



# Joint Research with View to Developing Regenerative Medicine Product for Type 1 Diabetes by Producing Pancreatic Beta Cells Through Direct Reprogramming of Bone Marrow-Derived Mesenchymal Stem Cells

**Tokyo—January 24, 2020—** SanBio Co., Ltd. (headquartered in Chuo-ku, Tokyo; CEO: Keita Mori; hereinafter "SanBio") and Juntendo University (located in Bunkyo-ku, Tokyo; President: Hajime Arai) have reached an agreement on joint research into the production of pancreatic beta cells using the direct reprogramming method developed by Juntendo University.

Type 1 diabetes is a potentially life-threatening autoimmune disease characterized by the destruction of insulin-producing pancreatic beta cells, and people with type 1 diabetes require lifelong treatment with insulin. Globally, around 5% of all diabetes patients are type 1 diabetes, and while the disease is most common in younger people it occurs across a wide range of age groups<sup>1,2</sup>. In 2017, there are about 80,000 patients suffering from type 1 diabetes<sup>3</sup>.

Through this joint research agreement, SanBio and Juntendo University seek to develop a regenerative medicine product for the treatment of type 1 diabetes by producing pancreatic beta cells from mesenchymal stem cells using the direct reprogramming of somatic cells, a method developed by Diagnostics and Therapeutics of Intractable Diseases, Intractable Disease Research Center, Graduate School of Medicine, Juntendo University (Professor Yasushi Okazaki, Visiting Associate Professor Masahito Matsumoto). The two parties aim to collect the data necessary to proceed to clinical trials by combining the SanBio's expertise in regenerative medicine accumulated in the process of SB623 development with Juntendo University's discovery of direct reprogramming of somatic cells, and evaluating efficacy and safety in an animal model for type 1 diabetes.

#### Sources

- 1. What kind of disease is type 1 diabetes? Diabetes and Metabolism Information Center. <a href="http://dmic.ncgm.go.jp/general/about-dm/050/010/01.html">http://dmic.ncgm.go.jp/general/about-dm/050/010/01.html</a> (Ref: January 24, 2020)
- 2. Treatment of type 1 diabetes. Diabetes and Metabolism Information Center. <a href="http://dmic.ncgm.go.jp/general/about-dm/050/020/02.html">http://dmic.ncgm.go.jp/general/about-dm/050/020/02.html</a> (Ref: January 24, 2020)
- 3. Ministry of Health, Labour and Welfare Patient Survey, 2017.

### 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's propriety regenerative cell medicine product, SB623, is currently being investigated for the treatment of several conditions including chronic neurological motor deficit resulting from traumatic brain injury and ischemic stroke. The Company is headquartered in Tokyo, Japan and Mountain View, California, and additional information about SanBio Group is available at <a href="https://sanbio.com">https://sanbio.com</a>.

#### **About Juntendo University**

Juntendo University is the only School in the country that declares itself a "Total Health University & Graduate School". We have 6 faculties, 3 graduate schools, and 6 hospitals. Through education, research, medical care & practice, and liberal arts, we contribute to the society and human resources of Japan based on our academic culture "SANMU SHUGI" – meaning that there is no difference between gender, academic factions or nationality. There are also our school credo "JIN" – I exist as you exist and our philosophy "FUDAN ZENSHIN" - do not be satisfied with the present situation, always aim for a higher target and contribute to work. Additional information about Juntendo University is available at <a href="https://www.juntendo.ac.ip/english">https://www.juntendo.ac.ip/english</a>

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