**Santen and Airdoc Partner to Improve Diagnostic Rate of
Fundus Ocular Diseases with AI device in China**

31 August 2021 – Osaka, Japan – Santen Pharmaceutical Co., Ltd. ("Santen"), a specialized company dedicated to ophthalmology, and Shanghai Airdoc Medical Technology Co., Ltd. ("Airdoc"), a leading enterprise in retina Artificial Intelligence, today announced a strategic partnership to improve eye disease diagnostic rate and to boost eye health level among Chinese grassroots communities. Santen will give full play to its rich experience and extensive channels in ophthalmology to market portable fundus camera to relevant departments in medical institutions nationwide, and to provide grassroots medical system of China with accurate, fine, fair-price, and guaranteed fundi screening devices and supporting solutions.

The strategic cooperation initiated between Santen and Airdoc is dedicated to providing an efficient and convenient solution to the alleviation of the real dilemma, which means to assist grassroots doctors in improving the efficiency and quality of eye disease diagnosis through AI retina screening technology and convenient fundi camera popularization & application.

In the strategic cooperation, the hardware and devices independently developed by Airdoc will be used. The operations are simple. Doctors or nurses of all departments only need to go through simply training to acquire image. Meanwhile, the early examination, auxiliary diagnosis, and health risk evaluation solution based on retina image AI recognition can quickly and noninvasively discover early health risks through the retina to help doctors efficiently and excellently evaluate fundus diseases and improve diagnostic accuracy. It is greatly helpful to the early discovery, early intervention, and early treatment of eye disease risks including glaucoma, etc. in grassroots communities.

As Chinese economy develops, the aging population and the changing lifestyle have made age-related eye diseases and metabolism-related eye diseases more prominent[1]. They have become the primary blinding eye disease in China[1]. Among them, the rate of diabetic retinopathy, pathologic myopia, glaucoma, age-related macular degeneration, and cataract, etc. keeps rising[1].

Glaucoma is globally the first place among irreversible blinding eye diseases[2]. Glaucoma patients in China have been continuously growing since the past few years[3,4]. In 2020, the number may be nearly 22 million, taking up 1/4 of the global population of glaucoma patients[3,4]. Among them, more than 1/4 will go blind. Glaucoma is difficult to diagnose in the early stage[3,4]. As the symptoms are hidden and hard to find in the early stage, so regular check-up is required. Once developed, it will severely affect the patient's physical and mental health as well as life quality.

As for eye diseases, early screening, early diagnosis, and early treatment are the key to prevention. To manage early diagnosis and treatment of blinding eye diseases including glaucoma, patients not only need to rely on the doctors' professional skill level, but also need precise and effective test equipment for auxiliary diagnosis. However, the ophthalmology in China is faced with lack and uneven distribution of doctors. According to statistics from the National Health Commission of the People's Republic of China[5], currently China has only 44,800+ ophthalmologists, most of which are in first-tier and second-tier cities. As for those in third-tier and fourth-tier cities, especially fundi disease doctors, are particularly insufficient. Therefore, the gap between high prevalence & high blinding rate and the low diagnostic level of blinding eye diseases including glaucoma needs to be bridged by a new technology.

Retina is the only part of human body in which blood vessels and nerves can be directly observed noninvasively. Glaucoma or other eye diseases or even systemic diseases can be diagnosed through retina image. Therefore, fundus photo-based examination approach is an important way to screen diabetic retinopathy, glaucoma, and other eye diseases. Based on the approach, AI deep learning technology can gather the wisdom and experience of renowned ophthalmologists and break through regional limits to realize the distribution of fine medical resources to lower levels to serve more patients.

"Our purpose of business in China is to address social issues associated with eye health and thereby realize sustainable growth," said Shigeo Taniuchi, President and CEO of Santen, "Many patients are currently receiving treatment for eye disorders and diseases, yet this is just the tip of iceberg given China's potential. The key is to identify undiagnosed patients and ensure they have access to medication. This will contribute to alleviating these social issues and achieving sustainable growth. Santen has been working with a robust network of academics and physicians to develop an ophthalmology ecosystem. Moving forward, Santen is committed to collaborating with diverse partners to orchestrate the resources and technologies which will facilitate patient access to this ophthalmology ecosystem and through that contribute to improved eye health in China."

Takayuki Yamada, Head of Santen China Business expressed, "AI technology promotes the progress in the medical image industry. Santen tries to promote AI testing device on a large scale to realize the coverage and application of AI technology to ophthalmology through the cooperation. It will be an innovative practice of 'ophthalmology + AI'. It not only matches the Santen's VISION to 'Become A Social Innovator", but also truly helps develop the ophthalmologic ecosystem in China."

Mr. Zhang Dalei, Founder of Airdoc, expressed, "the cooperation between Airdoc and Santen is not only complementary but also coincident in concepts. It is the mission of Airdoc 'More Intelligence Better Care', to be dedicated to converting AI technology to large-scale real application, and to create social value. The cooperation will include the promotion network of Santen, a specialized company in ophthalmology, to

bring AI retina screening to more real application scenarios to serve the general public, doctors, and patients. Through accurate diagnosis applied to grassroots, the Parties will promote the early diagnosis and early screening of eye diseases to build a revolutionary AI medical mode to ultimately realize systemic innovation."

In recent years, the medical image AI field is developing quickly, especially the fundus image AI field which is extensively recognized by the industry and academic circle. *Chinese Glaucoma Guideline (2020)* pointed out that comprehensive fundus screening including glaucoma will be a relatively economic new screening mode in the future as Chinese technologies progress and develop, and AI and 5G technology mature.

About Santen

As a specialized company dedicated to ophthalmology, Santen carries out research, development, marketing, and sales of pharmaceuticals, over-the-counter products, and medical devices, and its products now reach patients in over 60 countries.

Toward realizing "WORLD VISION" (Happiness with Vision), the world Santen ultimately aspires to achieve, as a "Social Innovator", we aim to reduce the social and economic opportunity loss of people around the world caused by eye diseases and defects by orchestrating and mobilizing key technologies and players around the world.

With scientific knowledge and organizational capabilities nurtured over a 130-year history, Santen provides products and services to contribute to the well-being of patients, their loved ones and consequently to society.

For more information, please visit Santen's website (www.santen.com).

About Airdoc

Airdoc is a global market leader and pioneer in providing AI-empowered retina-based early detection, auxiliary diagnosis and health risk assessment solutions. Leveraging retinal imaging, multimodal data analyses and AI deep learning algorithms, our solutions revolutionize traditional chronic disease early detection and diagnosis, enabling non-invasive, accurate, fast, highly-effective and scalable detection and diagnosis of chronic diseases in both medical institutions and consumer healthcare providers.

In August 2020, Airdoc-AIFUNDUS (1.0), an AI-based Software as a Medical Device (SaMD) was approved for auxiliary diagnosis of diabetic retinopathy, the first of its kind to obtain the Class III medical device certificate from the NMPA, enabling it to be used in hospitals in China to assist physicians with medical diagnoses. In addition, we have developed a deep pipeline of other SaMDs and health risk assessment solutions to address various healthcare needs for the whole population, including hospitals, community clinics, health checkup centers, insurance companies, optometry centers and pharmacies.

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