

## Aculy's Pharma and Four H initiate research collaboration using wearable devices to study sleep disorders in Japan

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**Sleep disorders represent an unmet medical need in Japan, including serious co-morbidities, quality of life, and social issues**



Aculy's Pharma, Inc., a company focused on the development and commercialisation of new innovative drugs in the fields of neurology and psychiatry, and Four H, Inc., have announced an exploratory research collaboration in Japan, using wearable devices to help patients with narcolepsy and excessive daytime sleepiness (EDS) associated with obstructive sleep apnea syndrome (OSAS).

In its quest to establish a new pharmaceutical model, Aculy's is promoting DX (digital transformation) in clinical trials and medicine. In this collaborative exploratory study to be launched with Four H, Aculy's will collect trial participants' subjective assessments of their sleep as well as data on their sleep, activities, and heart rate acquired from wearable devices to be worn each night during the clinical trial period. These data will be analysed in conjunction with other data to be obtained in the clinical trial with the goal of identifying sleep-related digital biomarkers.

Sleep disorders are difficult to objectively identify, and largely rely on the memory and self-reporting of patients themselves, causing a range of challenges in diagnoses and appropriate treatment.

This exploratory research will allow a further accurate understanding of each patient's sleep and lifestyle patterns, which had been difficult to measure previously. Over the long term, the companies will collectively plan to build a comprehensive sleep ecosystem for patients, including: digital biomarkers which can be used to predict health risks; personalised data to improve patient quality of life and productivity; and quality disease management programmes that patients can utilise at home.