

June 2, 2025

Innovation Center of NanoMedicine
Innovation Research Center for Bio-Future Technology

Press Release

On May 30, the Innovation Center of NanoMedicine (located in Kawasaki City, Kawasaki Ward; Director: Kazunori Kataoka; referred to as iCONM) signed a Memorandum of Understanding (MOU) for collaborative research and development with the Innovation Research Center for Bio-Future Technology (Director: Joo Yeon Yoo; referred to as B-IRC), which is one of the affiliated research institutions of Pohang University of Science and Technology (POSTECH, located in Pohang, Gyeongsangbuk-do). This MOU aims to promote direct contact between the two research institutions and encourage cooperation.

As a result, the parties from both institutions agree to cooperate in the designated research areas and establish a collaborative relationship regarding the following items.

- Joint research activities, publications and academic exchange
- Exchange of invitations for researchers to participate in conferences, colloquia and symposia
- Exchange of academic information and research findings of mutual interest to both parties
- Exchange of researchers for collaborative studies and joint projects

B-IRC aims to establish foundational technologies for gene therapy and cell therapy by engineering bio-derived thin films such as cell membranes. Through the integration with iCONM's Nano-DDS technology, it seeks to develop and provide advanced elemental technologies for the treatment of immunological diseases, cancers, and central nervous system disorders. The Innovation Research Center (IRC) project, established in 2023 by the Ministry of Science and ICT of the Republic of Korea, aims to lay the groundwork for world-class research in the field of national strategic technologies. POSTECH is the only institution selected in the field of advanced bio (gene and cell therapy) and will receive support for a period of 10 years until 2033.



■ About Innovation Center of NanoMedicine (iCONM)

Innovation Center of NanoMedicine (iCONM) serves as a leading facility at the Kings SkyFront in Kawasaki City, aiming to establish a hub for the life sciences field. The center is being developed by the Kawasaki Institute of Industrial Promotion, a public interest foundation that operates iCONM, and began operations in April 2015. Equipped with state-of-the-art facilities and experimental equipment, iCONM enables seamless research and development from organic synthesis and microfabrication to preclinical trials. It is designed to promote open innovation through collaboration among industry, academia, government, and medical engineering, making it a highly unique research facility that is unparalleled in the world.

<https://iconm.kawasaki-net.ne.jp/>

■ About Innovation Research Center for Bio-Future Technology (B-IRC)

The Innovation Research Center for Bio-Future Technology (B-IRC) at POSTECH focuses on developing foundational technologies for next-generation gene and cell therapies by engineering biological membranes and organelles. B-IRC aims to overcome current

therapeutic limitations and provide advanced solutions for immunological, oncological, and neurological diseases. It serves as a core research platform for bio-future innovation in Korea and beyond.

<https://birc.postech.ac.kr/html/main/main.php>

■ About Pohang University of Science and Technology (B-IRC)

Founded in 1986, Pohang University of Science and Technology (POSTECH) is a leading research-oriented university in South Korea, recognized for its excellence in science and engineering. Despite its relatively short history, POSTECH ranked 28th in the 2010 Times Higher Education–Thomson Reuters World University Rankings and was selected among the world's top 100 most innovative institutions in 2012. It also topped THE's global ranking for universities under 50 years old for three consecutive years (2012–2014).

The university is home to four research groups from the Institute for Basic Science (IBS) and operates both third- and fourth-generation synchrotron radiation accelerators, supporting advanced research across biotechnology, materials science, and beyond.

<https://www.postech.ac.kr/>