

To whom it may concern



July 6, 2018 Nissan Chemical Corporation Luxna Biotech Co.,Ltd.

## Notice Regarding Oligonucleotides Therapeutics Discovery Collaboration Agreement

Nissan Chemical Corporation (Head Office: Chuo-ku, Tokyo Japan; President: Kojiro Kinoshita) and Luxna Biotech Co., Ltd. (Head Office: Suita city, Osaka Japan; President: Hideaki Sato) announce the conclusion of the strategic research collaboration agreement for oligonucleotides therapeutics discovery today.

This collaboration capitalizes on Nissan Chemical's expertise in oligonucleotide research and manufacturing technology and Luxna Biotech's leadership in nucleic acid chemistry which is based on accumulated knowledge by Prof. Satoshi Obika (Osaka University) and CMC (Chemistry, Manufacturing and Control) considerations for a successful regulatory submission. Under the agreement, the companies will share their proprietary oligonucleotides therapeutics discovery platform and this partnership will support the next generation of innovative therapies to treat diseases with no current treatment options.

## About Oligonucleotides Therapeutics

Oligonucleotides Therapeutics are linear natural nucleic acid (DNA, RNA) or modified nucleic acid chains that works as active pharmaceutical ingredients against a certain target gene which is expected to be effective for the treatment of the disease. It is particularly attractive in recent years due to their high selectivity and potent activity against target molecules compared to small molecule drugs or antibody drugs. Also, scaling up for GMP manufacture is more feasible than that of biologic therapeutics.

## About Luxna Biotech Co., Ltd.

Luxna Biotech was founded in December 2017 to socialize research results on new modified nucleic acids which has been researched by Prof. Satoshi Obika, the Graduate School of Pharmaceutical Sciences, Osaka University and his team. Modified nucleic acid means a nucleic acid that has physical change by adding chemical modification to natural nucleic acid (DNA, RNA) and has artificial function not found in natural nucleic acid. Luxna Biotech has core technologies of monomer group of modified nucleic acid chemistry (part material constituting oligonucleotides therapeutics) and antisense sequence designing know-how. Based on these core technologies Luxna Biotech creates oligonucleotide drug seeds together with pharmaceuticals and academic researchers. For more details, please visit http://luxnabiotech.co.jp/

## About Nissan Chemical Corporation

Nissan Chemical Corporation is now moving forward to develop new products and businesses through utilization of our core technologies as the chemical company with our corporate vision of becoming "a corporate group that contributes to human survival and development". Nissan Chemical entered into the pharmaceutical business in 1982, and launched an external preparation of ketoprofen, a Calcium antagonist and a statin agent with a strong LDL cholesterol reduction. We keep trying research and development for innovative medicines by using precise organic synthesis technology, the strategic chemical library and the state-of-the-art evaluation technology for the smile and precious life around the world. For more details, please visit <a href="https://www.nissanchem.co.jp/eng/">https://www.nissanchem.co.jp/eng/</a>

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