

JSPS QUARTERLY

JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

FEATURE:

Presentation Ceremony Held for
2015 International Prize for Biology

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Presentation Ceremony Held for 2015 International Prize for Biology

On December 7th, 2015, the ceremony for awarding the 31st International Prize for Biology was held in the presence of Their Majesties the Emperor and Empress at the Japan Academy in Tokyo. The ceremony was organized by the Committee on the International Prize for Biology, chaired by Dr. Takashi Sugimura, President of the Japan Academy.

At the ceremony, an opening message was delivered by Dr. Sugimura, and a report on the selection process was provided by Dr. Yoshinori Fujiyoshi, chair of this year's Selection Committee, after which the prize and an Imperial gift were presented to this year's awardee, Dr. Yoshinori Ohsumi, honorary professor, Tokyo Institute of Technology, Japan. After congratulatory remarks delivered by Prime Minister Shinzo Abe (read by Mr. Koichi Hagiuda, Deputy Chief Cabinet Secretary) and MEXT Minister Hiroshi Hase, the ceremony concluded with an acceptance address from Dr. Ohsumi.

To commemorate the award to Dr. Ohsumi, a commemorative symposium, titled "New horizons in life science through advances in cell biology," was held on December 5th and 6th in Kyoto,

co-organized by Osaka University, JSPS and Tokyo Institute of Technology. In the symposium, a special lecture was delivered by Dr. Ohsumi, and Japanese and overseas researchers at the vanguard of cell biology presented their latest findings in English.

International Policy Planning Division



Excerpt from Acceptance Address by Dr. Yoshinori Ohsumi

Whenever I am called on to speak of my career, I have noted the many serendipitous events and encounters that have helped me along the narrow road of a researcher. After studying under Prof. Kazutomo Imahori of the College of Arts and Sciences, the University of Tokyo, and pursuing further studies at Kyoto University, the University of Tokyo's Faculty of Agriculture, and the Rockefeller University, I had the opportunity to do research with Prof. Yasuhiro Anraku of the Faculty of Science, the University of Tokyo. Later I was fortunate enough to have my work supported by the College of Arts and Sciences of my alma mater and by the National Institute for Basic Biology, and I am currently enjoying the very favorable research environment provided by the Tokyo Institute of Technology. While it is true that scientific research today is fiercely competitive, I have always been a reluctant competitor and have pursued my research by choosing to do what no one else was doing.

I became interested in the mechanism of protein degradation in cells, and for 28 years, starting in 1988, I have studied the intracellular degradation mechanism known as autophagy. Living organisms are maintained in equilibrium between constant synthesis and breakdown, but breakdown has always attracted less interest than synthesis, and progress in this area has tended to be slow.

Using the small cells of yeast, I set about solving the mystery of autophagy by analyzing the gene clusters involved and their functions. Once the genes involved were identified, autophagy research underwent dramatic development, and a series of discoveries have shown autophagy to be involved in various high-order functions

of the higher animals and plants and also implicated in various pathologies. That is to say, it has gradually become clear that degradation is no less important than synthesis to vital activities. However, many basic questions still remain to be solved. In the time that remains to me in the laboratory, I want to go back to the basics and ask what exactly autophagy is. I am also very hopeful that further light will be shed on its mechanism in the near future and that our growing understanding of cell biology will enable further progress in research destined to conquer disease and improve health.

Needless to say, modern biology cannot be pursued by lone researchers. My own work over the course of nearly three decades has been made possible by the tireless efforts of many wonderful colleagues, and I have been extremely fortunate in my collaborators. I should like to express my heartfelt thanks to them all and to share this honor with them.

Lastly, a word to the younger generation who will be the biologists of the future: There are unanswered questions all around us, questions that have not even been identified as such. My advice to you is to observe phenomena with your own eyes and an open mind, register your doubts, believe in yourself and press on, without allowing yourself to be swept along by fashions or outside pressures, toward discoveries of the logic of life.

For the full text of Dr. Ohsumi's acceptance address, please visit: https://www.jpsps.go.jp/english/e-biol/03_receipt_ceremony_e_31.html

Excerpt from an Interview with the Recipient of the 31st International Prize for Biology

The Japan Academy, December 7, 2015

Dr. Akihiko Nakano, Professor at the University of Tokyo, Graduate School of Science and a member of the selection committee for the Prize, interviews Dr. Yoshinori Ohsumi, recipient of the 31st International Prize for Biology.

For the full text of Dr. Ohsumi's interview, please visit: https://www.jsps.go.jp/english/e-biol/data/2016/31th_intavew_e.pdf

Receiving the Prize

Dr. Nakano: Congratulations on receiving the International Prize for Biology. First of all, may I ask how you feel about winning this award?



Dr. Ohsumi: Most of the awards I have received have been from the field of medicine in recognition of the contribution our autophagy research has made to medical science, so I am pleased to receive the International Prize for Biology, which honors pure, basic research in the biological sciences. I believe the International Prize for Biology is a very important award internationally because it recognizes basic research in biology—as evident from its selection of past recipients from the field of taxonomy, for example—and I hope the prize will become better known throughout the world.

Looking ahead ten years

Dr. Nakano: These days, securing funding for research is so difficult. I think it is wonderful that you have conducted your research solely on yeast. In terms of the future, what do you consider to be the goals of your research a decade from now? Or do you prefer to work without explicit goals?

Dr. Ohsumi: I do not know if I would say that I have no goals, but even when you have figured one problem out a new problem presents itself. I think that is the nature of science. I do not even really feel like I understand all that much about autophagy. When something is broken down by autophagy, for instance, we do not yet really know how much of an effect that has on cell metabolism. I would like to try to answer these kinds of questions with experiments on yeast. Ten years from now, I would like Japan to have a lab about which it can be said, “Their work with yeast is prescient and makes a real contribution.”

The current situation surrounding science in Japan

Dr. Nakano: What do you think about the current situation of science in Japan?

Dr. Ohsumi: It seems like the number of people in Japan who enjoy research is decreasing. If a nation does not create an environment where people can enjoy doing research, that nation will decline. The number of people in the sciences who enjoy the research process is a measure of the cultural level of the nation. When I see scientists overseas, they seem to be having fun in their research activities. We cannot just tell our young people in Japan, “It’s hard now . . . but you just have to struggle through it.”

I also think that scientists themselves have to make an effort to educate the public, so that the idea that science is one of humanity’s cultural endeavors is recognized by the common citizen. This doesn’t mean that scientists should simply describe in a narrow sense how immediately important their work is for society. Instead we need to make people understand that even though our research may not directly help society, it is still vital. Young people today say “I want to contribute to society” almost like a knee-jerk reaction, but I always feel like asking them exactly what this “contribution to society” is that they are always talking about.

Message to the young generation

Dr. Nakano: How about ending with a message to the young generation?

Dr. Ohsumi: I would like young people to have the guts to take on whatever they feel like doing, instead of looking for stability or security. Isn’t a happy life one where you do what you want to do? There is also a strong feeling among today’s young people that if they stumble or fall, their life is over. To me, research that is not challenging is not interesting, but something that is challenging is also dangerous, which is very hard for today’s young people to accept. Even at Faculty of Science of the University of Tokyo, the number of students who choose the path of research is dwindling. This is quite a critical situation. In the world of research, there is absolutely nothing wrong with hitting one or two stumbling blocks along the way, so we have to create a society that gives every researcher a second chance. I think we need to consider creating an environment where if someone fails they can come back and give it another shot.



Call for Nominations for the 2016 (32nd) International Prize for Biology was opened.

The Program Committee has chosen “Biology of Biodiversity” as the specialization for the 2016 Prize. When making a nomination, fill out the nomination form, attach a brief statement of the nominee’s achievements, and submit it by April 22, 2016. For the form and more details, please go to our website: www.jsps.go.jp/english/e-biol



First Symposium Held under Top Global University Project

The Top Global University Project was established by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in October 2014 for the purpose of elevating the global presence of Japanese universities and strengthening their systems for fostering globally attuned people. This is a pressing issue in Japan given the fact that other countries around the world are instituting policies to strengthen their higher education systems in ways that drive national growth amidst rapidly advancing globalization across wide sectors of society. Venued at the University of Tokyo, this symposium was held on December 7 to celebrate the Top Global University Project's first anniversary. It provided a platform for a broad spectrum of Japanese educators and administrators, all of whom espoused globalizing their universities, to share information and views.

About the Top Global University Project

The Project comprises two program categories: Type A (Top Type) and Type B (Global Traction Type). Type A is for world-class universities that have the potential to be ranked in the top 100 in world university rankings. Type B is for innovative universities that lead the internationalization of Japanese society based on continuous advances in their current efforts. Under these two categories, a total of 37 universities have been selected for funding over a period of up to 10 years.

Keynote Lecture; Undertakings Educational Initiatives

The Symposium's keynote lecture was delivered by Dr. Tsutomu Kimura, who is a member of the Project's executive committee and an advisor to the National Institution for Academic Degrees and University Evaluation. His talk centered on the current state of Japanese university globalization. While providing data on the international mobility of students in Japan vis-à-vis other countries around the world, he emphasized the important role that mobility plays within the scheme of the Top Global University Project. He pointed out that the ratio of Japanese students with overseas study experience falls below those of other countries, while drawing upon an Erasmus Impact Study of student mobility to show that students with overseas experience demonstrate higher learning ability across a variety of fields than students without such experience. Moreover, he stressed the need for mobility among administrative staffs within the process of internationalizing a university's higher education program.

Then, the directors of four supported universities, two each from the Project's secretariat schools and deputy secretariat schools, reported on the initiatives they have taken under their programs in the first year. The University of Tokyo told about how it had increased the mobility of students and faculty using a term system in line with those employed by overseas universities. Keio University described how it had tightened its fusion between liberal arts and science on not only a departmental level but also the overall institutional level. Chiba University said that it had established a new College of Liberal Arts and Sciences and created a new position, "Super University Learning Administrator," to mediate among the faculty, staff and students. Ritsumeikan University told about how it is working to help build a Global Asia Community by drawing upon its linkages with overseas universities and institutions in 64 countries.

Panel Discussion; Identifying Issues

Two themes were addressed in the symposium's panel discussion: "Reforming Japanese Universities and Elevating Their Presence within the World" and "Fostering Globally Attuned People." The panel was made up of the four secretariat school directors and the director of MEXT's Higher Education Bureau. In discussing the first theme, a consensus was expressed on the importance of the faculty and staff sharing a common issue awareness if university reform is to be advanced. The panelists agreed that strengthening universities by more fully utilizing their linkages with industry and networks with international partners will help to give them a more readily visible global presence.

Various challenges facing Japanese universities were pointed out when discussing the theme "Fostering Globally Attuned People." One was the tendency for Japanese students to be inward looking—domestically oriented. To overcome such hurdles, it was stated that the number of overseas students coming to Japanese universities should not only be increased but that initiatives should be taken to promote their closer interaction with the Japanese students. One suggestion for doing this would be to set aside a place on campus where Japanese and overseas students could meet and teach each other their languages. The panelists said that the need to overcome an inward-looking orientation is not limited to just the students but is an issue with the universities themselves—to be recognized as global institutions they will also need to come out of their shells.

Over the course of the symposium, it was reaffirmed that for Japanese universities to succeed in globalizing their programs and attracting excellent students and faculty to Japan, the achievements they forge under the Top Global University Project will need to be diffused throughout their entire education systems. To do so will require not only the students but also members of their faculties



to alter their perceptions, customs and practices. While this may not always be easy to achieve, the 37 selected universities were challenged to develop and advance innovative ways to satisfy the expectations of this nationally supported Top Global University Project. Our attention is riveted on how each will go about achieving its globalization objectives.

Voices from Universities

During the symposium the *Quarterly* staff talked to some of the universities about the programs they are carrying out under this Project. The question we asked was “What is your university’s target and what is unique about your program to achieve it?”



Hokkaido University

Working toward the realization of a globally sustainable society as extolled in the Sapporo Sustainability Declaration, which it adopted in 2008, the university will, within its capabilities to contribute to their solution, take on various global issues. It will also strengthen its cooperation with ASEANs. Working to internationalize its campus, the university is introducing global-standard curricula and using overseas researchers to educate its faculty.



Tohoku University

Amplifying the university’s strengths in such fields as spintronics and materials science, the university will seek to create new academic domains while endeavoring to make global contributions. In the wake of the Great East Japan Earthquake, the university is working to advance the field of disaster science. The university has established organic linkage with its WPI center, Advanced Institute for Materials Research (AIMR), and is working to produce synergistic effects across its education and research programs.



University of Tsukuba

The university has established a transborder educational environment in a concerted effort to transcend barriers to its internationalization. One example of this is its e-learning platform, Course Jukebox, that it established together with overseas partner universities. Working towards globalization, the university is strengthening its education and research functions while advancing an agenda of governance reform.



Osaka University

The university has set a goal of making itself a world-leading research university by 2024, and is working step by step to advance that process. In 2016, it will establish a hub to accelerate the global expansion of its entire institution. It is advancing reforms aimed at fostering students with a high level of international prowess across a wide range of academic fields. This process includes the introduction of a new entrance exam system and a scheme to facilitate the campus stay of internationally steeped students and faculty.



Chiba University

An effort is being made to transition the university from a “global” to a “top global” institution. In it, the university’s strongest areas of specialization are divided into three categories (i.e. science, life science and liberal arts), in which education is provided to foster highly qualified professionals in areas of technology, medicine and entrepreneurship. The university is blazing a path at the vanguard of Type B reform.



Kumamoto University

Taking the lead in the internationalization of Kyushu prefecture, the university is advancing a globalization initiative that gives expression to the region’s unique characteristics. It includes providing opportunities for early stage global education to high schools and technical colleges across the prefecture. From 2017, the university’s international expansion agenda will be advanced upon an axis of a quarter system, including the establishment of a “Global Leader Course: GOKOH School Program.”



Toyo University

Under its “Toyo Global Diamonds” initiative, the university is working to strengthen its international persona as an Asia hub university. It is seeking to become a center for attracting students from Europe and North America to Asian countries, while it increases the number of students it enrolls from the Asian region. Over a period of up to 2024, the university is carrying out string of reforms, which include becoming the international secretariat of the program University Mobility in Asia and Pacific (UMAP) and setting up three new internationally related departments.



Rikkyo University

Under its internalization program “Rikkyo Global 24,” the university is advancing a strategy of globalization reform on a liberal arts axis. Twenty-four projects are being carried out under this program, each having numerical goals. One, for example, is to increase the rate of students who get international experience to 100% by the year 2024.



International University of Japan

The university has embarked on a unique globalization strategy that includes Western nations while placing emphasis on its relationships with Asian and African countries. Its slogan is “Towards an Asian Global Standard.” Carrying out its program from a perspective of university-industry collaboration, the university not only supports the dispatch of Japanese students to Asian countries but it also works to create inroads to Asian and African countries for Japanese companies.



Participating Universities

For more information about each participating universities, please visit the program’s website at: www.jspp.go.jp/english/e-tgu/index.html

Type A: 13 Universities

Hokkaido University
Tohoku University
University of Tsukuba
The University of Tokyo
Tokyo Medical and Dental University
Tokyo Institute of Technology
Nagoya University
Kyoto University
Osaka University
Hiroshima University
Kyushu University
Keio University
Waseda University

Type B: 24 Universities

Chiba University
Tokyo University of Foreign Studies
Tokyo University of the Arts
Nagaoka University of Technology
Kanazawa University
Toyo University
Hosei University
Meiji University
Rikkyo University
Soka University
International University of Japan
Ritsumeikan University
Kwansei Gakuin University
Ritsumeikan Asia Pacific University

Nobel Week 2015 Held in Sweden

Each year, a ceremony to award Nobel Prizes is held in Stockholm on 10 December, the anniversary of the death of the Swedish scientist Alfred Nobel. The period surrounding that day is called “Nobel Week,” during which time many events including lectures and a banquet are held by the Nobel Foundation. The Week’s events attract wide international attention. Last year they included the following:



7 December: Two Nobel Lecture sessions were held, one on physiology or medicine at Karolinska Institutet and the other on literature at the Swedish Academy. Venued at Aula Medica, the first meeting featured lectures by Prof. Satoshi Omura, Dr. William C. Campbell, and Prof. Youyou Tu, all new recipients of the Nobel Prize in physiology or medicine. Each having made major contributions to improving people’s health, their lectures drew an audience so large that it outstripped the hall’s 1,000 seat capacity.

8 December: Three Nobel Lecture sessions on physics, chemistry and economics were carried out at Stockholm University. The lectures on physics were delivered by Prof. Takaaki Kajita and

Dr. Arthur B. McDonald, who intermingled their scientific presentations with interesting episodes and expressions of appreciation for their joint research colleagues.

On the same day, the Japanese ambassador and his wife held a reception in Stockholm to salute the new Nobel laureates who attended along with Japanese researchers working in Sweden and members of Swedish science organizations with close ties to Japan. After the reception, a press conference was hosted by the Embassy. During it, Japanese laureates Professors Omura and Kajita were asked and answered volumes of questions about their groundbreaking work and achievements. That evening, a Nobel Prize Concert was held in the Stockholm Concert Hall, in which the Royal Stockholm Philharmonic Orchestra directed by Franz Welser-Möst performed in front of an audience studded with Nobel Prize winners. 9 December: The Nobel Week Dialogue was held in the city of Gothenburg. Oriented toward the public, this fourth symposium in the annual series was themed “The Future of Intelligence.” It assembled 32 panelists, including Nobel laureates, top world-level scientists, members of the press, corporate executives and politicians, who gave presentations and participated in panel discussions. Besides the overflowing audience who came to attend the event, a live broadcast was available on demand to a multitude of others.

10 December: The Nobel Prize Award Ceremony was held in the Concert Hall at 4:30 p.m. From 7 o’clock, a banquet was held at Stockholm City Hall, attended by the Nobel laureates, members of the Royal Family, and other distinguished guests. JSPS president Dr. Yuichiro Anzai and his wife were invited to attend both the award ceremony and banquet, where he took the opportunity to personally congratulate the new Nobel Prize winners.

JSPS Stockholm Office



JSPS and Nobel Media AB Agreed to Hold Nobel Prize Dialogue Tokyo 2017

On 9 December 2015 in Gothenburg, Sweden, JSPS president Dr. Yuichiro Anzai attended the Nobel Week Dialogue held by Nobel Media AB, an affiliate company of the Nobel Foundation. Nobel Week Dialogue is an open symposium, held annually since 2012 on the day before the Nobel Prize Award Ceremony in Sweden. The theme of this year’s event was “The Future of Intelligence,” addressed by more than 30 eminent scientists, including seven Nobel laureates, via presentations and panel discussions. Approximately 1,500 participants from all over the world enjoyed the intriguing dialogue.

Nobel Foundation executive director Dr. Lars Heikensten, Nobel Media AB CEO Mr. Mattias Fyrenius, and Dr. Anzai signed a memorandum of understanding on the Nobel Prize Dialogue to be held in Tokyo on 26 February 2017 as a joint symposium between the Nobel Foundation and JSPS. Nobel Prize Dialogue Tokyo derives its inspiration from the Nobel Week Dialogue held in Sweden. This will be the second time for the Dialogue to be held in Japan, the first being in Tokyo on 1 March 2015.

The aim of the Tokyo event is to elevate public interest in and understanding of scientific research while contributing to the promotion of science through a dialogue between members of the public and world-leading researchers and intellectuals, including Nobel laureates. We also look forward to many students and young researchers attending this symposium. Further information on its application procedure, program agenda and other details will be posted on a dedicated webpage to be set up in the near future.

Research Cooperation Division



Nobel Prize Dialogue Tokyo 2017

Organizers: Nobel Media AB and Japan Society for the Promotion of Science

Date: Sunday, 26 February 2017

Venue: Tokyo International Forum

Theme (tentative): The Future of Intelligence

Program (tentative): Keynote lectures, parallel discussion streams, panel discussions

Language: English (Japanese simultaneous interpretation provided)

Capacity: 1,000 people

Entrance fee: Free

Application procedure: To be posted on a dedicated webpage

JSPS-RFBR 10th Anniversary Symposium Held

For more than 40 years, JSPS has been supporting research collaboration between Russia and Japan. It started with a researcher exchange implemented with the Soviet Academy of Sciences based on an agreement between the two governments signed in 1974. Then in 2004, JSPS entered into a cooperative agreement with the Russian Foundation for Basic Research (RFBR), followed in 2005 by the implementation of bilateral joint research projects. Since then, JSPS and RFBR have supported nearly 180 joint research projects. Riding this wave of vibrant collaboration, our two organizations held a 10-year anniversary symposium at Moscow State University on 21 October 2015.



The symposium kicked off with welcoming messages from JSPS president Dr. Yuichiro Anzai, Moscow State University rector Dr. Victor Antonovich Sadovnichy, RFBR chairman Dr. Panchenko Vladislav Yakovlevich, and Envoy Extraordinary and Minister Plenipotentiary, Deputy Chief of Mission, Embassy of Japan in Russia, Mr. Takashi Kurai, followed by 18 researchers, nine Japanese and nine Russian, who reported from first-hand experience on the attainments of past bilateral projects and what it was that drove their teams to achieving highly successful results across a wide diversity of fields. Their dedicated fields include mechanical engineering, earth and space science, physics, electric and electronic engineering, complex chemistry, and basic biology. It was also very impressive to hear about how those projects were used to expand exchange among young researchers of the two countries.

Then, Dr. Alexander Sharov, chief of RFBR's Information Analysis Department, and Dr. Keiichi Kodaira, director of JSPS's Bonn Office, offered comments and analyses on the achievements amassed through the bilateral program over the past ten years. Lastly, Dr. Kodaira gave a talk to sum up the day's proceedings in which he stated that what has made these Russo-Japan bilateral

projects so successful is not only the excellent quality and complementarity of the joint research but even more glowingly the relationship of collegial trust enjoyed among the researchers on both sides. It will be important for researchers in both countries, including those of younger generations, to continue engaging each other in direct and energetic communication, while sustaining and strengthening their collegial relationship in carrying out joint research projects.

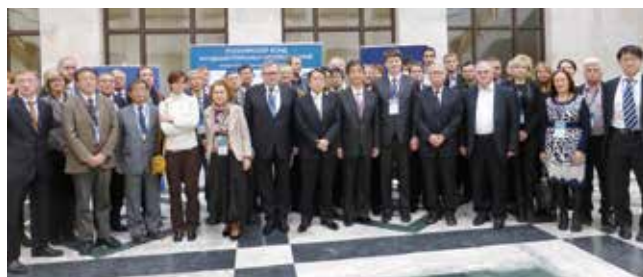


Between the sessions, Russian representatives of past joint research projects displayed posters, around which conversation between them and their Japanese colleagues flourished. These interludes also provided an opportunity for JSPS and RFBR to give briefings on their programs.

In the evening before the symposium, a reception was held at the Embassy of Japan in Russia, giving the Japanese participants an excellent opportunity to mingle and talk with the attending Russian researchers, faculty of Moscow University, and RFBR staff.

At it, JSPS president Dr. Anzai thanked JSPS's counterpart agency RFBR, the participating researchers from both countries, and all who worked so hard to prepare what would be a very successful event.

Bilateral Cooperation Division



Japan Academic Northern Europe Network (JANET) Established

Last November, the JSPS Bonn Office proposed the establishment of a Japan Academic Northern Europe Network (JANET), which would bring together into a loosely connected group Japanese universities and research institutes with offices or hubs in Germany and its surrounding areas. JANET is an initiative to horizontally link and strengthen collaboration among Japanese institutions in this European region, which have heretofore operated independently of each other.

JANET has two main functions. The first is to provide a wide platform for Japanese universities and research institutes to share international scientific information



between themselves and with counterparts in Germany and the wider Europe. The second is to disseminate information on research and education activities being carried out collaboratively between Germany and Japan while promoting enhanced exchange between the two countries.

Currently, there are 24 Japanese academic institutions registered as JANET members. The JSPS Bonn Office plans to launch the first round of JANET joint activities, including "JANET-Forum 2016," to showcase innovative research initiatives being carried out by JANET-member institutions. These activities will also provide a platform for discussion between JANET members and counterpart institutions in Germany. JANET-Forum 2016 will be co-hosted by the University of Tsukuba, representing JANET, and Freie Universität Berlin as its counterpart institution. Supported by the JSPS Bonn Office, the Forum will be held at the end of June in Berlin. For information on upcoming JANET activities, please contact the Bonn Office via the following website: www.jspss-bonn.de/

JSPS Bonn Office

JSPS Cairo Research Station Holds 30th Anniversary Event

On 16 January, the JSPS Cairo Research Station held a 30-year commemorative symposium and reception at the Conference Center of Cairo University. This milestone event served to reaffirm the importance of exchange between Japan and Egypt, while advancing research and its implementation in the sciences and humanities across hurdles between the two countries. Including the members of JSPS's delegation, some 150 people participated in the event.

Looking Back at the Office's 30-Year History

The JSPS Cairo Research Station was established in 1984. However, it had its beginnings in 1965 with the launching of JSPS's Tehran Center, established to promote scientific research between Japan and countries of the West Asian Region. In 1980, the center was moved to Ankara and four years later to Cairo. In this context, the Cairo Research Station has a 50 year history as JSPS's hub in the Middle East.



Currently, the office conducts many of its activities in cooperation with the JSPS Alumni Association in Egypt (JSPSAAE) and the Science and Technology Development Fund (STDF), which is JSPS's Egyptian counterpart agency for carrying out bilateral program.

The symposium opened with remarks from Dr. Elayed Fahim Elsayed Taha, dean of Cairo University's Faculty of Science, Mr. Takehiro Kagawa, Ambassador of Japan to Egypt, Cairo University vice president Prof. Amr Adly, STDF executive director Prof. Mahmoud Zawrah, JSPS president Dr. Yuichiro Anzai, and Prof. Hazem Mansour, Assistant Minister of Egypt Higher Education and Scientific Research. They were followed by lectures that revisited stages and events in the office's 30-year history. Two former JSPS fellows spoke about their experiences of conducting research in Japan, Cairo Research Station director Dr. Naoko Fukami traced the office's evolution up to its present programs, and JSPSAAE chairman Dr. Ibrahim Tantawy reported on the alumni association's objectives and activities.

In the afternoon, three keynote speeches were given on research collaboration between Egypt and Japan: Prof. Eiji Nagasawa (University of Tokyo) told about Prof. Raouf Abbas' studies on modern Japan; Prof. Hiroshi Kato (Hitotsubashi University) talked about Egyptian society as seen through the eyes of a Japanese researcher; and Prof. Wael Abdelmoaz (Minia University) spoke about achievements made in subcritical water technology through bilateral collaboration.

Looking Forward to Future Japan-Egypt Collaboration

Against the backdrop of long-enjoyed cooperation between Japan and Egypt, a panel discussion was held on the future prospects for research collaboration between the two countries. The select group of panellists included Ambassador Kagawa, Dr. Anzai, Prof. Mansour, and Prof. Adly. In launching the discussion, they first identified the strong and weak areas of research exchange between the two countries. Segueing from there, they affirmed that ways should be sought to secure the sustainability of cooperative research across the spectrum of science and technology and the humanities and social sciences, using approaches that merge, not diverge. From an operational perspective, it was pointed out that collaboration in research between academia and industry does not yet function well in Egypt, so the promotion of academia-industry collaboration was discussed as a possible focal point of cooperation between Egypt and Japan. The panel discussion ended with an affirmation that scientific collaboration should be further advanced while working to transcend contradistinctive partitioning between the two countries' research in areas of science and the humanities.

Toward strengthening the bilateral framework of cooperation put forward in the symposium discussions, the JSPS delegation visited and held talks with the staffs of Cairo University and STDF and with the Vice Minister of Higher Education and Scientific Research. During these visits, JSPS introduced joint research initiatives with industry being carried out at Cairo University, bilateral programs implemented between JSPS and STDF, and examples of academia-industry collaborations conducted in Japan. A broad view of Africa was taken in discussing research collaboration between Egypt and Japan.

Enthusiasm was expressed for holding more events like this one in the future along with high expectation for ever-more vibrant research exchange between Egypt and Japan.

For information about the JSPS Cairo Research Station, please visit its website: <http://jpscairo.com/en/index.htm>

JSPS Cairo Research Station

Symposium on Tropical and Infectious Diseases Held in Nairobi

During the period of 14-15 January, a two-pronged international symposium program was held in Nairobi, Kenya: One was "The First Symposium for Innovate Network for Pan-African Surveillance of Neglected Tropical Diseases (NTDs) and Infectious Diseases," hosted by Kenya Medical Research Institute (KEMRI) and Nagasaki University, and supported by Japan's Ministry of Education and Science (MEXT) and the Japan Agency for Medical Research and Development (AMED). The other was "The Second International Symposium for Promotion of Science and Technology Innovation Cooperation between Africa and Japan." The Nairobi Research Station played an instrumental role in implementing both of these events as an assisting organization.

The aim of the first symposium was to build up an African NTD-response network based on a multiple assay system and to bring the application of NTD surveillance and innovative research to wide swaths of the African continent.

In the symposium, Dr. Pauline Mwinzi (KEMRI) explained how the African people have had successes and will continue to press forward in overcoming NTDs, and Prof. Satoshi Kaneko (Nagasaki University) described a surveillance system that utilizes multiplex assays. In the panel session of the second symposium, the idea was discussed of inserting wording on the promotion of

joint S&T research between Africa and Japan into the declaration of 6th Tokyo International Conference on African Development (TICAD 6) to be held in August.

Attending this symposium were about 180 people including leading figures from the Embassy of Japan in Kenya, Japan Science and Technology Agency, MEXT, AMED, Japan International Cooperation Agency, as well as from universities in Japan and African countries. This amassing of key stakeholders laid important groundwork for taking the next step forward in improving disease prevention and health care on the African continent.

JSPS Nairobi Research Station



Joint Forum on the Science of Fermentation Held in France

On 3-4 November, the JSPS Strasbourg Office joined force with the Federal University Burgundy Franche-Comté (UBFC) and the French innovative biocluster VITAGORA to hold a France-Japan Joint Forum, titled “Science of Fermentation—An Authentic Innovation since Ancient Times.”



Having different climates, topographies and cultures, Japan and France have over long years developed fermentation techniques in their own unique ways. Against that background, this Forum was held to explore and advance the common theme of fermentation science through a series of five sessions: Synthetic biology to improve fermentation, Bioethanol, Genetic engineering and fermentations, Lactic acid fermentation, and Fermentation through the ages. Leading the sessions were ten Japanese and French lecturers (two in each session), who reported on the latest advancements in their sessions’ fields. They pursued their subjects from diverse angles in ways that envisaged future advances and vistas in fermentation science, which spawned spirited rounds of Q&A and opinion exchanges.

Joint Seminar Held on Urban Issues with British Academy

On 27 January, a seminar, titled “Growing Cities, Divided Cities?,” was held at the British Academy in London. It was jointly sponsored by the Academy and the JSPS London Office. The two organizations planned and carried out this seminar for the purpose of promoting expanded collaboration in the social sciences between Japan and the UK. Bringing together social scientists from both countries, the event gave them an opportunity to delve deeply into and discuss urban issues across the world.



The seminar’s opening remarks were delivered by Prof. Peter Kornicki, who chairs the British Academy’s East and Southeast Asia Area Panel and is an authority in the field of Japan research. He was followed by Prof. Danny Dorling of the University of Oxford, who delivered the keynote speech. Using various data showing the scale of economic inequality within countries and its impact on the quality of life in them, Prof. Dorling addressed such subjects as “social cohesion” and “sustainability” in talking about a wide range of issues impacting Japan’s and Britain’s metropolises.

Three sessions were held during the event, themed The Economy of Cities and Regions, Cities and Social Cohesion, and How Do We Make Cities More Sustainable? Top-notch researchers adorned the lineup of session speakers. The London Office had

Superbly coordinated by UBFC professor Dr. Hervé Alexandre and University of Tokyo professor Dr. Yasuo Ohnishi, and supported by former JSPS fellow Dr. Jean Suisse, the Forum drew an audience of 66 Japanese and French participants.

For more details, please see the following website:
<http://jspss.unistra.fr/visites/forum-workshops/2015/#c68080>

JSPS Strasbourg Office

Japan-France Year of Innovation

This Forum was held as one of the early events of the Japan-France Year of Innovation, which began from October 2015. Held jointly by France and Japan, the Year provides an opportunity to invigorate bilateral scientific exchange, while advancing its main purpose of widely transmitting the power of innovation between and within the two countries. Not stopping with scientific fields, joint projects to be carried out on innovation during the year will crosscut a wide spectrum of domains, opening up new prospects for collaboration in interdisciplinary research between the two countries.



invited two vibrant researchers from Japan: Prof. Shunsuke Managi, distinguished professor, Department of Urban and Environmental Engineering, Kyushu University, and Dr. Kentaro Nakajima, associate professor, Graduate School of Economics and Management, Tohoku University. Also included in the lineup were Dr. Mayumi Hayashi, Leverhulme Early Career Fellow, Institute of Gerontology, King’s College London, and Dr. Noriko Cable, senior research fellow, Department of Epidemiology & Public Health, University College London, both Japanese researchers based in the UK and members of the London Office’s JBUK network. They were joined by Prof. Eckart Lange, University of Sheffield, who is a member of the JSPS Alumni Association of the UK and the Republic of Ireland. These speakers from the Office’s network of researchers led the discussion on such topics as sustainable infrastructure, advantage of mega-cities in pursuing intellectual activities, and the issue of aging populations in urban areas.

Not limited to strictly urban issues, there are many social issues of shared interest and concern between the UK and Japan. In collaboration with the British Academy, JSPS London will take up these social issues, and, while vigorously addressing them, work to expand exchange among researchers in fields of the social sciences.

As a footnote, the British Academy is the UK’s leading authority covering areas of the humanities and social sciences. Having entered into a researcher exchange agreement with JSPS in 1973, the Academy nominates candidates for JSPS’s postdoctoral fellowship programs. Among JSPS’s overseas counterpart organizations, it has one of the longest histories of collaboration with us.

Further details on this seminar can be found at the following website: www.jspss.org/event/index.html

JSPS London Office

JSPS Alumni Associations



Tenth Anniversary Event Held for JSPS Alumni Club in Sweden

On 14-15 January, two events were held to celebrate the tenth anniversary of the JSPS Alumni Club in Sweden (SAC): a meeting of the Sweden-Japan Academic Network and a commemorative symposium. Convened consecutively, the two events served to affirm the close relationship enjoyed between Sweden and Japan while providing an opportunity to reinforce collaboration between the two countries.

Leading off this commemorative program, a meeting was held on the 14th of the Sweden-Japan Academic Network at the Royal Swedish Academy of Sciences (KVA), cosponsored by the JSPS Stockholm Office, the Embassy of Japan in Sweden, and KVA. The fourth in the series since 2012, the meeting was attended by about 90 participants.

Comprising Japanese researchers working in Sweden, former JSPS fellows, Swedish researchers interested in Japan, and Swedish students on Japanese government scholarships, among others, Sweden-Japan Academic Network meetings are held to build and strengthen networks among Japan-related researchers and to promote exchange between Sweden and Japan.

At the meeting, third KVA vice president Prof. Dan Larhammar and JSPS executive director Mr. Takaaki Iwasa gave opening remarks, followed by keynote lectures from Dr. Kojiro Nishina, professor emeritus, Nagoya University, and Prof. Karl Grandin, director, KVA Center for History of Science. After the lectures, a reception was held. Kicked off by remarks from Mr. Jun Yamazaki, ambassador, Embassy of Japan in Sweden, it gave the participants an opportunity to engage in a spirited exchange of views.

Then on the 15th, the symposium to commemorate the tenth anniversary of SAC was held by the Stockholm Office and the Alumni Club at the Royal Institute of Technology (KTH). Themed “The Exchange History of Swedish and Japanese Researchers and Its Future,” the event drew an audience of about 40 participants.

The symposium began with remarks from Mr. Iwasa and a speech by SAC board member Prof. Göran Thor (Swedish University of Agricultural Sciences). They were followed by keynote addresses

from Prof. Nishina and Dr. Stefan Ekman, senior curator at the Museum of Evolution, Uppsala University, and a series of lectures delivered by Prof. Imre Pazsit, Chalmers University of Technology (CUT); Assistant Prof. Elin Palm, Linköping University; Prof. Janne Wallenius, KTH; Prof. Tomoko Nakanishi, University of Tokyo; Dr. Catharina Blomberg, Stockholm University; Prof. Mohammad Asadzadeh, CUT; Prof. Emeritus Lars Bohlin, Uppsala University; Prof. Lars Öhrström, CUT; and Prof. Carl-Henrik Heldin, director of Ludwig Institute for Cancer Research’s Uppsala Branch and chairman of the Nobel Foundation.



The symposium also featured group discussions on the theme “Future of JSPS Alumni Club in Sweden.” The participants divided up into four groups to explore and swap views on the alumni association’s future avenues and vistas. In the following reception, echoes of this discussion could be heard in the conversations that the participants enjoyed with each other.

More information can be found on this symposium at the following website: www.kva.se/SwedenJapan2016

JSPS Stockholm Office



US JSPS Alumni Association Held Symposium and General Assembly

The US JSPS Fellows Alumni Association (AA) held its sixth Multidisciplinary Science Forum (MSF6) on 6 November at the University of California, Davis, followed by its annual assembly on the next day. The advances presented at the symposium were made through highly interdisciplinary collaborations across a spectrum of physics, mathematics, social science and humanities, biology, medical sciences, chemistry, and engineering. Attracting more than 60 participants including students, the symposium energized a spirited crisscrossing exchange of views among them.



The symposium opened with remarks by AA chair Dr. Shamim Mirza, after whom MSF6 host Dr. Christoph Lossin, UC Davis, welcomed the participants. They were followed by messages from JSPS Washington Office director Dr. Mitsuaki Nozaki and UC Davis associate vice chancellor Dr. Paul Dodd.

Among symposium’s lineup of the prominent speakers, Dr. Daishiro Nomiya, Chuo University, gave a stimulating talk on

the theme, “Globalizing Mentality?: Comparing Mental Maps in Two Anti-Nuclear Campaigns in Japan,” in which he compared the two anti-nuclear campaigns that took place in 1954 and 2011 and delineated the differences in their motivational sources. He concluded that the 2011 campaign was primarily driven by children’s health and environmental factors, while the rallies in 1954 drew their impetus from a collective memory of Hiroshima and Nagasaki and concern about food safety. Other invited speakers from Japan included Prof. Toshiya Sakata, University of Tokyo, who talked on the subject, “Semiconductor-based Biosensing Technology for Clinical Diagnosis.” The US speakers featured Prof. Toshiaki Tajima, University of California at Irvine; Dr. Alwyn Lim, University of Southern California; Dr. Alex Merrick, National Toxicology Program; and Dr. Saw Hla, Argonne National Laboratory.

On the following day, the alumni association held its general assembly, at which the members reviewed its annual activities and a special committee, established at the last annual meeting, delivered a report on the association’s strategic plan, which addressed issues such as membership growth and program sustainability. They agreed to establish two new committees: Publication Committee and Fund Raising Committee.

For the speakers’ abstracts and more information on this symposium, please visit the following website: www.jpsus-aa.org/meetings/6th-msf

JSPS Washington Office



Nepal JSPS Alumni Association Holds Launching Ceremony



On 21 January, the Nepal JSPS Alumni Association (NJAA) convened a ceremony to launch its program and held its first scientific symposium. The event was venues at Hotel Himalaya in Lalitpur City, Nepal.

The group of former JSPS fellows held their first preparatory meeting in February 2014 and launched a taskforce to lay the groundwork for the establishment of their alumni association. Since then, they held meetings every months to prepare the association's constitution, activity plan and executive organization. The association was officially registered with the Lalitpur Government in December 2014.

Despite the great Nepal Earthquake of April 2015, the alumni forged ahead with resolute enthusiasm in launching NJAA as JSPS's fifteenth official alumni association.

The inaugural meeting started off with a traditional Nepalese ceremony led by Prof. Dr. Jiba Raj Pokharel, vice chancellor of Nepal Academy of Science and Technology, followed by welcome addresses from Dr. Rijan Bhakta Kayastha, president of NJAA and Dr. Yasuhiro Iye, executive director of JSPS.

The first keynote lecture was delivered by Prof. Hitoshi Ieda, director of Infrastructure Policy Program, National Graduate Institute for Policy Studies (GRIPS) under the title "Evolution of Infrastructure and Social Systems Pushed Forward by Great Natural Disasters." Introducing large natural disasters that have occurred in Japan in the modern period, Prof. Ieda explained that human action exerted in response to such calamities has hinged upon their scale. Whereas natural disasters are tragic, he said they can have a silver lining in that they spawn legislative action that accrues to increasingly stronger and safer societal systems.

His lecture was followed by remarks from Dr. Kishore Thapa, expert member of National Reconstruction Authority of Nepal; Mr. Kedar Bhakta Mathema, former vice chancellor of Tribhuvan University; Mr. Tsutomu Shimizu, chief representative of JICA Nepal Office; H.E. Mr. Masashi Ogawa, Ambassador of Japan to Nepal; and Prof. Dr. Jiba Raj Pokharel.

The afternoon session began with Dr. Iye presenting JSPS alumni badges to the NJAA members.

Then, NJAA's first scientific symposium was held on the theme "Towards Sustainable and Resilient Development in Nepal." In it, three speakers delivered presentations from their varied perspectives on a common theme, "Disaster and reconstruction." They were Dr. Kishore Thapa, who spoke on the subject "Reconstruction strategy for rural and urban housing," Dr. Surya Raj Acharya, NJAA executive member and president of Institute for Development and Policy Studies, and Dr. Ranjan Kumar Dahal, NJAA vice president and associate professor of Geodisaster Research Center, Tribhuvan University. In the ensuing Q&A session, they fielded volleys of questions pitched from various research perspectives.

Lastly, a presentation was given by JSPS Bangkok Office director Prof. Kuniaki Yamashita on JSPS and its international programs, such as its postdoctoral and invitational fellowships and RONPAKU dissertation PhD program. These programs piqued the attention of young Nepalese researchers, who asked many questions about them in the closing stage of the symposium and during the reception.

In future months and years, NJAA will carry out an active agenda of annual scientific symposiums, workshops and JSPS-briefing seminars to promote vibrant academic exchange between Nepal and Japan.

JSPS Bangkok Office



Essay by a Former Fellow

Dr. Saliu Alao Amolegbe

My interaction with Japan began in 2012 when I was awarded a Matsumae International Foundation (MIF) fellowship.

To pursue my academic endeavors, I originally chose Japan because it is top tier in my area of research and development. My fruitful relationship with Japan continued to unfold during the two years of my JSPS postdoctoral fellowship, which started in 2013 with my host Prof. Shinya Hayami at Kumamoto University.

During my stay in Prof. Hayami's laboratory, I was able to acquire sound research techniques for spin crossover metal complexes, and fortunately had an opportunity to lead a new research project that focused on mesoporous silica nanomaterial for an antimalarial and HIV/AIDS drug delivery system. As a milestone in my fellowship tenure, in January 2016 the journal *Royal Society of Chemistry* accepted an article authored by our team on nanomedicine.

What I enjoyed most during my JSPS fellowship was the family-like warm atmosphere and sincere support of my host laboratory. The two Science Dialogue lectures I gave to Japanese high school students were for me an utterly unique and fascinating experience, particularly in the way the cross-cultural exchange between me, a Nigerian researcher, and the curious young Japanese students played out.

Now back in Nigeria, although I miss the good-hearted people whom I luckily got to know in Japan, I have started the next step in my career, living together with my family. I have been assigned the post of senior lecturer in the chemistry department at Federal University of Agriculture, Abeokuta (FUNAAB), in which I have resumed my research in the areas of material science, bioinorganic chemistry and bio-coordination chemistry. In the near future, I wish to visit Japan again and refresh my relationship with your lovely country and kind, caring and clean people.

Introducing WPI Centers

vol. 9



WPI (World Premier International Research Center Initiative) is a program for building globally visible, top world-level research centers.



Creating Predictive Materials Science through Interaction with Mathematics

The values of humans and the structures of society have developed with the support of materials. This is readily seen in society's historical progress—for example, iron changed agriculture and industry while silicon made possible the present IT society. Development of new functional materials is a critical key to generating the next innovations and assuring a prosperous future.



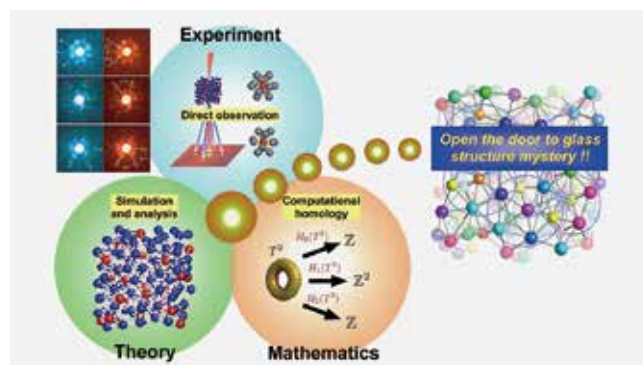
Motoko Kotani, director of AIMR

The Advanced Institute for Materials Research (AIMR) at Tohoku University is one of the initial WPI centers launched in 2007. It is tackling the creation of predictive materials science in an effort to design new materials through a pioneering collaboration with theoreticians and mathematicians. Currently, materials science is fundamentally empirical; that is, a huge number of samples with various chemical compositions and conditions (e.g. heating temperatures, pressures) are tested to find the best composition and optimum conditions for obtaining materials that express desired functions. Even with such empirical science, researchers feel satisfied when they discover new materials or phenomena. However, if the role of materials science is to develop new materials required by rapidly advancing society, we need to find more efficient ways to develop them in a shorter time. Accordingly, theoretical analyses and sophisticated models are needed to design advanced materials. Of course, theoretical researchers have already put much effort into building such a theoretical framework; however, new ideas that can spawn breakthroughs are desired if the next steps of innovation are to be achieved.

AIMR saw mathematics as being a new component of this research framework, so it started *mathematics-materials science* collaboration, inviting a prominent mathematician, Dr. Motoko Kotani, to be the director of the institute. Mathematics provides a language common to all scientific fields and has the power to abstract common principles underlying complicated phenomena. Currently, the number of pure and applied mathematicians and theoretical physicists/chemists belonging to AIMR's

Mathematical Science group makes up about 20 percent of the institute's researchers (which totals about 140 members). The mathematicians and experimental materials scientists live together in the same building. Every day, they discuss their collaborations and share experimental data and theoretical models. One of the salient results of this collaboration at AIMR has been the solution of a mystery puzzling scientists over half a century, namely, revealing the structure of metallic glass. With a combination of state-of-the-art experimental techniques (e.g. high-resolution electron microscopy) and a mathematical tool (persistent homology), the researchers succeeded in discovering the disordered icosahedral configuration of atoms in metallic glass, and they published an article in *Science* on this breakthrough.

The progress being made in our challenging research is attracting wide attention. In December 2015, a monograph series focusing on our mathematics-materials science collaboration made its debut. "As our efforts steadily bear fruit, I believe that this wellspring of research will gush forth into a flowing stream of progress in materials science," said AIMR director Dr. Kotani. Indeed, AIMR is opening up a new field of materials science, which is sure to contribute to society by creating new and innovative materials.



Elucidation of the structure of metallic glass by collaboration between experimental works using state-of-the-art techniques and mathematics

Dr. Daniel Packwood



Daniel Packwood

2010: Ph.D. (Chemistry) University of Canterbury
 2010–2012: JSPS Postdoctoral Fellow (for overseas researchers), Department of Chemistry, Graduate School of Science, Kyoto University
 2012–present: Assistant Professor, Advanced Institute for Materials Research (AIMR), Tohoku University
 2014–present: Researcher, Japan Science and Technology Agency (PRESTO)

Dr. Packwood joined AIMR in 2012 as an assistant professor. He was born in New Zealand and studied chemistry at the University of Canterbury. Before coming to Tohoku University, he spent two years as a JSPS postdoctoral fellow at Kyoto University. His current research focus is on Monte Carlo simulation and stochastic models for problems in chemical physics. He belongs to AIMR's Mathematical Science group. Through that collaboration and his own research, Dr. Packwood is playing a key role as an "interface researcher" who bridges the gap between mathematicians and materials scientists. At AIMR, mathematicians, theoretical physicists, and theoretical chemists are given ready access to state-of-the-art experimental laboratories. He commented, "We can obtain high-quality experimental data whenever needed and immediately check our theoretical models, providing direct experimental feedback to the model building process. I am lucky to work in such an excellent research environment." At AIMR, about 70 researchers come from abroad (accounting for about 50 percent of all its researchers). They are working in a wide spectrum of fields from basic science, including direct observation of atoms and molecules, to applications such as electronic devices and micro electro mechanical systems (MEMS). The interaction between materials science and mathematics varies greatly across research fields, which is one of AIMR's unique characteristics.

For more detailed information about AIMR, please visit its website: www.wpi-aimr.tohoku.ac.jp

Science Dialogue

Scientific Venture of a Vietnamese Fellow in Japan Dr. Nguyen Thanh Tung



On January 28, Dr. Nguyen Thanh Tung visited Shizuoka Kita High School to give a lecture under JSPS's Science Dialogue program to 70 first-year, science & mathematics students. Hailing from Vietnam, he is currently carrying out research in the field of applied physics at RIKEN. Dr. Nguyen popped into the classroom on that sunny winter day asking a magical question: "Can science make an invisibility cloak?" He explained to the puzzling students how it could actually be possible.

Harry Potter's cloak of invisibility

In his lecture, Dr. Nguyen described his research topic "meta-materials," giving as an example the fantasy story *Harry Potter*. In it, Harry wears a special cloak to make himself invisible.

To make something invisible he told the students, the object's refractive index must be changed in accordance with its shape. He explained that the refractive index of materials existing in the natural world is fixed and unchangeable; for example, the refractive index of water being 1.333. However, a refractive index can be changed at will with meta-materials, which are totally artificial having properties not found in nature.

He, then, showed how an invisibility cloak can look using some recent outcomes in meta-materials research, including an invisible block and invisibility carpet. He explained that meta-materials can now be made flexible and thin enough to compose a small object. With present technology, he said, only an object with at most a 4 cm² area can be materialized. This would obviously be too small to make Harry Potter disappear. Undaunted, Dr. Nguyen said, "We will be able to make an invisibility cloak in the near future." The cloak in the Harry Potter story is no longer fictional.

After his lecture, Dr. Nguyen told us that his participation in the Science Dialogue program was very meaningful. In everyday life he said, the distance between students and scientists is quite wide. Through this program, students are able to learn what scientists are doing and to enjoy close encounters with the processes and results of scientific research.



The following fellows participated in JSPS's Science Dialogue Program during the period from October through December 2015. For details about the program, please see its website: www.jsp.go.jp/english/e-plaza/e-sdialogue/

Overseas Fellowship Division

Venue	Lecturer	Nationality
Iwate Prefectural Kamaishi High School	Alexander T. Taguchi	USA
	Carl Frederik B. Werner	Germany
Iwate Prefectural Mizusawa High School	Yuvaraj Sivalingam	India
Ibaraki Prefectural Ryugasaki Daiichi Senior High School	Farag M. Malhat	Egypt
Seishin Gakuen High School (Ibaraki)	Quintin Lau	Australia
	Rong-Jia Wei	China
Tochigi Prefectural Utsunomiya Girls' Senior High School	Joydeep Chakraborty	India
	Chin-Yu Lin	Taiwan
	Elizabeth M. Sheedy	Australia
Gunma Prefectural Takasaki Girls' High School	Laszlo Stuhl	Hungary
Chiba Municipal Chiba High School	Aksara Thongprachum	Thailand
	Gopalakrishnan Kumar	India
Ichikawa Gakuen Ichikawa Senior High School (Chiba)	Nicola A. Clark	UK
	Aurelien D. Kerever	France
	Anthony A. Robson	UK
	W. M. C. Sameera	Sri Lanka
	Chitra Shukla	India
	Isaac Theurkauff	France
	Aboulaye Traore	Mali
	Jessica Soraya Pineda Zumaran	Peru
Junior and Senior High School at Komaba, University of Tsukuba (Tokyo)	Mary Antonette A. Beroya-Eitner	Philippines
	Kristopher S. Mceown	Canada
	Sira Sriswasdi	Thailand
Tokyo Metropolitan High School of Science and Technology	Aymeric M. Ramiere	France
Tokyo Metropolitan Tama High School of Science and Technology	Jamie M. Cameron	UK
Tokyo Metropolitan Toyama Senior high School	Gleb Veryasov	Russia Federation
Toshimaoka Joshi Gakuen High School (Tokyo)	Tuula M. Jyske	Finland
Kanagawa Prefectural Atsugi High School	Amaury Delamarre	France
Niigata Prefectural Takada High School	Michal J. Joachimczak	Poland
	Clemens P. Poppe	
Toyama Prefectural Toyama Senior High School	Netherland	Pakistan
	Shabbir A. Khan	

Venue	Lecturer	Nationality
Fukui Prefectural Fujishima Senior High School	Jagannath Mallick	India
Fukui Prefectural Koshi Senior High School	Christian Auel	Germany
Yamanashi Prefectural Hikawa High School	Shih-Wei Hung	Taiwan
Yamanashi Prefectural Kofu First High School	Ivan Deseatinicov	Moldova
Yamanashi Prefectural Kofu Minami Senior High School	Jianqiao Wang	China
Nagano Prefecture Suwa Seiryu Senior High School	Shiguang Pan	China
Gifu Prefectural Kamo Senior High School	Tinh Q. Bui	Vietnam
	Facun Jiao	China
Shizuoka Prefectural Iwata Minami High School	Chia Wen Lin	Taiwan
Shizuoka Prefectural Nirayama High School	Mariko E. Dacher	France
Aichi Prefectural Kariya High School	Hsin-Yi Chang	Taiwan
	Gabriele Trovato	Italy
Aichi Prefectural Okazaki Senior High School	Muhammad S. Anwar	Pakistan
	Claire M. Perfetti	France
	Isabelle M. Vea	France
Aichi Prefectural Zuiryo High School	Primoz Pirih	Slovenia
Nagoya Municipal Koyo Senior High School (Aichi)	Barna Pall-Gergely	Hungary
Kyoto Prefectural Jonan Ryoso High School	Mohammad H. Al Assadi	Australia
	Paul P. Brooks	UK
Kyoto Prefectural Yamashiro High School	Arnau S. Carne	Spain
	Vikas S. Padalkar	India
	Francesco Eugenio Barbieri	Italy
Hyogo Prefectural Akashikita High School	Miklos Palfia	Hungary
Fukuyama Senior High School Attached to Hiroshima University (Hiroshima)	Marco Pellitteri	Italy
Kagawa Prefectural Takamatsu Sakurai High School	Florent M. Duval	France
	Mengjio J. Wirmvem	Cameroon
Fukuoka Prefectural Meizen High School	Chi Cheng	China
	Damee Choi	Korea
	Ahmed M. Mohamed	Egypt
	Soma Purkait	India
Kumamoto Prefectural Takamori High School	Ram K. Duwal	Nepal
Miyazaki Prefectural Nobeoka High School	Katie R. Ryan	UK
Ikedagakuen Ikeda Junior-Senior High School (Kagoshima)	Minh N. Le	Vietnam

Research and Life in Japan by a JSPS Fellow (No. 37)

Dr. Barbara Geilhorn

Study of Japan's Contemporary Theatre after Fukushima

JSPS Postdoctoral Fellow, Waseda University, 2014-present
Lecturer, Japanese Studies, Freie Universität Berlin, Germany, 2009-2014
Lecturer, Japanese Studies, University of Trier, Germany, 2007-2009
Ph.D. (Japanese Studies), University of Trier, Germany, 2008



Hailing from Germany, Dr. Barbara Geilhorn is conducting research with her host professor Dr. Mikio Takemoto at Waseda University under a JSPS Postdoctoral Fellowship. We asked her about her research and life in Japan.

Q: May we start by asking you why you chose Japan to pursue your research?

Actually, this is my fourth long-term and my longest visit to Japan during my academic career so far. The first time, I spent one year at Waseda University during my master's study at Freie Universität Berlin. I came to take a Japanese language course and conduct a research material collection for my master thesis on *kyogen*, a form of traditional Japanese comic theatre. My second and third long-term visits were during my PhD study at University of Trier on women performers of *Noh*, a major form of classical Japanese musical drama. Both visits were funded by German agencies. Now, I am back to Waseda University.

Throughout my academic years, I have tried to come to Japan as much as possible to maintain and refresh my relationships with colleagues and friends. Keeping in close and direct contact with Japanese people is crucial to advancing my cultural studies. For my study of contemporary Japanese theatre, to which I am currently devoted, Japan, especially Tokyo, is the most ideal place to pursue my work, because very few Japanese contemporary theatre troupes visit Europe. Although international tours of Japanese theatrical groups have been increasing over the last decade, there is obviously no way that I would be able to see a performance every week in Europe! More than just library materials, my research requires me to regularly observe actual Japanese theatre performances.

Q: How did you get to know your Japanese host researcher?

During my MA study, I became a member of a joint research project with Waseda University on *Noh* theatre during the Meiji period (1868-1912) and Taisho period (1912-1926). My current host researcher, Prof. Dr. Mikio Takemoto, was one of the principal investigators in that project. He is very open-minded and helpful to foreign students like myself, and provided me with a

lot of helpful guidance in my research pursuits, including introducing me to many other *Noh* scholars. I kept close contact with him over the years after finishing my post-graduate field research in Japan.

Q: When and how did you come in contact with your research subject?

My current JSPS fellowship research topic is "Negotiating Nuclear Disaster—Japanese Theatre after Fukushima." However, before starting my research on such a contemporary subject, I first studied the traditional Japanese theatre. These pursuits connected me with several Japanese theatrical themes, leading up to my contemporary subject.

When the triple disaster (earthquake, tsunami and nuclear accident) happened in Fukushima, I was deeply shocked and concerned about the well-being of my Japanese friends and colleagues and the situation in the country as a whole. But, when I first came back to Japan in the summer of 2012 after that calamity, I could hardly perceive any change. It was as if a disaster of such enormous dimensions never happened. This caused me to wonder how artists had reacted to issues related to that immense natural disaster and nuclear catastrophe, so I decided to do my postdoctoral research on the activities of the Japanese theatre in the wake of Fukushima. Thus, my choice of topic was motivated by a combination of interest in socially relevant art and a desire to extend my area of research deeper into the field of contemporary theatre.

Q: Could you tell us more about your current research?

Many artists flocked to Fukushima after the earthquake in March 2011 to support local communities in one way or another. Some became active as volunteers who helped victims regain their livelihoods, others worked to clean up debris or rebuilding infrastructure. Actors and playwrights organized charity performances in Japan and overseas to collect money for the afflicted areas, and theatre companies toured evacuation centers and temporary housings to provide emotional support. In Tokyo right after March 11, there were few performances that did not take the disaster into account in some way. Directors changed parts of

their running productions; a few months later, the first plays responding directly to the disaster were put on stage.

In my study, I have placed particular focus on the theatre in Fukushima, Aomori and the Tokyo metropolitan area so as to assess how theatre people have reacted to the disasters from different distances over time. Many playwrights and directors have supported my research through interviews or by providing me with print and/or DVD materials. I have chosen to analyze a broad range of plays, both documentary and fictional, performed by internationally known troupes, such as *chelfitsch*, down to school theatre in the stricken areas.

Over the course of my study, covering both affected zones and the Tokyo metropolis, I have found that the aspects which artists choose to address depend heavily on their location, to name but one crucial factor. Productions originating in places far away from the disaster zones, such as Tokyo, tend to address issues related to 3/11 more from a national perspective. For example, Okada Toshiki's *Genzaichi* ("Current Location," 2012) is a highly political intervention even though he refers to the calamity in a rather subtle and indirect fashion. On the other hand, performances from the disaster zones, such as Onobu Pelican's *Kiruannya to Uko-san* ("Kiruannya and Uko," 2011), often raise questions of immediate relevance to people living in the disaster area while attempting to provide a space for processing trauma triggered by the catastrophe. Theatre can also help to generate empathy among people and prevent the Fukushima disaster—which is still ongoing for many victims—from being forgotten.

Q: That is very gripping, but what is the ultimate goal of your research?

My goal is getting insights into the contemporary Japanese theatre scene in general, more particularly how it reacts to the triple Fukushima disaster. So far, I have selected several theatre plays for in-depth analysis and am currently preparing journal articles. Right now, I am working on an edited volume about cultural responses to the Fukushima calamity together with a colleague from Nagoya University, which will hopefully be published this summer.

I am especially interested in the social and political relevance of the theatre with regard to recent developments in Fukushima. My research will show how Japanese theatre people express their criticisms and sensitivities on the stage. Although their approach might be less outspoken than is common for western theatre, it is nevertheless successful in getting its message across and should not be dismissed as less political or even uncritical. On the contrary, in post-disaster Japan, where direct criticism risks being rejected as *fukinshin* (indiscrete), this rather subtle, indirect approach can be considered more effective.

Q: How is your research environment facilitating your study?

My host institution, Waseda University, offers one of the best facilities in Japan to study theatre. Besides seeing as many theatrical performances as possible, I spend a great deal of time in the university's theatre museum and other libraries on the campus as they possess extensive research materials on the Japanese theatre and lots of secondary literature as well. I enjoy going to theatre festivals, which in Germany I normally would not be able to attend as they are held in the middle of university semesters. For example, while at Waseda I've had the chance to go to Festival/Tokyo and TPAM in Yokohama twice. Both are important theatre festivals as they give you a good perspective of recent trends and up-and-coming troupes in both Japanese and international theatre.

Q: What do you do outside your research work?

I greatly enjoy watching performances, even those outside my research topic. I will continue to see Kabuki, Noh, traditional musical performances like *shamisen* as long as I remain in Japan! During my last stay I practiced some Noh under the guidance of Uzawa Hisa, a senior female performer. That gave me a good opportunity to not only write about Noh but to also gain some basic experiences in performing it. Now I am studying *sanshin* (3-string shamisen), an Okinawan instrument that is often likened to a banjo.

Generally speaking, I am happy to have regular chances to meet my Japanese friends. Besides, I like going for walks in Tokyo neighborhoods, such as the Nezu area, where you can get an idea of the city's atmosphere in earlier times. And of course I like Japanese food. I am particularly a fan of noodles of every kind. In the summer I enjoy eating cold *soba*, dark noodles made from buckwheat flour. My favorite is *tororo* *soba* with grated *nagaimo* (yam). In winter I prefer *udon* (thick wheat flour noodles) in hot soup, which is very tasty and warms you up on a cold day.

Q: Please give some advice for young researchers who may be thinking about doing research in Japan?

Take up the challenge of learning at least a little Japanese before coming to Japan or during your stay there. Besides, I would like to encourage you

to look for an activity you can do only in Japan such as participating in one of your university's athletic or cultural clubs. In my case, this has been the Noh club. Doing so is highly enjoyable and gives you two advantages: one is a chance to communicate closely with Japanese people, the other is to learn about Japanese culture, which in many cases can only be learned in Japan.

Over the course of our interview with Dr. Geilhorn, we were very impressed by the way she has immersed herself both mind and soul into Japanese culture. Her research on Japanese theater is as timely as it is unique. That she would choose to investigate how the theatrical community has and continues to respond to the tragedy that struck Japan's Fukushima area bespeaks in vivid tones her fondness and compassion for the Japanese people. From an academic perspective, it is also indicative of her willingness to go down uncharted paths that lead to new discoveries, in her case both cultural and societal. We are very pleased that her research on unique aspects of Japanese theater is going well and that papers on it are in the making. We hope that her work will enjoy wide dissemination, as it will warm the hearts of the affected people in Fukushima while giving the Japanese theatrical community recognition for something wonderful, yet not well known internationally, that they are doing. All of this, while delving deeply into the theatrical culture of Japan.

Introducing Japan: Tokyo, Waseda University and Neighborhood

If you were asked to give a typical image of Tokyo, you might first think of a cold and stark mega-metropolis with unforgiving skyscrapers staring down on the streets below. However, that is just one part of Tokyo. Surrounding the hubs of skyscrapers are many charming and intricate old neighborhoods scattered about the city.

The neighborhood around Waseda University, where I live and do research, is one of those maze-like places filled with beckoning enchantments. Though located well within the city's center, the area gives you a cozy feeling with its many local restaurants, cafés, shops, narrow streets and cute gardens. The campus comprises a mix of modern architecture and a few old buildings dating back to the university's early days. Its historical assets include the Okuma Auditorium, where lectures and concerts are held and whose clock tower chimes six times a day. I personally love the Tsubouchi Memorial Theatre Museum for its great collection of art and theatre materials and its one-of-a-kind stimulating exhibitions.

Close to the campus is the Okuma Garden, named after the founder of Waseda University, Shigenobu Okuma (1838-1922). It is an

inviting place to go and relax during a lunch break. In the spring, you can enjoy viewing cherry blossoms around the campus or take a walk through Shin Edogawa Park, which runs along the Kanda River and boasts a beautiful lane of cherry trees. The Chinzanso hotel garden, known for its beautiful camellias, is also close by.

Also within walking distance is the Kagurazaka district, with lots of tiny shops offering Japanese teas and sweets, small gifts and handicrafts as well as delicious foods. Before the Second World War, the district had been a popular pleasure quarter that was *en vogue* with bohemian writers and artists. Strolling around its back alleys, you can still get a feel for those older times. Another don't-miss attraction is the Awa Odori Festival at Zenkokuji temple in the summer, in which energetic dances are performed by dancers of all generations from cute kids to the most venerable citizens.

Literally, there is no end to the cute little neighborhoods that can be explored and enjoyed in Tokyo. Clusters of them are found everywhere in the twinkling window light of skyscraping office buildings.





Cover photo:

Tanpopo (dandelion)
Thought of as an eatable weed that spawns exotic products (dandelion tea, coffee, wine, even chocolate) in the West, the *tanpopo* is depicted in Japanese *haiku* poetry as a lovely flower that heralds the budding of springtime.

About JSPS

The Japan Society for the Promotion of Science (JSPS) operates as an independent administrative institution to perform the following main functions: fund scientific research, foster researchers, promote international scientific exchange, and advance university reform.

Crowing Rooster



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.

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