# Opening Remarks for M3I3 Global Singularity Workshop

※ M3I3: Materials & Molecular Modeling, Imaging, Informatics & Integration

**(September 18, 2020)**

Hello everyone.

I am very pleased to welcome you all to the Global Singularity Workshop. Thank you all for joining us virtually today.

As a materials physicist, I am very exciting and honored to host you all at this challenging time and I would like to thank our many colleagues from abroad for your participation.

Thank you and congratulations to Professor Seungbum Hong for organizing this Global Singularity Workshop.

The Global Singularity Research Project is the flagship of KAIST's research innovation initiatives. We are pushing to be a first mover who can present an innovative global model by launching this project.

How to improve quality of life and benefit humanity are longstanding research topics that KAIST is pursuing. An unwavering commitment to innovation in the research sector and global collaborations will be the key to realizing breakthroughs.

When KAIST was established by the Korean government in 1971, we were missioned to make innovations that would drive the nation's economic growth by fostering top-notch scientists and engineers. We have achieved that mission successfully. Even more, KAIST has created a very distinct educational model that is now being used as a benchmark by many other countries.

We now aim to make breakthroughs that will make huge differences to people all over the world. To that end, we launched a new vision for another 50 years called 'Vision 2031' and shifted our R&D strategy to focus on creating global value.

We want to be a first mover. Our goal is to produce the world's best, first, or only research outcomes. Researchers at KAIST should be constantly creating and experimenting with new and innovative ideas along with our global partners.

In doing so, we need to identify what will be needed for the future more precisely, and make a longer commitment so that our researchers can achieve tangible results.

Under Vision 2031, we have launched the Global Singularity Research Project and selected the most creative topics such as new materials, neuro-rehabilitation engineering, and brain function redesigning.

These are crucial areas that will dramatically impact our quality of life and benefit humanity. In fact, they are some of the best examples of futuristic topics that require convergence research among global collaborators.

As we all know, the success of our modern civilization has hinged on the materials we develop and use. Developing better materials and new processes has continued to change the world.

Now, we are producing new nanomaterials and inorganic materials such as carbon nanomaterials and OLED. We are also witnessing the arrival of the ‘Materials Genome Initiative.’ All these innovations have extended a new paradigm that will transform our lives.

I believe the ‘M3I3’ standing for the ‘Materials and Molecular Modeling, Imaging, Informatics and Integration’ project fully embodies the future research direction of KAIST and our new vision.

This M3I3 is an excellent example of higher-level creativity embracing inter-and multidisciplinary research. This also involves very creative collaborators from around the world like yourselves.

The research team uses materials imaging and machine learning techniques to investigate the structure-property relationship of new materials. High-quality, multi-scale, and multi-dimensional experimental data will be the key to the success of this approach.

Their research will lead to advance materials that can be manufactured with bespoke properties by creating molecular blueprints for candidate materials with those properties.

Distinguished colleagues,

We are living in the time full of disruptions and uncertainties. However, we can view this as a new opportunity to improve our quality of life and rebuild the world through the advancement of science and technology.

I look forward to this M3I3 initiative and the Global Singularity Research Project serving as an opportunity to help KAIST become a first mover that makes a quantum leap forward in developing advanced new materials.

Before closing my speech, I would like to thank all the participants once again and wish you very productive sessions during this workshop.

Thank you very much.

September 18, 2020

**Sung-Chul Shin**

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