

JSPS SAN FRANCISCO NEWSLETTER

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Winter Researcher Gathering 2017 in the U.S.



On 3 February, the JSPS San Francisco Office held its 2018 Winter Researcher Gathering at the David Brower Center in Berkeley. This biannual gathering provides an opportunity for Japanese researchers to expand their networks while sharing their research. Participants also swap views on differences be-

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tween research in the US and Japan.

JSPS fellows, Japanese researchers (both residing and visiting the US), and higher education administrators attended both the event and an evening networking session. In total, 66 individuals participated in the day's activities. In addition, nine JSPS fellowship alumni working as Principle Investigators in projects here in the US came to the reception.

UC Berkeley Professor Hitoshi Murayama (Department of Physics and Center for Japanese Studies, University of Tokyo) delivered an engaging keynote presentation on the birth of the universe and how its evolution and future are being studied. He also introduced the Kavli Institute for the Physics and Mathematics of the Universe (of which he is the founding director) at the University of Tokyo, and the part that the Institute plays in the Japanese government's World Premier International Research Center Initiative (WPI Program), which supports world-class research centers while raising the global visibility of research in Japan.

Prof. Murayama also brought the audience up to speed on the latest research being advanced on gravitational waves, astronomy and the nature of the universe. He expertly broke down these knotty topics into language easy-to-understand for people in the audience who were not theoretical physicists. So informed, they eagerly participated in a lively question and answer session.

At the networking reception, which followed a keynote lecture, Japanese researchers and JSPS fellowship alumni mingled, talking with each other about their research and their life and activities in the international academic world. At the end of the day, the event had proven to be an ideal opportunity to reconnect with old friends and make new acquaintances.

JSPS Washington Office director Dr. Kohji Hirata and San Francisco Office director Dr. Toru Tamiya used this event as an opportunity to present Prof. Eishi Asano of Wayne State University School of Medicine (Departments of Pediatrics and Neurology) and Prof. Shoichiro Ono of Emory University (Department of Pathology and Laboratory Medicine) with the JSPS Bridge Award.

This Award, newly established by JSPS's two offices in the US, recognizes researchers from Japan who are working at institutions in the US, actively promoting internationalization within the broader research community, and mentoring the next generation of Japanese researchers.

JSPS San Francisco will hold its next Researcher Gathering this summer in Berkeley.



PAST EVENTS

Stanford Symposium “The Political Economy of Japan under the Abe Government” co-sponsored by JSPS



On February 8-9, a conference on "The Political Economy of Japan under the Abe Government" was held at Stanford University. The conference was co-sponsored by Stanford University's Shorenstein Asia-Pacific Research Center (APARC) in partnership with the Freeman Spogli Institute for International Studies.

The event featured deep insight from experts in a variety of fields, including energy, environment, governance, international relations, and security from both Japan and the United States. During his opening remarks JSPS San Francisco Office Director Toru Tamiya, thanked the participants for their contributions. The objective of this conference was to present and discuss papers that addressed the political economy of the Abe administration focusing on the following three themes: First, what economic policies has the Abe government sought to implement and to what extent they have achieved their objectives particularly in re-

gards to the “Abenomics” and “Womonomics” platforms? Second, how has the Abe government influenced some of the longstanding debates in Japanese politics? Some panels argued that this administration represents a significant change from the many years of political transition and instability. Third, how has Abe’s foreign policy focusing on security influenced the broader region? Also discussed was Japan’s energy policy in the aftermath of Great Tohoku Earthquake of 2011. The papers presented at the conference will be edited into a conference volume that should be published by 2020.

JSPS San Francisco will continue to support events like this that strengthen global academic exchange.

For more information about JSPS San Francisco Office, please contact us: webmaster@jpspsusa-sf.org or visit our website: <http://www.jpspsusa-sf.org/index.php>



Fellowships for Research in Japan

Informational Session & Networking at the Stanford University(1/30), University of California, San Diego(UCSD)(2/21) , University of California, Berkeley(UCB)(3/13)

JSPS San Francisco held fellowship information and networking sessions at the Stanford University, UCSD and UCB.

With the generous help from several university staff members, numerous participants came to learn about the JSPS's fully-funded fellowships for research in Japan and to connect with fellow researchers.

The sessions drew a large variety of researchers at different career stages from different fields, including late-term doctoral students, postdocs and faculty members.

The JSPS would like to thank JSPS alumni Justin Gardner (Assistant Professor, Department of Psychology, Stanford University), Stuart Anstis (Emeritus Professor, Department of Psychology, UCSD), and Mike Boots (Professor, Department of Integrative Biology, UC Berkeley) for sharing their experiences researching in Japan on JSPS Fellowships. Their talks were the highlights of each session, providing attendees with valuable insight through their first-hand perspectives.

The JSPS also thanks guests from Japanese University Network in the Bay Area (JUNBA), Kazuhiko Hasegawa (Regional Director, Osaka University North American Center for Academic Initiatives) and Yoichi Aizawa (Executive Director, San Francisco Office, Waseda USA) for their participation in the short networking events following each session. They shared viewpoints about the state of research in Japan and their experience of accepting overseas researchers.

JSPS San Francisco will continue to hold regular networking info sessions at universities around the Bay Area. All interested researchers are welcome to attend.

For more information about upcoming info sessions, as well as fellowship eligibility, and other details, please contact the JSPS San Francisco Office: fellowships@jpspsusa-sf.org or visit us at our website:

<http://www.jsps.go.jp/english/e-fellow/>



Alumni Talk at Stanford University



Networking at Stanford University



Opening Remarks at UCSD



Networking at UCSD



Opening Remarks at UCB



Alumni Talk at UCB

PAST INFORMATION SESSIONS

When	Where
January 30, 2018	Stanford University
February 21, 2018	University of California, San Diego
March 13, 2018	University of California, Berkeley

JSPS San Francisco will continue to hold informational sessions at universities on the West Coast. Please check our website for the most updated information: <http://www.jspsusa-sf.org/fellowships.html>

UPCOMING EVENTS

APRIL

Industry 4.0 and Society 5.0: Artificial Intelligence and the Social Sciences

Symposium Sponsored by Japan Society for Promotion of Science, UC San Diego

Date: April 26-27 2018

Details coming soon

JULY OR AUGUST

Summer Japanese Researcher Gathering

The gathering provides an opportunity for Japanese researchers to expand their networks through sharing their research, as well as viewpoints on differences in research environments and methods between the U.S. and Japan.

Date: TBD (July or August)

Venue: TBD (in Berkely)

Details coming soon

NEWS FROM JAPANESE UNIVERSITIES

Shinshu University's Academic Exchange in Law with Brazil



○Academic Agreement with University of Sao Paulo (USP)

Shinshu University executed an academic agreement with the University of Sao Paulo (USP) in 2015. Under this academic agreement, Professor Akiyo Shimamura had the opportunity to study Labor Law and Social Security Law at University of Sao Paulo, from March of 2016 to February of 2017.

○Japanese law lecture in Judicial School in Rio de Janeiro

On the 1st of September 2016, Shinshu University arranged a visit of Japanese professors to the Labor Court of Rio de Janeiro, followed by lectures in the Judicial School on Japanese Labor Law to an audience of Brazilian labor judges.

○Japanese law lessons for graduate students of USP

Due to a special invitation made by Associate Professor Antonio Rodriguez de Freitas Junior, Professor Shimamura gave lessons on Japanese law to graduate students in collaboration with professor Freitas from August to December of 2016. The lessons were called "International Migration of Workers and Social Protection: Brazil-Japan". Professor Freitas held another lecture under the subject "Comparative Study of Brazil-Japan" in the first semester of 2017.

○Brazil-Japan International Seminar on "Litigation and Society"

These led to on an international seminar, which was divided into 8 different sessions, such as



labor law, alternative dispute resolution procedure (ADR), judicial transaction etc. Each session was attended by reporters from Brazil and Japan. In the ADR session, Associate Professor Elizabeth Tippet of Oregon University in the United States joined as well. Over 70 participants from Japan, Brazil, USA, Canada and Taiwan, actively participated in discussions which made for a fulfilling seminar.

○Academic agreement with the Brazilian Federal Judge Association

In the closing session, an academic agreement was reached between the Faculty of Economics and Law and the Brazilian Federal Judge Association. This was the result of a visit to the Federal Court of Curitiba in February 2017 in order to study the operation of plea bargaining, through which many cases of corruption of famous politicians were exposed, and to discuss the matter with Judge Gabriela Hardt. The Faculty of Economics and Law was also fortunate enough to meet with Judge Sergio Moro, who was awarded in Time Magazine's list of the 100 Most Influential People

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and in 10th place on Bloomberg Businessweek's list of 50 Most Influential People in the World of Finance. It is also worth mentioning that Judge Bruno Takahashi, a judge who works mainly with social security cases, took an important role in the execution of the agreement and in the publication of articles with Professor Shimamura.

(Related Article on Shinshu University Homepage:

http://www.shinshu-u.ac.jp/english/topics/research/brazil-japan_interna.html)



○Institutional visits in Tokyo

On 11th and 12 of January it was carried out institutional visits in Tokyo. We visited the Supreme Court, the National Tax Tribunal and the Life Insurance Association on January 11 (Thursday), and visited the University of Tokyo and the Central Labor Relations Commission, on January 12 (Friday).



○Academic exchange: Next steps

Finally, it is also important to mention that Ms. Yuri Nabeshima, who is a Brazilian attorney and the graduate candidate of USP, is another key person who maintains academic interaction with USP. She is developing a comparative study of both countries' legal systems along with Professor Shimamura. She is currently in Japan now as a visiting researcher in Shinshu University to collect material to her PhD project.

The preparation of the next international seminar that will be held in Sao Paulo in 2019 has already begun.



UTokyo New York Office welcomes collaborative activities



UTokyo New York Office was co-founded by the University of Tokyo's Institute of Industrial Science (IIS) and the Institute of Medical Science (IMSUT) in September of 2015 with the aim of promoting international collaboration and academic exchange with an emphasis on engineering and medical science.

6 November 2015 Open Innovation for Future Medicine

The multidisciplinary seminar was organized to commemorate the opening of the UTokyo New York Office and attracted more than 120 participants from academia, industry, as well as alumni associations of UTokyo in the USA. Speakers included Yoshinori Murakami, Dean of IMSUT; Teruo Fujii, Director General of IIS; Kevin Egan, Harvard University; Michel Sadelain, Memorial Sloan Kettering Cancer Center; Roger M. Perlmutter, Merck Research Laboratories; and Ken Furuya, Executive Vice President of UTokyo.

20 January 2017 Aiming for a Fusion of Engineering and Medical Science -Activities and Prospects for the UTokyo New York Office'

The Symposium was held at the Convention

Hall of IIS in Tokyo, and organized by the IIS and IMSUT in cooperation with the UTokyo New York Office. The main goal of the gathering was to share the latest activities of the Office with members of the audience.

8 September 2017 Tokyo – New York Stem Cell Summit

This one day Summit was organized by The New York Stem Cell Foundation (NYSCF) and The University of Tokyo in order to promote stem cell research globally. Speakers from Japan and the USA described their latest research findings on stem cells and innovative engineering with a view to improving the translation of research from the lab to real-world applications.

This meeting was designed for those with an interest in translational medicine, and highlighted research and advances in the field of stem cells and engineering innovations that could improve translational research process.

3 November 2017 UTokyo NY Conference

The Conference is held annually to highlight progress and challenges of initiatives launched by the UTokyo New York Office. Themes discussed at the 2017 meeting were 'Working with Deadly Viruses: Battling Ebola and Influenza' and 'Prevent Alzheimer's: Tohoku Rejuvenation Project with the American Pecan Nuts.'

March 2018 onwards Future events include a workshop in March 2018

The details will be posted on the UTokyo New

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York Office. <http://utny.iis.u-tokyo.ac.jp/>

The UTokyo New York Office welcomes donations for the management and activities of the office. We thank you for cooperation and understanding.

<http://utny.iis.u-tokyo.ac.jp/donation.html>



Old trees bear an important role in boreal forest in northern California



Isamu Ohnishi (Graduate School of Science, Hiroshima University)

In the Boreal forests of Northern California, there are a large number of spruce, cypress, sequoia and cedar trees, many of them are over hundreds of years old. It's a divine area in a way and it makes for an exciting sightseeing trip. For example, this area has the tallest sequoia tree, which is named "Hyperion", whose height is 115.55 meters (about 380 ft.). It has gradually become known in recent years that this area plays another profound role. In this environment old trees are never wasted. Rather they play a crucial part in maintaining the global environment.

In 2011, Dr. Z. Lindo has published a paper ([1]) stating that "Cyanobacteria living symbiotically with mosses in Old trees helps forests to grow" in these boreal forest. This is mainly because cyanobacteria have a special ability called "Biological Nitrogen Fixation (BNF)". This ability allows them to produce Ammonia nitrogen that mosses change to Glutamic acid. This supports a variety of organisms that thrive in these forests. One of her paper's im-

portant results is that the forest need to use these old trees at a large scale.

My recent study ([2]) has supported her conclusion theoretically by using a mathematical model of molecular dynamics from the viewpoint of mathematical life Science and its simulations. In the first place BNF is based on Nitrogenase's activity, which is enzyme working on normal temperature and on normal pressure in the cyanobacteria cell to produce ammonia nitrogen from nitrogen molecules in the air. Therefore the mathematical life scientific model system (presented in [2]) composed of ordinary differential equations with mass conserved laws has a Michaelis-Menten type of nonlinearity. My result comes from a typical nonlinear reaction with a scale parameter.

The result shows that if the forest scale is smaller, then cyanobacteria's BNF process is precarious. Moreover, it is likely to come to a stop sooner. But

if the forest is larger in scale, then the process does not easily stop once it has begun. This is a kind of “scale merit”, which follows from mathematical life scientific theory based on BNF’s molecular mechanism. In large scale boreal forests, a mutually symbiotic system composed of cyanobacteria, mosses, and old trees silently and slowly plays a crucial role. My theoretical result supports Dr. Lindo’s study. Generally speaking, forests should be maintained at a large scale so that they continue to grow and play their crucial role in the global environment.

References:

- [1] Lindo Z, Whiteley JA. 2011. Old trees contribute bio-available nitrogen through canopy bryophytes. *Plant Soil* 342: 141-148.
- [2] Ohnishi I., 2017, Memory reinforcement with scale effect and its application to mutual symbiosis among terrestrial cyanobacteria of Nostochieae, feather mosses, and old trees in boreal forests, *Global Science Chronicle*, Vol.1(1): 1-7.

Mutual Exchanges under the Agreement of Japan-US Six-University Consortium



Seiji Fukazawa, Graduate School of Education, Hiroshima University

Hiroshima University Graduate School of Education has been continuing mutual exchanges of teaching staff and students ever since signing an agreement at the Japan-US six-university consortium in 2006. This consortium consists of three universities in western Japan (Hiroshima University’s Graduate School of Education, Osaka University of Education, and Naruto University of Education) and three universities in the U.S. (University of North Carolina Wilmington, East Carolina University, and Western Carolina University). The goal of this consortium is to enhance the mutual academic and professional exchanges amongst subject teaching, elementary and secondary education, and teacher education programs by leveraging the strengths of each university’s training program in both countries. To achieve this goal, the three universities in western Japan have been working closely with each other, holding follow-up meetings every year and rotating event hosting duties. Here is a report on some of their major activities.

First, several teacher/staff exchanges have been ongoing since the early years of this

agreement. Groups of educators ranging from kindergarten to university level from both countries have participated in numerous school visits. The groups have had numerous opportunities to exchanging opinions and ideas regarding their local education systems, education policies, teaching methods, pre/in-service teacher training and so on. It has provided teachers and staff with opportunities to learn from one another and to discover similarities and differences between the two countries.

Second, under this bilateral tie of friendship, Hiroshima University’s Graduate School of Education has been holding an overseas teaching practicum for more than ten years for graduate students of education in North Carolina who focus on elementary and middle school. With the support of East Carolina University and their counterpart, Hiroshima University, the participants acquired valuable experience teaching in American public schools. In surveys the participants evaluated the programs very favorably. Specifically, participants reported personal growth and development in the following areas: communication abil-

ity, exposure to a diverse community and society, and a willingness to take risks and try new things.

Third, as a part of the exchange agreement, Hiroshima University's Department of English Language Education hosts a group of students from Western Carolina University studying Japanese as part of the Japan Tour program every summer. Last year a group of six undergraduate students came to Hiroshima and enjoyed mingling with a group of local students. One of the Japanese participants liked the experience so much that she decided to study abroad in Western Carolina next year.

This Japan-US six university consortium has played a key role in developing and fostering future global education leaders who can promote global partnerships in an educational context. We strongly believe that this is in harmony with our university's guiding principles: The pursuit of peace, the development of intellectual attitudes which always seek peaceful solutions to the problems affecting society and the world at large, collaboration with the local, regional, and international community, and the creation and maintenance of a university with a strong international awareness that can efficiently disseminate knowledge on a worldwide scale.

You can also refer to the following articles.



For Americans, understanding money eases old age anxiety

<https://www.hiroshima-u.ac.jp/en/news/43810>

Hiroshima University Enters into Inter-university Partnership with University of California, Berkeley

<https://www.hiroshima-u.ac.jp/en/news/42767>

UPCOMING APPLICATION DEADLINES: FELLOWSHIP PROGRAMS

Application deadline to JSPS Tokyo Office:

April 2 - 6, 2018 *

Postdoctoral Fellowship for Overseas Researchers

<https://www.jsps.go.jp/english/e-fellow/application-18.html>

- Short-term Program (1-12 months)

April 23 - 27, 2018 *

Postdoctoral Fellowship for Overseas Researchers

<https://www.jsps.go.jp/english/e-fellow/application-18.html>

- Standard (12-24 months)

Invitation Fellowship for Overseas Researchers

<https://www.jsps.go.jp/english/e-inv/apply18.html>

- Short-term (14-60 days)

- Short-term S (7-30 days)

*The deadline is for the host institution to submit the application to JSPS Tokyo; generally, applicants must submit documents to host institution 1-2 months prior to this deadline.

OFFICE STAFF SWITCH

Farewell to our Advisors and International Program Associates

Ayako Shimizu (Advisor from Ministry of Education, Culture, Sports, Science and Technology– Japan (MEXT))

Ayako Shimizu left the United States at the end of March and returned to the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan. She was a visiting scholar at the University of California, the Office of the President (UCOP) since August 2016 through an exchange program. She also served as a senior adviser for the JSPS San Francisco Office.

At UCOP, she researched governance and management at the UC system. Her research paper looked at the UC system from 10 different perspectives such as autonomy, multi-campus system, shared-governance, finance, student's cost, quality assurance, faculty evaluation, IR.

She was most impressed by the UC's decision-making process. "Before coming here, I thought that there must be very strong leadership from the President and that the decision-making process

would be very top-down to survive in a very competitive society," she said. "But I found that the decision-making process was much more democratic especially for faculty. She thought that the UC was like 'one society' which placed value on every part of the organization.

She is extremely thankful to the University of California and the many people who gave her such a great opportunity to learn about UC and US society more broadly.



Yuki Nakamura (Advisor from MEXT)

Yuki Nakamura completed his commitment to JSPS San Francisco and left the U.S. returning to MEXT at the end of March.

He served as Advisor to the JSPS San Francisco office for one year and nine months. He was committed to achieving the aims of JSPS San Francisco office not only through advising but also direct action. In particular, he revised and actively disseminated a presentation of useful information on California's higher education system and JSPS fellowships. He gave the presentation to office visitors and researchers from abroad in attempts to foster a deeper understanding between Japan and the U.S.

He also conducted a comparative study on the Board of Education system in Japan and the U.S. as a visiting scholar at the University of Califor-

nia, Berkeley where he interviewed numerous educators, administrators and students.

He appreciates the kindness he has received from many of the people he's met here. He wants to make the most of these precious experiences for his future work. And he hopes to contribute to the strengthening of relations between Japan and the U.S.



Takahiro Oyama (International Program Associates from Tottori University)

‘Time flies’ The day he arrived in Berkeley seems like only yesterday. Over this past year, he has worked on a variety of projects such as promoting JSPS fellowship programs, supporting the activities of the Japanese University Network in the Bay Area (JUNBA), organizing the Japanese Researcher Gathering, coordinating the workshop for Japanese University administrative staff, editing this newsletter and many other things. One of the most beneficial experiences was planning the Japanese Researcher Gathering twice a year, in the summer and winter. It was very challenging to plan new projects in this events, but he was able to improve his skills at conceiving, proposing and executing new projects.

All of these experiences have broadened his

mind and strengthened his desire to work as a university administrative staff member. He really appreciates all the support from his coworkers He worked with and receiving this opportunity to experience many things here in the U.S.



Kosuke Takahashi (International Program Associates from Shimane University)

While working at the JSPS San Francisco Office he has talked with many researchers, students and administrative staff members. They have taught him a great deal about higher education and academia in both Japan and the US. He is very proud to hear that many researchers in the US have a high opinion of research in Japan and of Japanese researchers.

He thinks universities and researchers in Japan should be more confident when reaching out and attempting to enhance their presence in international academic community. He would like to help the process of internationalization while thinking about how he can contribute to Shimane University.

He also had the opportunity to travel to various places and make some great memories. Someday he would like to come back to California. He wants to thank everyone at the JSPS San Francisco Office and all of the people he has met here in the US.



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