



**News Release** 

Bayer Yakuhin, Ltd. Santen Pharmaceutical Co., Ltd.

# Intravitreal VEGF Inhibitor "EYLEA<sup>®</sup> (aflibercept) Solution for Intravitreal Injection" Released on the Market for the Treatment of Wet Age-Related Macular Degeneration

**Osaka, November 27, 2012** - Bayer Yakuhin, Ltd. (Osaka, hereafter Bayer Yakuhin) and Santen Pharmaceutical Co., Ltd. (Osaka, hereafter Santen) today launched the intravitreal VEGF\* inhibitor "EYLEA<sup>®</sup> solution for intravitreal injection 40 mg/mL" (aflibercept [genetical recombination], hereafter EYLEA). Santen distributes the product based on a co-promotion agreement with Bayer Yakuhin concluded on May 7, 2012. Bayer Yakuhin and Santen both provide EYLEA drug information to healthcare professionals.

\* VEGF = vascular endothelial growth factor

EYLEA is a novel intravitreal VEGF inhibitor co-developed by Bayer HealthCare in Germany and Regeneron Pharmaceuticals, Inc., in the United States for the treatment of retinal disorders. It is a recombinant fusion protein consisting of portions of the extracellular domains of human VEGF receptors 1 and 2 fused to the Fc portion of human IgG1 and formulated as an iso-osmotic solution for intravitreal administration. EYLEA acts as a soluble decoy receptor for various members of the VEGF family including VEGF-A and placental growth factor (PIGF) and bind with them with great affinity and thus can inhibit the binding and activation of these cognate VEGF receptors. EYLEA thus inhibits abnormal vascularization and leakage.

EYLEA is expected to contribute to the improvement and maintenance of visual acuity by the proactive treatment regimen of 3 consecutive monthly doses in the initial phase usually followed by once every two months dosing in the maintenance phase for patients of age-related macular degeneration with subfoveal choroidal neovascularization (wet AMD).

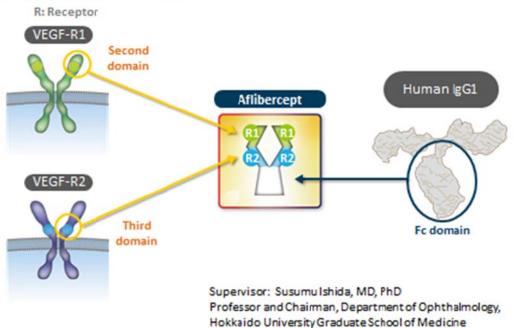
Bayer Yakuhin and Santen concluded their co-promotion agreement for EYLEA in Japan on May 7, 2012. With EYLEA, Bayer Yakuhin enters the market for back-of-the-eye drugs which mainly includes products for the treatment of retinal diseases. By partnering with Santen, the leading ophthalmic pharmaceutical company in Japan, Bayer Yakuhin will be able to offer the latest information relating to EYLEA to a broader range of ophthalmologists. Santen offers a full line-up of pharmaceutical ocular products for the treatment of front-of-the-eye diseases. By expanding its product line to include EYLEA for the treatment of wet AMD, a back-of-the-eye disease, Santen expects to meet the treatment needs of a broader range of patients. Bayer Yakuhin and Santen work toward proper information gathering and providing activities, in order to contribute to the progress of medical treatment by healthcare professionals and to the improvement of patients' quality of life with this new treatment option.

Product name	EYLEA <sup>®</sup> solution for IVT inj. 40 mg/mL
Non-proprietary name	Aflibercept (genetical recombination)
Indication	Age-related macular degeneration with subfoveal choroidal neovascularization
Regimen	2 mg of Aflibercept (Genetical Recombination) (0.05 mL) is administered by intravitreal injection once every month for three times consecutively (initiation phase). In the following maintenance phase, usually, it is administered by intravitreal injection once every 2 months. The dosing interval may be adjusted according to the patient's symptom/condition
Package	EYLEA <sup>®</sup> solution for IVT inj. 40 mg/mL One vial (with one needle to collect solution attached with a dedicated filter)
Date of marketing authorization	September 28, 2012
Date of listing in the NHI reimbursement price	November 22, 2012
NHI drug price	(2mg 0.05mL 1 vial) 159,289 yen
Date of launch	November 27, 2012
Marketing authrorization held by	Bayer Yakuhin, Ltd.
Distributed by	Santen Pharmaceutical Co., Ltd.

<Overview of EYLEA® solution for intravitreal (IVT) injection (inj.) 40 mg/mL>



# EYLEA® is a recombinant fusion protein, consisting of portions of human VEGF receptors 1 and 2 extracellular domains fused to the Fc portion of human IgG1



# About VIEW 1 and VIEW 2

Two global Phase III clinical studies (VIEW 1 and VIEW 2) were conducted targeting wet AMD patients. In these trials, it was demonstrated that aflibercept 2mg dosed every other month (following 3 initial monthly injections) successfully met the primary endpoint of statistical non-inferiority, compared to ranibizumab 0.5 mg dosed every month, in the proportion of patients who maintained or improved vision (less than 15 letters of vision loss on an ETDRS chart) over 52 weeks. The most common adverse reactions reported in patients receiving aflibercept were conjunctival hemorrhage, eye pain and increased intravitreal pressure.

# About VEGF

Vascular endothelial growth factor (VEGF) is a natural protein in the body. It stimulates the formation of new blood vessels (neovascularization) to support tissue and organ growth. At the same time, it is also involved in abnormal angiogenesis in the eye in patients with certain disorders such as wet AMD, and induces edema by increasing vascular permeability.

## About Wet AMD

Age-related macular degeneration (AMD) is a leading cause of acquired blindness. AMD is diagnosed as either dry (non-exudative) or wet (exudative). In wet AMD, new blood vessels grow beneath the retina and leak blood and fluid. This leakage causes disruption and dysfunction of the retina creating blind spots in central vision, and it can account for severe visual dysfunction in wet AMD patients.

Wet AMD is the leading cause of blindness for people over the age of 65 in the U.S. and Europe. In Japan, wet AMD is the fourth most common cause of acquired blindness<sup>1</sup>, and the number of patients is increasing. The research conducted in 2007 targeting residents in Hisayama, Fukuoka, showed that 1.2% of residents over the age of 50 had wet AMD in at least one eye<sup>2</sup>. Extrapolating from this study, the number of patients in Japan estimated to have wet AMD eligible for treatment with anti-VEGF therapy is approximately 700,000.

### References:

1 Ophthalmic Epidemiology, 17(I), 50-57, 2010: "Prevalence of Visual Impairment in the Adult Japanese Population by Cause and Severity and Future Projections" Masakazu Yamada, Yoshimune Hiratsuka, Chris B. Roberts, M. Lynne Pezzullo, Katie Yates, Shigeru Takano, Kensaku Miyake, and Hugh R. Taylor

2 New Ophthalmology 26(1) 25-30, 2009: Observational study (cohort study): Hisayama-cho study. Yasuda M.

#### About Santen

Founded in 1890, Santen is a global company headquartered in Osaka, Japan. Santen researches, develops and markets ophthalmic products for physicians worldwide. Among prescription ophthalmic pharmaceuticals, Santen holds the top share within the Japanese market and is one of the leading ophthalmic companies worldwide. For more information, visit

http://www.santen.co.jp/

#### About Bayer Yakuhin, Ltd.

Bayer Yakuhin Ltd., headquartered in Osaka, is a healthcare company which combines business activities of Pharmaceuticals, Radiology & Interventional and Animal Health (companion and food animal products). Pharmaceuticals business is focused on the following areas: Cardiovascular & Neurology, Oncology & Hematology, Women's Health & Dermatology and Ophthalmology.Bayer Yakuhin aims to be one of leading pharmaceutical companies, which responds to Japanese patients' unmet medical needs, with the spirit of Bayer's corporate slogan "Science For A Better Life".

Bayer Yakuhin homepage: http://www.bayer.co.jp/byl

#### **About Bayer HealthCare**

The Bayer Group is a global enterprise with core competencies in the fields of health care, nutrition and high-tech materials. Bayer HealthCare, a subgroup of Bayer AG with annual sales of EUR 17.2 billion (2011), is one of the world's leading, innovative companies in the healthcare and medical products industry and is based in Leverkusen, Germany. The company combines the global activities of the Animal Health, Consumer Care, Medical Care and Pharmaceuticals divisions. Bayer HealthCare's aim is to discover, develop, manufacture and market products that will improve human and animal health worldwide. Bayer HealthCare has a global workforce of 55,700 employees

(Dec 31, 2011) and is represented in more than 100 countries. Find more information at www.bayerhealthcare.com.

#### About Regeneron Pharmaceuticals

Regeneron is a fully integrated biopharmaceutical company that discovers, invents, develops, manufactures, and commercializes medicines for the treatment of serious medical conditions. Regeneron markets three products in the United States, EYLEA® (aflibercept) Injection, ZALTRAP® (ziv-aflibercept) Injection for Intravenous Infusion, and ARCALYST® (rilonacept) Injection for Subcutaneous Use; ZALTRAP is co-commercialized with Sanofi. Phase 3 studies are in progress with EYLEA in two additional indications and with product candidates sarilumab and REGN727. Regeneron has active research and development programs in many disease areas, including ophthalmology, inflammation, cancer, and hypercholesterolemia. Additional information and recent news releases are available on the Regeneron web site at www.regeneron.com.

#### **Bayer Forward-Looking Statements**

This release may contain forward-looking statements based on current assumptions and forecasts made by Bayer Group or subgroup management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

#### Santen Forward-looking Statements

Information provided in this press release contains so-called "Forward-looking Statements". The realizations of these forecasts are subject to risk and uncertainty from various sources. Therefore, please note that the actual results may differ significantly from the forecasts. Business performance and financial condition are subject to the effects of change in regulations made by the governments of in Japan and other nations concerning medical insurance, drug pricing and other systems, and to fluctuations in market variables such as interest rates and foreign exchange rates.