

NEWS RELEASE



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NS-089/NCNP-02 Preclinical Data Published in Molecular Therapy Nucleic Acids

NS Pharma, Inc. (NS Pharma; President, Tsugio Tanaka) is a wholly owned subsidiary of Nippon Shinyaku Co., Ltd. (Nippon Shinyaku; President, Toru Nakai)

PARAMUS, NJ: October 17, 2023 – NS Pharma, Inc. announced today the publication of preclinical data on NS-089/NCNP-02 (brogidirsen), an investigational candidate for patients with Duchenne muscular dystrophy amenable to exon 44 skipping therapy, in the journal *Molecular Therapy Nucleic Acids*. The article, “Exon 44 skipping in Duchenne muscular dystrophy: NS-089/NCNP-02, a dual targeting antisense oligonucleotide,” is available under open access [here](#).

NS-089/NCNP-02 is an antisense nucleotide discovered through joint research between NS Pharma's parent company, Nippon Shinyaku, and the National Center of Neurology and Psychiatry (Kodaira City; President, Kazuyuki Nakagome). The article, co-authored with the National Center of Neurology and Psychiatry, describes the process that led to the discovery of NS-089/NCNP-02 and its molecular properties, including nucleic acid sequences that target two separate sites within exon 44 of the dystrophin pre-mRNA sequence. The article also presents *in vitro* and *in vivo* preclinical efficacy data regarding dystrophin protein expression.

Clinical development of NS-089/NCNP-02 includes a planned [Phase 2 study](#) in the United States conducted by NS Pharma and a Phase 2 study conducted in Japan by Nippon Shinyaku. NS-089/NCNP-02 has previously received Rare Pediatric Disease, Breakthrough Therapy and Orphan Drug Designations from the U.S. Food and Drug Administration.

About Duchenne Muscular Dystrophy (Duchenne)

Duchenne is a progressive form of muscular dystrophy that occurs primarily in males. Duchenne causes progressive weakness and loss of skeletal, cardiac, and respiratory muscles. Early signs of Duchenne may include delayed ability to sit, stand or walk. There is a progressive loss of mobility, and by adolescence, patients with Duchenne may require the use of a wheelchair. Cardiac and respiratory muscle problems begin in the teenage years and lead to serious, life-threatening complications.

About NS Pharma, Inc.

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