# GIST and Korea University hold joint symposium on bio-medical convergence research

- The meeting was held on Monday, November 10th at GIST's Oryong Hall, with President Kichul Lim, President Dong-won Kim, and other key officials and faculty from both universities in attendance... The meeting discussed research collaboration in future convergence fields such as AI, medicine, and biotechnology

- Nine leading researchers from both universities, including Professor Jiseung Kang of Korea University, a GIST graduate, presented their research findings... The meeting also aimed to establish a joint research center and exchange personnel, fostering a sustainable, mutually beneficial partnership model between comprehensive universities in the Seoul metropolitan area and regional science and technology institutes


▲ GIST and Korea University pose for a commemorative photo after holding a joint symposium to promote bio-medical convergence research.

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that it held a joint symposium with Korea University (President Dong-won Kim) on Monday, November 10th, at GIST's Oryong Hall.

This symposium was designed to strengthen collaborative networks between researchers from both universities and explore directions for academic convergence and joint research. The event is significant for both universities, as it laid the foundation for sustained and substantive research collaboration.

The event was attended by key officials, including GIST President Kichul Lim, Vice President for R&DB Yong-Chul Kim, and Dean of Research Chanho Pak; Korea University President Dong-won Kim, Vice President for Research Sung-taek Yoon, and Dean of Research Heon-jeong Lee; and Sung-soo Park, Senior Advisor to the Korea Institute for Research and Development (KIURI). Faculty from both universities in related fields were also in attendance.

Professor Jiseung Kang of the Department of Health and Environmental Convergence Sciences, a graduate of GIST's undergraduate and combined master's/doctoral programs, was particularly honored as a presenter, becoming the youngest professor ever to be appointed to Korea University. This deepened the bond between the two universities.

The opening ceremony began with welcoming remarks from GIST President Kichul Lim and congratulatory remarks from Korea University President Dong-won Kim. The Deans of Research at both universities then presented their respective research status and strategic research directions.

At the main research presentation session, four GIST researchers and five researchers from Korea University discussed in-depth the potential for collaboration and joint research projects across various research fields, including ▲ AI-based research, ▲ medical and disease diagnosis and treatment technologies, ▲ biopharmaceuticals and biotechnology, ▲ nanotechnology and platform technologies, and ▲ data-driven research and digital health.

GIST presented cutting-edge convergence research results, including AI-based protein binding molecule design, enzyme development, early Alzheimer's diagnosis, and sarcopenia treatment.

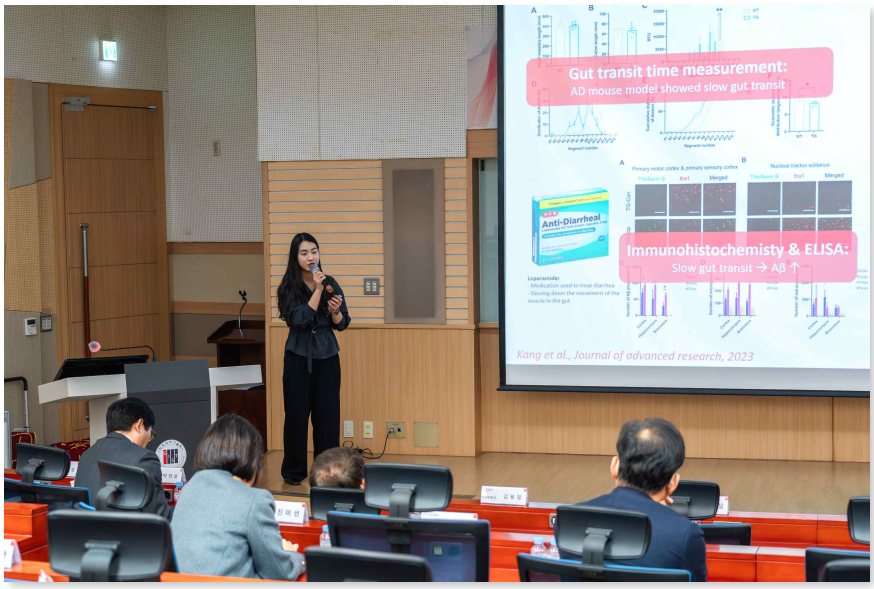
Presenters included Professor Mi-Sun Jin of the Department of Life Sciences, "AI-driven binder design for cryo-EM study," Professor Soo-Hyun Eom of the Department of Life Sciences, "AI-driven Enzyme Development (RuBisCO)," Professor Jae Gwan Kim of the Department of Biomedical Science and Engineering, "Technology Development for Early Diagnosis and Treatment of Alzheimer's Disease," and Professor Dongryeol Ryu of the Department of Biomedical Science and Engineering, "A Novel Paradigm in Muscle Aging Research: Innovation Through Bedside-Bench-Bedside Cyclic Research."

▲ Professor Jae Gwan Kim of the Department of Biomedical Science and Engineering at GIST presents "Technology Development for Early Diagnosis and Treatment of Alzheimer's Disease" during the research presentation session.

Korea University shared future-oriented research results across the entire spectrum of biomedical science, including AI-based medical diagnosis, nanotechnology, biomedicine, and medical big data.

▲ Professor Yong-Sang Yoo of the Department of Biomedical Engineering presented ‘AI-based Early Diagnosis Platform for Degenerative Brain Diseases Using 3D Vital Nodes’, ▲ Professor Dong-Jun Ahn of the Department of Chemical and Biomolecular Engineering presented ‘Ice Nanotechnology for Cryogenic Storage and Distribution of Biomedicine’, ▲ Professor Jae-Young Kim of the Department of Medicine presented ‘Integrated Optical Platform: OCT Virtual Histology and FTIR-based Troponin Sensing for

Coronary Risk Evaluation', ▲ Professor Hyeon-Gyu Song of the Department of Life Sciences presented 'UBR1 E3 ligase is a diverse platform for PROTAC development', and ▲ Professor Jiseung Kang of the Department of Health and Environmental Convergence Sciences presented 'Medical Big-data, Digital Health, RWD/RWE Study'.




▲ At a research presentation session, Professor Jiseung Kang of the Department of Health and Environmental Convergence Sciences at Korea University presented on the topic of "Medical Big Data, Digital Health, and RWD/RWE Study."

GIST President Kichul Lim stated, "Today's symposium will foster a new research paradigm by converging the capabilities of our two universities, focusing on cutting-edge convergence fields such as life sciences, medicine, and AI." He added, "It is also significant in that it establishes a model for mutually beneficial cooperation between a comprehensive university located in the metropolitan area and a regionally-based science and technology research institute."

He added, "It is even more meaningful to see Professor Jiseung Kang, who studied at GIST from her bachelor's degree through her doctorate, presenting her research results as a member of Korea University. I look forward to his role as a bridge for future research cooperation between our two universities."

▲ GIST President Kichul Lim delivers the welcoming address at the "GIST-Korea University Joint Symposium" held at GIST's Oryong Hall.

President Dong-won Kim of Korea University said, “The various ideas and cooperation plans discussed here today will lead to results that will contribute to not only the two universities but also the future society of the Republic of Korea and humanity,” and added, “I hope that this symposium will serve as an opportunity to establish regular exchanges and a researcher-centered cooperation system so that we can contribute together to the development of science and technology in the Republic of Korea.”

▲ Korea University President Dong-won Kim delivers a congratulatory address at the "GIST-Korea University Joint Symposium" held at GIST's Oryong Hall.

Meanwhile, GIST and Korea University signed a Memorandum of Understanding (MOU) in 2020 to promote education and research in the field of AI. In 2021, they held their first symposium under the theme of "Exploring Universities for Future Social Innovation" to discuss the social role of universities.

Through this symposium, the two universities plan to strengthen their practical cooperative network, including joint research initiatives, the establishment of joint research centers, and personnel exchanges. They also plan to establish a sustainable collaboration model that will lead national innovation in AI-based bio-medical convergence fields.

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