

GIST collaborates with Harvard Medical School's Nanomedicine Institute for AI-based digital bio research

- The first step toward establishing a partnership for the 'Boston-Korea R&D Project'
- Expect practical cooperation such as conducting joint research in the field of artificial intelligence (AI)-based digital bio, including the field of space science, and exchanging technology and research personnel



▲ GIST Integrated Institute of Biomedical Research and Harvard Medical School's Biomedical Engineering and Nanomedicine Research Institute recently signed a business agreement to conduct joint research and exchange technology and research personnel in the AI-based digital bio field, including life and medical science and space medical science. Participants are taking commemorative photos (from left) GIST Professor Steve K. Cho, Harvard Medical School Director Hak-soo Choi, GIST Director Chang-Duk Jun, GIST Professor Euiheon Chung, and Professor Jeong-Seok Nam.

Gwangju Institute of Science and Technology (GIST, President Kichul Lim) Integrated Institute of Biomedical Research (Director Chang-Duk Jun, professor in the School of Life Sciences) has signed a Memorandum of Understanding (MOU) with Harvard Medical School's Massachusetts General Hospital (MGH) Institute for Biomedical Engineering and Nanomedicine (Director Hak-soo Choi) to conduct joint research in the field of artificial intelligence (AI)-based digital bio, including the fields of life sciences (anticancer metabolism, chronic metabolic disease research) and space sciences (space health translational research), and to exchange technologies and research personnel.

Located in Boston, Massachusetts, MGH is an affiliate of Harvard Medical School, founded in 1811, and is the oldest continuously operating healthcare organization

in the United States and is said to have world-class clinical and research infrastructure.

The agreement ceremony was held on Tuesday, September 19th at GIST's School of Life Sciences Bio Hall with Hak-soo Choi, Director of Harvard Medical School Nanomedicine Research Institute, Chang-Duk Jun, Director of GIST Research Institute, and Jeong-Seok Nam, Dean of the School of Life Sciences. It was held with the attendance of key officials including Professor Steve K. Cho and Department of Biomedical Science and Engineering Dean Euiheon Chung.

With this agreement, the two organizations will promote cooperation as well as ▲ participate in joint research to overcome unconquered diseases ▲ plan new research projects in the biohealth field using increased AI ▲ share data and hold academic events such as seminars, workshops, and short-term training ▲ exchange technology and professional research personnel ▲ research with joint use of facilities and equipment.

Space health translation research studies biological and medical processes on various topics, including the impact of the space environment on human physiology and cognitive behavior. This research field develops response strategies that can apply the results to actual problems that occur during space flight.

The industrialization of space technology is particularly important in the fields of bio/pharmaceuticals, medical care, and medical devices through 'AXIOM SPACE', a private space tourism development company. Rapid progress is being made by startup companies such as 'STARBURST', an investment company specializing in the aerospace and defense industry.

Director Chang-Duk Jun said, "With this research agreement, GIST expects to create an important turning point in preparing to participate in the 'Boston-Korea R&D Project' being promoted by the current government. More efficient and practical global research cooperation is expected through GIST's artificial intelligence (AI)-related research technology transfer and commercialization, joint research to overcome unconquered diseases, and exchange of research personnel."

Meanwhile, prior to signing this MoU, key researchers from both research institutes were part of the research activities of the 'Integrative Research Cluster for Space Biomedical Sciences (Cluster Head Professor Steve K. Cho)', which participated in the 1st Korea-U.S. Space Health Symposium held at Inha University on the 15th and had in-depth exchanges with key researchers from NASA's TRISH (Translational Research Institute for Space Health) in the United States. GIST announced that participation in the 'Korea R&D Project' was discussed in depth.