April 26, 2021

Name of listed company:	Chugai Pharmaceutical Co., Ltd.
Code number:	4519 (1st Section of Tokyo Stock Exchange)
Head office:	1-1, Nihonbashi-Muromachi 2-Chome, Chuo-ku, Tokyo
President & CEO:	Osamu Okuda
Inquiries to:	Toshiya Sasai
	Head of Corporate Communications Dept.
	Tel: +81-(0)3-3273-0554

CHMP Recommends EU Approval of Chugai's Enspryng (Satralizumab) for Neuromyelitis Optica Spectrum Disorder (NMOSD)

- Enspryng is recommended for approval as a treatment option for people with NMOSD from 12 years of age in the EU.
- Enspryng is expected to be the first approved medicine applying Chugai's proprietary recycling antibody technology and can be self-administered* subcutaneously at home every four weeks**
- The recommendation is based on the results from two global phase III studies where Enspryng significantly reduced risk of relapse in people with NMOSD

TOKYO, April 26, 2021 -- Chugai Pharmaceutical Co., Ltd. (TOKYO: 4519) announced today that Roche has received notification that the European Medicines Agency's (EMA) Committee for Medicinal Products for Human Use (CHMP) has recommended the approval of the pH-dependent binding humanized anti-IL-6 receptor monoclonal antibody Enspryng® (satralizumab), created by Chugai, as the first subcutaneous treatment option for adults and adolescents from 12 years of age living with anti-aquaporin-4 antibody (AQP4-IgG) seropositive neuromyelitis optica spectrum disorder (NMOSD), as a monotherapy or in combination with immunosuppressive therapy (IST).

"We are pleased that Enspryng is expected to be approved in the EU for the treatment of NMOSD, a disease with limited treatment options that causes visual impairment and neurological disability," said Chugai's President and CEO, Dr. Osamu Okuda. "Enspryng is effective in the prevention of NMOSD relapses and well tolerated in people with AQP4-IgG seropositive NMOSD as shown in two global phase III studies. Enspryng is expected to be the first approved product in the EU to apply our proprietary recycling antibody technology, and the first NMOSD treatment targeting the IL-6 receptor to enable people with NMOSD to be treated at home by self-injection* through subcutaneous administration."

Enspryng has been evaluated for efficacy and safety in clinical trials in NMOSD including people who have only experienced a single NMOSD attack and adolescents, and is expected to be approved in the EU. The positive recommendation is based on the results from two global phase III clinical studies in people with NMOSD: SAkuraSky Study (NCT02028884) and SAkuraStar Study (NCT02073279). SAkuraSky evaluated Enspryng in combination with baseline immunosuppressive treatment, and SAkuraStar assessed monotherapy.

Enspryng is designed to prevent NMOSD relapses by inhibiting IL-6 signal signaling which is a key driver in NMOSD. Enspryng is currently approved in 20 countries including Japan and the United States.

The impact on the consolidated financials for the fiscal year ending December 2021 of Chugai is expected to be negligible.

*Self-administration is not included in Japanese package insert
**Subcutaneous administration at 2-week intervals up to the fourth week of treatment and at 4-week intervals thereafter

<Reference>

New Data of Chugai's Enspryng (Satralizumab) on Risk and Severity of Relapse in Neuromyelitis Optica Spectrum Disorder (NMOSD) (September 10, 2020)
https://www.chugai-pharm.co.jp/english/news/detail/20200910150000_765.html

・SAkuraSky study
Results from Phase III SAkuraSky Study for Chugai's Enspryng in Neuromyelitis Optica Spectrum Disorder Published in The New England Journal of Medicine Online (November 29, 2019)
https://www.chugai-pharm.co.jp/english/news/detail/20191129110000_644.html

・SAkuraStar study
Positive Results from the Second Phase III SAkuraStar Study for Chugai's Enspryng in Neuromyelitis Optica Spectrum Disorder (NMOSD) Published in The Lancet Neurology (April 24, 2020)
https://www.chugai-pharm.co.jp/english/news/detail/20200424150001_714.html

About neuromyelitis optica spectrum disorder (NMOSD)[1]

NMOSD is an autoimmune disease of the central nervous system characterized by inflammatory lesions in the optic nerves and spinal cord, and causes a continual and significant decrease in quality of life due to permanent neurological disability. Patients with NMOSD frequently experience a relapsing disease course with repeated attacks leading to accumulating neurological damage and disability. Symptoms may include visual impairment, motor disability, pain leading to decreased quality of life. In some cases, attacks of NMOSD result in death. Aquaporin-4 antibodies (AQP4-IgG), pathogenic antibodies, are detected in around 70-80% of NMOSD people. AQP4-IgG is known to target and damage a specific central nervous cell type called astrocytes, resulting in inflammatory demyelinating lesions of the optic nerve(s), spinal cord and brain [2-5]. The inflammatory cytokine IL-6 is now emerging as an important factor in NMOSD pathogenesis [6-10]. Diagnostic criteria introduced in 2006 for NMO were characterized by inflammation of the optic nerve (optic neuritis) and the spinal cord (myelitis). These were revised in 2007 with the definition of NMOSD, proposed for diseases with either optic neuritis or myelitis. In 2015, the definition of NMOSD further revised to include a broader spectrum of diseases. The diagnostic term NMOSD is now accepted [11].

Sources

1. Neuromyelitis optica spectrum disorder (NMOSD) Online. https://nmosd-online.jp/ Accessed March 2021. (Japanese only)
2. Jarius S, Ruprecht K, Wildemann B et al. Contrasting disease patterns in seropositive and seronegative neuromyelitis optica: A multicentre study of 175 patients. J Neuroinflammation 2012;9:14.
3. Lennon VA, Wingerchuk DM, Kryzer TJ et al. A serum autoantibody marker of neuromyelitis optica: distinction from multiple sclerosis. Lancet 2004;364:2106-12.
4. Marignier R, Bernard-Valnet R, Giraudon P et al. Aquaporin-4 antibody-negative neuromyelitis optica: Distinct assay sensitivity-dependent entity. Neurology 2013;80:2194-200.
5. Takahashi T, Fujihara K, Nakashima I et al. Anti-aquaporin-4 antibody is involved in the pathogenesis of NMO: a study on antibody titre. Brain 2007;130:1235-43.
6. Chihara N, Aranami T, Sato W et al. Interleukin 6 signaling promotes anti-aquaporin 4 autoantibody production from plasmablasts in neuromyelitis optica. Proc Natl Acad Sci USA 2011;108:3701-6.
7. Kimura A, Kishimoto T. IL-6: regulator of Treg/Th17 balance. Eur J Immunol 2010;40:1830-5.
8. Lin J, Li X, Xia J. Th17 cells in neuromyelitis optica spectrum disorder: a review. Int J Neurosci2016;126:1051-60.
9. Takeshita Y, Obermeier B, Cotleur AC, et al. Effects of neuromyelitis optica-IgG at the blood-brain barrier in vitro. Neurol Neuroimmunol Neuroinflamm. 2016;4(1):e311.
10. Obermeier B, Daneman R, Ransohoff RM. Development, maintenance and disruption of the blood-brain barrier. Nat Med 2013;19:1584-96.
11. Wingerchuk DM, Banwell B, Bennett JL et al. International consensus diagnostic criteria for neuromyelitis optica spectrum disorders. Neurology 2015;85:177-89.

Contact

For Media
Chugai Pharmaceutical Co., Ltd.
Media Relations Group, Corporate Communications Dept.,
Tomoko Shimizu
Tel: +81-3-3273-0881
E-mail: pr@chugai-pharm.co.jp

For US media
Chugai Pharma USA Inc.
Casey Astringer
Tel: +1-908-516-1350
E-mail: pr@chugai-pharm.com

For European media
Chugai Pharma U.K. Ltd.
Tania Richards
Tel: +44-20-8987-5680
E-mail: pr@chugai.eu

For Taiwanese media
Chugai Pharma Taiwan Ltd.
Susan Chou
Tel: +886-2-2715-2000
E-mail: pr@chugai.com.tw

For Investors
Chugai Pharmaceutical Co., Ltd.
Investor Relations Group, Corporate Communications Dept.,
Takayuki Sakurai
Tel: +81-3-3273-0554
E-mail: ir@chugai-pharm.co.jp

###