GIST-Chonnam National University College of Medicine to jointly train next-generation physician scientists

K-Bio future leading 'G-STAR Program' launched: Selected for Bio and Medical Technology Development Project by Ministry of Science and ICT

- Investing 3.4 billion won over 4 years to operate a joint mini-degree program, build a global network, and train more than 60 next-generation bio-medical convergence talents... Implementing an education and research model encompassing basic science and clinical medicine

- Focusing on 6 specialized fields including AI, immunotherapy, and space medicine... Full-scale promotion of the construction of a joint education and research platform

▲ GIST and Chonnam National University College of Medicine held a Kick-Off meeting for the 'Development of the G-STAR Program for Nurturing Biomedical Convergence Talents' and attendees are taking a commemorative photo.

The Gwangju Institute of Science and Technology (GIST, President Kichul Lim) announced that the 'G-STAR (Global Scientist Training for Advanced Research) Program Development*' project jointly planned with Chonnam National University (President Geun-bae Lee) College of Medicine has recently been drawing attention as a new convergence talent training model in the research and medical fields.

This project was finally selected for the 2025 Bio-Medical Technology Development Project hosted by the Ministry of Science and ICT in April, and Professor Jae Gwan Kim of the Department of Biomedical Science and Engineering at GIST is serving as the head of the main research institute, while Professor Chae-yong Jeong of Chonnam National University College of Medicine is serving as the head of the joint research institute.

The two universities plan to receive a total of 3.4 billion won in government support for four years starting this year (Project Period: April 2025 - December 2028) to train more than 60 physician scientists and biomedical convergence talents.

* Project name: Development of G-STAR program for fostering biomedical convergence talents

The ‘G-STAR Program’ is an integrated education and research platform designed to foster next-generation convergence talents who will lead the biohealth industry, especially physician-scientists who encompass clinical and basic sciences.

It is expected to contribute to strengthening the global competitiveness of K-Bio by establishing a Korean-style physician-scientist training model that goes beyond short-term education and expanding it to a global network.

Modern medicine requires close collaboration between basic science and clinical medicine, but there is an absolute shortage of research-oriented physicians in Korea.

Of the approximately 3,300 medical school graduates who advance into basic medical research each year, less than 1% go on to do so.

Accordingly, GIST and Chonnam National University designed the G-STAR Program with the goal of fostering convergence talents who can play the role of a ‘two-way bridge’ that connects insights from the medical field to scientific research and connects research results back to patient treatment.

To successfully operate this program, GIST has an education foundation centered on evidence based on cutting-edge convergence technology infrastructure such as AI, biomedical engineering, and space medicine, while Chonnam National University College of Medicine has abundant clinical experience and research foundation in the fields of immunotherapy and precision medicine.

The G-STAR program consists of ▲ convergence education between medical scientists, biomedical engineers, and biomedical scientists ▲ credit exchange and joint degree operation ▲ mini-degree program establishment ▲ overseas training and performance exchange meeting ▲ R&D project implementation in 6 specialized fields (medical AI, immunotherapy, space medicine, bioinformatics, brain science, digital healthcare) ▲ laboratory internship, and opportunities to participate in project-based research.

In particular, participating students can systematically complete core theories and practices in the fields of medical science and biomedical engineering through the mini-degree program jointly operated by GIST and Chonnam National University College of Medicine, and the completion history will be indicated on the degree certificate or transcript.

In addition, a dedicated office will be established at each of GIST and Chonnam National University to promote integrated operation of academic and research administration and systematically support the continuous growth and career development of participating students. Professor Jae Gwan Kim of the Department of Biomedical Science and Engineering at GIST (Director of the Main Research Institute) said, “The G-STAR program is a new educational paradigm that crosses the boundaries of medicine, science, and engineering, and will become the cornerstone for nurturing key talents who will lead future medical innovation.”

Professor Chae-yong Jeong of Chonnam National University College of Medicine (Director of the Joint Research Institute) stated, “This project is expected to be a stepping stone to fostering physician scientists, which has been a long-awaited task, and to promote cutting-edge medical research with global competitiveness.”

Meanwhile, GIST and Chonnam National University College of Medicine have continued joint research and educational cooperation since 2010, and they plan to further develop their cooperative relationship through this G-STAR program.

In the future, the two universities plan to promote various joint research such as AI-based medical diagnosis, precision immunotherapy, and space medicine, and expand the global physician scientist network to contribute to enhancing the global competitiveness of K-bio.

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