

JAPAN PRIZE NEWS

THE SCIENCE AND TECHNOLOGY
FOUNDATION OF JAPAN (JSTF)

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Four American and Japanese Scientists Awarded 1997 Japan Prizes

Their Majesties The Emperor and Empress Attend the Presentation Ceremony



The presentation ceremony for the 1997 (13th) Japan Prize took place on April 25 at the National Theatre in Tokyo. This year's four laureates were Dr. Takashi Sugimura (71), President Emeritus of National Cancer Center and President of Toho University and Dr. Bruce N. Ames (68), Professor of Biochemistry and Molecular Biology, University of California, Berkeley, the joint winners in the category of "Biotechnology in Medicine"; and Dr. Joseph F. Engelberger (71), Chairman and Director of HelpMate Robotics

Inc., and Dr. Hiroyuki Yoshikawa (68), Former President of The University of Tokyo, the joint winners in the category of "Systems Engineering for an Artifactual Environment."

Japan Prize is presented annually by The Science and Technology Foundation of Japan (JSTF) to scientists and researchers who have made substantial contributions to the advancement of science and technology as well as to the peace and prosperity of humankind.



Dr. Takashi Sugimura



Dr. Bruce N. Ames



Dr. Joseph F. Engelberger



Dr. Hiroyuki Yoshikawa

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Presentation Ceremony



The laureates, honored by Their Majesties The Emperor and Empress

Their Majesties The Emperor and Empress attended the presentation ceremony as did some 900 prominent guests, including H. E. Souichiro Ito, Speaker of the House of Representatives, H. E. Juro Saito, President of the House of Councillors, H. E. Toru Miyoshi, Chief Justice of the Supreme Court, and H. E. Takashi Kosugi, Minister of Education; numerous ambassadors to Japan; eminent scholars and researchers; representatives from policy, finance, and industry sectors of government; and the media.

The ceremony began with a rendition of Overture Japan performed by the Tokyo Philharmonic Orchestra. Prof. Jiro Kondo, Foundation Chairman and Chairman of the Japan Prize Selection Committee delivered the opening address and introduced the four winners and spoke about their achievements. After the chairmen from the two selection panels outlined the reasons for their choices, Foundation President Dr. Masami Ito presented the four winners with a certificate of merit, a commemorative medal and, for each category, a cash award of 50 million yen (each category sharing 50 million yen).

In their acceptance speeches, each of the laureates addressed as follows:

Dr. Sugimura: "I am pleased to be able to state that the concept of cancer as a disease of DNA is now firmly established. Happily, many scientists all over the world are continuing to expand our knowledge facilitating new approaches to cancer diagnosis, treatment and prevention."

Dr. Ames: "If my work contributes to improving the health of the Japanese people I feel it is only paying back for all of the pleasures your wonderful country has given me."

Dr. Engelberger: "My cause celebrated today is to develop a robot that will serve elderly, home bound people as a servant-companion. Surely JARA shares in this goal.", and

Dr. Yoshikawa: "In recent years, great advances have been made in

Banquet

Following the presentation ceremony, a banquet was held at Hotel New Otani in Tokyo on the evening of April 25, in the presence of Their Majesties The Emperor and Empress with approximately 250 distinguished guests in attendance.

An opening address by the Foundation President, Dr. Masami Ito, was followed by dinner, after which his Majesty The Emperor honored the four winners with a congratulatory toast. A second toast was made by H. E. Toru Miyoshi, Chief Justice of the Supreme Court. A third toast was proposed by H. E. Takashi Kosugi, Minister of



A view of the Banquet

Address by His Majesty The Emperor



I extend my heartfelt congratulations to the four winners of the thirteenth Japan Prize. Dr. Sugimura and Dr.

Ames are being honored here for their outstanding work in the area of the "Biotechnology in Medicine," and Dr. Engelberger and Dr. Yoshikawa are receiving the award for their remarkable contributions to the field of "Systems Engineering for an Artifactual Environment."

The extensive research conducted by Dr. Sugimura and Dr. Ames has been instrumental in establishing the fundamental concept that cancer is a disease caused by changes in DNA. Dr. Engelberger and Dr. Yoshikawa have made valuable contributions to the realization of system technologies, including the formation of objectives and methodologies in technological development and envisioning future technologies, such as using robots to care for invalids and the disabled. I wish to express my deepest respect and appreciation to each of these four distinguished scientists for their remarkable achievements.

Today, the advances of science and technology are truly phenomenal. It is my most ardent desire that these advances will be applied to the promotion of the health and well-being of all the people of the world, to the maintenance of a sound environment, and to the promotion of all that is conducive to human happiness. In this sense, the research and achievements of the four awardees are of the deepest significance. It is my sincere hope that their researches will bear more and more fruit in the future.

In closing, I hope that the Japan Prize will go on making an ever greater contribution to the advancement of science and technology.

the area of manufacturing technology. This area has developed as the venue for the practical application of the fruits of several fundamental spheres of scholarship. However, manufactured goods cannot be produced just with the knowledge from these various spheres alone. That is why the thinking and actions of individual persons come into play and are the requisite conditions for the manufacture of goods. It is manufacturing theory that incorporates these factors as the subject of research, which includes both general design theory and artifactual engineering. Please allow me to believe that my receipt of this honorable award means some light has been shed on these fields."

Education, who asked the guests to join him in toasting the Japan Prize's contribution to world peace and prosperity.

The banquet continued with a congratulatory message from H. E. Baron His Majesty The Emperor proposing a toast Patrick Nothomb, of the Kingdom of Belgium, the representative of the diplomatic corps in Japan. Thereafter, Mr. C. Lawrence Greenwood, Jr., of United States of America, Charge d'Affaires ad interim, followed with his own congratulatory speech.

The end of the banquet was highlighted by a performance from Chiba University and Utsunomiya University. To close the banquet, Dr. Sugimura, Dr. Ames, Dr. Engelberger, and Dr. Yoshikawa delivered speeches of thanks.



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Memorable Album of the Laureates

Dr. Sugimura



Dr. Sugimura collects insects while staying in Karuizawa, a summer resort, with his friends.



In 1970, Dr. Sugimura visited Rome with his wife to attend a meeting of an academic society.



In 1981, Dr. Sugimura was given The Charles S. Mott Prize from the General Motors Cancer Research Foundation of the United States. At a reception after the award-giving ceremony, Dr. Sugimura shows off his dashing costume.

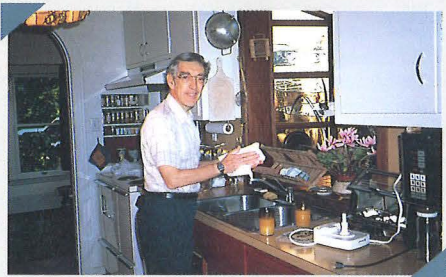
Dr. Ames



In 1987, lunch with Dr. Takashi Sugimura, co-winner of the prize, and other guests, on the deck of Dr. Ames' house in Berkeley.



Dr. & Mrs. Ames in their dining room. Japanese print on the wall and Japanese fabric used as a curtain.



Dr. Ames in his kitchen.

Dr. Engelberger



Dr. Engelberger is at the helm of a new sailing boat christened "Rights of Man."



Dr. Engelberger was 12 years old when this picture was taken, but his pose is as imposing as his father's.



In 1985, Dr. Engelberger briefed President Ronald Reagan on the robot technology to assist surgeons.

Dr. Yoshikawa

Dr. Yoshikawa catching a grasshopper with his sister when he was a child.



Dr. Yoshikawa and his research members hold yearly workshop outside campus.



Dr. Yoshikawa attends the IMS (Intelligent Manufacturing System) meeting with other representatives from Canada, the U.S., EU, and Australia.

JAPAN PRIZE



Press conference at the Japan Press Center (April 22)



Holiday in Kyoto (April 27)



Courtesy call on the Prime Minister (April 23)



Academic discussion (April 26)

Japan Prize Week



Welcome reception (April 23)



Reception party hosted by the American Embassy (April 24)



Visit to the Japan Academy (April 24)



Commemorative lectures (April 24)

Selection of Laureates Begins for the 1998 (14th) Japan Prize

The categories for the 1998 (14th) Japan Prize are "Generation and Design of New Materials Creating Novel Functions" and "Biotechnology in Agricultural Sciences." Candidates have been recommended through numerous letters of nomination received by the Foundation from around the world. The 1998 (14th) Japan Prize Selection Committee will be established in the Foundation and the results will be announced in December. The presentation ceremony will take place in April 1998.

Generation and Design of New Materials Creating Novel Functions

Recently, we have made rapid progress in the area of materials science and technology. Most of them are definitely based upon the methodology of generation and design of novel structures having controllability at the atomic and molecular level. Due to these advances, various new material functions and characteristics have been generated, which has contributed to the innovation of science and engineering.

The Prize for 1998 will feature the aforementioned field of "Generation and Design of New Materials Creating Novel Functions". The Prize will be awarded to a pioneering individual who has substantially contributed to the dramatic progress of this science and technology making a strong impact on society.

Biotechnology in Agricultural Science

The promotion of sustainable agricultural production compatible with the preservation of the environment will become difficult in future in view of the rapid increase of the population, particularly in the developing regions of the world.

In order to address this problem, the development of biotechnology is considered to be one of the key issues.

The prize for 1998 will be awarded for outstanding achievements in the development of biotechnology in agricultural sciences relating to genetics, breeding and cultivation to improve the yield, quality and tolerance to biotic and abiotic stresses, including post-harvest biotechnology to reduce the losses and deterioration of agricultural products during transportation, storage and processing.