

## Award Winners 2009

(August 2009–July 2010)

### Order of Culture

Awarded in November 2009

Adjunct Professor **Sumio Iijima** Advanced Institute for Materials Research (WPI-AIMR)

#### Discovery of Carbon Nanotubes and the Development of High Resolution Electron Microscopy

Adjunct Prof. Sumio Iijima at WPI-AIMR was presented with the Order of Culture in an award ceremony at the Imperial Palace on November 3, 2009.

He observed carbon electrodes using a high resolution electron microscope, and discovered that carbon nanotubes were formed on the cathode after discharge. This discovery triggered today's flourish of nanotube research and has been internationally well-recognized.



### Order of Culture

Awarded in November 2009

Emeritus Professor **Yorio Hinuma** Tohoku University

#### Excellent Achievement through Research on EB Virus and ATL Virus

Emeritus Prof. Yorio Hinuma is highly recognized in Japan and worldwide for his great accomplishments in research on the Epstein-Barr virus and adult T-cell leukemia. He discovered a virus that causes T-cell leukemia in 1981, and was the first to show that human cancer is caused by a retrovirus. This pioneering work was achieved three years before the HIV retrovirus was discovered, thus, he was globally profiled with awards and honors such as the Person of Cultural Merits, Imperial Prize, and Japan Academy Prize, and in 2009, the Order of Culture. Many researchers who were encouraged and mentored by Emeritus Prof. Hinuma during his many years of medical and dental research are now actively conducting research endeavors in various fields.



### Medal of Honor with Purple Ribbon

Awarded in November 2009

Professor **Takakiyo Nakazawa** Center for Atmospheric and Oceanic Studies, Graduate School of Science

#### Contribution to the Development of Geoenvironmental Sciences and Meteorology

About 30 years ago, when the global warming issue was yet to be widely acknowledged, Prof. Nakazawa launched research activities to elucidate the circulation of greenhouse gases on a global scale; his academic contribution is highly esteemed.



### 2010 Japan Prize

Awarded in January 2010

Emeritus Professor **Shun-ichi Iwasaki** Tohoku University

#### Creation of Large-capacity Hard Disk Drives

The Japan Prize, sometimes called "Japan's Nobel Prize," is presented by the Science and Technology Foundation of Japan to prominent researchers who have made significant innovative scientific achievements. During the 26th annual awards, Emeritus Prof. Iwasaki was honored as one of two (the other being Stanford University's Peter M. Vitousek, Ph.D.) 2010 Japan Prize winners in the "industrial production and production technology" field for his great contribution to high-density magnetic recording technology by developing the perpendicular magnetic recording method. He established the principles of the method, which differed from conventional approaches, back in 1977. The newly developed method significantly increased the capacity of hard disk drives (HDDs), and is now widely applied in HDDs for PCs, data servers and various consumer electronics.



### Acta Materialia Gold Medal

Awarded in March 2010

Professor **Akihisa Inoue** President of Tohoku University

#### Contribution to the Development of Material Sciences on Bulk Metallic Glasses

President Prof. Inoue was awarded the Acta Materialia Gold Medal for his significant achievements in leading the development of materials science in the area of bulk metallic glasses. Acta Materialia, Inc. annually awards the Medal to researchers based upon their demonstration of great ability and leadership in materials research since 1974. Prof. Inoue is the third winner from Japan, following distinguished laureates across the country and world. The award ceremony was held at the WPI-AIMR Annual Workshop on March 26, 2010, where President Inoue was presented with the Gold Medal by Ted B. Massalski, Professor at Carnegie Mellon University and Executive Secretary of Acta Materialia, Inc.



### Medal of Honor with Purple Ribbon

Awarded in April 2010

Professor **Masataka Nakazawa** Director, Research Institute of Electrical Communication

#### Significant Contribution to Constructing a Global Information and Communication Network

Prof. Nakazawa developed key technologies that led to high-speed and large-capacity optical communication in the communication engineering field, including the invention of the EDFA, which is the world's first compact optical fiber amplifier. His series of research projects revolutionized optical communication technologies and paved the way for a new era.



### Japan Academy Prize

Awarded in June 2010

Emeritus Professor **Hiroshi Ohrui** Tohoku University

#### Successful Creation of Innovative Biofunctional Substances

Emeritus Prof. Ohrui is highly esteemed for his outstanding contribution to the development of the life sciences through multidisciplinary accomplishments across fields such as organic chemistry, biochemical analysis and plant physiology. He shared the Prize with Takeshi Kitahara, a professor emeritus at the University of Tokyo, for research on the creation and application of novel biofunctional molecules.



### Duke of Edinburgh Prize

Awarded in June 2010

Emeritus Professor **Moritaka Nishihira** Tohoku University

#### Research on Structuring and Conservation of Coral Reef Communities in Japan, Especially in Okinawa

Emeritus Prof. Nishihira presented basic data on coral reef studies and proposed the concept of inhabitation chains. He advocated for a groundwork on which local communities can readily work for coral reef conservation. He also introduced data that indicated increases in both fish species and total fish numbers as transplanted corals grew.

