

Santen Announces Global Research Initiative with Massachusetts Eye and Ear and Ulster University Researchers to Study and Develop New Treatments for Glaucoma

April 12, 2021, GENEVA and EMERYVILLE, Calif. – Santen, a global company specialized in ophthalmology, today announced a research initiative with scientists from Massachusetts (Mass) Eye and Ear (USA), a research and teaching hospital affiliated with Harvard Medical School, and Ulster University (United Kingdom) to research and develop novel treatments for glaucoma.

Vision occurs when the optic nerve transmits information between the eye's retina and the brain. The nerve can become damaged from conditions such as ocular hypertension and glaucoma, thereby leading to vision impairment or loss. This research initiative will focus on ways to preserve vision by slowing, reversing, or preventing this damage.

A leading cause of blindness, glaucoma affects more than three million Americans, and an estimated 79.6 million people worldwide. It affects people of all ages, from babies to senior citizens.^{1,2}

“Santen has been committed to the discovery and advancement of sight-saving therapeutics for more than 130 years. Through this collaborative research initiative with Mass Eye and Ear and Ulster University – distinguished institutions and academic leaders in ophthalmology research – we will employ our collective ophthalmic expertise to further the mission of preserving vision for those affected by glaucoma around the world,” said Najam Sharif, PhD, DSc., Vice President and Head of Global Alliances and External Research at Santen Inc.

“There are currently no effective treatments for glaucoma that protect the optic nerve cells from degenerating, leading to irreversible vision loss for many glaucoma patients,” said Meredith S. Gregory-Ksander, PhD, an associate scientist at the Schepens Eye Research Institute of Mass Eye and Ear, and Assistant Professor of Ophthalmology at Harvard Medical School. “Our research aims to determine if targeting a component of the immune system called the NLRP3 inflammasome, with a novel biologic we developed in collaboration with Dr. Victoria McGilligan, will stop the degeneration of optic nerve cells and help preserve vision in glaucoma patients.”

Dr. Victoria McGilligan, Lecturer in Personalised Medicine at the Northern Ireland Centre for Stratified Medicine, Ulster University said, “It is fantastic to have such strong industry interest, and of course funding and expertise, from a company with a long history in ophthalmology like Santen, which will undoubtedly speed up the development and progress of this therapeutic antibody, called InflaMab. I’m also delighted to be working on this project with Mass Eye and Ear as we are long standing collaborators and their research compliments ours perfectly. They have developed novel glaucoma models which we have then used to successfully test the innovative therapeutic we developed, which is used to penetrate the eye cells to reduce inflammation. Our ultimate collective goal is to offer hope to those at most risk of vision loss through the adoption of this treatment for glaucoma patients in clinics around the world.”

About Santen

As a global specialized company dedicated to ophthalmology, Santen carries out research, development, marketing, and

sales of pharmaceuticals, over-the-counter products, and medical devices. Santen is the market leader for prescription ophthalmic pharmaceuticals in Japan and its products now reach patients in over 60 countries. 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 websites www.santenusa.com and www.santen.com (Japan headquarters).

About Massachusetts Eye and Ear

[Massachusetts Eye and Ear](#), founded in 1824, is an international center for treatment and research and a teaching hospital of Harvard Medical School. A member of [Mass General Brigham](#), Mass Eye and Ear specializes in ophthalmology (eye care) and otolaryngology–head and neck surgery (ear, nose and throat care). Mass Eye and Ear clinicians provide care ranging from the routine to the very complex. Also home to the world's largest community of hearing and vision researchers, Mass Eye and Ear scientists are driven by a mission to discover the basic biology underlying conditions affecting the eyes, ears, nose, throat, head and neck and to develop new treatments and cures. In the 2020–2021 “Best Hospitals Survey,” *U.S. News & World Report* ranked Mass Eye and Ear #4 in the nation for eye care and #6 for ear, nose and throat care.

About Ulster University

Ulster University is a modern, forward-looking institution with student experience at the very heart of everything we do. Our high-quality teaching, informed by world-leading research across key sectors, boosts the economy and has a positive impact on the lives of people around the world. For more information, please visit www.ulster.ac.uk or follow us on Twitter @ulsteruni.

Contact

Steve Kelly

Corporate Communications

Santen Inc.

steven.kelly@santen.com

+1-510-882-6600

Claire Bowles

PR Manager, Ulster University

c.bowles@ulster.ac.uk

00447894096150

Ryan Jaslow

Senior Manager of Public Relations

Ryan_jaslow@meei.harvard.edu

+1-617-573-4385

1 Glaucoma Research Foundation. Glaucoma Facts and Stats. Available at <https://www.glaucoma.org/glaucoma/glaucoma-facts-and-stats.php>. Accessed August 22, 2019.

2 Quigley HA, Broman AT. The number of people with glaucoma worldwide in 2010 and 2020. *Br J Ophthalmol*. 2006;90(3):262-267. doi:10.1136/bjo.2005.081224.