

## KAIST partners with AT&C to develop digital equipment for treating brain diseases

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### AT&C plans to establish a digital healthcare research centre at KAIST



Korea Advanced Institute of Science and Technology (KAIST) has signed a Memorandum of Understanding (MoU) for a comprehensive mutual cooperation with AT&C to expand research investment and industry-academia cooperation in preparation for the future cutting-edge digital bio era.

The Korean government is investing a total of KRW 1.1 trillion in dementia R&D projects from 2020 to 2029, with the goal of reducing the rate of increase of dementia patients by 50%. Since it takes a lot of time and money to develop effective and affordable medicinal dementia treatments, it is urgent to work on the development of digital treatments for dementia that can be applied more quickly.

AT&C, a digital healthcare company, has already received approval from the Ministry of Food and Drug Safety (MFDS) for its device for antidepressant treatment based on transcranial magnetic stimulation (TMS) using magnetic fields and is selling it domestically and internationally. In addition, it has developed the first Alzheimer's dementia treatment device in Korea and received MFDS approval for clinical trials. After passing phase 1 to evaluate safety and phase 2 to test efficacy on some patients, it is currently conducting phase 3 clinical trials to test efficacy on a larger group of patients.

This dementia treatment device is equipped with a system that combines non-invasive electronic stimulations and digital therapeutic prescription to provide precise, automated treatment by applying AI image analysis and robotics technology.

Through research collaboration with KAIST, AT&C will be able to develop technology that can be widely applied to Parkinson's disease, stroke, mild cognitive impairment, sleep disorders, etc., and will develop portable equipment that can improve brain function and prevent dementia at home by utilising KAIST's wearable technology.

To this end, AT&C plans to establish a digital healthcare research centre at KAIST by supporting research personnel and research expenses worth approximately 3 billion won with the goal of developing cutting-edge digital equipment within 3 years.