

JAPAN PRIZE NEWS

THE SCIENCE AND TECHNOLOGY
FOUNDATION OF JAPAN (JSTF)

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No. 9
JULY 1991

French and American Scientists Awarded 1991 (7th) Japan Prize

Recognized for Scientific Achievements in Applied Mathematics and Imaging Techniques in Medicine



Dr. Jacques-Louis Lions

Two Scientists from France and the U.S.A. were awarded the 1991 (seventh) Japan Prize, the most prestigious and honored prize in the fields of science and technology, at a presentation ceremony held at the National Theater in Tokyo on April 25.

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 categories this year were Applied Mathematics and Imaging Techniques in Medicine. Top scientists and academics around the world submitted 630 nominations, 389 for Applied Mathematics and 241 for Imaging Techniques in Medicine.

Dr. Jacques-Louis Lions, Chairman of Analysis and Systems Control at the Collège de France and the president of the National Center for Space Studies, France (CNES), received the 1991 Japan Prize in the category of Applied Mathematics. Dr. Lions is credited for his contributions to analysis and control of distributed systems, and to promotion of applied analysis.

In the category of Imaging Techniques in Medicine, the Prize went to Dr. John J. Wild, Director of the Medico-Technological Research Institute of Minneapolis, who pioneered ultrasound imaging techniques. The widespread use of Dr. Wild's diagnostic ultrasound techniques has revolutionized medicine; compared with other imaging methods, such as X-ray CT and magnetic resonance imaging, ultrasound is much safer because it entails non-invasive imaging.



Dr. John Julian Wild

JAPAN PRIZE



Their Majesties The Emperor and Empress Attend The Presentation Ceremony

Their Majesties The Emperor and Empress attended the presentation at the National Theater in Tokyo on April 25, 1991. Some 1,000 prominent guests attended the ceremony, including the Chief Justice of the Supreme Court, the Minister of Education, Science and Culture, the Minister of the Science & Technology Agency, 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 New Japan Philharmonic Orchestra under the direction of Kohki Tetsuka. Foundation Chairman Masami Ito made the opening address and Dr. Jiro Kondo, Chairman of the 1991 Japan Prize Selection Committee, introduced the two winners and their achievements. After the chairmen of the two selection panels presented the reasons for their selections, Foundation President Dr. Kisaburo Yokota presented the winners with their certificates of merit, commemorative medals and cash awards of 50 million yen for each category.

In his acceptance speech, Dr. Lions said, "It is today an exceptional privilege, for me and for my colleagues, to have this field of activity and these contributions recognized at such a prestigious event." Dr. Wild expressed his appreciation, saying, "My works in medical imaging were started over forty years ago, and may have set a record for retrospective recognition. Recognition of a prophet in his own time redounds to its credit."

State Banquet Held with Their Majesties The Emperor and Empress

Following the presentation ceremony, a banquet for the 1991 Japan Prize winners was held at the Hotel New Otani in Tokyo on the evening of April 25, in the presence of Their Majesties The Emperor and Empress of Japan as well as 400 dignitaries including Japanese government officials, the French and U.S. ambassadors to Japan, other ambassadors and ministers, and celebrities from various fields.

The gala celebration included music by the New Vivaldi Ensemble, which performed a selection of works including *Spring* from Vivaldi's *Four Seasons*.

JAPAN PRIZE

Address by His Majesty The Emperor (Excerpts)



In applied mathematics and imaging techniques in medicine, science is applied to solve practical, concrete problems. Technological advances in these academic fields will make a great contribution to society, leading to the further development of industrial activities and the improvement of medical care. I would therefore like to express my deepest respect for the remarkable achievements of the two doctors.

We must continue making further efforts to develop scientific and technological advances that reflect the cooperative efforts of many individuals and that will help to bring happiness to and improve the lives of people around the world.

It is my sincere hope that the Japan Prizes awarded at this seventh presentation ceremony will contribute to the further development of world science and technology in the years to come.



An opening address by Foundation President Dr. Yokota was followed by dinner, after which His Majesty The Emperor honored the two laureates with a congratulatory toast. A second toast in appreciation of the laureates' wives was made by His Excellency Mr. Ryohachi Kusaba, Chief Justice of the Supreme Court, who represented the three branches of the Japanese government. The laureates' wives were then presented with bouquets.

Another toast was proposed by Her Excellency Akiko Santo, Minister of Science and Technology Agency, who asked the guests to join her in toasting to the Japan Prize's further contribution toward world peace and prosperity.

The banquet continued with congratulatory messages from Mr. Shunichi Suzuki, Governor of Tokyo, His Excellency Narayan Prasad Arjal, Ambassador Extraordinary and Plenipotentiary of the Kingdom of Nepal, His Excellency Loïc Hennekinne, Ambassador Extraordinary and Plenipotentiary of France, and His Excellency Michael H. Armacost, Ambassador Extraordinary and Plenipotentiary of the United States of America.

The end of the banquet was highlighted by a performance by the Tokyo Institute of Technology's Cahor Kleines mixed chorus group featuring songs of the universities and countries where the laureates spent their days as young students.

Prior to closing the banquet, Drs. Lions and Wild gave speeches of thanks and brought this memorable banquet to its close.

Japan Prize Week



Courtesy call on the prime minister (April 23)



Press conference at the Hotel New Otani (April 23)



Visit to the Science Council of Japan (April 24)



Commemorative lectures in Tokyo, at the Yomiuri Hall (April 24)

JAPAN PRIZE

Dr. Björn – Rasmussen, Head of Information Department, The Royal Swedish Academy of Sciences, attended the Japan Prize Week events.



Dr. Björn-Rasmussen, Head of Information Department, The Royal Swedish Academy of Sciences which selects the laureates of the Nobel Prizes for Physics, Chemistry and Economics visited Japan during April. On 10th of April, together with her husband she made a courtesy visit to the Foundation and further extended their staying schedule and attended the main events during 1991 (7th) Japan Prize Week which started on Monday April 22.

For Dr. Björn-Rasmussen, it was the first participation in the Japan Prize Week events.

The Foundation's Executive Director, Mr. Tsuguaki Kawamura made a personal interview with her as follows:

Q: As to the Ceremony and Banquet where you attended, could you raise your most impressed point or matter for each of such event?

A: The Ceremony had a good programme not too different from the Nobel programme. I liked very much the presentations in the beginning with slides to introduce the both laureates. A splendid idea. It made the laureates more personal. The Banquet was both very good in planning and the menu was delicious. The Banquet Party was not formal. People were happy and laughing.

Q: What were your impressions and evaluations on the Japan Prize Commemorative Lecture?

A: The lectures were more popular and the public not so specialized compared to the Nobel lectures. Both of the laureates succeeded in being popular and interesting and making the lecture a good one.

Q: What was your impression about the Joint Press Meeting?

Is there any difference between the way the press meetings and public announcements are conducted for the cases of the Nobel Prize Physics and Chemistry categories and our cases?

A: Compared to the Nobel press meeting in Sweden (we have one for Physics, Chemistry and Economy and another one for Medicine) there were more journalists gathered during your press conference compared to ours. They were also asking more questions and they were good ones. We have the problem that most journalists want to have separate interviews and they are too quiet during the press conference. We really don't know how we can encourage a more intense discussion during our press conferences.

Selection of Winners Begins for 1992 (8th) Japan Prize

The categories of the 8th Japan Prize for 1992 are Science and Technology of Material Interfaces and Science and Technology for Biological Production. Candidates have been recommended through numerous letters of nomination received by the Foundation from around the world. The 1992 Selection Committee has been established and the process of selecting next year's winners is under way. Results will be announced publicly in December, 1991 and the presentation ceremony will be held in April, 1992.

Science and Technology of Materials Interfaces

Innovation in the science and technology of materials always has a great impact upon progress in modern technologies. In particular, the understanding of material interfaces (including surfaces) at the atomic level has greatly expanded in recent years.

Science and technology of material Interfaces covers fields such as catalysts, thin films, colloids and various interfaces of metal and semiconductors.

The Prize for 1992 will be awarded for outstanding achievements in the formation and control of material interfaces, their characterization techniques, clarification of phenomena and development of materials and/or devices which utilize special functions of material interfaces.

Science and Technology for Biological Production

Mankind's survival has and will continue to depend on utilizing living organisms to producing food and other purposes in agriculture, forestry, fisheries and related industries. Improving the efficiency as well as the diversity of these processes remains vitally important.

The Prize for 1992 will be awarded for outstanding achievements in science and technology relating to the cultivation, breeding, protection and related aspects of food production, with a view to increasing productivity through the use of living organisms.

General Science and Technology Seminars Held Monthly

The Foundation is holding a monthly General Science and Technology Seminar in Japanese for the general public, free of charge. The aim is to promote a comprehensive spread of information and development of ideas regarding science and technology.

Lecturers at the seminars include distinguished scholars, scientists and engineers recognized as leaders in their fields. The lectures are presented in easy-to-understand language for the benefit of non-specialists.

The subjects of upcoming seminars under the 1991 series theme of "The science and technology close to us — from daily life and safety points." will include:

"Investigate foods with biosensors" (July), "Science and technology of preventing hazards — how to forecast and prevent hazards." (August), "Science and technology of dust and garbage — creation of nice and clean environment." (September), "System and structure of water — for good water." (October), "Science of housing — for innovated houses." (November) and "Minds of animals?, means to understand animals." (December).

