

## Otsuka Develops a New Pill Dispenser with NEC Using IoT Technologies

Otsuka Pharmaceutical and NEC Corporation have partnered to jointly develop a smart medicine container that will help ensure that patients do not forget to take their daily dose of anti-stroke medication. Otsuka has experience with patients who have suffered one or more strokes through its involvement in the research, development and marketing of blood-thinning drugs, and NEC has many years of experience in miniaturized wearable technologies, sensing technologies, and human-centered design. The combination of two companies' abilities should therefore make it possible to develop a smart medicine container that will be easy for patients to use.



This container will use a flashing LED light to inform patients that it is time to take their medication. When a patient removes a pill from the container, the time will be recorded in the container's memory. The container is also equipped with an Internet-of-Things-type function for transmitting

this information to smart phones or tablet devices so that the patient and/or the patient's family will be able to monitor the patient's pill ingestion, and also so that pharmacists will be able to use this information when giving the patient instructions on the proper use of the medication.

The daily use of blood-thinning drugs is critical for the prevention of stroke recurrence. However, there have been reports of treatment adherence as low as 50% within half a year of starting treatment because patients forget to take their medication or stop doing so without their physician's consultation. Antiplatelet treatment maintenance is therefore a significant issue.