



JAPAN PRIZE

News

THE SCIENCE AND TECHNOLOGY
FOUNDATION OF JAPAN (JSTF)

Shisei-kaikan 5F, 1-3, Hibiya-koen,
Chiyoda-ku, Tokyo, 100 Japan
Telephone: 03-508-7691

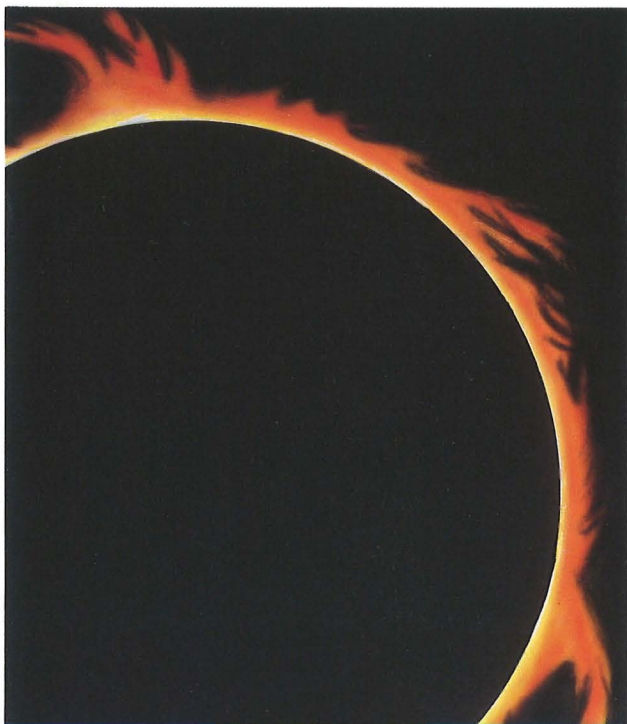
December 1986 No.3

Award Categories for 4th Japan Prize Announced

A unique feature of the Japan Prize is the selection each year of specific categories of research from which Laureates are chosen.

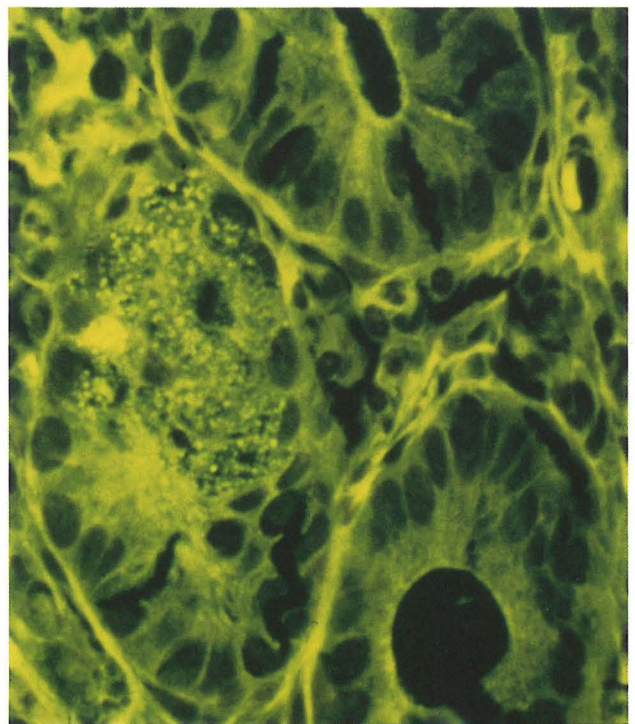
On 4 November 1986 the Science and Technology Foundation of Japan announced the award categories for the 4th Japan Prize, to be presented in 1988. The categories are:

Energy Technology



The term "Energy Technology" includes the technological fields of production, storage, conversion, transmission and consumption of energy. As well as its production from nuclear fission and fusion, the sun, winds, tides and waves, and the use of geothermal sources, it covers energy conservation.

Preventative Medicine



The term "Preventative Medicine" should be interpreted in its widest sense as being applicable to diseases caused by external agents such as pathogenic microorganisms, toxic substances, etc. as well as those arising from conditions such as metabolic disorders, senility, carcinogenesis, etc. Major contributions, such as causative agent identification or pathogenic mechanism elucidation, should be considered as being included in this category.

JAPAN PRIZE—To Promote the Prosperity of Mankind and World Peace

How the Categories for 1988 Were Selected

Since the selection of appropriate areas of research is of tremendous significance, leading to the eventual selection of worthy Laureates, the Foundation last July organized a Category Selection Committee headed by Ryogo Kubo, former chairman of the Science Council of Japan. The committee deliberated for four months before announcing its results.

After exchanging opinions about the potential fields for the Japan Prize, each member was asked to make his recommendations. A total of 140 categories were selected, with some overlap.

These recommendations were then evaluated and

systematically arranged by the committee, with consideration given to world trends in new scientific technologies, diversified studies and social impact. Subsequently, Energy Technology and Preventive Medicine were chosen as the most appropriate subjects for the 4th Japan Prize in 1988.

The award categories for the first three Japan Prizes were as follows:

- 1st (1985): Information & Communication; Medical Engineering and Biotechnology
- 2nd (1986): Materials Science & Technology; Medical Technology.
- 3rd (1987): Improvement of Biological Functions; Electro Optics.

Why the Categories Were Selected

Following the recommendations of the Award Category Committee for the 4th Japan Prize, its chairman, Ryugo Kubo, was asked about the selection process.



Q: What do you think of the current policy of annually changing the areas in which awards are presented?

A: The policy of not restricting the Japan Prize to the same two areas of endeavor each year has its advantages because it allows one to pick out the really outstanding breakthroughs in science and technology. On the other hand, since science and technology are so diversified, it is very difficult to compare achievement in one field against achievement in another.

A second approach is to pick out the most significant endeavors of the day—those that are contributing to man's future. This is the method we used on this occasion.

However, I am inclined to adopt a flexible approach to the way fields are chosen, and feel that a combination of the two approaches may best serve our purpose.

Q: Science can basically be divided into the physical and biological sciences. Was the selection of this year's fields of research based along these lines?

A: It does of course make sense to divide science and technology into these broad categories; however, the relative weight and importance of these fields is not comparable, and, moreover, the dividing line between them is not necessarily distinct. Since future developments in advanced science and technology lie over the horizon, the distinction between physical and biological sciences does not have much significance. For example, current developments in medical technology depend much upon the fruits of develop-

ments in physics and chemistry.

Q: Could you tell us about the reasons for selecting Energy Technology and Preventive Medicine as the two award categories for the 4th Japan Prize?

A: Although the energy crisis has subsided and the urgent need for development of new energy sources has become less critical, natural sources of energy are limited while energy consumption is increasing continuously. The search for new sources of energy and the study of conservation techniques are the most important issues related to the survival of mankind.

However, energy research is currently based on modest grass-roots studies, and lacks any radically new ideas, and the selection of candidates is not easy. However, because it is closely related to society and economic development, we have sought to look at it from a long-term point of view.

Preventive medicine is a subject far removed from my own profession so I am not in a position to make a relevant comment; yet everyone is aware that prevention of disease is as important or more important than the cure.

As preventive medicine is recognized as having high importance from the standpoint of human happiness and welfare, this field has been attracting special attention in recent years. It can be said that this field may somewhat overlap with the medical and physiological awards of the Nobel Prize, but there should be a way of appraising it from a different angle of observation.

(Former chairman of the Science Council of Japan; received the Order of Cultural Merits in 1973.)

Reflections on the Beginnings of the Japan Prize

Reiji Natori

Chairman of the Advisory Council



In March 1983, I accepted a seat as a councillor of a body known as the Japan Prize Preparatory Foundation. The Foundation (later to be known as the Science and Technology Foundation of Japan) was assigned the task of formulating the Japan Prize.

We decided to model the Prize on the Nobel Prize, which was first awarded in 1901, and which has since become the most prestigious prize in the world. Mr. Kisaburo Yokota, chairman of the Foundation, took the initial step of seeking the advice of the Nobel Foundation. As a result, the two Prizes are now linked together in a spirit of friendship and cooperation.

The Japanese government was very much interested in the creation of what was the first major international prize to be established in Japan, and made the unprecedented announcement that relevant government agencies would offer whatever cooperation necessary in the formulation of the Prize.

The Foundation made plans to present the first award in 1985, timed to coincide with the Science Exposition '85 at Tsukuba, north of Tokyo. I am glad to say that we were able to accomplish this, and the first presentation ceremony took place auspiciously

in the presence of Japan's Crown Prince and Princess. As I listened to the congratulatory messages of Prime Minister Yasuhiro Nakasone, Mr. S. Ramel, executive chairman of the Board of Trustees for the Nobel Foundation, and others, I was deeply moved, as I realized that the efforts of many people concerned had finally borne fruit.

Since then, the Foundation has grown steadily. The second award ceremony was held in April 1986, and deliberations on the third are now in progress. The success of this program so far can be attributed to the cooperation and support of all involved; for this I would like to express my deepest gratitude as a councillor.

I believe that the truly difficult part of our work awaits us in the future. We need always to remind ourselves of the ultimate goal of the Japan Prize, which is to contribute to the peace and prosperity of mankind through the progress of science and technology. We must dedicate ourselves wholeheartedly to fulfilling this goal.

(Chairman of Councillors, Executive Director of the Jikei University School of Medicine. Mr. Natori was awarded an Order of Cultural Merits in 1986.)

Members of the Category Selection Committee

Chairman:

Ryogo Kubo (Professor, Faculty of Science and Technology, Keio University)

Vice-chairman:

Saburo Nagakura (President, Okazaki National Research Institute)

Members:

Takashi Sugimura (President, National Cancer Center)

Shuntaro Ito (Professor, Faculty of Technology, University of Tokyo)

Takemochi Ishii (Professor, Faculty of Technology, University of Tokyo)

Hiroshi Harada (Professor, Institute of Biological Science, University of Tsukuba)

Shigeru Kimura (Managing Director, Satellite Channels Inc.)

Masanori Moritani (Associate Director, Technology Research Dept., Nomura Research Institute)

Eiichi Goto (Professor, Faculty of Science, University of Tokyo)

Toshiaki Ikoma (Professor, Institute of Industrial Science, University of Tokyo)

Hiroki Matsuo (Professor, Space Systems Engineering, Institute of Space and Astronautical Science)

Saburo Nagano (Professor, College of Arts and Sciences, University of Tokyo)

Gunji Saito (Assistant Professor, Institute for Solid State Physics, University of Tokyo)

Susumu Nishimura (Chief, Biophysics Division, National Cancer Center Research Institute)

Akira Ohya (Director, Virus Rickettsia, Dept., National Institute of Health)

Fumimaro Takaku (Professor, 3rd Dept. of Internal Medicine, Faculty of Medicine, University of Tokyo)

Toru Kodama (Professor, Faculty of Agriculture, University of Tokyo)

Soichi Arai (Assistant Professor, Faculty of Agriculture, University of Tokyo)

The 3rd Japan Prize Award Ceremony

The Japan Prize Selection Committee is currently studying the list of nominees for the 3rd Japan Prize. It will announce the two Laureates in mid-February 1987.

The award ceremony is scheduled to take place on Tuesday, 14 April, 1987, at the National Theater in Tokyo. It will be part of a Japan Prize Week that will include lectures and conferences in honor of the winners.

Nomination of Candidates for the 4th Japan Prize

Having completed the selection of the award categories for the 4th Japan Prize in 1988, the Foundation is planning to send letters to distinguished scholars around the world, requesting them to nominate appropriate candidates.

The deadline for nominations is 30 April 1987. The Foundation urges you to take the opportunity to nominate someone you think is deserving of the Japan Prize.

Cover photos: Courtesy of Japan Atomic Energy Relations Organization, New Energy Development Organization, Electro-technical Laboratory and Matsushita Memorial Hospital.

The Japan Prize and the Science and Technology Foundation of Japan

The Japan Prize

The Japan Prize is awarded for outstanding achievements in the fields of science and technology. It honors those whose work has contributed to the peace, happiness, and prosperity of mankind.

Each year, two specific areas of research are selected and candidates chosen from each. The Foundation asks distinguished scholars around the world to nominate a list of candidates.

The Prize is normally awarded to individuals, although groups of less than five are considered candidates. There are no restrictions as to race, creed, or color.

Each Japan Prize Laureate receives a certificate of merit, a commemorative medal, and a supplementary cash award of ¥50 million.

The award presentation ceremony takes place annually in Tokyo in April.

The Japan Prize Laureates

1st (1985)

Information and Communication

John R. Pierce, Ph. D.

(Guest Professor, Stanford University, USA)

Biotechnology

Ephraim Katchalski-Katzir, Ph. D.

(Professor, Tel Aviv University, Israel)

2nd (1986)

Materials Science and Technology

David Turnbull, Ph. D.

(Professor of Applied Physics, Harvard University, USA)

Medical Technology

Willem J. Kolff, M.D., Ph. D.

(Professor of Medical and Biomedical Engineering, University of Utah, USA)

Matsushita Increases Contribution

It was announced at a press conference on 26 November 1986 that Mr. Konosuke Matsushita, adviser to Matsushita Electric Industrial Co. and President of the Science and Technology Foundation of Japan, has contributed an additional ¥2 billion to the Foundation. This brings to ¥5 billion the amount that Mr. Matsushita has contributed.

At the same press conference, Foundation Chairman Kisaburo Yokota and Executive Director Tsuguaki Kawamura announced the award categories for the 4th Japan Prize in 1988—Energy Technology and Preventive Medicine—and discussed the schedule for 1987 Japan Prize Week.



The Science and Technology Foundation of Japan

The Science and Technology Foundation of Japan is a nonprofit-making body under the supervision of the Prime Minister's office, the Science and Technology Agency, the Ministry of Education, and the Ministry of Foreign Affairs.

It was established to enhance public awareness of the contributions being made by science and technology to the peace, happiness, and prosperity of mankind.

Among its many activities, the administration of the Japan Prize is the primary function of the Foundation today.



Commemorative lecture meeting, Tokyo, 1986

Brief History of the Foundation

- 1 November 1983 Japan Prize Foundation established with support of Prime Minister.
- 5 May 1983 Japan Prize Preparatory Foundation becomes Science and Technology Foundation of Japan.
- 28 October 1983 Japanese government endorses establishment of Japan Prize.
- 20 April 1985 1st Japan Prize award ceremony held in Tokyo.
- 19 April 1986 2nd Japan Prize award ceremony held in Tokyo.

Regarding the Establishment of the Japan Prize

The official position of the Japanese Government is that the Japan Prize, to be bestowed by the Science and Technology Foundation of Japan, will serve to deepen the understanding of the role played by science and technology in furthering world peace and prosperity, thereby making a vital contribution to the positive development of mankind. Based on this judgement, the government agencies concerned are urged to offer whatever cooperation necessary in all phases pertinent to this prize.

(Cabinet Endorsement—October 28, 1983)

From the Editor

Bolstered by Mr. Konosuke Matsushita's additional contribution to our funds of ¥2 billion, our Foundation is determined to nurture the Japan Prize into a truly prestigious international award.

We would kindly ask readers for their comments on this issue and for suggestions pertaining to the Japan Prize.