

Statement by the President of the Science Council of Japan

Celebrating Professor SOAI Kenso's Nobel Prize in Chemistry

I would like to extend my heartfelt congratulations to Professor SOAI Kenso (Professor Emeritus, Tokyo University of Science) on being named the recipient of the 2026 Nobel Prize in Chemistry. It is a great joy for all of us that groundbreaking research originating in Japan has made such a significant contribution to scientific progress and the global academic community.

Some molecules in matter exist in two forms that are related like a right hand and a left hand: they are mirror images of one another but cannot be superimposed. For example, among the amino acids that constitute proteins, which form living organisms, including humans, and which function as enzymes and other biological components, those that possess such left-right differences occur naturally in the L-form.

In contrast, chemical reactions that lack a mechanism for distinguishing between these two forms generally produce them in equal proportions. Professor SOAI discovered a reaction for producing specific organic compounds (the Soai reaction) and demonstrated experimentally that molecules produced in the reaction can themselves act as catalysts, promoting the formation of molecules of the same form. Through this process, an initially minute imbalance between the two “left-right” forms can be amplified until one form overwhelmingly predominates. This discovery demonstrated a remarkable mechanism by which a small difference can grow into a large one through chemical reactions.

This discovery also provides an important clue for addressing a fundamental question: why do the molecules that constitute life exhibit a particular “handedness”? The deeper we investigate the mysteries of nature, the broader our understanding of the world becomes. This award once again highlights the importance and value of fundamental research. I hope that younger generations, too, will develop their own questions and experience the excitement of exploring the unknown.

The Science Council of Japan will continue to communicate both the fascination and significance of academic scholarship to society and continue to foster dialogue between science with society. Together, we will consider how best to nurture research that emerges from free and creative thinking and how to share its achievements with society.

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KATO Kazuto
President, Science Council of Japan