

Eisai collaborates with University of Tokyo for protein degradation drug discovery

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The “Protein Degradation Drug Discovery” course is to be established within the Graduate School of Pharmaceutical Sciences, the University of Tokyo



The University of Tokyo and Eisai Co., Ltd. have announced a collaboration aiming for the development and drug discovery of targeted protein degradation technology has been created, with the establishment of a social cooperation program, “Protein Degradation Drug Discovery”. The research time span will last five years from October 1, 2020 to September 30, 2025.

The social cooperation program is established and operated based on funds of private organizations dedicated to conducting research in collaboration with the University of Tokyo regarding shared issues of high common concern.

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Dr. Mikihiko Naito, Former Director of the Division of Molecular Target and Gene Therapy Products, National Institute of Health Sciences, has been inaugurated as a project professor for this program and will lead research with protein degradation technology including SNIPER.

This research will combine the world’s most advanced ubiquitin-proteasome research as conducted in the graduate school with drug discovery knowledge fostered by Eisai, for the development of new protein degradation technology towards proteins targeted by drugs and the promotion of drug discovery research based on this technology.

In addition, through this research, the course will educate and train the next generation of leaders in this research field.

Targeted protein degradation is a series of technologies in which precisely designed compounds force target proteins into proximity with E3 ubiquitin ligase and apply the ubiquitin-proteasome system to induce degradation of the target proteins. The technology provides a means of creating medicines for not only conventional targets such as specific enzymes and receptors, but also disease-related proteins for which drug discovery up to this point has been difficult. Through the development of this technology and drug discovery, the University of Tokyo and Eisai aim to provide new treatment options to patients for which treatment options were previously limited.