

March 16, 2016  
SBI Pharmaceuticals Co., Ltd.

**Registration of a Patent on a Device to Identify Cancer Metastasis in Sentinel Lymph Node**

SBI Pharmaceuticals Co., Ltd., (Head office: Minato-ku, Tokyo; Representative Director and CEO: Yoshitaka Kitao; "SBI Pharmaceuticals") is a subsidiary of SBI Holdings, Inc. that engaged in research and development of pharmaceuticals, health foods and cosmetics using 5-aminolevulinic acid ("5-ALA") \*<sup>1</sup>, hereby announces that a patent has recently been registered in Japan on a device to identify cancer metastasis in the sentinel lymph node.

Patent number: 5889398

Title of invention: Device to identify cancer metastasis in the sentinel lymph node

Assignee: SBI Pharmaceuticals Co., Ltd.

Filing date: March 27, 2013

To date, the operations to resect the primary site of a metastatic cancer have taken the form of a standard procedure of removing the lymph nodes to which metastasis may have potentially occurred. In recent years, however, it has become possible to omit the resection of the lymph nodes or limit it if no cancer cell metastasis is detected by the inspection of the sentinel lymph node\*<sup>2</sup> during the operation, an approach intended to help preserve the patient's quality of life (QOL).

Administering 5-ALA to the patient is known to lead to an accumulation of porphyrin in cancer cells. SBI Pharmaceuticals recently invented a device to identify whether any cancer metastasis has occurred in the sentinel lymph node near the primary site of the cancer by seeking to detect the porphyrin accumulated in the cancer cells, and this has resulted in the registration of the above-mentioned patent.

SBI Pharmaceuticals will continue to pursue various potential applications of 5-ALA, and focus on research and development to provide pharmaceuticals that satisfy the unmet medical needs of as many people as possible around the world.

\*1: 5-aminolevulinic acid (5-ALA)

An amino acid produced in mitochondria. It is an important substance that serves as a functional molecule related to energy production in the form of heme and cytochromes, and its productivity is known to decrease with age. 5-ALA is contained in food such as shochu lees, red wine and Asian ginseng. It is also known as a material forming chloroplasts in plants.

\*2: Sentinel lymph node

The first lymph node into which lymph flows after draining away from the primary site of a cancer or other disease. A cancer is thought to spread to other parts of the patient's body by way of the sentinel lymph node.

\*\*\*\*\*

For further information, please contact:

SBI Pharmaceuticals Co., Ltd.: Corporate Planning Dept., Tel: +81 3 6229 0095