



Ken Okazaki

Global Hydrogen Energy Unit

seeks to realize the best possible energy mix by developing and implementing a global CO₂-free hydrogen supply chain linked with renewable energy sources



Misako Takayasu

Advanced Data Analysis and Modeling Unit

utilizes big data to simulate future conditions of economic and social systems in order to create risk-prevention measures and provide solutions to multifaceted global problems



Masakazu Sekijima

Advanced Computational Drug Discovery Unit

seeks to create an open platform for studies of innovative drug discovery through the integration of computational technology and experimental biochemistry



Kimihiya Yamamoto

Hybrid Materials Unit

aims to create sub-nanoscale alloy particles using precision metal assembly methods to pave the way for a new field of next-generation functional materials



Masaaki Fujii

Clean Environment Unit

develops pollution detection and analysis methods including real-time monitoring of airborne chemicals to evaluate environmental risk and realize a cleaner, safer society

Tokyo Tech Research

Crossing borders in the pursuit of innovation

Yoshinao Mishima
President, Tokyo Tech

President's Message

Tokyo Tech is the top national university for science and technology in Japan, with a history spanning more than 130 years. It has about 10,000 students and 1,200 faculty across its three campuses in the greater Tokyo area. In the 2015 QS World University Rankings, Tokyo Tech was ranked 56th in the world and 3rd in Japan.

In April 2016, Tokyo Tech implemented ambitious reforms in its education and research systems with the aim of providing a world-class environment for learning and innovation. Tokyo Tech became the first university in Japan whose schools offer undergraduate and graduate programmes under the same roof, creating more opportunities for cross-disciplinary research and earlier involvement in graduate-level study.

In research, its laboratories are now organized under the new Institute of Innovative Research (IIR), which allows Tokyo Tech to create more opportunities for international collaboration in emerging and interdisciplinary fields. The IIR consists of about 180 researchers affiliated with four research laboratories, two research centres and research units. Research at the IIR builds on Tokyo Tech's internationally recognized contributions in key areas, including materials science, supercomputing and the life sciences.

Research units under the IIR are comprised of small teams led by prominent scientists. Each unit is tasked with a specific mission in a cutting-edge field and is given an initial five-year term to deliver results. During this first phase, Tokyo Tech provides extensive assistance with securing funding, hiring researchers and acquiring laboratory space. As of 1 April 2016, ten research units have been established, all covering vital areas, including cell biology, global hydrogen energy and the nuclear fuel cycle.

Also within the IIR, we launched the World Research Hub Initiative. It provides an environment where scientists of all nationalities can join together to engage in ground-breaking research. Diversity and cross-functional collaborations are actively promoted to establish a strong network that spans different laboratories and disciplines. The initiative also plays an important role in international exchange, creating opportunities for research at institutions abroad.

Tokyo Tech is strongly committed to innovation and international cooperation, and we welcome inquiries about potential research collaborations.



Tokyo Institute of Technology

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Cell Biology Unit

visualizes, analyses and manipulates cells to clarify vital cellular phenomena, thereby contributing to human health and disease treatment through next-generation cell engineering



Yoshinori Ohsumi

Biointerfaces Unit

focuses on developing biointerfaces for rehabilitation processes and collecting biological information for preventing disease and assessing the condition of organs



Yasuharu Koike

Supra-Integrated Materials Unit

works to create supra-integrated materials based on concepts such as molecular grid wiring whose properties go beyond those of conventional hybrid materials



Tomokazu Iyoda

Innovative Heterogeneous Catalysis Unit

aims to create new environmentally friendly solid catalysts that contribute to the production of glucose from organic resources and provide alternatives to petroleum



Michikazu Hara

Advanced Nuclear Fuel Cycle Unit

aims to develop safe, low-emission, eco-friendly nuclear fuel cycles and waste-disposal technologies, which will contribute to future energy security and the suppression of global warming



Kenji Takeshita