

# JAPAN PRIZE NEWS

THE SCIENCE AND TECHNOLOGY  
FOUNDATION OF JAPAN (JSTF)

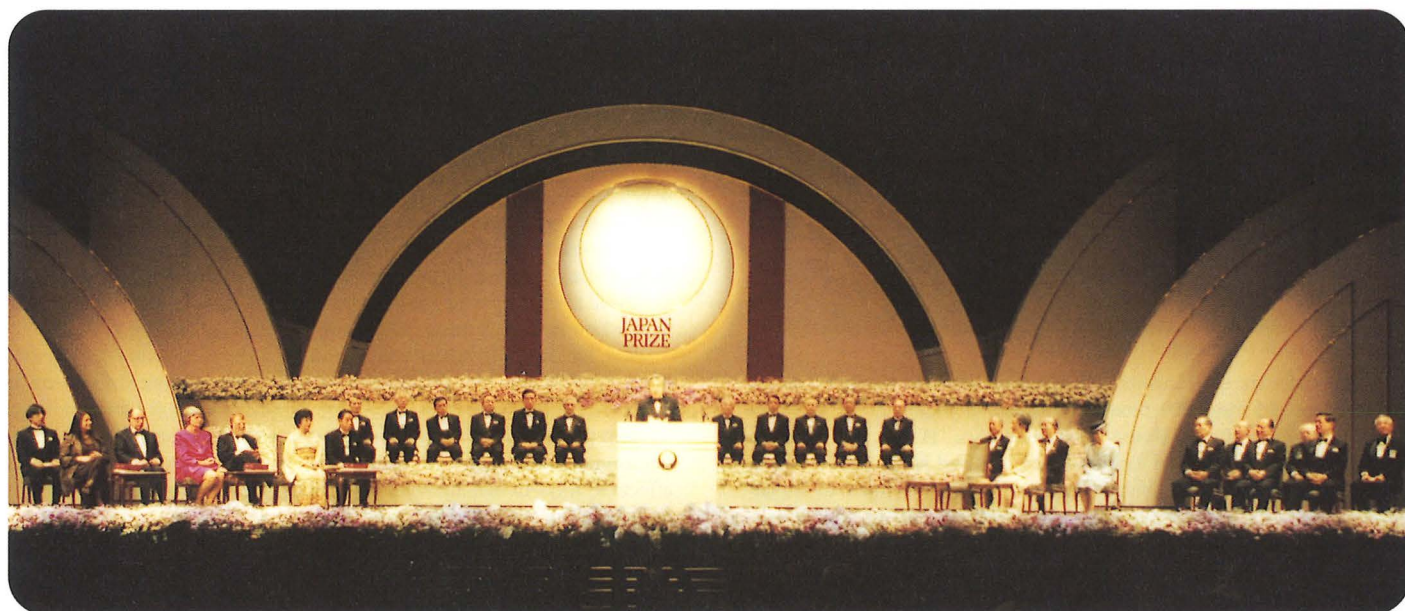
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## Three Japanese and Belgian Scientists Awarded 1998 Japan Prize

**Their Majesties the Emperor and Empress Attend the Presentation Ceremony**



The presentation ceremony for the 14th Japan Prize took place on April 28, 1998, at the National Theater in Tokyo. This year's three laureates were Dr. Leo Esaki (73), Former President of Tsukuba University, Japan, in the category of "Generation and Design of New Materials for Novel Functions"; and Prof. Dr. Jozef S. Schell (62), Director of the Department of Genetic Principles of Plant Breeding, Max-Planck-Institute fuer Zuechtungsforschung, Germany, and Dr.

Marc C. E. Van Montagu (64), Professor of Faculty of Science, Laboratory of Genetics, University of Ghent, Belgium, the joint winners in the category of "Biotechnology in Agricultural Sciences."

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



Dr. Leo Esaki



Dr. Jozef S. Schell



Dr. Marc C. E. Van Montagu

# JAPAN PRIZE

## Presentation Ceremony

### Address by His Majesty the Emperor

I would like to extend my sincere congratulations to Dr. Esaki, Prof. Dr. Schell and Dr. Van Montagu, the winners of the 1998 Japan Prize. Dr. Esaki was awarded the prize in the category of "Generation and Design of New Materials Creating Novel Functions". Prof. Dr. Schell and Dr. Van Montagu were awarded the prize in the category of "Biotechnology in Agricultural Sciences".

Dr. Esaki created semiconductor "superlattice", a man-made single crystal. This material has proven to have a number of peculiar properties as predicted by Dr. Esaki and has brought forth wide-ranging developments in



the field of applied technologies.

Prof. Dr. Schell and Dr. Van Montagu developed a method for the transfer of a foreign gene into a plant genome by means of soil bacteria, *Agrobacterium*, and succeeded in trial production of useful transgenic plants. It is expected that this technology will make major contributions to the future development of agriculture.

I would like to take this opportunity to express my profound admiration and respect to these three distinguished scholars for their outstanding achievements.

In recent years, great strides have been made in science and technology and humanity could receive immeasurable benefits from these advances, through broad applications, as demonstrated by the achievements of the three scientists to whom this year's prize is being awarded. I would like to express my sincere hope that new science and technology will further develop, and always in such a way as to contribute to the welfare of humanity.



The laureates on the stage of the ceremony

Their Majesties the Emperor and Empress attended the presentation ceremony as did some 900 prominent guests, including H. E. Mr. Juro Saito, President of the House of Councillors, H. E. Mr. Shigeru Yamaguchi, Chief Justice of the Supreme Court and H. E. Mr. Nobutaka Machimura, Minister of Education; numerous ambassadors to Japan; eminent scholars and researchers; representatives from the policy, financial and industrial sectors of government; and the media.

The ceremony began with a rendition of Overture Japan performed by the Tokyo Symphony Orchestra. Prof. Jiro Kondo, Foundation Chairman, delivered the opening address, and Dr. Hiroshi Inose, Chairman of the 1998 Japan Prize Selection Committee, introduced the three 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 three winners with a certificate of merit, a commemorative medal and a cash award of 50 million yen for each category.

Highlights of each of the laureates' acceptance speech:

Dr. Leo Esaki: "Wherever we live, we rely heavily on science and technology. In industrial countries, in particular, scientific and technical knowledge indisputably make a great contribution to our economic development, to the improvement of the environment, to the protection of our health and medical care, to the prevention and mitigation of natural and man-made disasters and to improvements in the quality of life. I believe that the annually-awarded Japan Prize stimulates people around the world to take a greater interest in science and technology and makes us realize how important these fields are to the future of mankind."

Prof. Dr. Jozef S. Schell: "With an ever increasing world population, limited cultivatable land and a pressing need for environmental protection and preservation, one must encourage progress in plant biotechnology. Modern plant breeding, combining advances from molecular biology and traditional knowledge and techniques, is one of the few, and most effective, ways to maintain and improve agricultural productivity without destroying the environment."

Dr. Marc C. E. Van Montagu: "Upon the acceptance of the Japan Prize, my thoughts go out to all those who are concerned with the preservation of our environment, especially in light of the damage caused to our planet particularly during the second half of this century. May they understand and appreciate the contributions of our research."

## Banquet

Following the presentation ceremony, a banquet was held at Hotel Okura in Tokyo on the evening of April 28, in the presence of Their Majesties the Emperor and Empress with approximately 250 distinguished guests in attendance.

An opening address by Foundation President Dr. Masami Ito preceded the dinner, after which His Majesty the Emperor honored the three winners with a congratulatory toast. Further toasts were proposed by H.E. Mr. Souichiro Ito, Speaker of the House of Representatives, and H.E. Mr. Shigeru Yamaguchi, Chief Justice of the Supreme Court. Final toasts were proposed by H.E. Mr. Nobutaka Machimura, Minister of Education and H.E. Sadakazu Tanigaki, Minister of State for Science and Technology.



Dr. Masami Ito makes the opening address

The banquet continued



A view of the Banquet

with a congratulatory message from H.E. Mr. Rachad Ahmed Saleh Farah, Ambassador Extraordinary and Plenipotentiary of the Republic of Djibouti, the foreign representative of the diplomatic corps in Japan. Thereafter, H.E. Mr. Gustaaf Dierckx, Ambassador Extraordinary and Plenipotentiary of the Kingdom of Belgium, followed with his own congratulatory speech.

The end of the evening was marked by a choir performance by Chiba University and Utsunomiya University. To close the banquet, Dr. Esaki, Prof. Dr. Schell and Dr. Van Montagu delivered speeches of thanks.

# JAPAN PRIZE

## Memorable Album of the Laureates

### Dr. Esaki



At the age of five, Dr. Esaki may have dreamed of being a dancer.



Dr. Esaki in the second grade of Tokyo University.



Dr. Esaki with Dr. Shockley, winner of the Nobel Prize in physics, and his wife at an international conference in Brussels.



Dr. Esaki receives the Nobel Prize in physics from His Royal Highness King Carl Gustaf XVI of Sweden.



Dr. Esaki takes a walk with students of Tsukuba University.

### Prof. Dr. Schell

Prof. Dr. Schell at the age of seven with his parents and older brother, Rudy.



Prof. Dr. Schell with his sons, Peter and Bart, at the awards ceremony for the Wolf Prize in 1990.



Prof. Dr. Schell, an avid sailor, has crossed the Atlantic Ocean and sailed through the Mediterranean to Turkey.



The President of Germany, Richard Von Weizsacker and His Majesty, King Boudouin of Belgium visit Prof. Dr. Schell at the Max Planck Institute in 1988. Her Majesty, Queen Fabiola is at left.



A Friday football game in 1981: Prof. Dr. Schell's Dept. vs. Prof. Heinz Saedler's Dept.

### Dr. Van Montagu

As a high school student in 1949, Dr. Van Montagu had already decided to study the chemistry of living things.



Getting married in October 1957.



Working on the roof of his country house in Oosterzele.



Dr. Van Montagu visits Hokkaido in 1989.



Dr. Van Montagu is awarded the Dr. Honoris Causa at the Free University of Brussels in 1997.

# JAPAN PRIZE



Press conference at the Japan Press Center (April 23)



Holiday in Kyoto (April 30)



Welcome reception (April 24)



Commemorative lectures (April 24)

## Japan Prize Week

The week of April 22 to May 1, 1998, was designated Japan Prize Week with many events such as visits to the Prime Minister and the Japan Academy, commemorative lectures, and of course, the culminating Award's Ceremony and Banquet.



Academic discussion (April 29)



Reception party hosted by the Belgium Embassy (April 27)



Courtesy call on the Prime Minister (April 27)



Visit to the Japan Academy (April 27)

## Selection of Laureates Begins for the 1999 (15th) Japan Prize

The categories for the 1999 (15th) Japan Prize are "Information Technologies" and "Molecular Recognition and Dynamics in Bioscience." Candidates have been recommended through numerous letters of nomination received by the foundation from around the world. The 1999 (15th) 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 2000.

### Information Technologies

In accordance with the progress of digitalization, information technologies are increasingly playing an important role in modern society.

The prize for 1999 will be awarded for outstanding achievements in encoding and encryption technologies, reliability and security technologies, and related digital information technologies which are bases of efficient and secure information systems.

### Molecular Recognition and Dynamics in Bioscience

Recent progress of bioscience owes much to understanding mechanisms of intermolecular interaction. In addition, technological developments to visualize (or recognize) molecular movements and interactions in living cells have also contributed to obtain deeper insights into the biological function of each molecule.

The Japan Prize for 1999 will be awarded for outstanding achievements in elucidation of the basic principle of molecular recognition as well as technological developments to visualize or recognize dynamics of biological molecules.