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# JSPS

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# Partnership with Asian Countries

JSPS began its programs of scientific exchange with Asian countries in 1976. They were carried out with an aim to help those countries elevate the standard of their scientific research.

Now, a quarter century later, the political, economic and social circumstances in many Asian countries have changed significantly, as have the levels of their science and technology. Some of them have achieved rapid economic development, accompanied by the evolution of universities and research institutions with high academic standards in science and other disciplines. On the other hand, many other countries of the region continue to suffer the effects of poverty and politico-social instability. Given this diversified milieu, JSPS has had to give careful thought to build mutually beneficial partnerships when formulating its Asia-oriented programs.

Described below are JSPS's main Asia-related programs; the future orientation of JSPS's Asian initiatives; and, in line with that direction, the new programs slated to be launched in the next fiscal year.

## **Core University Program**

Established in 1978, the Core University Program supports large-scale research collaborations with Asian countries. In both Japan and the counterpart country, institutions are designated as "core universities" in designated fields. Revolving around them, networks are formed of cooperating institutions and researchers and large-scale research projects are implemented. At present, 29 core university projects are underway in seven countries (i.e., Indonesia, Malaysia, the Philippines, Thailand, China, South Korea and Vietnam). Funded by JSPS at approximately ¥20 million (\$190,000) per year, each project comprises joint research, seminars and researcher exchanges carried out by the core and cooperating universities. This program, which to date has been the centerpiece of JSPS's Asia-directed offerings, is highly appraised among Asian counterpart countries.

## **RONPAKU Program**

This program supports researchers in Asian countries who wish to earn a PhD from a Japanese university by submitting a doctoral dissertation. As the program does not require enrollment in a graduate course, it allows fellows to remain at their home institutions while work-

ing on their Japanese doctoral degrees. This is very helpful for many Asian researchers who may not be able to obtain a PhD in their field in their home country. From the Japanese perspective, the program is beneficial as, in helping Asian researchers obtain their Japanese PhDs, it fosters people who feel a close connection with Japan, thus contributing to the formation of meaningful networks, both personal and professional, between Japan and other Asian countries.

The tenure of the RONPAKU fellowship is up to five years, during which time fellows conduct their doctoral research under the guidance of an academic advisor affiliated with a Japanese university. For this purpose, fellows visit Japan for a period of up to 90 days a year; and when deemed appropriate, Japanese advisors may go to the fellows' countries to assist them in their research.

## **Asian Science Seminars**

Asian Science Seminars are short, 1-2 week programs that target young researchers from Asian countries. By providing high-level lectures and an intensive agenda of hands-on training and discussion, the seminars are designed to contribute to the fostering of excellent researchers and technicians across a span of Asian countries. Currently, three seminars are held each year; two in Japan and one in a counterpart country (either Korea, China or India). Each seminar accommodates about 40 young researchers chosen to participate from Asian countries. The lecturers are frontline researchers invited from Asia including Japan, North America and Europe.

In addition to these programs, JSPS supports a wide array of joint research projects, seminars, researcher exchanges and other activities carried out in cooperation with its counterpart agencies in Asian countries.

As mentioned above, considerable differences have emerged in the economic conditions and S&T levels of Asian countries. This has caused a shift in Japan's thinking with regard to assistance; whereas it used to be administered unilaterally, partnerships are now sought that accord to the varying conditions of each country. In another major transition, JSPS has become an independent administrative institution, requiring the use of a fair and transparent selection process and strict evaluation procedure in the management of all its programs. These new requirements also apply to JSPS's Asian pro-

grams. From these perspectives, JSPS is now in the process of reevaluating the state of each of its program's implementation.

Based on such a review, it has been determined that JSPS's programs with Asia should be given the following three orientations:

- (1) With countries that have a high degree of economic development and a high level of science and technology, partnerships should be built on a principle of equal cost sharing.
- (2) With countries that at present cannot afford equal cost sharing, Japanese research institutions should take the lead and provide vigorous support for building research infrastructures, particularly those that contribute to solutions for such regional issues as environmental degradation or infectious diseases.
- (3) In all cases, impartiality and transparency is to be maintained throughout the operation of JSPS programs. This entails the use of open recruitment and effective selection and evaluation methods.

Given this new direction, JSPS will phase out the Core University Program, and replace it with the launching of three new programs: A3 Foresight Program, Asian CORE Program, and AA Science Platform Program. (Ongoing projects under the Core University Program will continue until their scheduled termination dates.)

### A3 Foresight Program

This program will support trilateral research collaboration by Japan, China and Korea. It was agreed at the second A-HORCs meeting held in Shanghai in December 2004 that the program will be jointly implemented by

JSPS, National Natural Science Foundation of China (NSFC), and Korea Science and Engineering Foundation (KOSEF). The three countries (A3) will as a consortium conduct leading-edge joint research with an aim to establishing a top-level research hub in Asia. The time schedule, scope and other details of the program will be worked out among the three agencies.

### Asian CORE Program

This program is designed to create world-class research hubs within the Asian region, and to foster the next generation of leading researchers. Its ultimate aim is to make Asia a research center on parallel with those of North America and Europe. Participating as "core institutions" will be universities and research institutes of high academic standing in Japan and other Asian countries. As collaboration with counterpart countries will be based on a principle of matching funds, the program constitutes a paradigm shift from a donor-recipient relationship to one of equal partnership. Under the program, project proposals are solicited via open recruitment. JSPS funding over the 5-year duration of projects is scheduled to be up to ¥100 million (or up to ¥20 million per year). Applying Japanese institutions must have confirmed that their counterparts in Asian countries are able to provide equal burden sharing at the time they submit their proposals to JSPS.

### AA Science Platform Program

This program is meant to contribute to the solution of problems in Asia and Africa. Taking the lead, Japanese research institutions will establish research hubs in the subject fields, which are to both implement projects and foster young researchers. What distinguishes this pro-



gram is its orientation to Africa as well as Asia and its policy of not requiring project funding from the counterpart country. Many countries in the two regions are affected by political, economic and/or social issues which often make it difficult for them to develop high-level research institutions. The program, therefore, aims to help provide scientific and technological solutions for the problems these countries face. Under it, project proposals are solicited via open recruitment. JSPS funding over the 3-year duration of projects is scheduled to be up to ¥30 million (or ¥10 million per year).

## Second Meeting of A-HORCs Held in Shanghai

On 2-3 December 2004, the second meeting of the Heads of Research Councils of Asian Countries (A-HORCs) was convened in Shanghai. Asian HORCs comprise the heads of three central funding agencies in the member countries: National Natural Science Foundation of China (NSFC), Korea Science and Engineering Foundation (KOSEF), and JSPS. The first meeting of the group was held in Tokyo in November 2003.

A dinner reception was hosted by NSFC president Prof. Yiyu Chen on the evening of the 2<sup>nd</sup>. The meeting, held on the 3<sup>rd</sup>, was divided into a morning and afternoon session.

The topic of the morning session was "Policy for S&T Human Resource Development in Each of the Three Countries." The heads of NSFC, JSPS and KOSEF gave, in turn, presentations on the state of human resource development and policies for training researchers and technicians in their respective countries. NSFC vice president Prof. Wenqing Shen described initiatives being taken in China, particularly the "Young Scientists Fund" and "National Science Fund for Distinguished Young Scholars." JSPS president Prof. Motoyuki Ono introduced the 21<sup>st</sup> Century COE Program and other initiatives



During the meeting

The partnerships embodied in the above-described programs are tiered in such a way as to accord to the relative conditions of each counterpart country. Whereas some programs are geared to China and Korea, the closest countries to Japan geographically, others are designed to accommodate Asian countries with fairly advanced S&T levels, while still others are modeled to meet the needs of still-developing Asian and African countries. In this way, JSPS hopes to forge more effective working relationships with its partners throughout the region.



From left: Prof. Chen (NSFC), Prof. Ono (JSPS), Mr. Kwon (KOSEF), Prof. Shen (NSFC)

being taken by the Ministry of Education, Culture, Sports, Science and Technology (MEXT); JSPS's Research Fellowships for Young Scientists and Postdoctoral Fellowships for Foreign Researchers; and JSPS's menu of Asia-oriented programs. He stressed the need for collaboration among the three countries. KOSEF chairman & CEO Mr. Oh-Kab Kwon explained that in Korea the ratio of female researchers is relatively low, while interest in math and science is declining among younger generations.

Following these presentations was a free discussion, in which the members engaged in a spirited exchange of views on human resource development policies based on similarities and differences in the current situation in their respective countries.

The afternoon session focused on the theme "Enhancing Trilateral Scientific Cooperation." In it, ways were discussed to strengthen collaboration among the three agencies. It was agreed that, whereas in the past joint research and seminars and other activities tended to be

conducted bilaterally, a stronger trilateral approach to cooperation should be initiated. Accordingly, the agencies agreed to embark upon concrete preparations for implementing a trilateral “Northeastern Asian Symposium” on annually selected topics and a trilateral joint advanced research initiative entitled “A3 Foresight Program.” It

was decided to hold the next A-HORCs meeting in Korea in November 2005.

From beginning to end, the discourse was conducted in a warm and friendly atmosphere, allowing the participants to be candid in their exchange of views and information.

## MEXT Working Group on Japan-China-Korea Partnership Issues Report

In December 2004, MEXT’s Japan-China-Korea Working Group (chaired by Prof. Fumio Nishino, National Graduate Institute for Policy Studies) issued a report on its deliberations and recommendations. The Group had been organized in July 2004 under the auspices of the Committee on International Affairs, Council for Science and Technology, MEXT. JSPS president Prof. Motoyuki Ono served as one of its members.

Titled “Strengthening Partnership Among Japan, China and Korea—Toward Building an East Asian S&T Community in a Global Era,” the report analyzed the situation prevailing among the three countries and pointed to the need for expanding partnership among them. Toward advancing such a tri-partnership, it introduced both a concept and approach.

The Group recommended that the three countries build

upon their existing record of achievement in scientific and academic collaboration to further strengthen their partnership in tackling issues common to the region. As a component of this partnership concept, the Group advocated the creation of an East Asian science and technology community.

In moving this scheme forward, it was recommended that JSPS play a pivotal role in strengthening S&T partnership among the three countries. It is to do this by enhancing its programs for fostering and exchanging researchers within the region; creating working networks among returning fellows and exchange students; supporting joint research on common regional issues; and tightening the linkage among implementing agencies in the three countries.

## JSPS President Addresses Conference of Asian University Presidents

JSPS president Prof. Motoyuki Ono delivered one of the keynote speeches at the Conference of Asian University Presidents, held in Fukuoka, Japan, on 27-28 November.

This was the fifth convening of the conference organized to promote cooperation and exchange among universities in the Asian region. This time, the conference engaged 26 university presidents from nine countries and one region in a lively and constructive exchange of views.



Prof. Ono gives keynote speech

Prof. Ono’s address included an introduction to JSPS’s program with an emphasis on those for advancing academic and scientific exchange between Japan and other countries of the region. He said that the thrust of JSPS’s Asian programs is to grow the region into one of the world’s three research centers, emphasizing that JSPS’s mid-term objectives mandate this initiative. He also touched upon the leadership role of university presidents and the weighty expectations placed on them. Based on his long years of experience as an education administrator, Prof. Ono said that the work of the university president is multi-faceted including everything from fund raising to responsibility for explaining university policy both to the faculty and student body and to the government and public. He stressed that national development in the 21<sup>st</sup> century will depend upon the leadership of the university president.

Well received by the participants, Prof. Ono’s remarks added impetus to strengthening the partnership between JSPS and universities in the Asian region.

# Outline of FY2005 Budget

The government's budget for fiscal year 2005 was approved by the Cabinet on 24 December 2004, and adopted by the Diet on 21 January 2005. The following is an outline of JSPS's funding allocation in that budget, which is divided into the following two categories:

- Funds allocated to JSPS directly from the government and other sources
- Funds provided in MEXT's budget for program functions performed by JSPS

Funding received directly by JSPS falls under the following categories:

1. JSPS's operations and programs	¥ 29.7 billion	[\$283 million]	
2. Grants-in-Aid for Scientific Research	¥ 100.8 billion	[\$960 million]	
3. 21 <sup>st</sup> Century COE Program	¥ 181 million	[\$1.7 million]	
4. Donations and other revenues	¥ 379 million	[\$3.6 million]	(\$1=¥105)

In addition to this direct funding of ¥131.1 billion [\$1.2 billion], funding is provided in MEXT's budget for the following two programs in which JSPS performs selection and evaluation functions:

1. Grants-in-Aid for Scientific Research
2. 21<sup>st</sup> Century COE Program

This indirect funding adds up to ¥69.9 billion [\$666 million].

Including direct and indirect funding, JSPS's FY2005 budget totals ¥201.0 billion [\$1.9 billion]. This figure constitutes a 1.3 % increase over JSPS's FY2004 budget.

## I. Direct Funding

The following is a description of *JSPS's operations and programs* that receive direct funding in the budget. The specific amount of funds allocated to each program will not be decided until the start of the next fiscal year (April 2005).

### (1) Research Fellowships for Young Scientists

These fellowships are awarded to outstanding young researchers to allow them to concentrate on their work, without concern about living expenses, at a career stage when their research ability is at its sharpest. Offered in three categories—Doctoral Course Students (DC), Postdoctoral Fellows (PD), and Superlative Postdoctoral Fellows (SPD)—these fellowships have tenures from 2-3 years. In FY 2005, about 1,650 fellowships will be awarded in the three categories combined.

### (2) International scientific cooperation programs

From a viewpoint of fostering and securing outstanding researchers with international perspectives, JSPS will expand its Postdoctoral Fellowships for Foreign Researchers and other germane programs, while implementing an enhanced international summer school program. With an eye to strengthening its partnership with Asian countries, JSPS will concurrently revamp its Core University Program, while implementing a new Asia core network program.

### (3) Research Center for Science Systems

The Center, which functions as JSPS's program officer system, was established in FY 2003. In FY 2005, it will continue to operate and improve the selection and evaluation systems for the Grants-in-Aid for Scientific Research, Research Fellowships for Young Scientists and other funding programs for which JSPS performs application screening, grant distribution, and/or project evaluation functions. The Center will also conduct studies and research on science promotion policies and practices.

### Grants-in-Aid for Scientific Research

These are competitive funds used to advance excellent research activities across the spectrum of the humanities, social sciences, and natural sciences, particularly those that can contribute to the advancement of scientific research in Japan. These grants are divided into a number of categories based on the objective and nature of the subject research. JSPS performs the whole gamut of functions (e.g., application screening, grant distribution, and project evaluation) for this program. Direct funding earmarked for this program in FY 2005 is ¥100.8 billion [960 million].

## II. Indirect Funding

The following is a description of the programs supported by indirect funding allocated in MEXT's budget.

### Grants-in-Aid for Scientific Research

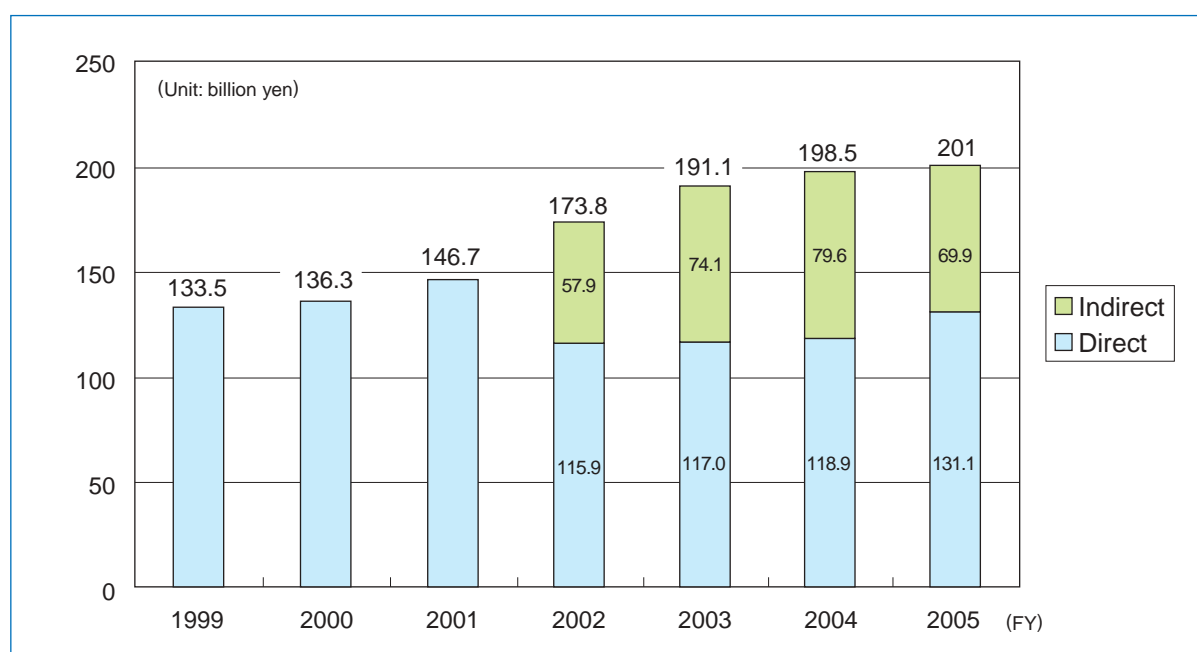
In addition to the above-described direct funding, indirect funding in the amount of ¥ 31.9 billion [304 million] is provided for this program in FY 2005. These funds cover the grant categories for which JSPS performs the selections and evaluations, but MEXT distributes the grants. (For reference, the total FY2005 MEXT/JSPS budget for this program is ¥188.0 billion [1.8 billion].)

### 21<sup>st</sup> Century COE Program

This grant program gives prioritized support to the creation within Japanese universities of research and education hubs of the world's highest level and to the fostering of excellent researchers capable of elevating the standard of research in Japan. Launched in FY 2002, the program funded the establishment of 274 centers of excellence in 11 research categories at 93 universities over the first three years of its operation. As the program contributes significantly to the university reform process in Japan, it will receive funding in an amount of ¥38.0 billion [362 million] in the 2005 fiscal year. As with the Grants-in-Aid for Scientific Research Program, JSPS performs all project selections and evaluations under this program, whereas MEXT distributes the grants.

[The figures and program contents in this article are current as of February 2005.]

## JSPS Budget Allocations 1999-2005



## Presentation Ceremony Held for 2004 International Prize for Biology

On 29 November 2004, the 20<sup>th</sup> annual ceremony for awarding the International Prize for Biology was held in the presence of Their Majesties the Emperor and Empress of Japan at The Japan Academy, located in Ueno Park, Tokyo. The ceremony was organized by the Committee on the International Prize for Biology, chaired by Dr. Saburo Nagakura, president of The Japan Academy.

At the ceremony, an opening message was delivered by Dr. Nagakura and a report on the selection process was provided by Dr. Kiyoshi Aoki, chair of this year's Selection Committee, after which the prize and an Imperial gift were presented to this year's awardee, Dr. Thomas Cavalier-Smith, professor, Department of Zoology, Uni-

versity of Oxford, UK. A message was then delivered by His Majesty, followed by congratulatory remarks from the Prime Minister (read by Mr. Seiken Sugiura, Deputy Chief Cabinet Secretary) and from Mr. Nariaki Nakayama, Minister of Education, Culture, Sports, Science and Technology. The ceremony concluded with an acceptance address from Dr. Cavalier-Smith.

At the reception following the ceremony, a congenial atmosphere prevailed with Their Majesties and Dr. Cavalier-Smith engaging in amicable conversation with each other and with the attending embassy representatives, Prize Committee members, and other distinguished guests.



Dr. Cavalier-Smith receives Prize in presence of Their Majesties the Emperor and Empress

### To Past and Present JSPS Fellows:

We are in the process of updating our mailing list. If you have changed your address or would like to add your name to the *JSPS Quarterly* mailing list, please mail your full name and address (including country) to JSPS Fellows Plaza, 6 Ichibancho, Chiyoda-ku, Tokyo 102-8471 or fax it to us at +81-3-3263-1854. Please indicate whether you are a current or former JSPS Fellow.



## MoU Signing Ceremony Held with The Royal Society

JSPS and The Royal Society of the UK have carried out a program of researcher exchange, joint research and other activities under memoranda signed in 1971, 1986 and 1993. At



Lord May and Prof. Ono signing MoU

this juncture, the MoUs were amended and compiled into a single document. Taking the opportunity offered by Royal Society president Lord Robert May's visit to Japan, an MoU signing ceremony was held on 9 November at Chinzan-so, a tranquil Japanese garden venue in Tokyo. The memorandum framed a comprehensive program for advancing yet further scientific collaboration between the UK and Japan. Details for implementing the program will be worked out by the two agencies.

In addition to Lord May, present at the ceremony were JSPS president Prof. Motoyuki Ono, JSPS executive director Mr. Isao Kiso, and JSPS inspector general Dr. Hirochika Inoue. Mr. Naoki Murata, deputy director general, Science and Technology Policy Bureau, MEXT, also attended as an observer.

## CHORUS Program Launched with France

"CHORUS," a joint research program in the humanities and social sciences, has been initiated between JSPS, Ministère délégué à la recherche (French Ministry for Research), and Ministère des affaires étrangères (French Ministry of Foreign Affairs). Upon reaching a consensus on the content of the program, the representatives met in Paris on 9 December to execute the MoU. Amidst an amicable atmosphere, the document was signed by Prof. Elisabeth Giacobino, Ministère délégué à la recherche; Dr. Antoine Grassin, Ministère des affaires étrangères; and Prof. Motoyuki Ono, president, JSPS.

Implementation of this program is expected to significantly expand cooperation in the humanities and social sciences between Japanese and French researchers. From FY 2005, six or seven 3-year joint research projects are scheduled to be launched under this new framework. JSPS's call for proposals

on the Japanese side was made in January via its e-application system.



From left: Prof. Giacobino, Prof. Ono, Dr. Grassin

## MoU Signed with The Research Foundation-Flanders

In 1977, JSPS entered into an agreement with The National Foundation for Scientific Research of Belgium, the predecessor of The Research Foundation-Flanders (FWO), to initiate a program of researcher exchange between the two countries. On 22 December, a new MoU introducing a joint research framework into the bilateral program was signed by representatives of JSPS and FWO.

Based on the memorandum, joint research spanning the

humanities, social sciences and natural sciences is scheduled to begin between Japanese and Belgian (Flemish speaking) researchers in the 2005 fiscal year. Though the old program of researcher exchange is to be abolished, such visits and interactions will continue within the joint research framework. This new package of initiatives is expected to advance yet another step research cooperation between the two countries.

## Third Forum Held by Strasbourg Office

On 19 November 2004, the third “JSPS Forum in France” was held on the theme “The Universe: Origin, Evolution, Future.” The event was planned by JSPS’s Strasbourg Office and carried out in full cooperation with the cosponsoring Ministère délégué à la recherche (French Ministry for Research) and Université Louis Pasteur. It was supported by Conseil Général du Bas-Rhin and Maison Universitaire France-Japon. Held on the campus of Université Louis Pasteur, the forum was joined by over 250 participants.

The question posed to the forum was a primordial one: How did the universe we live in form; how is it evolving; and what will be its future? This subject was addressed from the various perspectives of researchers from Japan and France who have made milestone advances in the astrospace field. Each presentation sparked a lively response by the audience, who showered the lecturers with probing questions. Serving as a platform for communication among the attending researchers, including many of the younger generation, the forum, with its highly spirited exchange of views and information, is expected to have advanced yet another step astrocommunity-wide collaboration.

At the forum, messages of greeting were delivered by Prof. Jean-Marie Hameury, director, Observatoire Astronomique de Strasbourg (Strasbourg Astronomical Observatory), and Prof. Yoichi Nakatani, director, JSPS Strasbourg Office. They were followed by Prof. Alain Beretz, vice-president, Université Louis Pasteur (representing the president); Mr. Ryuichi Shoji, consul general of Japan in Strasbourg; Prof. Jean-Paul Montagner, deputy director of research, Ministère délégué à la recherche; and Mr. Philippe Richert, president, Conseil Général du Bas-Rhin, who each spoke on the meaning of holding the conference and the significance of its theme. Lastly, Prof. Motoyuki Ono, president, JSPS, thanked the lecturers, participants and cooperating organizations for their contributions.



Forum participants

The scientific presentations were delivered by the following distinguished researchers: Prof. Chiaki Mukai, astronaut, Japan Aerospace Exploration Agency (JAXA), and visiting professor, International Space University, on “Exploring the New Frontier: Human Space Flight”; Prof. Jean-Loup Puget, director, Institut d’Astrophysique Spatiale, Université Paris-Sud, and member, Académie des Sciences (French



Forum organizers

Academy of Sciences), on “Fundamental Physics and Cosmic Microwave Background (CMB) Observations”; Prof. Sadanori Okamura, professor, Department of Astronomy, The University of Tokyo, on “Probing the Era of Galaxy Formation”; Prof. Catherine Cesarsky, director general, ESO, on “European Southern Observatory: Results and Prospects”; and Prof. Norio Kaifu, director general, National Astronomical Observatory of Japan, on “Exo-Solar Planets: Present and Future.”

Discussions on each of these presentations were led by prominent researchers in the subject fields who served as session chairs: namely, Prof. Jean-Luc Atteia, Prof. Tetsuichi Ito, Prof. Olivier Bienayme, Prof. Manfred Pakull, and Prof. Jean-Louis Bougeret. Under them, spirited rounds of questions and answers spilled over into the coffee breaks.

The lunch period featured a poster session on collaborative work being conducted between research institutes in Japan and France in the astrospace field. The participation of the session’s 11 young researchers was supported by a grant from Ministère délégué à la recherche.

In addition to the presentations by these researchers, Prof. Marie-Claire Lett, president of the French JSPS Alumni Association, gave an annual report on the group’s activities including an account of the association’s registration, an announcement of its official name and logo, and an update on its homepage development. Established via a declaration at the 2003 forum, now officially chartered the alumni association is gaining in membership literally day by day. Prof. Lett also presented a menu of the group’s future activities, which are expected to be carried out effectively through the self-kindled enthusiasm of the former JSPS fellows. Then, Ms. Yuriko Seki, deputy director, JSPS Strasbourg Office, gave a presentation, spotlighting JSPS fellowships, on Franco-Japanese scientific exchange.

The forum’s proceedings were transmitted in realtime over world-wide web via the multimedia Canal-U. As with the first and second fora, the lectures are video-archived in the system to allow them to be viewed at any time or to be used as educational and research materials. To view the proceedings, see the following URL: <http://colloquesetconferences.u-strasbg.fr>

# First Frontiers of Science Symposium Held with Germany

On 28-30 January 2005, the first Japanese-German Frontiers of Science (JGFoS) Symposium was held at Dorint Hotel in Mainz, Germany. The JGFoS program is co-implemented by JSPS and the Alexander von Humboldt Foundation (AvH) based on an agreement to support exchange between young researchers made at the August 2003 summit between Japanese Prime Minister Junichiro Koizumi and German Chancellor Gerhard Schroeder.

The purpose of JGFoS symposiums is to facilitate cross-disciplinary dialogue in cutting-edge fields between young and energetic Japanese and German researchers. By so doing, the program seeks to spur among the participants a reconsideration of the borders separating their fields in search of new interfaces that can lead to the pioneering of novel disciplines. Accordingly, the program attempts to foster innovative researchers who can lead the way in bundling diverse fields into new interdisciplinary packages.

Planning group members selected by the two agencies chose the topics for the symposium's six sessions, in which the participants gave presentations from the perspective of their differing fields and engaged in cross-cutting discussions of the topics. A poster session was also held.

Opening the symposium, JSPS president Prof. Motoyuki Ono



Session on "Life Deeply Concealed in the Earth"



Prof. Ono of JSPS (left) and Dr. Schütte of AvH

and AvH secretary general Dr. Georg Schütte offered welcoming messages. In attendance were 60 young researchers: 30 from Japan and 30 from Germany. Each of them attended all the sessions and took active part in the discussions. So as to make it easier for the participants to understand each other's differing fields, a rule was put in place to limit as much as possible the use of technical jargon, and when they must be used, to distribute a word list with definitions. As the participants had been diligent in their preparations, the discussions among them were not only smooth but vibrant.

The topics of the six sessions in this first JGFoS symposium were as follows: Modeling and Control of Biomolecular Functions; Life Deeply Concealed in the Earth; Computational Challenges of Massive Data Sets; Evolution of Cognitive Functions in Primates; Atomistic Simulation of Materials; and Social Capital and Civic Society.

The young researchers from both countries said that the symposium gave them a chance to rethink from a macroscopic viewpoint the perception they have of their respective fields. All expressed a view that the experience was meaningful.

## Events

### Bonn Office

The 10<sup>th</sup> Japanese-German Symposium  
"Celebrating 10<sup>th</sup> Anniversary of the German JSPS Club"  
*Hotel Bristol, Bonn, 22-23 April 2005*

German-Japanese Symposium in Tokyo  
"Urban Planning - Sustainable Cities"  
*National Olympics Memorial Youth Center, Tokyo, 12 September 2005*

### Washington Office

The 10<sup>th</sup> "Science in Japan" Forum  
*The Cosmos Club, Washington DC, 10 June 2005*

### Stockholm Office

The 5<sup>th</sup> JSPS Science Forum  
"Frontiers in Material Science"  
*The Royal Swedish Academy of Sciences "Beijer Hall," Stockholm, 17 June 2005*

### London Office

The 2<sup>nd</sup> General Assembly of the UK JSPS Alumni Association  
"Earth Shaking Events: Natural Disasters and Their Global Impact"  
*Royal Geographical Society, London, 14 July 2005*

JSPS-UCL Large Scale Symposium 2005  
"Cognition and Action"  
*University College London, London, 8-9 September 2005*

## Recruitments

JSPS Postdoctoral Fellowships for Foreign Researchers (Short-term) (3<sup>rd</sup> recruitment)  
Application deadline from host institution to JSPS: 11-15 April 2005

JSPS Postdoctoral Fellowships for Foreign Researchers (Standard)  
JSPS Postdoctoral Fellowships for Foreign Researchers (Short-term) (4<sup>th</sup> recruitment)  
JSPS Invitation Fellowships for Research in Japan (Short-term)  
Application deadline from host institution to JSPS: 9-13 May 2005

For details, ask a prospective host researcher or visit our website.

## Publications

*Life in Japan for Foreign Researchers 2002*

This handbook contains useful information on living, working, housing, banking, medical services, etc; 230 pages in English & Japanese; ¥1,680 [about \$16] plus delivery. For details, ask Maruzen bookstore: fax +81-3-3272-0693 or email e-shop@maruzen.co.jp

## Evening Event in Oxford Held by Alumni Association

On 15 November 2004, the UK JSPS Alumni Association held its annual “Evening Event” at the Eastern Art Galleries in the Ashmolean Museum, University of Oxford. This was the association’s second general meeting, the first being held last June in London.

The participants were mainly former JSPS postdoctoral fellows who live in the vicinity of Oxford. A wide spectrum of age groups was represented: from younger researchers who joined JSPS’s summer program to senior researchers who have come to Japan under the short-term invitation program.

Leading off the meeting was a greeting message by the association chair Prof. Peter Sammonds. The keynote



Evening event participants

speech was given by Prof. James Arthur Ainscow Stockwin, former director of the Nissan Institute of Japanese Studies, University of Oxford, who last November had been awarded The Order of the Rising Sun, Gold Rays with Neck Ribbon from His Majesty the Emperor of Japan in recognition of his efforts to promote Japan studies in the UK. Prof. Stockwin spoke about his own experience of living in Japan, drawing upon a repertoire of interesting happenings and episodes, while, on the more serious side, he emphasized the importance of Japan studies and explained their current status in the UK. Following him, three former fellows—Dr. Andrew Quantock, Ms. Melody Liles and Dr. Lakshmi Sharma—spoke on their experiences of living and researching in Japan.

After a commemorative photo shoot, the participants joined in a reception and buffet dinner, where they chatted about their research activities and Japan experiences. The interaction was so spirited that the participants remained, still talking to each other after the meeting had ended. Several alumni who had not been able to attend last year’s meeting showed up this time, expanding the scale of meeting participation.

In addition to this second general meeting, the group has since last year published a newsletter—getting off to a smooth operational start. In the future as well, the JSPS London Office looks forward to supporting the UK JSPS Alumni Association as the former fellows work to expand their array of activities.

## NSF Program Director Gives Lecture on PO System

On 21 December, Dr. Jane Silverthorne delivered a lecture at JSPS on the theme “NSF Program Directors.” Attending were mainly program officers of JSPS, the Japan Science and Technology Agency, and the Ministry of Education, Culture, Sports, Science and Technology.

Dr. Silverthorne is the program director of the Plant Genome Research Program at the National Science Foundation (NSF) in the United States. The main topics of her talk were as follows: An overview of NSF, its review process, recruitment of program directors, and their responsibilities. She explained that there are two types of program directors at NSF: rotating and permanent ones. Dr. Silverthorne, herself a permanent program director, has experienced both position, having previously been a rotating one. She also spoke on the various career paths for NSF program directors, including her own.



Lecture delivered by Dr. Silverthorne

Her lecture was both informative and stimulating, having spurred many questions and comments by the participants.

Dr. Silverthorne, who was in Japan on other business, readily agreed to our request to deliver this lecture.

## Eighth Meeting of Japan-India Science Council Held

On 28 January 2005, a delegation came to Tokyo from India to hold the eighth meeting of the Japan-India Science Council. It comprised six Indian Council members and two members of the Indian government's Department of Science and Technology (DST). Presiding over the meeting were the Council's co-chairs: Dr. Saburo Nagakura, president, The Japan Academy, on the Japanese side, and Prof. C.N.R. Rao, honorary president, Jawaharlal Nehru Centre for Advanced Scientific Research, on the Indian side.



Council members and JSPS/DST staffs

Under the Council's guidance, JSPS and DST have been carrying out a bilateral program of joint research and seminars since 1993. As a desire to participate in these programs has spread widely among researchers in both countries, the Council agreed to introduce a practice of open competition into the program from the 2006 fiscal year so as to reach a broader spectrum of researchers who are interested in conducting joint research between Japan and India. Toward the end of the meeting, Dr. Nagakura announced that he would step down as the Japanese co-chair. Prof. Keitaro Yoshihara was elected by the members as his successor. The next meeting of the Council is scheduled to be held in January 2006.

Prof. Rao took advantage of the opportunity offered by the meeting to recommend launching a scientific initiative with regard to the major earthquake that occurred off the coast of Sumatra and the resulting tsunami in the Indian Ocean. In response, JSPS and DST agreed to hold a workshop on tsunami research in India in the near future.

## Recent Visitors to JSPS (November 2004-January 2005)

### Delegation from MOST

On 24 November, a delegation visited JSPS from The Ministry of Science and Technology of China (MOST). The delegation was headed by Mr. Chao Chen Li, minister counselor, Department of International Cooperation. It included Ms. Gui Hua Li, Executive Office; Mr. Ping Li, Department of Personnel; Mr. Li Xin Zhai, Department of Policy, Regulation and Reform; Mr. Xiao Ping Jiang, Department of International Cooperation; Mr. Xiu Jiang, Department of Facility and Finance; and Mr. Dong Bai Ye, counselor, Embassy of the People's Republic of China in Japan. They met with JSPS president Prof. Motoyuki Ono and discussed JSPS's various international exchange activities between China and Japan.



Meeting with MOST delegation

### Visit by Chinese Academy of Sciences

On 9 December, Dr. Hua Renchang, executive president, Shanghai Branch of the Chinese Academy of Sciences (CAS), led a delegation to JSPS. The Academy and JSPS have for long years carried out an exchange program. This visit of the Shanghai delegation was made to exchange views on JSPS's activities and operations. They met with JSPS executive director Mr. Isao Kiso and international program director Ms. Yuko Furukawa, who described JSPS's Asia-related program trends and initiatives. After which, a discussion was held on JSPS's new Asian CORE Program and on international joint research activities carried out by CAS's Shanghai Branch.

As suggested by this productive visit of the delegation, further development of the JSPS-CAS partnership is expected in the months and years ahead.



Meeting members

## Series: Research and Life in Japan by a JSPS Fellow (4)

Dr. Thi Thi Nge is conducting research in Japan as a JSPS postdoctoral fellow. She hails from Myanmar where she graduated from the University of Yangon. After receiving her master's degree and gaining experience as a research associate in Thailand, in 1999 she was awarded a doctoral fellowship from the Japanese government. In 2002, she received her PhD in biomaterials science from The University of Tokyo.

From April 2004, Dr. Nge began her research under the JSPS fellowship at the Research Institute for Sustainable Humanosphere, Kyoto University, where she is currently engaged in work titled "Towards novel utilization of biopolymers (chitin and bacterial cellulose) for the development of biomaterials." She is particularly concentrating on the fabrication of bioactive apatite-biopolymer composites, novel biomaterials for potential osteological applications.

Dr. Nge's host researcher, Assoc. Prof. Junji Sugiyama, knew her PhD supervisor at The University of Tokyo. Of Dr. Nge, Prof. Sugiyama said, "She devotes every spare moment to her studies. She gives her best, not only in her research, but in everything she does. She is both liked and trusted by all her peers in the laboratory."

### *Why did you choose Japan to pursue your research?*

Japan is one of world's leading countries in my field, currently conducting biomaterials research of an excellent quality. Before coming to Japan, I studied for my master's degree in the field of bioprocess technology at Asian Institute of Technology (AIT) in Thailand. The program's research activities were mainly focused on various aspects of chitin/chitosan research. My work in the master's program kindled a spirit in me to expend my pursuit of knowledge in the field of biomaterials to Japan. Though my experience had been limited to my specific field, I was nevertheless impressed by Japan's scientific contributions in international publications and the industrial applications that are produced from several facets of innovative research.

### *What research have you conducted under the JSPS fellowship so far?*

So far I have prepared chitin/nanoapatite com-



Dr. Thi Thi Nge

posites by incorporating calcium and phosphorous precursors with microcrystalline chitin suspensions. My primary goal is to gain a better understanding of the materials' structural morphology and formation process at the nanometer scale. I am currently undertaking an investigation on apatite deposition onto an ultrafine bacterial cellulose microfibrils network in simulated body fluid using a biomimetic approach. Promising results have been obtained so far, and further investigations and characterizations on the topic are underway.

### *What merits do you derive from conducting your research in Japan?*

As for the state of research and research environment in Japan, one can conduct research at a laboratory that is both well-equipped and well-funded. All researchers, themselves, have to do is to add their value, skill and motivation. If the lab-set and mind-set are in place, achieving striking scientific results is possible. Japan's ever-accelerating research environment is both eye-opening and mind-expanding; I am made to realize constantly "how little I know about science."

Studying and conducting research in Japan may prove to be a boon as well as a challenge for others like me who come here from a developing country. I always maintain a never-give-up, positive attitude whenever I encounter difficulties or discouragements. I owe this affirmative attitude in great part to my PhD supervisor, Assoc. Prof. Akio Takemura. Without his enthusiastic encouragement and good mentoring, I would not be at this place in my research career.

### *What do you usually do when you are not working on your research?*

I enjoy the weekends, starting with meditation. Being a Buddhist, I find meditation to be not only a good way to purify one's mind but also a good exercise for relaxing a tired body and mind. I sometimes visit temples and shrines or travel with my friends.

### *Do you have any advice about living and doing research in Japan for others who are considering coming to Japan as a researcher?*

Maintaining a close relationship with your host researcher will ensure that your planned research proceeds smoothly. It would be worthwhile if you acquire a certain knowledge of the language and culture before coming. Since communication in Japanese is necessary in daily life, one should possess some level of language skill to be able to interact with his/her colleagues. By creating good communication, you will all the more enjoy and be satisfied with your research life in Japan.



Members of host lab. From bottom left: Prof. Sugiyama, Dr. Nge, Prof. Itoh

# Science Dialogue Piloted

JSPS is studying the possibility of launching a new program to be named "Science Dialogue." It will allow JSPS Fellows to participate in the educational activities of high schools in the vicinity of their host institutions. Toward this end, JSPS has begun a pilot program. Under it,

JSPS Fellows delivered lectures at the Urawa Ichijo and Obihirohakuyou High Schools on 8 and 18 December 2004. Both of these schools belong to the Super Science High School (SSH) Program implemented by MEXT to strengthen science education in Japan.

## Urawa Ichijo High School

At Urawa Ichijo High School, the lecture was given to about 30 freshmen by Dr. Mina Han, who as a JSPS Fellow is conducting research on the theme "Local Characterization of Biointerfaces by Probe Microscopy" at RIKEN.

In addition to describing her own research, Dr. Han drew upon her memories of old friends in her native country of Korea and on her school-day experiences to explain why she had decided to study sci-



Dr. Mina Han



Inquisitive students

ence, embark upon a research career and pursue joint research in Japan. Having had research experience in the United States, Dr. Han also elaborated on differences in the style of research

conducted in Japan, Korea and the US.

Dr. Han delivered her lecture in English. Having mastered Japanese, she also inserted explanations in Japanese over the course of the discussion.

## Obihirohakuyou High School

At Obihirohakuyou High School, the lecture was given to approximately 40 students by Dr. Boniface Namangala, a JSPS Fellow pursuing research on the topic "Vaccine Development Against Ticks that Transmit Theileria Parasites and Its Field Applications" at Obihiro University of Agriculture and Veterinary Medicine.

In his presentation, Dr. Namangala introduced his native country of Zambia to the students. Then, he described the problem of parasitic diseases in Africa and how his research is aimed at mitigating the harm caused by them.

Dr. Namangala gave his lecture in English, with his host, Prof. Chihiro Sugimoto, adding supplementary explanations in Japanese at strategic inter-



Attentive students



Dr. Boniface Namangala

vals. The students were very inquisitive, asking Dr. Namangala many questions such as "Are ticks different in Japan and Zambia?" or "Why did you decide to become a JSPS Fellow?" To each question, Dr. Namangala offered

thoughtfully worded replies that were easy for the Japanese students to understand.

In his message to the budding scientists, Dr. Namangala emphasized that they set goals and devise approaches to achieve them; delight in contributing to the solution of social problems; value communications; and possess a challenging spirit.



## Request for Reader Comments

We are taking a survey with an eye to creating space for reflecting reader interests in the *JSPS Quarterly*. If you have an opinion or impression of our newsletters, we would like to hear from you. We are interested in your overall impression of the newsletter; in which articles you are most interested and why; and in what sort of articles, or themes, you would like to see in future issues. Please e-mail your comments to the JSPS Fellows Plaza at

fellowsplaza@jsps.go.jp  
or fax them to us at  
+81-3-3263-1854.

## Call to Interested Fellows

An invitation to apply for participation in the JSPS Science Dialogue is extended to current Fellows. (See related article on page 15.) Please note that selected fellows will be asked to volunteer their services. If you are interested in this opportunity, please contact our Overseas Fellowship Division by e-mail at

gaitoku@jsps.go.jp  
or by fax at  
03-3263-1854.

For further information on JSPS's organization and programs, please visit our website [[www.jsps.go.jp/english/index.html](http://www.jsps.go.jp/english/index.html)], or mail or fax inquiries to JSPS Fellows Plaza using the address or fax number given below. JSPS Quarterly and our brochure may also be downloaded.

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### Crowing Rooster, Emblem of the Japan Society for the Promotion of Science

From days of old in Japan, it has been the belief that the vigorous cry of the rooster in the gray of the morning augurs the coming of a new and bright day. As the crowing rooster can therefore be thought of as a harbinger of the kind of new knowledge that promises a brilliant future for humankind, it was chosen as the emblem of the Japan Society for the Promotion of Science. This emblem was designed in 1938 by Professor Sanzo Wada of Tokyo Fine Arts School to depict the rooster that symbolizes the breaking dawn in a verse composed by Emperor Showa.