

Faculty Awards and Honors

(August 2011–July 2012)

Grand Cordon of the Order of the Rising Sun Autumn 2011 (Awarded in November 2011)

Professor Emeritus Tokiyasu Fujita

From 1966 to 2002, Tokiyasu Fujita served as an assistant professor and professor of the School of Law at Tohoku University and then as a professor of its Graduate School of Law. He served as a Supreme Court justice from September 2002 to April 2010. He specializes in administrative jurisprudence and has been instrumental in evolving it in Japan. He also has an extensive knowledge of land laws and the Japanese Constitution. His opinions and decisions during his tenure on the Supreme Court bench were highly acclaimed for their practical and theoretical soundness. He has authored, among other writings, *Exercise of Public Power and Claim of Private Rights*, 1978; *Administrative Law I: Overview, First Edition* 1980, *Fourth Revised Edition* 2005; and *Basic Theory of Administrative Law*, two-volume set, 2005.



Grand Cordon of the Order of the Sacred Treasure Spring 2012 (Awarded in April 2012)

Professor Emeritus Hiroyuki Abe, a former president of Tohoku University

Hiroyuki Abe served as the president of Tohoku University from November 1996 to November 2002. He specializes in mechanical engineering (mechanical materials, material mechanics). He was an executive member of the Council for Science and Technology Policy from January 2003 to January 2007. He became an adviser to the Japan Science and Technology Agency (JST) in January 2007 and then the director of the JST Center for Intellectual Property Strategies in November 2009.



Medal with Purple Ribbon Autumn 2011 (Awarded in November 2011)

Professor Mitsumasa Koyanagi, New Industry Creation Hatchery Center

Mitsumasa Koyanagi developed a stacked capacitor memory cell—a basic device for dynamic random access memory—and has contributed to the growth of semiconductor industries in Japan and abroad. He designed three-dimensional ICs in 1989 and has since been a world leader in this field. He is also engaged in biodevice engineering, which combines semiconductor technology, nanotechnology, and biotechnology. He helps many researchers and engineers advance their academic excellence.



Medal with Purple Ribbon Spring 2012 (Awarded in April 2012)

Professor Masayuki Yamamoto, executive director of the Tohoku Medical Megabank Organization

Masayuki Yamamoto has been conducting pioneering research on oxidative stress response. He discovered that the Keap1 sensor molecule and the Nrf2 transcription factor control the environmental response system that a body has to maintain its biological activities under ever-changing environments; he ascertained how Keap1, upon detection of oxidative stress, activates Nrf2 and induces it to express detoxification enzymes.



Professor Shigenao Maruyama, Institute of Fluid Science

Shigenao Maruyama has evolved thermal engineering—a field of mechanical engineering—and has created a new research paradigm for it. His pioneering research achievements include an analysis of radiative heat transfer; the development of artificial heart muscles and cryoprobes by applying the active heat-transfer control using Peltier elements; and a project to draw up deep seawater using natural convection on a large scale.



Thomson Reuters Citation Laureate (Awarded in September 2011)

Professor Hideo Ohno, Center for Spintronics Integrated Systems, Research Institute of Electrical Communication

Hideo Ohno was selected as a 2011 Thomson Reuters Citation Laureate for his contribution to ferromagnetism in diluted magnetic semiconductors. Thomson Reuters Citation Laureates are selected as likely candidates for the Nobel Prize based on the citation impact of their published research findings using the Web of Science database.



L'ordre national de la legion d'honneur Chevalier (Awarded in October 2011)

Professor Yuko Harayama, Graduate School of Engineering

L'ordre national de la legion d'honneur was founded by Napoleon Bonaparte in 1802, and is awarded to private citizens who make outstanding achievements in culture, science, industry, and commerce. Chevalier designates a rank of the award. Yuko Harayama received the award for her studies in the field of science and technology policy; activities as an executive member of the Council for Science and Technology Policy; the promotion of cultural exchanges between Japan and France; contribution to French industries; and contribution to the development of young people in Japan and France.

25th IBM Japan Science Awards (Awarded in December 2011)

Professor Eiji Saitoh, Institute for Materials Research

Eiji Saitoh received an IBM Japan Science Award in Physics for his pioneering research on the spin Hall effect and the reverse spin Hall effect as well as his contribution to spin flow physics. The IBM Japan Science Award recognizes outstanding Japanese researchers 45 years of age or younger in the fields of physics, chemistry, computer science, and electronics, based on a review by a panel that includes Nobel Prize-winning scientists.



Associate Professor Eijiro Sumii, Graduate School of Information Sciences

Eijiro Sumii received an IBM Japan Science Award in Computer Science for developing a first proof method of program equivalence in a large class of high-level languages. His research findings were published in the *Journal of the ACM*, one of the most prestigious journals in computer science.

2012 Frederic Stanley Kipping Award (Awarded in March 2012)

Professor Emeritus Mitsuo Kira, Graduate School of Science

Mitsuo Kira received the 2012 Frederic Stanley Kipping Award for his achievement in the synthesis and characterization of the first trisilaallene. The award was established by the American Chemical Society in 1960 to recognize distinguished contributions to the field of silicon chemistry. Kira is the second recipient of the award in the Graduate School of Science of Tohoku University, after Professor Emeritus Hideki Sakurai in 1978.

