



July 10 2024

Company name: SanBio Co., Ltd.
Representative: Keita Mori, Representative
Director and President
(TSE Growth Code: 4592)
Contact: Yoshihiro Kakutani,
Corporate Officer of
Management Administration
(TEL. +81-3-6264-3481)

**[Results of Basic Research] Publication of an Article on the Neuronal Activity and
Network Formation Promotion of the Key Development Product SB623**

SanBio Co., Ltd. hereby provides on this matter as per the attached document.

July 10, 2024
SanBio Co., Ltd.

[Results of Basic Research] Publication of an Article on the Neuronal Activity and Network Formation Promotion of the Key Development Product SB623

SanBio Co., Ltd. (Head office: Chuo-ku, Tokyo, Representative Director and President: Keita Mori), while advancing the commercialization of its key development product SB623, has been conducting basic research at the Group's research institute for many years to elucidate SB623's mechanisms of action. We hereby announce the new findings of the basic research and their implications for our business, as well as the publication of an article on SB623 in the online edition of *Neuroscience*.

The article, titled "Mesenchymal Stem Cells Promote an Increase in Neuronal Oscillation via Glutamate Tonic Release," is available via the following link.

<https://www.sciencedirect.com/science/article/pii/S0306452224002720>

Highlights

- SB623 cells promote an increase of spike activity and number of network bursts.
- SB623 cells in coculture with neurons are superior to astrocytes in promoting neuronal activity.
- SB623 cells release higher levels of glutamate when compared to human astrocytes.
- Tonic glutamate released by SB623 cells promotes an increase of neuronal activity.

[Source: <https://www.sciencedirect.com/science/article/pii/S0306452224002720>]

The four highlights above summarize the newly obtained results on SB623's mechanism of action. Shinya Hirata, Head of Research and Development, gave the following comments on the implications of the research findings for the Group's business:

"Mesenchymal stem cells exhibit a spectrum of functions. SB623 is thought to promote the proliferation of neural cells by releasing FGF-2, a type of protein, but not all of its mechanisms of action have been fully understood. However, each of the four newly elucidated mechanisms highlighted above supports the efficacy of SB623, and these findings provide valuable data for advancing R&D of SB623 for chronic effects of ischemic stroke and other development programs. Thus, this research outcome represents a groundbreaking achievement in gaining a deeper understanding of SB623's mechanism of action. At SanBio, we will continue R&D on SB623, which is expected to have diverse pharmacological action, with the aim of further elucidating its mechanisms of action and exploring its applicability to other central nervous system disorders."

"Although unmet medical needs still exist for many brain diseases, regenerative medicine has led to significant advances and development in this area. This report identifying some of the pharmacological effects of SB623, which has been shown to improve outcome in clinical trials

(TBI-01 study), suggests further potential for cellular therapeutics in treating brain injury and degenerative diseases. I hope that through SanBio's continuous research, more patients with central nervous system disorders will be able to take advantage of cellular therapeutics", said Dr. Gary Steinberg, Lacroute-Hearst Professor and Former Chair, Department of Neurosurgery at Stanford University School of Medicine, who led the U.S. clinical trial of SB623 for chronic stroke."

About SB623

SB623 (INN: vandefitemcel) is a human (allogeneic) bone marrow-derived modified mesenchymal stem cell that is produced by modifying and culturing mesenchymal stem cells derived from the bone marrow aspirate of healthy adults. The transplantation of AKUUGO into damaged nerve tissues in the brain is expected to trigger the release of FGF-2 (a type of protein) and other substances, which in turn will promote the natural regenerative ability of damaged nerve cells and induce proliferation and differentiation of nerve cells. In Japan, SB623 was designated as a regenerative medicine product under the Sakigake Expedited Review System by the Ministry of Health, Labour and Welfare. At a meeting held in June 2024, the Pharmaceutical Affairs Council's Subcommittee on Regenerative Medicine Products determined that it was possible to grant SB623, "AKUUGO suspension for intracranial implantation," conditional and time-limited approval for the improvement of chronic motor deficit in the chronic phase of traumatic brain injury. SB623 has been granted regenerative medicine Advanced Therapy (RMAT) designation from the U.S. Food and Drug Association, and the Advanced Therapy Medicinal Product classification from the European Medicines Agency.

About SanBio Group (SanBio Co., Ltd. and SanBio, Inc.)

SanBio Group is engaged in the regenerative cell medicine business, spanning research, development, manufacture, and sales of regenerative cell medicines. The Company mainly focuses on diseases of the central nervous system that cannot be addressed by existing medical and pharmaceutical products and for which there is a high unmet medical need. The Company is headquartered in Tokyo, Japan and Oakland, California, and additional information about SanBio Group is available at <https://sanbio.com/en/>

For more information, contact:

SanBio Co., Ltd.
Management Administration
Email: info@sanbio.com