmologists Specializing in Glaucoma to Develop Expertise
Supporting the Thailand Glaucoma Camp

The glaucoma market is growing at an average 5% annually in Thailand, the largest prescription ophthalmic pharmaceutical market in the ASEAN region. Glaucoma is the leading segment of ophthalmic pharmaceuticals, accounting for about 40% of this market. Yet there are only around 160 ophthalmologists specialized in glaucoma, therefore they are facing challenges to nurture specialized doctors for the future. We organize the Thailand Glaucoma Camp as an opportunity for ophthalmologists to hear lectures from global opinion leaders in the field, and to participate in discussions with the aim of building their glaucoma specialty knowledge and technical expertise. Started in 2015, the three-day program is being held for the third time in September 2017. As the sponsor of this professional development initiative, we hope to contribute to the development of improved glaucoma treatment in Thailand.

Asia-Pacific Glaucoma Congress (APGC) 2016
(July 2016 in Chiang Mai, Thailand)

The Thailand Glaucoma Camp
(November 2016 in Chiang Rai, Thailand)
Focus on Glaucoma

Revenue from Treatments for Glaucoma and Ocular Hypertension by Region

Initiatives in the EMEA Business

The acquisition of the Merck ophthalmology portfolio in 2014 expanded Santen’s business in the EMEA region to include approximately 45 countries. We are focused on increasing awareness of the Santen brand in new markets, including the U.K., Italy and Spain. In Northern and Eastern Europe, where we have been active since the second half of the 1990s, besides promoting new and existing products, we also provide opportunities for key opinion leaders to hold seminars and share the latest scientific findings in ophthalmology. Customer satisfaction is rising steadily as we broaden such activities.

In the EMEA markets for glaucoma therapies, many ophthalmologists expect products to be free of preservatives. This preference reflects the need to minimize side-effect risk since glaucoma treatment often requires the long-term administration of eye drops (many glaucoma patients also suffer from keratoconjunctival disorders such as dry eye). Santen has pioneered the development of preservative-free glaucoma and ocular hypertension treatments in EMEA, and we lead this market segment. Going forward, we will contribute to greater QOL for patients by trying to increase the market penetration of Taflotan/Saflutan and Taptiqom.

What Is Expected from Santen in the Future?

Today the majority of the nearly 80 million glaucoma patients worldwide are managed with a lifelong form of medical therapy. So one should ask: how successful is this medical therapy in the real world? Sadly, in ophthalmology we hear a lot about successes, but seldom about failures... The alarming fact remains that global blindness due to glaucoma is increasing relentlessly, in major part due to a failure of adherence¹. We have yet to deliver truly successful medical therapies that balance good efficacy with tolerability² and adherence. Santen must be applauded for supporting a novel preservative-free treatment paradigm. By making these preservative-free antiglaucoma drops easier to take, both adherence with the treatment and 24-hour efficacy are improved. However, preservative-free options comprise only a small fraction of the glaucoma medications prescribed today. What can be expected from a truly global ophthalmology company, like Santen, is assistance in gathering convincing evidence for the superiority of preservative-free medications. This will not only help transform glaucoma therapy into being 100% preservative-free, but in so doing will enhance the outcome of therapy, thereby diminishing the burden of blindness worldwide.

Anastasios G. Konstas
M.D., Ph.D. (Glasg)
Professor in Ophthalmology
Aristotle University of Thessaloniki, Greece

¹. Whether patients continue to take their medications as prescribed by the treatment plan
². The patient’s ability to endure side effects