Kotobuki Pharmaceutical Co., Ltd. (Head Office: Nagano Prefecture; President & CEO: Hiroshi Tomiyama) is pleased to announce that President & CEO Hiroshi Tomiyama, Seiichiro Ikeda, Director of Formulation Development at the General Research Institute, and Ryota Nagai, Associate Researcher in the Formulation Development Department, have received the Encouragement Award for Invention under the Local Commendation for Invention in the Kanto region, presented by the Japan Institute of Invention and Innovation (JIII).

#### Awarded Invention

### Title of Innovation: Miniaturized Oral Tablet Designed for Water-Free Administration

• Patent No.: 7195660

The receipt of the Invention Encouragement Award this time recognizes our development of an orally disintegrating tablet (ODT) containing tramadol hydrochloride, a non-narcotic opioid analysis widely prescribed for the treatment of cancer pain and chronic pain.

Tramadol hydrochloride has a strong bitterness, and in conventional formulations, various additives were required to mask this taste, often resulting in larger tablets. At the same time, with the progression of population aging, the number of elderly patients with impaired swallowing function has increased, making it difficult for many to take conventional tablets. Furthermore, lifestyle changes have led to more opportunities for medication intake outdoors without access to water, and in some cases, patients are restricted from fluid intake due to illness. These factors have created a growing demand for orally disintegrating tablets.

In response to these challenges, our company aimed to develop a formulation that is easier for patients to take and gentler on the body. We succeeded in creating a tablet that rapidly disintegrates in the mouth and dissolves easily in saliva, while simultaneously reducing bitterness and achieving a 40% reduction in tablet weight compared to conventional products.

In addition, this product has secured a significant share of the domestic market, which was also highly evaluated and contributed to this award.

Taking this award as an opportunity, our company will further advance the research and development of safer and more user-friendly pharmaceutical formulations. By addressing the needs of an aging society and increasingly diverse medical demands, we aim to enhance patients' quality of life (QOL) and contribute to society, thereby fulfilling our responsibilities as a pharmaceutical manufacturer.

# About the Japan Institute of Invention and Innovation (JIPRI), a public interest incorporated association.



Since its founding in 1904 as the Industrial Property Protection Association, the predecessor of the JIPRI, the JIPRI is a public interest incorporated association that promotes science and technology and promotes the intellectual property rights system by encouraging inventions, cultivating next-generation leaders, and raising awareness of the intellectual property rights system.

### About the Regional Commendation for Invention

Established in 1921, the Regional Commendation for Invention is a prestigious award program organized by the Japan Institute of Invention and Innovation. It aims to promote technological advancement and regional industrial development by recognizing outstanding inventions and fostering talent across Japan. Japan is divided into eight regions (Hokkaido, Tohoku, Kanto, Chubu, Kinki, Chugoku, Shikoku, Kyushu), and each region honors inventors and researchers who have made significant contributions through original ideas, designs, or innovations. Among these, the Kanto region—home to many leading companies and research institutions—is known for its highly competitive environment and high standards for technical originality and social impact.

More information: A https://koueki.jiii.or.jp/hyosho/chihatsu/chihatsu.html

## About Kotobuki Pharmaceutical

Founded in 1949 and headquartered in Nagano Prefecture, Kotobuki Pharmaceutical is a hybrid pharmaceutical company engaged in the research and development of innovative new drugs, as well as the manufacturing and sale of branded and specialty generic medicines. The company is committed to delivering high-quality, ethically sound, and scientifically advanced pharmaceuticals that contribute to improving patients' quality of life and healthy longevity.

Company website: A https://www.kotobuki-pharm.co.jp/