



JSPS QUARTERLY

JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

FEATURE

Dr. Colwell: 2017 Recipient of International Prize for Biology

No.61 2017 Autumn



Dr. Colwell: 2017 Recipient of International Prize for Biology

Dr. Rita Rossi Colwell
Distinguished University Professor,
University of Maryland, College Park



©UM Communications Office

On 7 August, the Committee on the International Prize for Biology (chaired by Dr. Heisuke Hironaka, Acting Chairperson of Section II, The Japan Academy) decided to award the 33rd (2017) International Prize for Biology to Dr. Rita Rossi Colwell, Distinguished University Professor, University of Maryland, College Park, USA.

The field of specialization for this year's Prize is "Marine Biology." In Dr. Colwell's research work over the past 60 years, she has authored or co-authored more than 750 papers and 19 scholarly books. Her research area is relevant to such fields as marine bacterial taxonomy, physiology, and ecology, as well as to the relation between marine bacteria and human health. She established the taxonomy of vibrios, which include *V. cholerae*. She pioneered the use of DNA sequence data for classifying microorganisms, a technique well known today. She was also early to make use of numerical, polyphasic data to identify bacteria, earning high acclaim for helping to establish a foundation for today's bioinformatics analysis.

By employing these leading-edge techniques in studies of microorganisms in Chesapeake Bay on the east coast of the United States as well as in the open ocean and deep sea, she discovered that vibrios seemed to disappear in the winter and then reappear in summer. Her analysis of this phenomenon concluded that the bacteria actually continued to exist in winter months, but in what she defined as the viable but non-culturable (VBNC) state, meaning they could not grow in routine culture medium but were living cells. She pointed to the importance of this state, which continues to be a key and widely studied concept in microbiology today, even though many aspects of it remain to be elucidated. Noting that low temperatures seemed to be a main factor causing this VBNC state, Dr. Colwell suggested the possibility that global warming might lead to an expansion in the habitat range of vibrios. After analyzing

past data over a half-century period, she and her colleagues showed that in the northern Atlantic Ocean near the North American and European coasts the expansion of the habitat of plankton to which vibrios attached themselves did in fact correspond to wider outbreaks of vibrio diseases in humans. She is highly regarded for helping to extend such studies from basic natural sciences, including microbial taxonomy and ecology, to the field of medicine with its impact on human life.

In her studies in Bangladesh and elsewhere, Dr. Colwell further discovered that by using a sari, the traditional dress of women on the Indian subcontinent, to filter water from ponds and rivers before drinking, plankton was removed from the water along with *V. cholerae* attached to it. After studying the relation of filtering by sari cloth to cholera occurrences in many villages of Bangladesh, she found that simply filtering drinking water in this way greatly decreased cholera cases. Such studies on the safety of drinking water have been highly significant as health and welfare projects in developing countries.



In Bangladesh in 1979

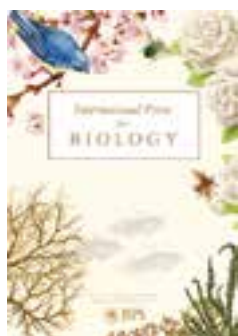
In addition to her many papers and books, Dr. Colwell has appealed to the necessity and importance of marine microbiology studies through such media as a documentary film, endeavoring to spread the knowledge and techniques required for this research field. She has also contributed actively to the advancement of microbiology research for addressing the problem of marine pollution, with its increasingly profound implications for human beings. On the educational front, Dr. Colwell has provided guidance to well over a hundred doctoral students and postdoctoral researchers, each of whom has gone on to make outstanding contributions to their fields.

She became the first female director of the US National Science Foundation, helping to promote science and technology. During her time in that post, Dr. Colwell devoted effort to supporting women and minority researchers and to building up the science education of young people responsible for the future. In addition to marine biology, she has received wide recognition for her contributions to international science and technology exchange and development. The above-noted and other accomplishments on behalf of science and society make Dr. Colwell an eminently worthy recipient of the International Prize for Biology.

For more information about the 33rd (2017) International Prize for Biology, please visit the following website:

<http://www.jspgs.go.jp/english/e-biol/index.html>

International Policy Planning Division



Presentation Ceremony

The presentation ceremony and a subsequent reception in honor of the Prize recipient are held in November or December at the Japan Academy. This year's date will be announced in due course.

Commemorative Symposium

To commemorate the award to Dr. Colwell, a Commemorative Symposium for the 33rd International Prize for Biology will be held on 5-6 December at Tsukuba International Congress Center,

co-organized by University of Tsukuba and JSPS.

Emperor Akihito and International Prize for Biology

Established in 1985, the International Prize for Biology commemorates the 60-year reign of Emperor Showa and his long devotion to biological research. It also pays tribute to the present Emperor, His Majesty, Emperor Akihito, and his scientific endeavors. The annual Prize has its beginning in a fervent desire that was voiced by biological scientists to create an international award to recognize the work of leading researchers in “systematic biology and taxonomy” and other fields of biology. The Prize now gives prestigious recognition to biologists around the world who have made superlative contributions to advancing their fields across the full spectrum of biological sciences. Adding a special dimension to the Prize’s prestige, Their Majesties, Emperor Showa and then Emperor Akihito have since the Prize’s establishment graced the presentation ceremony with their presence.



His Majesty the Emperor conducts research on gobioid fishes

As a biologist, Emperor Showa conducted research in the systematics of hydroids collected from Sagami Bay along with studies he carried out on other marine animals, seaweeds and myxomycetes, whereas Emperor Akihito’s studies have been focused on the taxonomy of fishes in the suborder Gobioidae.

Between 1963 and present, Emperor Akihito has published a total of 28 original papers on his research in journals of the Ichthyological Society of Japan. For example, of the three known Japanese species of the genus *Cristatogobius* (family Gobiidae) —Kuro-tosakahaze,

Tosakahaze, and Hime-tosakahaze—the latter two were known only by their Japanese common names. As a result of his studies, Emperor Akihito identified the Tosakahaze as *Cristatogobius lophius* Herre and described the Hime-tosakahaze as a new species, *Cristatogobius aurimaculatus*. He also coauthored a paper that estimated the evolutionary process in gobioid fishes using mitochondrial DNA and that compared those findings with phylogenetic relationships based on morphology. This study appeared in *Gene*, an international journal on genetics published in the Netherlands.

For his work in ichthyological research, Emperor Akihito was invited in 1980 to be a foreign member of the Linnean Society of London. In 1986, he was elected as an honorary member of the Society. He is also an honorary associate of the Australian Museum, an honorary member of the Zoological Society of London, and a permanent honorary member of the Research Institute for Natural Science of Argentina. In 1998, he became the first recipient of the King Charles Second Medal, awarded by the Royal Society of London to heads of state who have made outstanding contributions to the advancement of science.

In 1992, when the American journal *Science* published a special issue on Japan, the editors requested Emperor Akihito to contribute an article titled “Early Cultivators of Science in Japan.” Also, an excerpt of a keynote lecture, titled “Linné and Taxonomy in Japan,” that he gave at the Linnean Society of London in 2007 was published in the British scientific journal *Nature*.



Enjoying pleasant conversation with Dr. Yoshinori Ohsumi, the 31st prize awardee



Prize Medal

As seen to the left, the medal of the International Prize for Biology bears an abstract design based on part of a colony of Clathrozoonia, particularly of the species *Pseudoclathrozoonia cryptolarioides* described by Emperor Showa.

Designer: Sagenji Yoshida
(Professor Emeritus, Tokyo National University of Fine Arts and Music)



Pseudoclathrozoonia cryptolarioides



6th Annual Meeting of the Global Research Council



©Cynthia Münster – Münster photography (all photos)

On 29-31 May, the 6th Annual Meeting of the Global Research Council (GRC) was held in Ottawa, Canada. The GRC is a high-level forum that brings together the heads of research councils (HORCs) from around the world. Attending this year's meeting were 54 heads of research-promotion organizations from 47 countries and two international agencies. Under the leadership of the Natural Sciences and Engineering Research Council of Canada (NSERC) and the Peruvian Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica (CONCYTEC), they advanced discussions on two themes: "The Dynamic Interplay between Fundamental Research and Innovation" and "Capacity Building and Connectivity among Granting Agencies Worldwide." Papers on best practices in these areas were selected and shared, and the results of the discussions were compiled into two Statements of Principles to be promulgated for the purpose of enhancing the GRC-members' research-funding policies and systems.

The Next GRC Annual Meeting

Venued in Moscow, next year's annual meeting is scheduled to be held in or around May. It will be convened jointly by the Russian Foundation for Basic Research (RFBR) and the National Research Foundation of Korea (NRF). During the preceding year, five regional GRC meetings will be held in the Americas, Europe, Sub-Saharan Africa, the Asia-Pacific, and the Middle East/North Africa. Discussions advanced in them will be reflected in the agenda of the GRC annual meeting.



Dr. Yuichiro Anzai, chair of the Governing Board

Dr. Mario Pinto, president, NSERC

The Future and Role of the GRC

This year's annual meeting marks the sixth year since the GRC was first established. During this entire period, JSPS president Dr. Yuichiro Anzai has participated actively in the GRC program as a member of its Governing Board. Serving as the chair of this GRC decision-making body over the last two years, Dr. Anzai has played a leading role in shaping the GRC's operation. To make the GRC even more instrumental in coalescing the world's science-promotion organizations around common global issues related to research funding and scientific advancement, new initiatives, such as creating a more comprehensive GRC website, for strengthening information sharing are planned. In this process as well, JSPS will continue to proactively contribute to advancement of the GRC program.

For more information on the GRC, please visit its website:
<http://www.globalresearchcouncil.org/>

International Policy Planning Division

GRC Annual Meetings: Year, Venue and Achievements

2nd Meeting

2013 Berlin, Germany

"Statement of Principles for Research Integrity"
 "Action Plan towards Open Access to Publications"

3rd Meeting

2014 Beijing, China

"Statement of Principles and Actions for Shaping the Future:
 Supporting the Next Generation of Researchers"

6th Meeting

2017 Ottawa, Canada

"Statement of Principles:
 The Dynamic Interplay
 between Fundamental
 Research and Innovation"
 "Statement of Principles:
 Capacity Building and
 Connectivity among
 Granting Agencies
 Worldwide"

5th Meeting

2016 New Delhi, India

"Statement of Principles on Interdisciplinarity"
 "Statement of Principles and Actions Promoting the
 Equality and Status of Women in Research"

4th Meeting

2015 Tokyo, Japan

"Statement of Principles
 for Funding Scientific
 Breakthroughs"
 "Statement of Approaches:
 Building Research and
 Education Capacity"

1st Meeting

2012 Washington D.C., USA

"Statement of Principles for Scientific
 Merit Review"



5th World Conference on Research Integrity



On 28-31 May, the 5th World Conference on Research Integrity (WCRI) was held in Amsterdam, the Netherlands. This international conference on research integrity, ethics and compliance has been held four times in the past in Portugal (in 2007), Singapore (in 2010), Canada (in 2013), and Brazil (in 2015). JSPS executive director Dr. Yasuhiro Iye represented JSPS at this year's conference, which was attended by about 800 people from some 53 countries.

At the conference, Dr. Iye spoke on the topic "Promotion of Sound Research Activities—JSPS's Approach," in which he introduced JSPS's operation including its Grants-in-Aid for Scientific Research (called *Kakenhi*) and described the positioning of research ethics education within both Japan and the implementation of JSPS's



Dr. Iye

programs and policies as a research funding agency. In that context, he introduced the JSPS-edited book *For the Sound Development of Science—The Attitude of a Conscientious Scientist* (called the *Green Book*) and JSPS's e-Learning Course on Research Ethics (abbreviated eL CoRE). After his presentation, Dr. Iye fielded several questions about JSPS's research ethics initiatives, including what tentative measures could be taken when misconduct in grant-funded research is suspected.

At the conference, funding agencies from Canada, the Netherlands, Belgium and several other countries reported on the state of their research integrity programs. JSPS considers opportunities like this one to be very valuable, as they allow it to share information on state of actions being taken in Japan while exchanging information with the funding agencies of other countries.

The meeting issued a statement, called the "Amsterdam Agenda," which sets a policy for collecting, analyzing and verifying cases of studies on research integrity and extracting from them elements that can be used to promote greater integrity in research on a global scale. It enunciates an intention on the part of the WCRI to support further research on research integrity and apply its results to policy initiatives.



Amsterdam

The next WCRI is scheduled to be venues in Hong Kong and jointly held by Hong Kong and Melbourne.

Research Integrity Office

Introducing the *Green Book* and e-Learning Course on Research Ethics

JSPS has created and released two sets of tools for research ethics education in both Japan and other countries around the world.

Called the *Green Book*, the English-titled book *For the Sound Development of Science* (see image to left) is directed to researchers in all fields of the natural sciences, humanities and social sciences. It is meant to edify and inform them on matters related to research ethics while compiling a broad scope of working knowledge in such areas as conducting research activities and reporting research results.

The digital tool "e-Learning Course on Research Ethics (eL CoRE)" provides researchers with an online opportunity to acquire a thorough knowledge of research ethics principles and practices without time or location constraints.

Like the *Green Book*, eL CoRE gives scientists engaged in all fields of research, including the humanities, social sciences and natural sciences, guidance on essential points of conduct in carrying out their research activities. Contained in it are what researchers should know and bear



in mind when conducting research, including a code of ethics, a code of conduct, methods of presenting research results, and the appropriate use of research funds.

Text versions of the *Green Book* and eL CoRE are available online at the following website:

<https://www.netlearning.co.jp/clients/jspss/top.aspx>

JSPS Summer Program



Summer Program 2017 Poster



On the excursion to Kamakura

Attended by 115 young pre- and postdoctoral researchers from the US, UK, France, Germany, Canada and Sweden, the 2017 JSPS Summer Program, cosponsored by SOKENDAI (The Graduate University for Advanced Studies), was held over a two-month period from 13 June to 23 August.

Featuring a research internship for the participants at host institutions, the program began with a one-week orientation held in the seaside town of Hayama. At it, the fellows received special lectures, gave poster presentations, attended classes in Japanese language learning, participated in a group discussion, engaged in Japanese culture activities, and experienced Japanese living through homestay with a Japanese family. This year, an excursion

to Kamakura, a historical town with many temples and shrines, was newly added to the orientation session. Fellows enjoyed a visit to the Great Buddha (Daibutsu) and the famous Hachimangu shrine, to which some 3 million people visit during the New Year's period alone.

After the orientation, the participants went their separate ways to their respective host institutions. Their summer internship afforded them an experience upon which to consider coming back to Japan to do research at future junctures in their careers. On the day before the program ended, the young researchers reassembled to present reports on their summer research activities.

Overseas Fellowship Division

The centerpiece of the JSPS Summer Program is the fellows' internship at a host research institution, where they take part in research activities with frontline Japanese researchers in their respective fields. The following are comments offered by two of the fellows on their research and cultural experiences during the Summer Program.

Mr. Louis Anthony Buccella

(MA student, University at Buffalo, USA) at University of the Ryukyus
His host: Dr. James Reimer



Mr. Buccella (left) with his host Dr. Reimer

Japan is one of the most beautiful places, filled with the kindest of people. The orientation staff made the transition easy, while also making it fun and rewarding. I am so grateful to have spent my homestay weekend with the Anzai's, who made me feel like part of their family. They even took me fishing on their boat! I was once again graciously welcomed at my host institution. Despite their busy schedules, my host researcher and his lab members helped me get settled in, showed me around, and are currently helping me with my fieldwork collecting some coral colonies around Okinawa! I feel so blessed to be able to conduct my research in such a beautiful place with these amazing people!

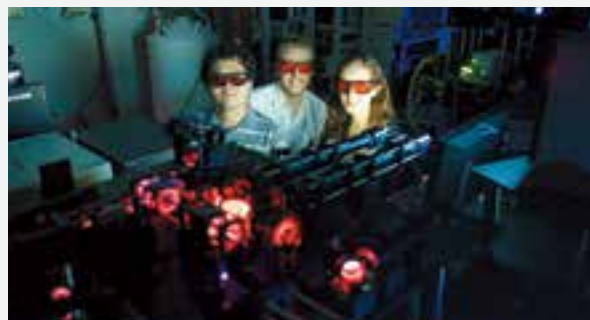
Ms. Helen Phoebe Springbett

(PhD student, University of Cambridge, UK) at the University of Tokyo
Her host: Dr. Mark Holmes



Ms. Springbett (right) with her host Dr. Holmes

Japan is a country of contrasts, and there hasn't been a dull moment since I arrived in this beautiful country three weeks ago! The JSPS Summer Program has provided me a wonderful opportunity to experience a wide range of what Japan has to offer from amazing food and welcoming people to the cutting edge scientific research in our lab, ranked among world-leading research institutes. Here in Tokyo, I am working on using photoluminescence to measure single photon emission from the quantum dot samples we have grown and characterized in Cambridge. I am relishing learning a new technique, and the data we are collecting has provided new and exciting insights.



Dr. Shinya Yamanaka Delivers Lecture in Berkeley



On 16 May, the JSPS San Francisco Office hosted a lecture by the Nobel laureate Dr. Shinya Yamanaka (Director, Center for iPS Cell Research and Application (CiRA), Kyoto University), which he delivered in Japanese on the theme “From Basic Research to Industry-Academia Collaboration.” Venued at Berkeley City Club, the event was attended by nearly 200 people, including Japanese researchers, businesspeople, and members of the general public.

In talking about his Nobel Prize-winning iPS cell research, Dr. Yamanaka gave accounts of his work in the United States, which were of particular interest and encouragement to the US-based Japanese researchers in the audience. Stressing the importance of basic research and strategies for connecting it to industry and

government, his remarks also had strong appeal to the attending businesspeople from Silicon Valley. Dr. Yamanaka’s charismatic personality, interesting Kansai dialect, and easy-to-understand descriptions of technical topics made his lecture highly engaging to everybody in the audience irrespective of background.

In the Q&A session that followed, a volley of questions were asked including about the kind of lab management that produces the best research results and what he’d recommend young researchers concentrate on in the early stages of their careers. As reflected in the audience’s engagement in the Q&A session, Dr. Yamanaka’s lecture was inspirational and thought-provoking to all in attendance.

JSPS San Francisco would like to take this space to thank the Consulate-General of Japan in San Francisco, Japan External Trade Organization (JETRO) San Francisco Office, and New Energy and Industrial Technology Development Organization (NEDO) Silicon Valley for their close cooperation in putting on this event.

JSPS San Francisco Office



Forum on Astronomy Held in Washington, D.C.

The 22nd “Science in Japan” Forum, themed “US-Japan Astronomy: Partnerships & Opportunities,” was held on 9 June at the Cosmos Club in Washington, D.C. It featured a distinguished group of speakers from Japan and the US, whose presentations and interactions paved new avenues for US-Japan research collaboration in fields of astronomy.

The event opened with remarks from Dr. Katsuhiko Sato, director of JSPS’s Research Center for Science Systems, followed by a congratulatory message from Mr. Kenichiro Sasae, Ambassador of Japan to the United States. Then, Dr. France A. Córdova, director of the National Science Foundation (NSF), offered remarks in which she spoke to the significant of the annual forum in promoting science both in and between Japan and the US.

In the introduction section, Dr. Masahiko Hayashi, director general of the National Astronomical Observatory of Japan, described how NAOJ had developed itself from a university-owned observatory into a national observatory that partners in top-level international collaborations. Then, Dr. David R. Silva, director of the National Optical Astronomy Observatory, briefed the audience on the latest developments in US-Japan research collaboration in astronomy, including an update on current projects. Packed with interesting information, these talks captured the audiences’ rapt attention.

The focus in the main session was on US-Japan collaboration being carried out at the three large telescopes, TMT, ALMA, and



Dr. Hayashi

the Subaru Telescope. Talks were delivered by leading scientists in wide ranging fields of ground-based astronomy. The session concluded with a special presentation by Dr. Alan Tokunaga of the University of Hawai‘i, who looked back over his long



years of experience in US-Japan research collaboration, portrayed in photographs of work on constructing the Subaru Telescope in the 1990s carried out with his Japanese colleagues. His story filled the room with a warm sense of camaraderie.

Throughout the day, the talks spurred lively Q&A discussions with the participants, who numbered about 100 mainly researchers from universities, research institutes, and government agencies. The forum’s cosponsors included NOAJ, American Association for the Advancement of Science, Association of Universities for Research in Astronomy, Natural Institutes of Natural Sciences (Japan), NSF, and the U.S. Department of Energy. This solid show of wide support from leading US organizations bespeaks the excellent relationship enjoyed between the US and Japan in scientific endeavor, which it is the mission of the JSPS Washington Office to promote and expand.

For more details on this event, please visit the Washington Office’s website: <http://jpspsusa.org/wp/sijforum>

JSPS Washington Office

Japanese-German Symposium Held in Ulm



Over two days, 19-20 May, the 22nd Japanese-German Symposium was jointly held by the JSPS Bonn Office and the German JSPS Alumni Association (JSPS Club) under the theme “Emerging Challenges in Women Health Care in a Changing World.” Venued at Ulm University, the event was attended by about 90 former JSPS fellows and other interested people.

On its first day, the symposium opened with remarks by JSPS Club chair Prof. Dr. Heinrich Menkhaus and Mr. Hidenao Yanagi, Consulate-General of Japan in Munich. Two sessions were held: One on the historical background of women’s healthcare, in which the story of Ine Kusumoto, the first female practitioner of Western medicine in Japan, was told; the other featuring reports and discussions on the state of reproductive medicine in Germany and Japan. On the

second day, presentations and Q&A discussions were held on two themes: Oncological research related to breast and cervical cancer, and ethical issues related to reproductive medicine.

Though there were a few less people participating in this symposium relative to previous years, neither were the discussions in each of the sessions nor the exchange of views during the coffee breaks any less vibrant. After the two days of sessions, JSPS Bonn Office director Dr. Keiichi Kodaira offered his thanks to everybody for making the symposium so successful and voiced expectation for the even further advancement of scientific exchange between Germany and Japan.

JSPS Bonn Office

JSPS Japan-Norway Symposium Held on Arctic Research

Over the three days between 6-8 June, a JSPS Japan-Norway Symposium on the theme “Past, Present and Future of the Arctic and Antarctic” was held collaboratively among the JSPS Stockholm Office, National Institute of Polar Research (NiPR), Bjerknes Centre for Climate Research (BCCR), and NORPAN (Partnership between Norway and Japan for Excellent Education and Research in Weather and Climate Dynamics). Venued at BCCR, the event was held in follow up to the “Japan-Norway Arctic Science Innovation Week” carried out in Tokyo the previous June under the sponsorship of the Royal Norwegian Embassy in Tokyo. This year’s 3-day event was attended by some 76 researchers and other interested people.

The symposium kicked off with welcoming speeches by BCCR director Dr. Tore Furevik, JSPS Stockholm Office director Dr. Tadaharu Tsumoto, and the Research Council of Norway senior adviser Julie Christiansen, who were followed in the morning

session by seven presentations, including from young researchers, on the state of arctic research activities and collaborations. In the afternoon, JSPS and NORPAN meetings were held in parallel. In them, talks were given in a workshop format on the latest results in polar region research

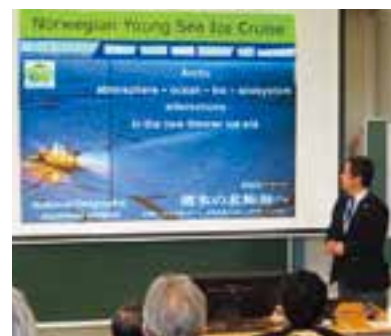
being advanced by Japan and Norway by researchers from a wide range of institutions, including NiPR, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Hokkaido University, Institute of Marine Research (Norway), and Norwegian Polar Institute (NPI).

The first day ended with a reception in which piano and clarinet performances by researchers from the University of Bergen set the mood for amicable conversation and information exchange among the participants, who enjoyed the opportunity to form and renew friendships.

The second and third days featured presentations by Japanese and Norwegian researchers on three themes: Ocean, Climate and Meteorology; Data Management, Data Science; and Cryosphere.

Held at BCCR, Northern Europe’s forefront research institution on climate science, this symposium is seen to have contributed greatly to the strengthening of scientific collaboration between Japan and Norway in fields of polar and climate research. Its results are expected to be a springboard for yet-further collaborative advances in these areas of growing importance.

JSPS Stockholm Office



Dr. Kenny Matsuoka, NPI



JSPS Supports Seminar in São Paulo



Prof. Ninomiya

On 9 June, Santa Cruz Hospital and University of Tsukuba (UT), in collaboration with the Faculty of Medicine, University of São Paulo (FMUSP) and JSPS, held the first Brazil-Japan Scientific Cooperation Seminar.

The event was aimed at strengthening ties between both countries' universities and Santa Cruz Hospital with a view to deepening exchange and advancing scientific

research in the health and medical fields.

The seminar's opening session was attended by Japanese Consul General in São Paulo Takahiro Nakamae, UT president Kyosuke Nagata, USP vice-president Vahan Agopyan, FMUSP director José Otávio Costa Auler Jr., and Santa Cruz Hospital president Renato Ishikawa.

The leadoff lecture was delivered by Prof. Masato Ninomiya, JSPS science advisor in São Paulo and president of the Deliberative Council of Santa Cruz Hospital, who spoke about the relationship between Brazil and Japan rooted in the Friendship, Trade and Navigation Treaty signed in 1895. Remarking on the special role that Japanese immigration to Brazil has played in helping to consolidate the bilateral relationship over a period of more than 120 years, he said that the human ties which bind the two countries have become the cornerstone of Japan-Brazil diplomatic relations and of the cooperative agenda between the two countries.

The following lectures were focused on specific areas of medical research. Prof. Nagata talked about an approach that showed

remarkable improvement in the control of viral diseases after sanitary measures and vaccination regimens were implemented in Japan. As UT president, Prof. Nagata also highlighted ongoing areas of collaboration between his university and universities and research institutes in Brazil.

Prof. Akira Matsumura, director of the University of Tsukuba Hospital, spoke about the progress being made with regard to his research findings on proton therapy and boron neutron capture therapy for treating neurological and non-neurological disorders. Clinical tests of proton therapy conducted over 17 years have shown, he said, promising results in that, unlike conventional radiotherapy, it preserves healthy tissues.

In the field of neurology, Prof. Manoel Jacobsen Teixeira provided an overview of neurosurgery in Brazil, focusing on an approach that integrates medical fields such as ophthalmology, otorhinolaryngology, head and neck surgery, plastic surgery, and odontology in skull base surgeries.

Prof. Aluísio Augusto Cotrim Segurado, as a specialist on human retroviral infections, provided an overview of viral diseases in Brazil, including data about zika and yellow fever viruses' dissemination.

The seminar concluded with the participants reaffirming the importance of knowledge exchange in advancing scientific research, providing opportunities for disseminating new findings, and identifying new trends and innovative fields.

For information about JSPS São Paulo, please see the following website: <https://www.jsps.go.jp/english/saopaulo/index.html>

JSPS São Paulo

Egypt Alumni Members Receive State Awards

In May, Egypt's Academy of Scientific Research & Technology (ASRT) announced the winners in various categories of the State Award. Two members of the alumni association registered with JSPS's Cairo Research Station were brilliant winners of the State Award. ASRT has since 1958 been presenting the State Award to excellent researchers in Egypt's science and academic community. In this year's round, the award was given to scientists with outstanding research achievements in 2016.

The two alumni members who received this prestigious recognition of merit were Dr. Samir Abdelgaleil, professor, Alexandria University, who was given the State Award of Excellence, and Dr. Mahmoud Abou Laila, assistant professor, University of Sadat City, who received the State Encouragement Award. Other scientists who have a close relationship with the Cairo Office also received the State Award. Dr. Amr Adly, vice president of Cairo University, received the State Merit Award, and Dr. Mohamad Mohamad Ayad, professor, Egypt-Japan University of Science and Technology (E-JUST), received the State Award of Excellence.

At the press conference held when the State Award winners were announced, the Minister of Higher Education and Scientific Research emphasized in his remarks that the government will wholeheartedly support and encourage scientists and technologists who play important roles in shouldering the sustainability of Egypt's economic development. ASRT president Prof. Mahmoud M. Sakr followed by saying that 391 people had been nominated for the State Award this year, which was down from 431 in the previous year. This he said was due to a higher standard being used in the nominating process.



Dr. Abdelgaleil



Dr. Laila

Among the recipients were six female researchers, who received three kinds of awards. Institutionally, Cairo University won the most awards at 12; National Research Centre received 10, Assiut University 7, Mansoura University 5, and South Valley University 3.

Founded as a graduate school, E-JUST has established a new undergraduate program to take off in September (the fall semester). It will serve to secure the long-term sustainability of academic exchange between Egypt and Japan while advancing research collaboration.

Various initiatives are being taken to nurture and expand academic exchange between the two countries, including by JSPS fellows and affiliates in Egypt.

JSPS Cairo Research Station



Introducing JSPS Alumni Association of Philippines



The JSPS Alumni Association of Philippines (JAAP) was formally established in 2013 when it registered with the Securities and Exchange Commission as an official organization of JSPS Fellows in the Philippines. Prior to JAAP's birth, Philippine graduates of JSPS's RONPAKU dissertation PhD Program had already established a RONPAKU alumni group with an active agenda supported since 1997 by the Department of Science and Technology (DOST).

Mission

Currently under the leadership of Dr. Susan Gallardo, JAAP is nurturing a growing science community nationwide in a variety of ways: We work to help each other realize full potential in advancing science and technology via an agenda of research, education and training. We work collaboratively with DOST and other organizations, and are a strong driving force in influencing government policy formulation. We also provide technical and other research-related services vital to national development.

Also in pursuit of its mission, JAAP works to harness and utilize the collective expertise of its members in promoting research, education and training in science and technology. It fosters close ties among JSPS scholars, while serving as catalyst for cooperative endeavors in fields of science and technology. Finally, it provides an avenue via DOST for recommending S&T policies and priority areas to the government.

Milestones

During the term of Dr. Maricar Prudente as JAAP's president from 2012 to 2014, JAAP launched the annual "Research Symposium and General Assembly" event, while putting into practice JSPS's revisit Japan "BRIDGE Fellowship Program."

Dr. Jaime Montoya served as JAAP president from 2014 to 2016. During his term, the "Research Symposium and General Assembly" event was made part of DOST's National Science and Technology Week, during which JAAP operates an exhibition booth to highlight JSPS's various programs and activities.

Since Dr. Gallardo took office in 2016, JAAP has seen its officers and members successfully revamp the association's promotional tools, such as its newsletter and community outreach program. The newsletter *PRF Connect* was revised and renamed *JAAP Connect*. Utilizing the experience and expertise of its members, JAAP is now conducting workshops, focus group discussions, and regional technical forums within the country.



Membership

JAAP is intensifying its campaign to grow its membership via the JAAP website, JAAP Facebook page, and other means. JAAP members who experience BRIDGE fellowships support JAAP activities in such ways as sharing their experiences in Japan at the Annual Assemblies, participating in regional JSPS promotion meetings, and contributing to *JAAP Connect*. JAAP has two membership categories: lifetime members and regular members. Our association is moving steadily forward from its current 99 members toward a larger-scale science community.

For more information about JAAP, please see its webpage: <http://www.jpsps-jaap.org>

JSPS Bangkok Office



Alumni Meeting and Lecture Held in France

On 2 June, the JSPS French Alumni Association held its general meeting at Pierre and Marie Curie University (UPMC), followed by a special lecture.

Founded in 2003, the alumni association in France was the second JSPS alumni group to be established worldwide. At the time of this general meeting, the association's membership had reached 628. In addition to holding periodic general meetings and board meetings, the alumni association carries out a number of self-initiated activities, one being the establishment and operation of scholarship fund for sending young French researchers not eligible for a JSPS postdoctoral fellowship, namely undergraduates and master's students, to Japan for an internship in a laboratory.

The general meeting was held on the 24th floor of the Zamansky Tower overlooking Paris' picturesque cityscape. At it, a briefing was given on JSPS programs, a financial report given on the association's 2016 program, and a discussion held on new and ongoing activities. Brainstorming on how to name the association's new scholarship fund resulted in naming it the "Takenoko Program." "Takenoko" means bamboo shoots, which the alumni saw as growing straight and tall into splendid bamboo trees.

The lecture was delivered by UPMC professor Dr. Philippe Codognet on the theme "The Creation of a Joint Research Laboratory in Computer Science between France and Japan." He spoke about



his work in the operation of joint Japanese-French computer science labs including an overview of his experiences as the science attaché of the French Embassy in Japan, as the co-director of the Japanese-French Laboratory for Informatics (JFLI), and as the director of the National Center for Scientific Research (CNRS) Tokyo Office. Many UPMC students joined the alumni in attending Dr. Codognet's lecture, adding a youthful spirit to the enthusiasm of a captivated audience.

JSPS French Alumni Association Website: <http://anciens.jpsps.fr/>
JSPS Strasbourg Office Website: <http://jpsps.unistra.fr/>

JSPS Strasbourg Office



Science Dialogue

Scientific Adventure of an American Fellow in Japan

Dr. Joseph Walker Scott



On 15 July, JSPS fellow Dr. Scott gave a lecture to 40 students at Fukui Prefectural Koshi High School on his research topic, thermophiles. Stemming from the Greek, thermophile means “Heat Love.” Preferring unusually high temperatures, thermophiles are only one kind of the so-called extremophiles, which inhabit environments inhospitable to

most life forms we encounter on a daily basis. At Kyoto University, Dr. Scott is conducting research to develop genetic systems in thermophilic archaea. Archaea are microbes that are similar to bacteria in appearance, but are actually more closely related to yeast, plants and animals. Through his lecture and experiment, he piqued the students’ scientific curiosity by giving them a glimpse into the mysterious world of microbial life in extreme conditions.

Living life to the extreme!

There’s one thing that Dr. Scott and thermophiles have in common: they both love hot springs (*onsen*). Coming from the United States, Dr. Scott has visited hot springs in Yellowstone National Park as well as the hot springs in his home state of Arkansas. He also has experienced the local *onsen* culture in Japan. While some *onsens* can be enjoyed by people, others are deadly to humans and at the same time are the perfect temperature for thermophiles to grow. One extremophilic species, *Methanopyrus kandleri*, can grow at temperatures up to 122°C and lives near a volcanic vent in the ocean. Dr. Scott probed the students with a question, “Can you imagine why they are capable of living under such harsh conditions?”



He told the students that a remarkable feature of thermophiles is that they produce proteins that retain their function and structure even under extremely high temperatures. This feature of temperature tolerance has applications in molecular biology and biotechnology, he added. Dr. Scott explained that other types of extremophiles, grow best at very cold temperatures, in very alkaline or acidic environments and so forth.

During his lecture, Dr. Scott performed an experiment to demonstrate the difference in activity of a catalase enzyme from the hyperthermophile *Pyrobaculum calidifontis* and from a cow. Catalase is an enzyme that converts hydrogen peroxide into water and visible oxygen bubbles. After the experiments, the students concluded that catalase from the cow was most active at lower temperatures and catalase from *P. calidifontis* was most active at higher temperatures. It demonstrated to the students one of the reasons thermophiles can live at high temperatures.

Following an animated Q&A session, Dr. Scott gave the students some advice that appeared to resonate with them. “To make better decisions we must first know what is true and what isn’t.” My goal, he said, as a researcher is to discover things that are true so as to help people make better decisions. “Please discover your own passion and think about where you can best pursue it, even though it may be in a place other than Japan. Be bold and unafraid when taking on a challenge.”

Overseas Fellowship Division

The following fellows participated in JSPS’s Science Dialogue Program during the period from April through June 2017. For details about the program, please see its website: www.jspss.go.jp/english/e-plaza/e-sdialogue

Venue	Lecturer	Nationality	Venue	Lecturer	Nationality
Miyagi Prefecture Sendai Nika Junior & Senior High School	Dr. JALILOV, S.	Uzbekistan	Fukui Prefectural Wakasa High School	Dr. GOETZE, S. A.	Germany
Seijo Gakuen Junior and Senior High School (Tokyo)	Dr. GROEN, E. A.	Netherlands		Dr. NAIR, R.	India
Senior High School at Komaba, University of Tsukuba (Tokyo)	Dr. MARTIN, J. D.	USA		Dr. VEALE, R. E.	USA
Tokyo Metropolitan High School of Science and Technology	Dr. RENAUDIE, M. J.	France	Shizuoka Prefectural Numazuhigashi Senior High School	Dr. PASTUHOV, S. I.	Bulgaria
Niigata Municipal Bandai Senior High School	Dr. MURDOCH, M.	UK	Aichi Prefectural Nishio Senior High School	Dr. FARAGASSO, A.	Italy
Fukui Prefectural Fujishima Senior High School	Dr. DECHANT, A.	Germany		Dr. KOID, S.	Malaysia
Tokushima Prefectural Jonan High School	Dr. LAVTIZAR, V.	Slovenia		Dr. MALEK, M. A.	Bangladesh
			Kyoto Prefectural Rakuoku High School	Dr. MITCHELL, A. M.	USA
				Dr. WANG, Y.	New Zealand



Top Global University Project

Introducing the Participating Schools



University of Tsukuba

Transforming Higher Education for a Brighter Future through Transborder University Initiatives

Since its establishment, the University of Tsukuba (UT) has aspired to being “open” in all respects, continuously meeting new challenges. With the impact of globalization and its consequences in mind, UT’s global strategy states, among other things, that the university will endeavor to strengthen its global presence by engaging in cutting-edge research and by providing quality education of a high global standard that fosters future leaders who are committed to making the world a better place.

In pursuit of the objectives laid out in this strategy, it is essential that UT overcomes disciplinary, institutional and national barriers as it works to create a “transborder” research and education environment for our students, faculty, administrative staffs, and our collaborative partners. UT joined the Top Global University Project in 2014 with a view to achieving these objectives. We see this Project as an opportunity to evolve the university from an institution already open to the world to one that is truly transborder and concomitantly capable of helping to form and shape a brighter future for people around the world.

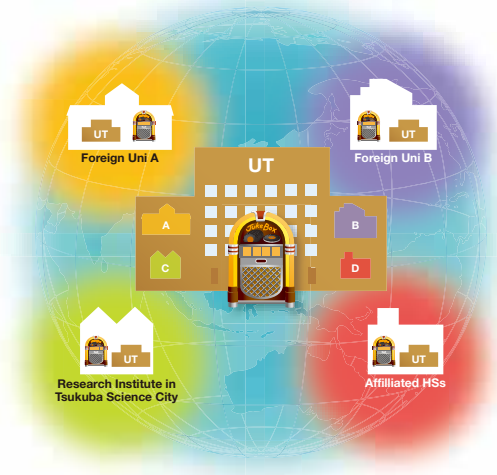
Campus-in-Campus Initiative

One pillar of UT’s Top Global University Project is our Campus-in-Campus (CiC) Initiative. Through this initiative, partner universities share research and educational resources by collaborating in three main areas: 1) sharing labs and research/educational units via joint appointments of researchers and staffs, 2) developing joint/double degree programs, and 3) sharing classes and teaching staffs through our “Course Jukebox” system.

Course Jukebox

The Course Jukebox is a “code-sharing” system among CiC partner universities. It is a platform for sharing information on courses and educational programs—featuring a selection of the

Transborder University



best courses among all the partners. Students can browse and select courses from the Jukebox as if they were being offered from their own university. They must, then, travel to the partner university to take the selected courses, which is the point of the program. We want our students to feel and experience the whole world as being their campus.

Bachelor’s Program in Global Issues

UT’s Bachelor’s Program in Global Issues (BPGI) comprises a compilation of Problem/Program Based Learning courses, overarching areas of Environmental Sciences, Humanities and Social Sciences. The program is geared to providing students with the basic knowledge and interdisciplinary techniques needed to solve global issues related to the human and natural environment. In it, students’ decision-making, critical thinking, and problem-solving abilities are honed in a way that enables them to take on complex contemporary issues and global challenges.



Dr. Jérémie Bride

Assistant Professor
Faculty of Humanities and Social Sciences

Dr. Bride is a graduate of the University of Franche-Comté, has a PhD in Sports Sciences, and specializes in Intercultural Mediation. He is a coordinator and core faculty member in UT’s Bachelor of Arts and Science program.

The objective of UT’s Bachelor’s Program in Global Issues (BPGI) is to instill students with an ability to tackle issues that occur around the world by providing them with general and issue-specific knowledge and methodologies related to the human condition and natural environment. In raising their awareness of globally occurring issues, the goal is to prompt the students to think about those issues in terms of themselves. That is,

for them to learn how everything is linked among people in all parts of the world and at all levels of society. By connecting themselves as individuals to what’s global, the students will be better able to create sustainable solutions in their future careers. We are looking forward to welcoming our first group of students to the BPGI this fall.

The aim of the Top Global University Project is to enhance the international compatibility and competitiveness of higher education in Japan. It provides prioritized support for top world-class and highly innovative universities that can lead the internationalization of Japanese universities.

Top Global University Project website: <http://www.jsps.go.jp/english/e-tgu/index.html>



Kyoto Institute of Technology

Top Global University Vision

As Kyoto Institute of Technology nears its goal of being one of Japan's core engineering schools, we are attracting leading researchers, business people and engineers from around Japan and the world to our campus. They are engaging with us in advancing state-of-the-art research and education in the fields of engineering and industrial science, while accessing our Open Resources, a repository of intellectual property, human resources and facilities. We are creating new genres of innovation via initiatives with overseas experts, while building a dynamic Asian hub within our global network. In these ways, we are working to foster highly skilled engineers ("Tech Leaders") who will go on to make global contributions to the creation of advanced industrial infrastructures.

Project Summary

As we move ahead in enhancing our curricula, human resources and research facilities, our university is enjoying increasingly elevated global visibility. Highlighting our curriculum enhancements is a sophisticated and specialized program of Tech Leader training, carried out within a progressive environment of campus-wide educational reform. Our enhanced human resources thrust features an internationally-focused education system coupled with the provision of learning opportunities that incorporate Kyoto's unique cultural resources. Such enhancements, which include hands-on student mentoring, are paying excellent dividends as the university is graduating human resources who are ever-more attractive to companies and institutions in the global environment.

To contribute to the creation of new values and ideas, we are developing an inter-university network by way of faculty and staff exchange with overseas institutions. Our faculty connections with leading overseas researchers are both increasing and strengthening. This rising tide of interconnectivity is giving lift

to all our Institute's boats across the vast sea that is the international academic community, positioning us to interact smoothly with people of diverse views and backgrounds. To amplify such interaction, we are building and improving facilities that provide a platform upon which to interact with regional companies while instituting a program through which Japanese students act as tutors for our international students.



KIT Electronics Summer School 2016

Unique Program: Model Globalization Laboratories

We have designated specific laboratories to model and drive globalization through international collaboration and joint research. One of our successful model laboratory programs was to conduct a two-week KIT Electronics Summer School in 2016 on electronic circuits and programming. It set challenges for mixed teams of our students and students of University of Orléans (France). In going about the task of creating target devices, the students, unaided by professors, quickly created an effective combination of languages and non-verbal communication to use in pursuing their work. A playful alarm clock to enliven the morning routine was one of the devices produced by the mixed teams of innovators.

The Top Global University Project funds educational activities such as this Model Globalization program carried out in collaboration with international researchers, while playing a vital role in the implementation of overseas-experience programs for our students.



Prof. Kazuo Takahashi

Associate Professor,
Faculty of Electrical Engineering and
Electronics

I am a member of Kyoto Institute of Technology faculty engaged in carrying out the Top Global University Project. Under this program, we are endeavoring to create and expand our connections with overseas universities, while strengthening our partnerships with them through overseas faculty dispatch and collaborative educational projects. Last year, five students from a French university participated in our KIT Electronics Summer School. The success achieved in that event paved the way to welcoming seven students from France, two from Germany and nine from Kazakhstan to this summer's program. Our proactive interfacing with overseas institutions has drawn highly knowledgeable and motivated students to our campus from abroad. Their participation in our programs has, in turn, inspired our students to participate in collaborative projects carried out in other countries.

The depth of the encounters enjoyed between our faculty and students and their overseas counterparts has contributed to the impact of this program. In carrying out electronics teamwork, the students inevitably discuss language, customs and culture, enabling them to deepen their understanding of cultural identity and different ways of thinking. Strong affinities and mutual respect evolve among students as they learn to cooperate with each other in solving complex technical challenges. A major success of the program is the harmony reached among the students, despite hurdles of language and culture, as they work together to achieve their goals. Conversely, overcoming the cultural and communication hurdles between students of diverse backgrounds can imbue them with the lifelong assets of intercultural understanding and perspective.

Research and Life in Japan
By a JSPS Fellow
No. 43

Dr. Andrew Houwen

“Exploring the Relationships between Japanese and Western Literature”

JSPS Postdoctoral Fellow, Tokyo Woman's Christian University, 2016-2018
PhD (English Literature), University of Reading, UK, 2015
MSt (English Literature), University of Oxford, UK, 2011



Noh performance at Sumiyoshi Shrine in Osaka

Coming to Japan from the UK, Dr. Andrew Houwen is conducting research for his JSPS postdoctoral fellowship at Tokyo Woman's Christian University, where his host is Prof. Eiichi Hara. We asked Dr. Houwen about his research activities and life in Japan.

Q: What are you currently researching under your JSPS fellowship?

My current research investigates the relationship between Japanese literature and one of the most prominent American poets of the twentieth century, Ezra Pound. Because of Pound's centrality in the Anglophone poetic canon, his interest in *haiku*, a short form of Japanese poetry, has been discussed in great detail. What have not yet been examined, however, are the roots of this interest in fundamental changes to this poetic form that occurred in Meiji-era Japan (1868-1912), and how that shaped his understanding of *haiku*. My research also focuses on the influence on Pound of *Noh*, a major form of classical Japanese theatre, which had a far deeper and longer-lasting impact on his poetry than *haiku*, and on Pound's own impact on Japanese poetry.

Q: When and how did you come across this interesting research subject?

I first encountered it when I started learning



At Shiki's table at the Shiki-An, Negishi, Tokyo

about poetry as a teenager at a sixth-form college in the UK. One of my friends suggested that I read Pound's translations of Chinese and Japanese poetry, and that's what drew me to those cultures.

Q: For our readers, could you explain in what way *haiku* influenced Ezra Pound and English poetry?

There was a movement created in 1912 in the UK, called 'Imagism', by a group of poets that included Ezra Pound. They wished to reform English poetry by emphasizing concision, concretion, and a more flexible rhythm in imitation of French *vers libre*. These tenets led them to be influenced by Japanese *tanka*, a genre of classical Japanese poetry, and by *hokku*, the starting verse of a *tanka* or a *renga* (a linked-verse sequence). They translated some of this poetry and wrote their own too. Pound's two-line poem 'In a Station of the Metro', which he described as a 'hokku-like sentence', embodied these Imagist principles and has become one of the most famous English poems of the twentieth century:

“The apparition of these faces in the crowd:
Petals on a wet, black bough.”

What has not yet been explored, however, is how their conception of *haiku* had been shaped by the Meiji-era literary reforms led by the poet and critic Masaoka Shiki. He emphasized their concretion, suggestiveness and use of juxtaposition rather than the features of some earlier ones such as wordplay. This conception of *haiku* remains dominant today. Interestingly, Shiki's ideas were in

turn strongly influenced by Western ideas about writing style. Here we can see two cultures encountering and influencing each other in both directions, and perceive the importance of other cultures in shaping one's own. The 'foreign' lies at the heart of each culture.

Q: Shifting to current societies, should we consider the proliferation of social networks to be the kind of 'concision' found in 'Imagism'?

In relation to Japanese literature, 'Imagism' is often only associated with the *haiku* form, but of course Pound's interest in *haiku*, though famous now, was briefer and more superficial than his interest in *Noh* plays, which he thought could serve as models for 'a long Imagiste or Vorticist poem'. Concision is not the only aspect of Imagist poems, so brevity alone is not an indication of Imagist qualities. However, Pound and other Imagists were already aware of how apt literary concision was for a faster-moving age. It was in a modern Metro station, after all, where Pound saw 'the apparition of these faces in the crowd'.

Q: Now, could you tell us what the major goal of your research is during your JSPS fellowship?

My intention is to produce a monograph on the findings of my current research along with a collected volume on the subject based on papers to be given at a conference



At Tokyo Woman's Christian University

on Pound and Japan that I will organize for 12 March 2018 at Tokyo Woman's Christian University, sponsored by the Ezra Pound Society of Japan. Furthermore, I would like to remain in Japan after my JSPS fellowship in order to continue exploring the relationship between Japanese and English poetry.

Q: How do you find Japan's research environment?

Tokyo, where I am based, has an excellent range of resources for my research, including the National Diet Library, the Japanese Modern Literature Library, the National Institute of Japanese Literature, and many more. I was surprised at the breadth of materials available at the Yokohama Archives of History, with their collections of English language newspapers published in Japan from the Meiji era, on the pages of which many of the first translators of *haiku* and *Noh* appear.

Q: In what context do you think you will contribute to society through your research?

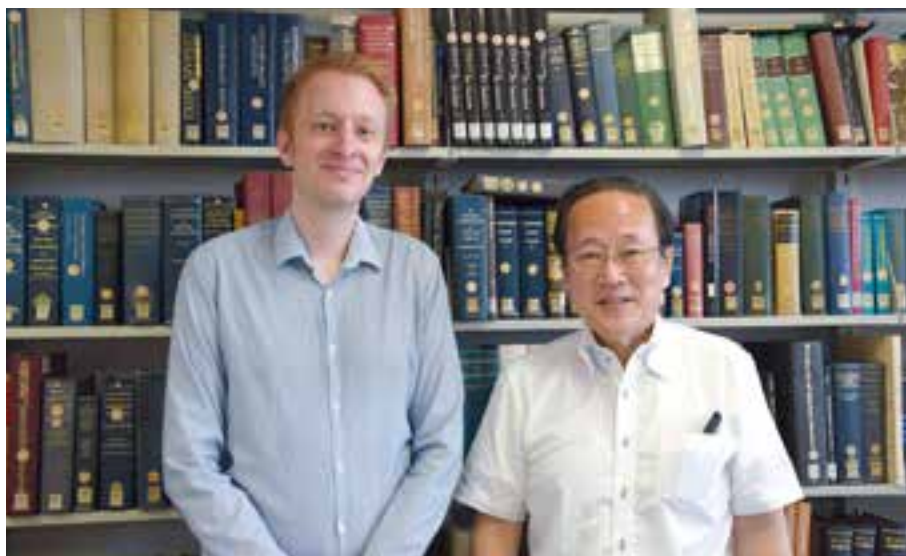
I believe literature to be one of the deepest ways in which we can learn to understand one another better, both as individuals and as cultures. We can also learn to understand ourselves better too: My research hopes to show how important foreign influences are for each culture's development.

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

In my experience, Japan is an excellent place to carry out humanities-related research. You will be provided with very good resources and your university colleagues will be friendly and supportive. Moreover, Japan is a beautiful country with so many wonderful places to visit. You will have an unforgettable time carrying

out your research here. Learning Japanese is of course important, but having curiosity and an open mind are most essential.

In interviewing Dr. Houwen, we found it quite extraordinary that what had drawn him to doing research in Japan was the American poet Ezra Pound. Pound had worked concepts of Japanese haiku and Noh into his own poetic style in English. It is on this intersection between Eastern and Western literary cultures that Dr. Houwen focuses his research. His study, however, has taken him beyond mere comparative literature, prompting him to ponder, as Pound did, the implications of cultural interweaving—how it reshapes perceptions and can cause one to think more interpretively, as when viewing the faces on the throngs of people in a Tokyo train station.



Dr. Houwen's host Prof. Hara

Introducing Japan: A Quiet Tokyo

Many will be familiar with Tokyo's visual clichés: the Shibuya crossing, the neon lights of Shinjuku, Asakusa, or the high-rises in the city centre. But much of Tokyo is in fact very peaceful, and many Tokyo residents make regular escapes on days off to the sparsely populated mountains just to the west. Interspersed between the buildings



Okutama valley

and houses of Tokyo and its suburbs there are also many wonderful parks and, perhaps more surprisingly, agricultural fields. This is the quiet side of Tokyo life.

I live with my wife in Tachikawa, a city in western Tokyo which used to have a military base, now converted into Showa Memorial Park. Around our flat there is barely a sound other than that of birds such as the cuckoo in late spring. Next to us lie agricultural fields, where *daikon* radishes, *edamame* beans, and many other vegetables are grown and then sold at a little stall nearby. Just to the north runs the Tamagawa aqueduct, a small, tree-lined stream perfect for a morning stroll.

On a sunny day, it's nice to go to the mountains of Okutama (in the upper Tama valley) at the



western end of the Chuo train line. While Mt. Takao is normally thronged with tourists, many of the mountains are barely visited at all, except by an occasional wild boar or bear (so it's important to carry a bell to ward them off). You can listen to almost complete silence save for the sound of the wind in the pines while looking out across those distant Tokyo high-rises, from the quiet heights of Mt. Hinode.



Tsukimi

Mid-autumn moon viewing (*tsukimi*) is enjoyed in night-time festivals throughout Japan. They are held on August 15th of the lunar calendar, which falls in September or October. On night of the 15th (*jugoya*) of that month, people eat *tsukimi dango*, white rice-dumplings that look like little moons.

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.

Contact Information quarterly@jsps.go.jp