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University Reforms in Japan to Usher in Century of Knowledge

Prof. Atsuko Toyama served as Japan's Minister of Education, Culture, Sports, Science and Technology (MEXT) over a period from April 2001 to September 2004. During that time, as the Minister she directed an epochal reform of Japan's universities. At a meeting held on 4 June to celebrate the tenth anniversary of the JSPS London Office, Prof. Toyama delivered an address on the university reform process and initiatives taken to enhance higher education in Japan. Given the importance of her speech as the first to describe in English this reform process in candid and comprehensive language, we have published it in its entirety in this issue of the *Newsletter*.



Prof. Atsuko Toyama

Introduction

I feel most honored to have been invited to attend this tenth anniversary celebration of JSPS's London Office, and to have been given an opportunity to stand at this podium of the Royal Society and give a short speech to you today. I must confess that I have no record of achievement as a researcher. What, however, I believe does qualify me to stand in front of you is my long career, which began from a young age, as an administrator—one in which I was engaged in the promotion of scientific research for a period of more than ten years. During my tenure as the director at Ministry of Education, I visited both universities and research institutions in various parts of the UK. And also I have vivid memories of coming to this very place under the guidance of the late Lord Phillips of Ellesmere, who was vice-president of the Royal Society. During my term as the Minister, I came to London again to hold a meeting with Lord Sainsbury and exchange views with many leaders in the UK's scientific and academic communities. That time also, I had the chance to visit several universities and research institutions.

From my early days, I have considered scientific and academic exchange with the UK to be very important for Japan, particularly given the great many eminent scientists whom the UK has nurtured and the leading role your country has played in spurring the advancement of scientific and technological development worldwide.

It has been eight months now since I stepped down from the post as Minister. I am very pleased to have this opportunity to come to the UK again and meet with you, the researchers and administrators of both Japanese and UK universities.

For a two year and five month period, from April 2001 through September of last year, I served as the Minister

and was engaged in a wide scope of fields, including education, science and technology, culture, and sports. Among them, I devoted myself most fully to educational reform. The reform we worked to advance was underpinned by the lofty principle of moving students across the spectrum of elementary, secondary and higher education from a posture of molded thinking and passiveness to one of self-initiative and creativity. Educators and administrators around Japan are now acting upon the foundations we laid.

Among our education reform efforts, it was the universities that I concentrated on most during my tenure as Minister. I wish, therefore, to take this opportunity to describe to you the state of university reform in Japan, as we are at an historical juncture in that process.

Compared to the long history and tradition of British universities, Japan's university system is still in its adolescence. It was after the opening of Japan that the first imperial university was established in 1886. Now over a century later, 2004 is a memorial year as it marks the greatest transitional point in university reform since the new university system was established in 1949 after the war.

Though British universities have a history and tradition of several centuries and have taken the world lead in academic achievement, I understand that a major reform is being undertaken on university management in this country. I believe the university reforms being taken in Japan are on par with those in 1992 that created a new university system in the UK.

National University Reform and its Background

In April of this year, a new national university corporation system was started in Japan. Last July, the Japanese Parliament enacted the National University Cor-

poration Law. Under it, each Japanese national university was given a corporate status, as is the norm in other advanced nations. With this status, the universities are better able to give expression to their own independence and autonomy, offer excellent programs of education and research, contribute to society, and exercise their responsibility to the public. I am convinced that this system reform will give Japanese national universities the leeway to strengthen their international competitiveness, while establishing truly distinctive institutional cultures.

I understand that recently there was quite a controversy in your Parliament over a bill regarding tuition fees, and that it passed by only a narrow margin. In Japan too, there was a turbulent debate in the Parliament over the bill to reform the national universities. I can testify to this, as it was I who had to respond to heated questions and comments from the floor.

Though adjustments have been periodically made to the system, Japan's national universities have, since the time the first imperial university was founded, always been positioned as part of the administrative organization of the Ministry. National universities have been regarded as national institutions, and their faculty as civil servants. Accompanying this status was a myriad of government-imposed restrictions. Centering on these issues, there has in fact been a long-running and multifaceted debate on giving the national universities an independent, corporate status.

At the end of the 20th century, what form university reform should take was debated in various government advisory bodies, particularly in the University Council established within the Ministry of Education. In the 1990s, university people and experts in the Council significantly advanced the dialogue on university reform across the spectrum of national, public and private universities. I was the director of the division in charge when the University Council was established in 1987. As the Director-General of the Higher Education Bureau from 1992 to 1994, I was able to follow up and support the university reform process. Nevertheless, in the 1990s, we had not yet advanced this process to a point where we had a system that could execute dramatic reforms.

On the other hand, around 1996 a movement toward administrative reform was intensifying within the government. Under it, steps were taken toward carrying out a reorganization of ministries and agencies and converting quasi-government organizations into independent administrative institutions. In this process, universities were not made an exception; their privatization or conversion to independent administrative institutions was taken up as a subject of discussion. Due, however, to the efforts of politicians and other authorities at the time, who took into account the unique characteristics of

higher education institutions, the universities were not treated within the general context of administrative reform. Rather, as a link in the overall university reform process, it was thought that the national universities should be incorporated. In April 1999, a Cabinet decision set forth a clear posture in this direction. It constituted a major point of transition toward the incorporation of national universities. Thereafter, various discussions, including those of the Ministry's Study Team, comprising mainly university experts, were advanced on how the system of incorporation ought to be designed.

In considering this design, much reference was made to the structure of university reform being undertaken in the UK in the 1990s. In fact, it can be said that we took several components of the UK's approach and put them into our system design, particularly those that give universities large discretionary powers over their own management, establish a top-down system of management revolving around the university president, and have universities submit to the government a multi-year strategic plan, based on which they carry out their programs.

When I was the Minister, we had what was called a "KOIZUMI structural reform cabinet," which accelerated the reform process and created a new legal framework to accommodate it. Taking into full account the results of the discourse on university reform to date, I drafted a bill which was submitted to the Parliament amidst fierce parleying within the government and among the political parties. After long deliberations, the National University Corporation Law was enacted last summer finally.

I would like to turn now to some unique characteristics of Japanese universities, by comparing them with universities in the West. Though there is surprisingly little knowledge of this fact in Japan, among the countries of Europe, which are the birthplace of the university, it is the common perception that universities are "national." Accordingly, little if any tuition is charged. And, as in the case of England, any effort to raise tuition fees is treated as a political problem big enough to impact on the ruling administration. There is a deeply rooted belief that the cost of university education and research should be widely shouldered by the public, in the same way the costs of defense and diplomacy are.

Looking at Japan, there are currently about 700 4-year universities, of which over 70% are private. In this sense, Japanese universities are more privatized than other advanced nations. Though the overall ratio of national universities is 13%, and the ratio of their students is 20%, each however has its own function within the system. For example, not counting junior colleges, private 4-year universities alone number over 500. Seventy percent of them are concentrated in the three metropolitan areas of Tokyo, Osaka and Nagoya. On the other hand,

70% of the national universities have their campuses outside these metropolitan areas. This is because, being national universities, they are used to create a regional balance in the higher education system. Thus, their locations are established by law; or in other words, by government decision. If the national university system were to be abolished, many universities would vacate the outlying communities and concentrate themselves in the large metropolitan areas because of a rapid decrease in the number of college-age people.

The same holds true for maintaining a balance between academic fields. In the case of private universities, there is an extremely high ratio of courses offered in the humanities and social sciences vis-à-vis other disciplines. In operating these courses, the cost of labs and specialized faculty is much less than required for courses in the natural sciences. From a management standpoint, therefore, it is only natural that private universities should choose this option. If it were left to the private universities, however, I dread to think what would happen to the balance in academic disciplines at universities in Japan. This is why the national universities shoulder the lion's share of the science and engineering courses in Japan, though this fact is surprisingly not well known.

In sum, the Japanese university system is underpinned by the 500-plus private universities concentrated in metropolitan areas. Both their locations and course offerings are chosen based on market principles. On the other hand, the national universities, which number only 87 at present, play a vital role in adjusting various balances within Japan's university system. Additionally, the 76 public universities, established by local governments, enjoy popular support by the local people.

What we need to do now is to create a "corps" of universities at the world's highest standard of education and research, maximizing the attributes of Japan's unique higher education system.

New System of National University Corporation

I would now like to describe for you what was entailed in the incorporation of national universities. In response to such a question, I offered the following explanation in the Parliament deliberations: "The purpose of incorporating national universities, currently positioned as government institutions, is to sever them from the government so that they can conduct their activities in an autonomous environment, allowing them to aggressively pursue excellent education and uniquely differentiated research programs. In this way, richly distinctive, highly appealing national universities can be realized." This I believe to be the essence of "reform." If it is not accomplished, there would be no meaning, either then or now, in incorporating the national universities.

Stating it in different terms, national universities, which were established by law, are ultimately the responsibility of the state. This includes their funding. Therefore, without compromising their basic nature as national universities, incorporation seeks, in a bold manner, to redefine the mode of communication between them and the government as well as the approach to university management. In this way, incorporation is meant to realize an autonomous, highly strategic form of university management. It can, therefore, be termed "management reform" of national universities.

When the bill was being debated in the Parliament, there were those who questioned whether drafting mid-term objectives and conducting performance evaluations wouldn't in fact strengthen the participation of the government in university affairs, thus infringing upon their academic freedom. It is my belief, however, that, to begin with, the constitutional guarantee of academic freedom is that researchers are allowed to freely choose their research themes and to report the results of their work. In this regard, I do not consider university incorporation to violate in any way academic freedom. Quite to the contrary, as it acts to innervate the primary function of education and research, I am convinced that, even more than before, such reform strengthens university autonomy.

In the process of designing the system, a number of university administrators and faculty members were more concerned about the budgets allotted to universities under the new reforms. They questioned whether the shift from the Ministry's special account budget for national educational institutions to the government's operational grants as the universities' source of revenue wouldn't limit the amount of funding for education and research vis-à-vis the past. It turns out, however, that at least as much funding was provided for national universities in the government's FY 2004 budget as was in the previous year. The government will need to give more consideration to the university funding system in the future. In any case, it is the duty of the government to expand competitive and other funding in support of research. It will also be necessary to supply funds in support of basic research activities.



Prof. Toyama giving her speech

Among the plans undertaken for university reform while I was the Minister, national university incorporation was the most important in content. At the same time, it promises to have the greatest impact on determining the state of Japanese universities in the future. Concurrently, a move is afoot and a legal system has been framed with the cooperation of the Ministry of Public Management to incorporate Japan's public universities. As the private universities also become caught up in this flow, the early years of the 21st century promise to offer a new start for Japan's universities.

Three Other Reforms

(1) Enhancing University Competitiveness

Incorporation of the national universities was the first pillar in the overall university reform policy we undertook. Various other measures were taken in parallel with it. They applied to all universities, without distinction as to whether they are national, public or private. Among these, I would like to describe the three main reforms.

The first was to create a favorable competitive environment for Japanese universities. While maintaining a sound rivalry among the universities, steps needed to be taken to overcome their "protected convoy" mentality and, though belatedly, to strengthen their international competitiveness. In the summer of 2001, the Ministry of Education and Science launched a new program aimed at creating research hubs of the world's highest standard in Japanese universities. This initiative, called the "21st Century COE Program," is directed mainly at doctoral programs in graduate schools. Grant applications are openly solicited and screened by third parties. And funding is awarded to support prioritized fields of research. This program has attracted unusually high interest from a broad cross-section of Japanese society.

I understand that the UK has a system for providing tiered funding to universities that carry out outstanding research activities. Though the 21st Century COE Program differs somewhat in methodology, what it has in common with your program is that it supplies prioritized funding to support leading research in an enhanced competitive environment.

Concretely, ten research categories are covered under the program. Each year, applications are solicited for five of them. The selected projects are supported by a 5-year grant from the government. At the same time, the university itself is expected to give full support to the project. That is, the program makes prioritized investments in creating excellent research hubs that will become centers of excellence within the international academic community.

In FY 2002, 464 grant applications were received, among which 113 were selected. Then in FY 2003, 611 applica-

tions were received, and 133 were selected. Altogether, grants have so far been given to 246 COE projects at 78 universities. Considerable attention was given to the selection results both by the universities that were and were not selected and also by the mass media.

Considering it desirable for a third-party organization to carry out the evaluations of the applying universities and their scientific proposals, rather than having the bureaucracy directly involved in the screening, I asked the Japan Society for the Promotion of Science to take charge of the process. JSPS requested Nobel Prize laureate Dr. Leo Esaki to head the program's screening committee.

Looking at the selection results, a great many of the COE grants were awarded to the large traditional universities, which have over long years invested considerable energy into establishing graduate programs. It is my impression, however, that many small universities, outlying universities and new universities were given more consideration than would have been expected prior to their application screening. Looking over the selection documentation, I was impressed with the reach and depth of Japan's universities. Being a person who was involved in university reform over many years, I must say I am very pleased with this outcome.

Incidentally, critique of the COE selections produced another unexpected result: It spurred strategic discussions led by university presidents. Crossing fences erected between faculties and research departments, these discussions encompassed the whole university.

Under the program, it is the university president who submits the grant application, which states the field the university wants to focus upon. Preparing the application gives the university an opportunity to consider the kind of internal support and external cooperative systems it needs. In any case, it offers various departments and organizations a chance to participate in designing the university's strategy. This process is seen to be very effective in vitalizing the universities.

As this program is still relatively new, there is room for improving and enhancing it. Nevertheless, the program will act to create campus-wide systems of cooperation in each university, which, along with the vitalization they engender, are expected to contribute to the formation of "knowledge" centers in Japan.

Another dramatic reform made in university education was the initiation of the Professional Graduate Schools system. The law was amended last June to introduce the program, which was launched in FY 2004. Effort by Japanese universities to foster highly specialized professionals has been inadequate in the past. This program seeks to strengthen that effort. The program began as a priority initiative by the government to reform the coun-

try's juridical system through the establishment of law schools. However, the Ministry of Education and Science saw this program as being an opportunity to reform the system for professional training in universities. The program, therefore, quickly exerted an impact, not only on law schools, but on other disciplines as well.

(2) University Assessment

With regard to the second of the reforms, I would like to tell you about a new development in university assessment. Japan has lacked a climate conducive to conducting general assessments on the condition of organizations. Up until very recently, it was thought that evaluating universities would be difficult, and that such evaluations neither can nor should be attempted. This has been the conventional thinking with regard to university assessment.

In the 1990's, many universities introduced "self-inspections and self-evaluations." It should be noted, however, that this was a system for universities to exercise their autonomy in improving the quality of their programs, not one to guarantee the quality.

At the same time, another movement was afoot outside the university. In December 2001, the government's Council for Regulatory Reform issued a report on advancing regulatory reform that included a part on universities. This set in motion a move toward "regulatory reform" in the implementation of the government's top-priority structural reform policy. Concomitantly, it had the effect of merging such university reform issues as "university assessment" and "government permission of establishment of university/department" into the "regulatory reform" discourse. However, if this discussion on reform were to be advanced from strictly a regulatory viewpoint, I feared it could create a situation that might inhibit the establishment of a system to guarantee the quality of Japanese universities. Accordingly, the University Subcommittee of the ministry's Central Council for Education stepped up the pace at which it was examining the university assessment issue.

Taking into account the views issued by the subcommittee, legal reforms were enacted in 2002, which made the system for establishing departments more flexible: Under certain conditions, now all a university has to do is to submit a notification. Concurrently, a third-party evaluation system was also introduced. In prescribed periods within the next seven years, national, public and private universities are all to receive evaluations by an assessment organization certified as qualified by the government. The universities are also to publicly release those evaluation results. Under this system, the evaluation results are not used to determine funding allocations or to suspend authorization to establish departments. Rather, they are to prompt self-improvement on the part

of the university so that it can obtain better results in the future.

They also provide reference to various individuals and entities in society who are looking to "choose" a university. In such ways, the evaluation results serve to improve the quality of universities. The important thing is that these evaluations are conducted independently by universities, not by the government and not based on market principles.

The introduction of the third-party evaluation system, along with the 21st Century COE Program, constitutes a very big step forward in the history of university assessment in Japan. Looking back, it was a milestone that we just barely managed to achieve through a concentrated effort over a very short period of time. It involved listening to and compiling a myriad of views, including those to proceed cautiously; and, despite outside pressure to the contrary, enacting legal reform in a direction that would be acceptable to university administrators and faculty. Thus, seizing the moment, we succeeded in putting in place a properly directed reform policy on university assessment. Also, given international trends in university assessment, Japan was at the time in a situation in which it couldn't wait any longer to introduce its own system.

(3) The University's Third Mission

Ladies and Gentlemen,

Now I'd like to move to the last of the three new reforms: The university's third mission, contribution to society. Necessary steps have been taken to establish a clear direction for universities with respect to this mission, and to move them along that path.

Traditionally, education and research have been the primary missions of the university. As social conditions change, however, the role universities are expected to play is undergoing a radical transition.

Needless to say, the university's conventional functions of education and research contribute over the long run to the development of the nation and society. In recent years, however, expectations have been placed on universities to contribute to society in a more direct manner. This includes the commercialization of their research results, the transfer of their technology, and their holding of public lectures.

I hear in the UK that, in parallel with education and research, universities consider it their mission to contribute to the community through such means as technology transfer to small and medium companies and the development of local human resources. In Japan as well, the same sort of social contributions have come to be viewed

as the university's third mission recently.

In the case of societal contributions by universities, they should not be limited to economic vitalization. Rather, they should be meaningful to society as a whole, including local communities. And they should include within their scope welfare, the environment and other social issues. That is, they should contribute to local society, economic society and international society. Universities have a special obligation to make intellectual contributions to their surrounding communities by such means as providing educational opportunities for members of the community and by conducting international education exchanges and joint research activities.

Particularly over recent years, there has been significant progress in technology transfer and new business start-ups through collaboration between universities, industry, and government. For universities, this has become an important form of societal contribution. While such programs are being incorporated within the management strategies of universities, there is an increasing need by the economic sector, including companies, to utilize the universities' intellectual assets.

The pursuit of this "third mission" will at the same time exert a positive influence on both education and research, which are the primary mission of universities.

As the industrial sector is also voicing a strong interest in collaboration with universities, I have high expectations for the future of university-industry cooperation in Japan.

Wrap-up

Ladies and Gentlemen,

As I have mentioned, the reform of Japanese universities has got off to a good start at the beginning of the 21st century. National, public and private universities alike are earnestly in search of their own new institutional image and identity and have begun to take steps in that direction. In the difficult environment of declining birth rates which Japan faces, each university will stake its very existence on reform; the degree of quality with



Dignitaries attending London anniversary celebration

which they are able to carry out their programs of research, education and social contribution will test the very worth of their administration and faculty.

A framework for reform has been established. However, the extent to which true reform is realized will, of course, depend upon the will of university administrators and faculty to change their perceptions and practices.

I suppose that it may be difficult to recycle old wineskins so that they can hold new wine. That is, it may be an easier task to build new universities than to reform old ones. Nevertheless, I place my faith in the capacity of university administrators and faculty. While cheering them on, I will keep a close eye on how university reform progresses. As a person who advanced the reform process, I feel an obligation to continue offering advice to the government in support of efforts being taken by the universities.

In this more competitive environment brought about by university reform, it is both predicted and anticipated that each university will more actively work to internationalize its programs by undertaking joint research activities and researcher exchanges with other countries. From this point of view, JSPS's London Office becomes all the more important, especially given the role it plays as a base for scientific and academic exchange between Japan and the UK.

Conclusion

The distinguished English physicist Michael Faraday gave what is now a classic Christmas lecture in 1861 on "The Chemical History of a Candle." In it he said "The candle alone shines by itself and for itself, or for those who have arranged the materials." I have modified his words slightly to say "Science alone shines by itself and for itself, or for those who pursue it." Here, the word science may be substituted with "university." Whether in the UK or Japan, I look forward to the development of the university and to the advancement of science that springs from the knowledge base that the university provides. Through friendly rivalry and cooperation between the universities of our two countries, I expect to see the shining light of science grow even brighter, accruing to the benefit of our two peoples and all of humankind.

To achieve this lofty goal, it will be incumbent on JSPS's London Office to promote even more vigorously than in the past scientific and academic exchange between Japan and the UK. I look forward to the Office energetically carrying out this mission and becoming a bridge over which the knowledge and wisdom of our two countries will meet and merge.

Thank you very much for your kind attention.

President's Leadership as First Priority in University Reform

In anticipations of Japanese universities' new operation as "corporations," JSPS president Prof. Motoyuki Ono delivered the following message at the Japan-UK Higher Education Programme of Collaboration Open Forum, held in Tokyo on 7 June.



Prof. Motoyuki Ono

Sir Howard, distinguished guests from the UK, and all participants from the various universities,

It is quite an honor for me to be here and to say a few words to you this morning. I extend a special welcome to all the guests from the UK, who so kindly have come to Japan for this workshop.

I was in London two days ago to celebrate the tenth anniversary of JSPS's London Office. I came back just yesterday. The event was held at the Royal Society. Ms Jannette Cheong was among the several guests who attended it. It was a great success, and it also gave me the chance to meet many people working in higher education and in Japan-UK relations. We enjoyed England's lovely June weather: full of green and flowers, nice sunshine, refreshing air, and comfortable temperatures. I would like to have stayed for the weekend and enjoyed a beer at a countryside pub, but I needed to rush back to Tokyo for this workshop. However, our British guests here today are even "more lovely and more temperate," as Shakespeare said in his Sonnet 18. I am just sorry you have to experience Japan's June climate, which is not always so perfect.

This morning, I wish to talk about "National University Reform and the University President's Leadership." I was asked to do this by Kimura-sensei several months ago. At first I was hesitant to accept the assignment because it is such a big topic. I also heard that Mr. Osaki had already given a comprehensive presentation on it at the workshop last October. Nevertheless, I will try to elaborate on the subject for our British guests.

JSPS at a Glance

First, I'd like to take a little time to briefly describe JSPS, the Japan Society for the Promotion of Science.

JSPS is a research funding agency working in support of universities and research institutes. We have been an "independent administrative institution" since last October. Before that, JSPS's operation was under the supervision of MEXT, the Ministry of Education, Culture, Sports, Science and Technology. This new status now gives JSPS more freedom in managing its programs and operations. This, in turn, allows us more flexibility to

work on behalf of the universities.

There has been a steady increase in JSPS's funding. This year, our budget reached almost 200 billion yen, which is around 1 billion pounds. Most of this money goes to the universities as competitive research grants, which we call Grants-in-Aid. These grants are a main source of funding for universities that want to conduct research. Therefore, JSPS's budget increase is due to the government's initiative to increase the volume of Grants-in-Aid for universities.

One of the big differences between JSPS and the research councils in the UK is that JSPS covers all fields of the natural sciences, humanities and social sciences. Around 80 thousand grant proposals come to JSPS every year. One-fourth of them are accepted. Among the research fields supported by JSPS, humanities and the social sciences account for 17%; science and engineering, 36%; and bioscience including medicine, 45%.

By the way, JSPS does not set a quota for each academic field. Most of JSPS's funding is distributed on a competitive basis. The natural sciences tend to receive more money because research in them is usually more expensive to conduct. However, it is the results of peer reviews on the quantity and quality of the proposals that sets the allocation trend in each field.

JSPS Core-to-Core Program

Apart from Grants-in-Aid, international collaboration is JSPS's number one priority. Last year, we started a new program, called the "JSPS Core-to-Core Program." The purpose of this program is to build international collaborations in cutting-edge fields. Under it, JSPS supports Japanese universities that do "core" work in such advanced fields. This is a multilateral program conducted in collaboration with industrially developed countries. We started twelve projects this year. Five of them are in cooperation with the United Kingdom.

Allow me to mention them briefly.

- We are supporting Kyoto University and Cambridge in a project on Molecular Analysis, particularly for cancer treatment.
- The National Institute for Basic Biology and Well-

come Trust Cancer Research Institute are collaborating in Functional Genomics.

- Tsukuba University and Edinburgh are working on Computational Particle Physics.
- Tokyo University and Strathclyde in Glasgow are supported by JSPS in the field of Ultrafast Intense Laser Science.
- Lastly, the National Astronomical Observatory and Cambridge are working together to establish a Virtual Observatory.

JSPS has earmarked funds for these projects. All of them just started this year. I hope they will serve to develop good networks between Japanese and UK universities.

Other Programs between Japan & the UK

Our London Office, which just celebrated its tenth anniversary, held a special symposium at Sheffield University last year. It has an excellent department for Japanese studies. The meeting, kindly attended by Professor Boucher, was very beneficial. This is another example of how JSPS is working in close cooperation with British universities.



Of course, I should not forget to mention Sir David Watson's Brighton University. JSPS and the Royal Society jointly support several research activities. One of them is a joint project by Brighton and a Japanese university in the area of civil engineering.

Also, JSPS offers fellowship programs for inviting young scientists from the UK to Japan, and for sending young Japanese scientists to the UK. We have another program with the British Council to attract young British scientists to Japan.

Through these various activities, JSPS supports well over 200 researchers a year in Japan-UK scientific collaborations. I am sure this figure will increase dramatically this year.

21st Century COE Program

Let me introduce another program. The "21st Century COE Program" was launched two years ago by JSPS and MEXT. This program aims to develop a more competitive academic environment by creating Centers of Excellence in Japanese universities.

Using third-party evaluations, the 21st Century COE Program is having an impact on the structural reform of Japanese universities. It is also stimulating discussion among university faculty on the future of education and research.

A wide range of proposals are accepted. Currently, around 250 projects are supported under the program. Each receives from 0.5 million to 2.5 million pounds per year over several years. Many of the COE grants are awarded to the large traditional universities. However, a good number of smaller universities are also awarded grants due to their unique and innovative research approaches. I am impressed with the diversity and depth of research capacity among Japanese universities.

I want to emphasize that university presidents play a key leadership role in the proposal preparation process. This is quite different from ordinary research grants. Under this program, applications for grants are filed by the president of a university. Thanks to this scheme, university presidents are able to exert strong leadership in selecting world-class projects to be implemented within their universities. This process has been very effective in vitalizing the universities. It also has attracted wide media attention.

National University Reform

Now I'd like to move to my main topic, university reform. I have worked many years in this arena. National universities play an important role in advancing Japanese science and technology. They have recently been given a new corporate status.

I should explain why Japan needed university reform.

National universities had been government institutions until March of this year. As such, they had to follow many government rules and regulations. This prevented universities from taking initiative and doing new things.

Moreover, much of the national universities' funding was guaranteed by the government. This was good for maintaining their stable operations, but it shielded them from competition. This is why national universities were criticized as being a "well-guarded convoy."

Another problem was that the actual authority to make decisions in each university lay with their faculty council. Decisions required the consensus of all the council members. I am afraid that the university president did not have the authority to break deadlocks or enact reforms at his own discretion. As a result, it took years to undertake new initiatives.

It is this situation that brought about the need to reform the national university system.

National University Corporations

All of Japan's national universities became "corporations" this April.

Besides freeing them from many government regulations and giving them greater autonomy, this new status allows universities to operate under a top-down management structure. This helps to reduce time-consuming disputes among faculty members.

Under the new system, universities establish clear objectives and plans to achieve them. Each university submitted a six-year plan to MEXT at the time it became a corporation.

Advantages Gained

Let's take a look now at some of the advantages gained by converting national universities into corporations.

First of all, students will be able to enjoy more flexible curricula better suited to their various needs. External evaluation can also help improve the instruction they receive.

Secondly, faculty members may be able to enjoy performance-based benefits. Also, it will be possible for universities to employ eminent outside researchers for short-term periods through the introduction of an annual salary system. A university will even be able to invite a person from another country to be its president or dean.

Lastly, the new system has some advantages in the university's relationship with private companies. Civil service regulations no longer apply to universities. This allows researchers to hold a concurrent post in the private sector. This is expected to expand collaborative research and technology transfer with private companies. It should also enhance technical guidance and consultation provided to venture businesses and small and medium enterprises.



Attentive participants from scientific institutions

Quality Assurance

These are the advantages, but more autonomy also means more responsibilities. University administration is no longer fully overseen by the government. Since

universities now have more freedom, new ways are needed to assure the quality of their programs.

For this purpose, each university has drawn up its own 6-year Mid-term Plan and submitted it to MEXT. They are expected to carry out a variety of activities based on these plans.

Also, external assessments by official agencies will be introduced. Their results may be taken into account when considering future funding.

The "National Institution for Academic Degrees and University Evaluation" will take leading responsibility for assessing program quality at the universities. Their role is very crucial in monitoring the progress and performance of education and research in the universities. Universities are expected to thrive under these new mid-term plan and assessment schemes.

New Responsibilities of Government

Before the new system started, many universities were concerned about their allocated budgets. They questioned whether they would continue to receive an appropriate level of funding from the government. It turned out that, at least this year, universities are receiving the same level of funding as they had before.

I myself negotiated the funding issue with high officials of the Ministry of Finance, as I had heard the concerns voiced by many university presidents. I was convinced that university autonomy should not reduce the government's responsibility for supporting higher education. That is, the new scheme should not be used as an excuse to reduce total funding from the government. In Japan, the entire public sector is undergoing "administrative reform" to make government smaller. However, funding for higher education and science should be treated with careful consideration.

There may still be uncertainties regarding the new scheme. But, I hope the government, particularly MEXT, will offer a future plan to encourage and motivate universities to improve their activities. Especially, the government will need to give more consideration to the university funding system.

Let me elaborate a little further my views on this issue.

Effective and efficient management has become a very important priority in the higher education sector. But, simple funding cuts and budget reductions will not have a positive impact on Japanese universities, which must compete with universities in other countries. Universities with good performance should be rewarded appropriately. Of course, this means that we need to adopt a strict attitude toward poor results. We cannot expect that equal treatment be given to all universities.

A desire for “equality” has spread to all sectors of Japan. But, this is a false concept of equality—one that breeds uniformity and mediocrity. It is undermining Japan’s very foundations. We must press for radical reform, though it will produce losers as well as winners.

We are introducing an evaluation procedure in the university system. It is only natural that, based on the results, some should receive more and others less. If most universities continue to receive the same level of assessment—that is, “good” or “satisfactory”—I have no choice but to question the value of the evaluation system itself. We need to develop a highly critical evaluation system so as to identify truly world-class universities, ones in which we will be happy to invest.

We should increase overall funding in higher education and research so as to better reward good universities and to advance important academic fields. In doing so, we need to make proactive use of the national budget.

New Responsibilities of Universities

Responsibility does not lie only with government. Universities, themselves, need to exercise efficient management, and work hard to find external sources of income. Under the new framework, the role of JSPS has become more important as a research funding agency. We will be very happy to work together with universities to make Japanese higher education truly world class.

For universities, efficient and effective management is necessary to assure public accountability. It is not effective to just shout “We need more money!” Each university needs to gain the respect and trust of the public, if it wants to be supported. Universities must be transparent to the public and reflect a wide range of views from the public in the operation of their programs. To that end, national universities are now establishing systems to facilitate closer and more active communication with society.

I would like to also point out the need for staff development and training. As administrative staffs are no longer civil servants working for MEXT, their automatic job rotation from one university to another is out of the question. Universities should take strong initiative in developing the quality of their staffs. They will need to do so to maintain good human resources in every field, including accounting, international affairs, and liaison with the business sector.

In all these respects, strong leadership by the university president is necessary.

Leadership in Three Directions

University presidents need to exercise leadership in three directions: toward the government, toward society, and toward the university itself.



The first entails working and negotiating with the government. Specifically,

- Presenting the university’s long-term plan
- Persuading the government to increase block grants
- Obtaining capital grants
- Securing support for basic research, and
- Responding to assessments made by various government agencies.

The second, leadership aimed at society, entails PR toward and work with society. For example,

- Meeting broad expectations from the industrial and civic sectors
- Listening to the views of non-university people
- Gaining support from the private sector
- Promoting close links with industry, and
- Sharing research outcomes with the public.

The last, leadership toward the university, entails the establishment of a good management system. Especially,

- Showing leadership towards the faculty council
- Grasping and directing general trends within the university
- Allocating resources effectively
- Coordinating the three new boards set up within the university: the executive board, administrative board, and academic board
- Possessing a good sense of balance and strong sense of responsibility
- Creating a balance between top-down and bottom-up management
- Leading the university’s administrative departments, and
- Delivering meaningful messages to the students.

Of course, when I say “leadership,” I do not mean simply a top-down process. The president must exercise leadership ensuring that ideas generated by university faculty and staff are developed, and not squashed. One-directional leadership could result in disorder and confusion within the organization.

Ten Qualifications

Everybody agrees that both the university president’s role and responsibility are very large. In this sense, the president may be called the CEO of a university. Counting them, there are ten qualities that a university president might be expected to possess: In addition to a strong

ability in research and education, he must be able to exercise judgment, accountability, and responsibility; have patience; be skilled in planning, coordinating, and fund-raising; and have a good sense of direction. Saying this, however, I am afraid no one would qualify, let alone want, to be a university president.



It would be ideal if the president could be this kind of a super-human. If this is not possible, he should, at the very least, have good character and a good brain; be bold and courageous; and possess a positive attitude along with a good sense of humor.

Closing

Before closing, I would like to touch upon one last issue.

As I mentioned earlier, each national university now has three boards established within it: an executive board, an administrative board, and an academic board. The

president needs to work effectively with these boards. Additionally, there is the role of the faculty council, which exists separately from them. Under this new system, an important issue is who will succeed in the tug-of-war between the faculty council and the president. Will the faculty council continue to have the final say? Or will the president demonstrate strong leadership and shake the university free of faculty council control?

University incorporation has just gotten started in Japan. It offers a once-in-a-century opportunity. What we need to do at this stage is to breathe a spirit of energy and animation into the reform process. The real tasks of reform still lie ahead; we must go about accomplishing them with vigor and courage.

This brings my presentation to a close. Thank you very much for your kind attention.



Prof. Ono and Sir Howard Newby, HEFCE, fielding questions

First General Assembly Held of UK Alumni Association

On 4 June, a ceremony was held at The Royal Society to celebrate the tenth anniversary of JSPS's London Office. It was preceded by the first general assembly of the former JSPS fellows UK alumni association.

Attending the general assembly were 34 members of the alumni association. The four members of the association's executive board were first introduced. They had been nominated at the November preparatory meeting and elected by the members through an Internet vote.



Former JSPS fellows discussing Japan experiences

At the meeting, presided over by the association's new chair Prof. Peter Sammonds (University College London), the attending members first introduced themselves. Then, a presentation was made by Dr. Arnulf Jäger-Waldau, who was invited by the association to talk on the activities of the JSPS Club in Germany, which already has a history of ten years of operation. Following him, the members of the UK group spoke about their various experiences in Japan. The assembly thus proved to be an ideal time for the participants, who had shared experiences as JSPS fellows, to foster a warm sense of collegiality among themselves.

The meeting continued with program briefings by JSPS partner organizations: namely, The Royal Society, The British Academy, Biotechnology and Biological Sciences Research Council, Engineering and Physical Sciences Research Council, Natural Environment Research Council, and Particle Physics and Astronomy Research Council.

The alumni association's next event is scheduled to be held in November at Oxford.

New JSPS Executive Director Appointed

Mr. Koji Nakanishi left his post as executive director at JSPS on 30 June, and was succeeded by Mr. Isao Kiso on 1 July.

Mr. Nakanishi had served in the post for over five years since his appointment on 1 May 1999. Over that period, JSPS underwent major transitions, including the transfer of large components of the Grants-in-Aid for Scientific Research Program to it from the Ministry of Education, Science, Sports and Culture; the entrustment to it of application screening and project evaluation under the 21st Century COE Program; and its conversion to an “independent administrative institution.” At each of these milestones, Mr. Nakanishi’s leadership was instrumental in enhancing and moving forward JSPS’s programs and operations.

Mr. Kiso entered the Ministry of Education, Science, Sports and Culture (MOE) in 1976. Over his career to

date, he has served as first secretary at the Japanese Embassy in France; director of the Vocational Education Division, Elementary and Secondary Education Bureau, MOE; superintendent of the Hiroshima Board of Education; director of the Private Education Institution Administration Division, Higher Education Bureau, MOE; director of the International Affairs Planning Division, Science and International Affairs Bureau, MOE; director of the International Affairs Division, Minister’s Secretariat, MEXT; and director general of the Cultural Properties Department, Agency for Cultural Affairs. His work in these positions has contributed significantly to the advancement of education, science and culture in Japan.



Mr. Isao Kiso

Comprehensive Agreement Signed with Academy of Finland

On 12 May at the Academy’s headquarters in Helsinki, JSPS and the Academy of Finland (AF) signed a new blanket agreement aimed at further developing bilateral collaboration between them. The original agreement, concluded in 1988, had covered joint research, seminars, and researcher and postdoc exchanges. Not limited to such conventional forms of exchange, the new agreement

emphasizes support for collaboration between centers of excellence (COEs) and other more flexible and diverse forms of cooperation.

At the signing ceremony, the new agreement was executed by JSPS president Prof. Motoyuki Ono and AF president Mr. Raimo Väyrynen.

Joint Preparatory Meeting Held for “JGFoS Symposium 2004”

On 21 May, twelve active Japanese and German scientists gathered in Tokyo to discuss and identify six cutting-edge research topics as session themes for the first “Japanese-German Frontiers of Science” (JGFoS) symposium scheduled to be held in Germany on 27-30 January 2005.

JGFoS is a new program established by JSPS and AvH (Alexander von Humboldt Foundation) to promote scientific exchanges in various fields between new generations of scientists in the two countries. The main feature of JGFoS Symposia is their cross-disciplinary nature. This requires choosing the six topics from a wide range of areas in advance. The symposium itself is organized and implemented by the Planning Group Members (PGMs). The first JGFoS Symposium will be co-chaired by Dr. Shinji Tsuneyuki (associate professor, The University of Tokyo) and Dr. Alfons Schnitzler (professor, University Hospital Düsseldorf), both of whom



will also serve as PGMs.

At the JSPS-hosted preparatory meeting, the twelve PGMs including the co-chairs spent the full day in intensive presentations and discussions, through which the two sides agreed upon the following six session topics for the January symposium:

- “Modeling and Control of Biomolecular Functions” (Chemistry/Biochemistry)

- “Life Deeply Concealed in the Earth” (Earth Science/Geoscience/Environment)
- “Computational Challenges of Massive Data” (Mathematics/Applied Mathematics/Informatics)
- “Evolution of Cognitive Functions in Primates” (Medical Science/Neuroscience)
- “Atomistic Simulation of Materials” (Physics/Astrophysics)
- “Social Capital and Civic Society” (Social Sciences)

At a reception following the meeting, JSPS executive director Mr. Koji Nakanishi applauded all the PGMs, including AvH program director Dr. Katja Rampelmann, for their earnest efforts, and expressed bright optimism for the success of the first JGFoS Symposium.

The first JGFoS Symposium, which JSPS and AvH are working together to prepare, will be attended by around

60 Japanese and German scientists of under age 45, who will interact in discussions on the interface of each other's cutting edge fields.

The JGFoS is being built on the success of past JAFoS (Japanese-American Frontiers of Science) Symposia, implemented by JSPS and U.S. National Academy of Sciences (NAS). JSPS has established the FoS Advisory Board, chaired by Prof. Yoichiro Murakami, International Christian University, to seek advice on program implementation.

The Frontiers of Science (FoS) Symposium was originally designed in 1989 by U.S. National Academy of Sciences (NAS) to provide promising scientists opportunities to engage in cross-disciplinary discussions. Started in 1998, JAFoS is one of various FoS Symposia conducted by NAS with its international partners.

Colloquium and Reception Held by Stockholm Office

On 15 June, JSPS's Stockholm Office held its fifth colloquium, this time on the subject “RNA Biology.” The venue was the Eklundshof Hotel in Uppsala, Sweden, home of northern Europe's oldest institution of higher education, Uppsala University.

The meeting began with greetings from JSPS inspector general Dr. Hirochika Inoue and Stockholm Office director Prof. Tsuneko Okazaki, followed by 12 presentations on the theme. Six were delivered by Japanese researchers, including the coordinator Dr. Kunio Inoue (Kobe University), and the other six by Swedish researchers, including the coordinator Prof. Leif Kirsebom (Uppsala University). Their CVs and abstracts can be read on the following website: www.jspss-sto.com/pdf/booklet_coll0406.pdf

The hall was filled to capacity with predominately young researchers from Uppsala University, Stockholm University and the Karolinska Institute (KI), who responded enthusiastically with questions after each presentation. In the final session of the day, the presentations and discussions were summed up by the Swedish and Japanese advisors: Prof. Leif Isaksson, Stockholm University, and Prof. Yoshiro Shimura, president of the National Institutes of Natural Sciences (former director of the Stockholm Office).

This colloquium, which enjoyed a lively Q&A discussion amidst an at-home atmosphere throughout, satisfied in every respect its initial objective of “presenting research with an eye to stimulating debate among young researchers.”

On the following day, a farewell and welcome reception was held at the Sheraton Hotel for the former office director Prof. Shimura and the new director Prof. Okazaki. At the opening ceremony, JSPS inspector general Dr.

Inoue offered some remarks and introduced the two directors. He was followed by messages from Professors Shimura and Okazaki and from Mr. Seiichiro Otsuka, Japanese Ambassador to Sweden. After a toast offered by KI dean of research Prof. Jan Carlstedt-Duke, everybody partook of a buffet-style meal of Japanese cuisine. Pictures of the reception can be viewed on the following website: <http://www.jspss-sto.com/rec04.html>

Among the 56 guests were former KI president Prof. Hans Wigzell, The Royal Swedish Academy of Sciences secretary general Prof. Gunnar Öquist, former JSPS fellows, and representatives of Swedish universities and JSPS partner organizations. An amicable atmosphere, permeated with words of thanks to Prof. Shimura and of encouragement to Prof. Okazaki, was enjoyed by all.

Both the colloquium and reception proved to be a catalyst for advancing scientific cooperation between Japan and Sweden.



Colloquium participants

Washington Office Holds 9th “Science in Japan” Forum

On 11 June, JSPS's Washington, DC Office held its ninth in the series of “Science in Japan” Forums at The Cosmos Club. These forums are designed to introduce the latest trends in scientific research in Japan with an eye toward advancing scientific exchange with the US. Supported on the US side by the National Institutes of Health (NIH), National Science Foundation (NSF), U.S. Department of Energy (DOE), and the American Association for the Advancement of Science (AAAS), the forums have been held every year since 1996. Lectures at this year's event focused on high energy physics and marine biology.

Office director Dr. Seishi Takeda presided over the meeting, which happened to overlap the late Ronald Reagan's funeral in Washington, DC. At the opening of the meeting, all the attendants were asked to observe a minute of silence in tribute to the former president. Then, JSPS inspector general Dr. Hirochika Inoue offered some remarks as JSPS's representative to the meeting, in which he spoke about the current state of JSPS's operation after its conversion to an “independent administrative institution” in October of last year. He was followed by lectures from Japanese and American researchers.

In the area of high energy physics, Prof. Tsuyoshi Nakaya, Kyoto University, spoke on “K2K—Physics with Accelerator-Produced Neutrinos Across Japan”; Prof. Kunio Inoue, Tohoku University, on “KamLAND—Neutrino View from Underground”; Prof. Tetsuya Yoshida, High Energy Accelerator Research Organization (KEK), on “BESS-Polar—A Search for Cosmic Antiprotons and Antimatter by a Long Duration Balloon Flight in Antarctica”; and Prof. Katsunobu Oide, KEK, on

“KEKB—the Luminosity Frontier.” Each of these topics were of high interest to the American attendants, as the encompassing research activities either involve joint work by researchers in the US and other countries around the world or are being carried in collaboration with the US.

In the area of marine biology, Prof. Takeshi Naganuma, Hiroshima University, spoke on “Life on the Edge of Global Biosphere: Living on Multiple Symbioses”; and Dr. Bruce H. Robison, senior scientist, Monterey Bay Aquarium Research Institute, on “Exploring the Ocean's Deep Interior.” Both used photographs and videos to illustrate their research on the peculiar organisms which dwell in the abysses of the deep sea. This made their presentations very interesting to even those attendants who were not specialized in marine biology.

The forum gathered some 120 university researchers and government administrators from various quarters of the US, who listened attentively to the lectures and exchanged information and views on each research topic.



Audience fills Cosmos Club hall

9th Japan-Germany Science Symposium Held in Halle

This symposium was co-organized by JSPS's Bonn Office, directed by Prof. Yasuo Tanaka, and the German JSPS Alumni Club. It was convened over a 2-day period from 14-15 May at the Congress Centre Rotes Ross in the city of Halle in the old East German quarter.

This year's theme, “Frontiers of Nanoscience,” encompassed a range of new nanotechnologies with possible applications to such fields as information, energy, environment, and biotechnology. It was addressed through presentations by three researchers from each the Japanese and German side.

The first day began with an opening message from JSPS Alumni Club chair Prof. Dr. Heinrich Menkhau (Philipps University of Marburg), who was followed by

remarks from Mr. Shigeo Iwatani, minister, Japanese Embassy; Prof. Dr. Wilfried Grecksch, rector, Martin-Luther-University Halle-Wittenberg; Ms Anke Ruprecht, representative of the mayor of Halle; Dr. Gisela Janetzke, deputy secretary general, Alexander von Humboldt Foundation (AvH); and Dr. Kenichi Iga, executive director, JSPS. All expressed expectation in the symposium serving to strengthen scientific exchange between Japan and Germany.

Presentations were then delivered by the three Japanese researchers: Prof. Dr. Akira Tonomura, fellow, Hitachi, Ltd.; Prof. Dr. Satoshi Kawata, professor, Osaka University; and Prof. Dr. Masuo Aizawa, president, Tokyo Institute of Technology. They spoke respectively on the topics “The Quantum World Unveiled by Electron

Waves”; “Nano Optics Beyond the Diffraction Limit”; and “Challenges of Bio-nanotechnology.” They were followed by their German counterparts: Prof. Dr. Wolfgang Knoll, director, Max Planck Institute for Polymer Research; Dr. Margit Zacharias, MPI of Microstructure Physics; and Prof. Dr. Alfred Nordmann, Darmstadt University of Technology, whose respective topics were “Nanoscope Building Blocks from Polymers, Metals and Semiconductors for Hybrid Architectures”; “Nanostructures—à la carte”; and “Nanotechnology: Convergence and Integration.”

Beginning with the members of the JSPS Alumni Club, some 240 people attended the symposium including researchers from local and more distant regions of Germany and students of Martin-Luther-University Halle-Wittenberg. State-of-the-art in content, the presentations evoked keen interest and probing questions from the audience. After the first day of sessions, a tour was made of the city of Halle in which the participants enjoyed a buffet dinner and convivial conversation at Steintor-Variété, one of Europe’s oldest music halls.

The program on the second day of the symposium started with a session on “Instruments of Funding German-Japanese Scientific Exchange,” in which the pro-

grams and organizations of funding agencies in Germany and Japan were introduced. On the German side, Dr. Gernot Gad, German Research Foundation (DFG), outlined the main programs for funding international exchange at DFG, AvH, German Academic Exchange Service (DAAD), and Max Planck Society (MPG). On the Japanese side, Mr. Sho Hagio, deputy director, JSPS Bonn Office, summarized the grant and fellowship programs offered by JSPS as an “independent administrative institution.”

Highlighting a good audience response, many of the attending researchers, especially those who specialize in nanoscience, praised the presentations for their sophisticated content. Others, however, with specializations on the periphery were at a loss they said to comprehend what was being said. This perhaps bespeaks the accelerating pace of compartmentalization in today’s rapidly advancing scientific domains.

The last speaker of the day was Prof. Dr. Alfred Nordmann, whose presentation took a philosophical approach that in a sense called the morality of scientists into question. A give-and-take on the pros and cons of this notion welled up in the wake of the symposium. As a catalyst for spurring discussion, the event was most successful.



Participants of Halle symposium

JSPS Joins International Symposium on Northeastern Asian NanoScience and Technology in Shanghai

This first trilateral symposium co-sponsored by NSFC (China), KOSEF (Korea) and JSPS was held on 7-9 May at Fudan University in Shanghai. Titled the “6th International Symposium on Northeastern Asian NanoScience and Technology,” it was the most recent in series of symposia that had thitherto been organized by NSFC and KOSEF. This trilateral implementation was realized as a result of the meeting by the heads of the three agencies last year (see *JSPS Quarterly No. 7*).

The May symposium accommodated around 60 scientists from China and Korea, including five distinguished scientists from Japan who each presented forefront research results they had achieved in the nano-S&T field. The event also featured a special guest from India, Prof. C.N.R. Rao (honorary president of Jawaharlal Nehru

Centre for Advanced Scientific Research), making it in essence a four country Asian initiative.

At the opening session, welcoming remarks were delivered by Prof. Dao-Ben Zhu, vice-president of NSFC, and Mr. Young-Dae Min, director general of KOSEF, followed by a message from Mr. Tsuyoshi Enomoto, deputy director of JSPS’s International Program Department. He expressed anticipation that the trilateral symposium would contribute to advancing world-class nanoscience research in the Asian region through highly interactive exchanges of views and concepts that transcend national borders. That this was in fact the case would be manifest by both the depth of the following presentations and the intensity of the Q&A discussions.

JASS '04 Held on Digitally Assisted Cultural Preservation Technology

For an 11-day period between 14-24 July, a JSPS Asian Science Seminar (JASS) was held in cooperation with the National Institute of Informatics on the theme "Advanced Digital Technology-Assisted Cultural Archive and Preservation Along the Maritime Silk Roads." Its purpose was to examine ways to employ state-of-the-art digital technologies in better preserving and restoring related cultural properties. In addition, the seminar sought to form a regional network for this purpose, and to foster younger generations of researchers in this field.

Fourteen lecturers from five countries were invited to address the seminar, which was convened on the premises of the National Institute of Informatics. They delivered

lectures and provided training for 30 young researchers from eight countries on advanced digital techniques for storing, collecting and managing cultural assets.



Lecture delivered by JSPS Executive Director Dr. Kenichi Iga

14th Meeting of the Japan/Korea Joint Committee for Basic Scientific Research

On 25 May, the Japanese and Korean members of the Joint Committee for Basic Scientific Research met to review the previous year's activities, especially joint seminars, and to select new joint research projects and seminars for FY 2004. The selection results are shown below.

	Applications	Selections
Joint Research Projects	113	36
Joint Seminars	30	13

Since the program was launched in 1991, JSPS and KOSEF have selected and supported 267 joint research



projects and 122 joint seminars, each carried out between researchers from the two countries. The JSPS/KOSEF-organized Joint Committee Meeting is held annually, alternating between the two countries. The next one is scheduled for late May 2005 in Japan.

Events

Stockholm Office

Forum "Frontiers in Life Science"
The Nobel Forum, Stockholm, 13 October 2004

Strasbourg Office

Forum "The Universe: Origin, Evolution, Future"
Louis Pasteur University, Strasbourg, 19 November 2004

Recruitments

For FY 2004

JSPS Postdoctoral Fellowships (Short-term) for North American and European Researchers

Application deadline from host institution to JSPS: 12-15 October 2004

For FY 2005

JSPS Postdoctoral Fellowships for Foreign Researchers (Standard)
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

Doppler-Free High Resolution Spectral Atlas of Iodine Molecule 15000 to 19000 cm⁻¹

By Hajime Katô et al., Kobe University; four volumes (4,000 pages with CD-ROM); ¥60,000 [about \$550] plus delivery. For details and ordering, see: www.jsps.go.jp/english/e-rftf/gaiyo/gaiyo_publication.html

Life in Japan for Foreign Researchers 2002

The handbook contains useful information on living, working, housing, banking, medical services, etc; 230 pages in English & Japanese; ¥1,680 [about \$15] plus delivery. For details, ask Maruzen bookstore: fax +81-3-3272-0693 or email e-shop@maruzen.co.jp

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 +81-3-3234-3700. Please indicate whether you are a current or former JSPS Fellow.

Series: Research and Life in Japan by a JSPS Fellow (2)

Prof. Timur Dadabaev hails from Uzbekistan, where he graduated from The University of World Economy and Diplomacy. In 1995, he came to Japan under a Japanese government scholarship to pursue his postgraduate studies in international relations. In 2001, he earned his PhD from Ritsumeikan University. Then from 2002-04, he conducted research as a JSPS postdoctoral fellow with Prof. Masatake Matsubara, National Museum of Ethnology, on "The Role of 'Inter-ethnic Dialogue' in Resolving Inter-ethnic Conflicts in Central Asia: Balancing Theory and Practice." In April of this year, he became an associate professor at The Institute of Oriental Culture, The University of Tokyo.

What originally led you to pursue research in Japan?

In the first half of the 1990s, Uzbekistan society was going through radical changes. I was interested to learn how Japan maintained its traditional customs and values amidst a rapid process of modernization. While living in Japan, I became involved in the local neighborhood association and other traditional organizations, where I learned about how Japanese interact and show consideration for one another. At the same time, I felt there were limitations to the effectiveness of conventional diplomacy in solving national and inter-ethnic conflicts. The Japanese attitude and approach to issues of conflict and social harmony offered me a new angle in my research which sought ways to pacify and modernize Central Asian societies.

So that's the reason you decided to do postdoctoral research in Japan under a JSPS fellowship?

Yes. To elaborate, I believed the standard of the Japanese academic community and level of Central Asian studies within it to be high; from personal experience, even higher than some possible venues in the West. My host, Prof. Matsubara, had earned international acclaim for his work on Turkish society. In doing my own research, I had read his papers and sought his advice on various issues. This spawned the idea of our launching a new research project in an area of common interest: exploring traditional methods of inter-ethnic dialogue in Central Asia. Receiving the JSPS postdoctoral fellowship, I was able to pursue this joint project with Prof. Matsubara.

In the future, I hope to be able to continue contributing to the development of Central Asian studies by disseminating knowledge on Central Asia within Japan and by initiating collaborative research projects between researchers from Central Asia, Japan and other countries. My joint research project with Prof. Matsubara marked the start of my path in this direction. Casting theoretical reflections on my empirical findings, I have employed the Japanese research approach in doing extensive fieldwork in Central Asia. The ultimate objective of my research is to collect and carefully register the voices of people from Central Asia and deliver them to the international community of scholars and interested

individuals.

What achievements did you gain during and as a result of your tenure as a JSPS postdoctoral fellow?

There were many; possibly the most significant was my successfully applying for a JSPS Grant-in-Aid for Publication of Scientific Research Results. It allowed me to publish my first book in English, titled *Towards Post-Soviet Regional Central Asian Integration: A Scheme for Transitional States*. This was a big step in my career as it helped to get my writings known and opened new frontiers for future research.

Do you have any advice for young researchers who may be thinking about doing research in Japan?

My five key words for them would be (1) personal planning, (2) Japanese language skills, (3) relationship with host researcher, (4) teamwork (and communication), and (5) networking. In addition, perhaps more than in any other society, research and life in Japan requires cultural flexibility and understanding of what others do and why. Harmonizing oneself is the greatest requisite for successful relations in the working and living place.

With regard to the workplace, if newly arrived researchers from overseas bring with them an individualist style of doing research, they may become critical of the Japanese system of teamwork. However, I personally found the guidance and views I received from my Japanese teammates to be very constructive and valuable. From early on, as a member of the team I was expected to contribute my views and participate in research that was not directly related to my own. I found this to yield new directions in my own thinking. I would advise others, therefore, to understand how the Japanese go about achieving a research plan and to have a positive attitude about participating in the research of other members on the team.

You are skillful in Japanese. How might other researchers go about developing such Japanese language skills?

When I first came to Japan, I couldn't understand Japanese at all. During my first half year, I concentrated on studying Japanese. It took four years before I was able to write papers and deliver presentations in the language. Over the two-year period of the JSPS postdoctoral fellowship, it may be difficult for fellows to learn enough Japanese to communicate freely. Nevertheless, there is still value in working hard at it. Being able to communicate is very important both in living in Japan and working with the members of one's research team. To do this, one's Japanese does not have to be perfect. At various levels of proficiency, researchers can use their Japanese to create smooth human relations and to enrich their experience while in Japan.



JSPS Summer Program Held

Attended by 108 young pre- and post-doctoral researchers from the US, UK, France, Germany and Canada, the JSPS Summer Program, cosponsored by The Graduate University for Advanced Studies (Sokendai), was held over a 2-month period from 30 June to 24 August.

An orientation was held at Shonan Village, in the seaside town of Hayama, during the first week of the program. At it, the fellows attended classes on Japanese language learning, took excursions to cultural and historical sites, and experienced Japanese living through homestay with Japanese families. After the orientation, the participants divided up and went to their respective host institutions. Their summer internships afforded them an experience upon which to consider coming back to Japan to do research at future junctures in their careers. During the last two days of the program, the participants reassembled to present their research reports.

Japanese Language Training

Ten hours of the orientation session were dedicated to intensive Japanese study. The participants were divided into classes by the level of their existing Japanese language ability. They learned Japanese “survival” language of a kind that would be useful to them over their 2-month summer stays.

In the beginners class curriculum, a unique method was used to teach the participants how to read Japanese in *katakana* in just one hour. In testing their new skill, the fellows were delighted to find that they could read the Japanese on soft drink cans in the vending machine just outside the classroom. On the intermediate and advanced levels, lessons centering on discussion were aimed at each participant being able to give a self-introduction and speech on the last day of the class. Many expressed a strong incentive to continue studying Japanese after the program ended.



Homestay

On the weekend, the fellows stayed in Japanese homes. Some went to see the Star Festival or participated in other summer events with their host families. Each in his or her own way was well received by the host family. One fellow said “I have always known the Japanese are very hard workers; now I’ve found that they also know how to enjoy themselves.” Another remarked “I was surprised to find the husband and wife sharing a much more equal burden of the housework than I had expected.” Though their homestay experience was short-lived, it offered the fellows a fresh and insightful experience.



During Ms Birgit Pils' homestay experience

Research Activities

The centerpiece of the Summer Program was the fellows' internship at a host research institution, where they took part in research activities with frontline Japanese researchers in their respective fields. The following are some comments offered by fellows on their research experience.

Mr. Muhammad Arsalan (doctoral student, VLSI Design, Carleton University, Canada)

At Tokyo Institute of Technology

There were two seminars held per week in the lab to present the research going on in the group. About ten days after my arrival, I presented my research activities. In July, my host, Dr. Nobuo Fujii, arranged several visits for me to research and manufacturing facilities such as Sony and Renesas to experience the on-going research and working practices in hi-tech Japanese laboratories.



Mr. Cuong Manh Vu (medical student, Orthopedics/Biochemistry, The Johns Hopkins University, USA)

At The University of Tokyo

I spent most of my time running experiments and working closely with other researchers in the lab. They helped me with a lot of the specific techniques and equipment. The greatest part of joining the summer program was the ability it gave me to immerse myself into another culture. I really enjoyed interacting with the people in my lab, and I hope that I have affected them in a positive light as well. I think my experience in this program will greatly effect the course of my future research.



Mr. Shannon T. Bischoff (PhD candidate, Linguistics, The University of Arizona, USA)

At The University of Tokyo

My research during the summer program involved an analysis of null arguments in Japanese. After interviewing a number of students to collect a data set and analyzing it for theoretically significant information, my colleague and I went to my host researcher with our results and impressions of the data's theoretical implications. It was very much a hands-on collaborative effort. As a researcher, I could collect important data not easily accessible in the US. As a student, I had the privilege of working with my host.



Recent Visitors to JSPS (May-July 2004)

Delegation from MOST

On 4 June, Mr. Jun Liu, director, Division of Asia and Africa, Department of International Cooperation, The Ministry of Science and Technology of China (MOST), and Dr. Xiaoping Jiang, director of the same depart-

ment, came to JSPS to hold discussions with Mr. Tsuyoshi Enomoto, deputy director, International Program Department. Candid views were swapped on the state of young researcher exchange and interaction between Japan and China.

Delegation from KRF

On 9 June, a delegation visited JSPS from the Korea Research Foundation (KRF). Headed by KRF president Dr. Ja-Mun Ju, it included chief policy advisor Dr. Tae-Kwon Ha, policy advisor Dr. Myung-Gi

Cheoun, and Ms Hyang-Mi Choi. They talked with JSPS president Prof. Motoyuki Ono, who took the opportunity to explain the changes in JSPS's operation and organization since it was converted to an "independent administrative institution."

Delegation from DAAD

On 14 June, a discussion was held with a delegation from German Academic Exchange Service (DAAD), one of our partner agencies in Germany. The delegation was headed by DAAD secretary general Dr. Christian Bode. It included DAAD department head Dr. Irene Jansen and Dr. Ulrich Lins, who was succeeded by Dr. Jansen as head of DAAD's Tokyo Branch Office in September. In the discussion, possible activ-

ities were considered in support of the year of "Germany in Japan 2005/2006."



Second from left: Dr. Jansen; 4th/5th: Dr. Bode and Dr. Lins

For further information on JSPS's organization and programs, please visit our website [www.jsp.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.