December 22nd, 2023

Luxna Biotech Co., Ltd.

Head Office for Open Innovation Business Development Strategy, Tohoku University

Luxna Biotech and Head Office for Open Innovation Business Development Strategy, Tohoku University Announce the Initiation of the Collaborative Research for Creation of Antisense Oligonucleotide for the Treatment of Hearing Loss

Osaka, Japan, December 22nd, 2023 - Luxna Biotech Co., Ltd. (President CEO: Hideaki Sato, Headquarters: Suita-shi, Osaka, Japan, hereinafter “Luxna”) and Otolaryngology-Head and Neck Surgery, Tohoku University School of Medicine (Professor Yukio Katori, Headquarters: Sendai-shi, Miyagi, Japan, hereinafter “Tohoku University”) today announced that they have initiated the collaborative research to create antisense oligonucleotide (hereinafter “ASO”) that target a certain gene for the treatment of hearing loss.

Luxna has established and enhanced Luxna’s ASO drug discovery platform (hereinafter “LuxiAP™”) based on Luxna’s breakthrough xeno nucleic acid technology originated by Osaka university (hereinafter "Luxna XNAs Technology"). Utilizing these fundamental technologies, Luxna has promoted drug discovery research both in-house and in collaboration with pharmaceutical companies. Luxna XNAs Technology has characteristics that could solve the issues of safety and efficacy of oligonucleotide therapies (hereinafter “OTs”) and Luxna has obtained the technology licensing agreements and collaborative research agreements with several pharmaceutical companies. Through the drug discovery activities, Luxna has been investigating the candidate ASO as a potential therapeutic drug for hearing loss. On the other hand, in hearing loss, Tohoku University has expertise and experiences in evaluating drug efficacy using cochlear tissue and animal models in addition to in-depth knowledge of the pathophysiology and non-clinical studies.

Luxna and Tohoku University have entered into the collaborative research agreement to combine their strengths in science and technology with the goal of creating the ASO as a therapeutic drug for hearing loss. This collaborative research will accelerate the development and practical application of OTs using Luxna XNAs Technology.

About Luxna XNAs Technology

Luxna XNAs Technology collectively means an innovative nucleic acid group of AmNA™, scpBNA™, GuNA™ and 5’-CP™ originated in Professor Obika’s laboratory at the Osaka University Graduate School of Pharmaceutical Sciences, Bioorganic Chemistry. Luxna XNAs

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Technology could make available ASOs with high activity and low toxicity, by taking advantage of its characteristics of strong binding to mRNA and/or reduced toxicity.

About LuxiAP™

LuxiAP™ means the ASO drug discovery platform incorporated Luxna XNAs Technology. LuxiAP™ is a unique fundamental technology that increases the success rate in drug discovery and efficiently creates candidate compounds for development for about 1.5 to 2 years.

About Head Office for Open Innovation Business Development Strategy, Tohoku University

The Head Office for Open Innovation Strategy established in December 2018 works to strategically expand open innovation based on the B-U-B (Business-University-Business) Partnership model, a unique framework developed over the years by Tohoku University, in which we create innovation with major social impact functioning as a platform for participation by multiple businesses.

https://www.tohoku.ac.jp/japanese/2018/12/press-20181213-02-OI.html

About Luxna Biotech Co., Ltd.

Luxna is a biotech founded to develop safer and more effective oligonucleotide therapies (OTs) for practical use using the drug discovery platform based on modified nucleic acids originated at Osaka University. Our purpose is to bring OTs for patients with difficult-to-treat diseases. We actively collaborate with several pharmaceutical companies in developing new and effective OTs as well as advancing our own.

Contact

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