

JAPAN PRIZE NEWS

THE SCIENCE AND TECHNOLOGY
FOUNDATION OF JAPAN (JSTF)

Akasaka Twin Tower East, 13th Floor, 17-22
Akasaka 2-chome, Minato-ku, Tokyo, 107-0052, JAPAN
Tel.+81-3-5545-0551 Fax.+81-3-5545-0554
E-mail info@japanprize.jp
URL <http://www.japanprize.jp>



No. 38
May 2007

Scientists from France, Germany and U.K. Awarded 2007 (23rd) Japan Prize

Their Majesties the Emperor and Empress Attend the Presentation Ceremony



The presentation ceremony of the 2007 (23rd) Japan Prize, the most prestigious and honored prize in the fields of science and technology, was held at the National Theatre in Tokyo on April 19, 2007.

The Prize is presented annually by the Science and Technology Foundation of Japan to scientists and researchers who have made substantial contributions to the advancement of science and technology and to the peace and prosperity of mankind.

The prize categories this year were "Innovative Devices Inspired by Basic Research" and "Science and Technology of Harmonious Co-Existence." A total of 368 nominations were made by top scientists and academics around the world, 304 for the Innovative Devices Inspired by Basic Research prize category and 64 for the Science and Technology of Harmonious Co-Existence prize category.

Out of those nominations, three scientists from France, Germany and U.K. were awarded the 2007 Japan Prize.

OUTLINE

The Japan Prize is awarded to world-class scientists and technologists who were credited with original and outstanding achievements and contributed to the advancement of science and technology, thereby furthering the cause of peace and the prosperity of mankind. In principle, original achievements in science and technology are given priority during the selection process.

No distinction is made as to nationality, occupation, race, or sex.

Only living persons may be named.

Fields of study for the prize encompass all categories of science and technology, with two categories designated for the prize each year in consideration of developments in science and technology.

Each Japan Prize laureate receives a certificate of merit and a commemorative medal. A cash award of 50 million yen is also presented for each prize category.

Innovative Devices Inspired by Basic Research

Achievement:

The discovery of Giant Magneto-Resistance (GMR) and its contribution to development of innovative spin-electronics devices



Prof. Albert Fert
(France)
University of Paris-South



Prof. Dr. Peter Grünberg
(Germany)
The Research Center of Solid State Physics

Science and Technology of Harmonious Co-Existence

Achievement:

Contribution to the Conservation of Tropical Forest



Dr. Peter Shaw Ashton
(United Kingdom)
Charles Bullard Professor of Forestry

The Presentation Ceremony

Their Majesties the Emperor and Empress attended the presentation at the National Theatre in Tokyo on April 19, 2007. Some 900 prominent guests attended the ceremony, including H.E. Mr. Yohei Kono, the Speaker of the House of Representatives, H.E. Mrs. Chikage Oogi, the President of the House of Councillors, H.E. Mr. Niro Shimada, the Chief

Justice of the Supreme Court, H.E. Mrs. Sanae Takaichi, Minister of State for Science and Technology Policy, Minister of State for Innovation, numerous ambassadors to Japan, eminent scholars and researchers, and representatives from other fields including politics, finance, industry and the media.

The ceremony began with a rendition of Minoru Miki's Overture Japan, a work composed specially for the ceremony and performed by the Tokyo Geidai Student Orchestra conducted



by Douglas Bostock. Foundation Chairman Hiroyuki Yoshikawa made the opening address and Dr. Nobuaki Kumagai, Chairman of the 2007 Japan Prize Selection Committee, introduced the three laureates. After the chairmen of the two selection panels presented the reasons for their selections, Foundation President Masao Ito presented the three laureates

with their certificates of merit, commemorative medals and cash awards of 50 million yen for each category.

His Majesty the Emperor gave a congratulatory address honoring the three laureates. Finally, a congratulatory speech by H. E. Mr. Yohei Kono the Speaker of the House of Representatives, was delivered.

After the ceremony, the Tokyo Geidai Student Orchestra performed the commemorative concert.

Address by His Majesty The Emperor

On the occasion of this Twenty-third Japan Prize presentation ceremony, I offer my sincere congratulations to Prof. Albert Fert and Prof. Dr. Peter Grünberg for their work on “Innovative Devices Inspired by Basic Research”, and Dr. Peter Shaw Ashton for his work on “Science and Technology of Harmonious Co-Existence”.

Prof. Fert and Dr. Grünberg independently discovered the giant magnetoresistive (GMR) effect, upon noticing very large resistance changes when extremely thin layers of different magnetic materials were subjected to even slight change in magnetic fields. GMR magnetic heads, which utilizes this effect, made super high-density magnetic storage possible. This then resulted in large-capacity small-size hard disc drives that are widely used in personal computers and home electric appliances, thereby greatly contributing to the advancement of an information-intensive society.

Dr. Ashton has conducted detailed studies of taxonomy and ecology of Dipterocarpaceae, dominant trees commonly seen in the tropical forests of Southeast Asia.



Today, his studies form a basis of a large-scale, and long-term, sustainable project to monitor tropical forests in fourteen countries around the world every five years. I believe that studies of this sort help maintain a healthy state and sustainable use of tropical forests that are disappearing due to deforestation. Learning that Dr. Ashton studied Dipterocarpaceae, I fondly recall the Dipterocarpaceae forest near Kuala Lumpur that we visited, when we were in Malaysia in 1970.

I hereby express my deep respect to the three scientists for their outstanding accomplishments.

Science and technology provide invaluable blessings to mankind and society. This is why I feel it so important for all of us to endeavor so that science and technology will continue to develop through cooperation across national boundaries and bring benefit to people.

Let me express, in offering my congratulations, my wish that the Japan Prize continues to contribute toward the further advancement of science and technology for the true happiness of all.



Their Majesties the Emperor and Empress arrive at the National Theatre



Opening address by Chairman Yoshikawa



Report on the Selection by Dr. Kumagai



Citation for the award presented by Dr. Kitazawa



Citation for the award presented by Dr. Iwatsuki



Congratulatory address by H.E.Mr. Kono



Their Majesties the Emperor and Empress attend the commemorative concert



Commemorative concert

Banquet

Following the presentation ceremony, a banquet for the 2007 Japan Prize laureates was held at the Imperial Hotel in Tokyo on the evening of April 19 in the presence of Their Majesties the Emperor and Empress of Japan as well as 300 dignitaries including Japanese government officials, ambassadors and ministers, and celebrities from various fields.

And a congratulatory address was made by H.E. Mrs. Chikage Oogi, President of the House of Councilors.

Prior to closing the banquet, the three laureates gave speeches of thanks and brought the elegant state banquet to its close.



Their Majesties the Emperor and Empress arrive at the Imperial Hotel



Opening address by President Ito



Congratulatory address by H.E. Mrs. Oogi



Acknowledgement by Prof. Fert



Acknowledgement by Prof. Dr. Grünberg



Acknowledgement by Dr. Ashton

2008(24th) Japan Prize

The categories for the 2008 (24th) Japan Prize are "Information Communication Theory and Technology" and "Medical Genomics and Genetics". Candidates have been recommended through numerous letters of nomination received by the Foundation from around the world. The 2008 (24th) Japan Prize Selection Committee is established in the Foundation and the results will be announced in January 2008. The presentation ceremony will take place in April 2008.

Field I: Information·Communications

Prize Category: Information Communication Theory and Technology

The advance and wide-spread use of computers and networks has brought about a cyberspace heretofore unknown to humankind. It has made the social structure flexible and promoted borderless economic activities, extensively widening the living space of people. Based on this trend, the 2008 Japan Prize will be awarded to a researcher who has made a significant contribution to the field of information communication theory and technology.

This includes theory of computation, algorithm, computer software, computer systems, computer architecture, human interface, Internet, search technology, information security, visualization technology, information theory, data compression, cryptology, coding theory, radio and optical communication systems, wireless communication systems, and quantum communication.

Field II: Life Science (Medicine)

Prize Category: Medical Genomics and Genetics

Recent advances in genome science and molecular genetics that disclosed 3 billion nucleotides of human genome have led us to a better understanding of molecular mechanisms underlying various biological phenomena. Particularly, they have contributed to the discovery of genes responsible for or susceptible to various diseases as well as those related to efficacy or adverse reactions of drugs.

The Japan Prize for 2008 will be awarded to a scientist who made outstanding achievements in the field of medical genomics and genetics, including establishment of fundamental principle for genetic/genomic analysis, construction of basic infrastructure like genetic maps and genomic sequences, and development of essential technologies.

