



Japan Society for the Promotion of Science

San Francisco Volume XXV Issue March 2012



EVENTS OF WINTER 2012

**JUNBA held JUNBA2012
on January 9 and 10**



-Institutional Research and Enrollment Management

"Keys toward Internationalizing Japanese Universities"-

The Japanese University Network in the Bay Area (JUNBA) held JUNBA 2012 on January 9 and 10, 2012. This event brought together Japanese university leaders to discuss evolutions in university management leading toward greater internationalization. This event was co-organized by the Consul General of Japan in San Francisco and the Japan Society for the Promotion of Science, also supported by the Ministry of Education, Culture, Sports, Science and Technology-Japan (MEXT) and JETRO San Francisco Office. There were over 100 participants who attended this event, including representatives from 20 Japanese universities.



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EVENTS OF WINTER 2012

The symposium held on the first day included three presenters from the University of California Office of the President (UCOP) who spoke about the organization and the functions of the University of California system. Each speaker gave an engaging presentation on topics which addressed the essential points of institutional research (IR), enrollment management (EM) and the University of California system. Judy Sakaki, Vice President of Student Affairs spoke about “Student Access and Success at the University of California”. Bruce Darling, Vice President of Laboratory Management talked about the “University of California System” and Kathleen Dettman, Director of Institutional Research, spoke about “Institutional Research in the University of California”.



On the following day, Matsuo Masato, President of JUNBA, led with the opening remarks at the summit held, followed by Hiroshi Inomata, the Consul General of Japan in San Francisco who gave a greeting about JUNBA. Next, Yuichiro Anzai, President of JSPS also gave a greeting and Yutaka Tokiwa, Deputy Director-General of the Higher Education Bureau at MEXT gave the keynote speech. Japanese university leaders then

presented their activities and thoughts on their organization and functions. Stimulated by the UCOP speakers, they exchanged their views and experiences about management, with special emphasis given to the policies of nurturing students and the measures used to achieve these policies through the use of IR and EM.



(Left : Yuichiro Anzai, President of JSPS, Hiroshi Inomata, the Consul General of Japan in San Francisco, Yutaka Tokiwa, Deputy Director-General of the Higher Education Bureau at MEXT, Toshiro Okada, JETRO San Francisco)

EVENTS OF WINTER 2012



Date: January 9th and 10th, 2012
Venue: San Francisco Airport Marriott
Organized by: JUNBA (Japanese University Network in the Bay Area)
Co-organized by: Consulate General of Japan in San Francisco
 Japan Society for the Promotion of Science (JSPS)
Supported by: Ministry of Education, Culture, Sports, Science and Technology - Japan (MEXT)
 JETRO San Francisco

The successful completion of both days of JUNBA 2012 was achieved through the support and cooperation from many different individuals and organizations. JUNBA 2012 provided Japanese universities with an excellent opportunity to canvass the future of IR and EM in Japan.

Message from our President



Masato Matsuo:
 President of JUNBA
 Director, Kyushu University
 California Office

JUNBA (Japanese University Network in the Bay Area) was established in reflection of the increased presence of Japanese university offices in the Bay Area. The mission of JUNBA is to contribute to the betterment of education, research and business creation both in Japan and the U.S. through a support of internationalization activities, personnel training of Japanese universities and a stimulation of Industry-Academia-Government (IAG) Collaborations between Japan and the U.S. After the great change to “National University Corporations” in 2004, many Japanese universities opened overseas offices and internally created specialized organizations to handle Intellectual Property (IP) and IAG Collaborations. Now, more international development of IP and IAG activities are widely expected. Needless to say, in order to promote international IP and IAG Collaborations, the whole university strategy should be established and should include education and research portions of the universities as well.

EVENTS OF WINTER 2012

The 19th Gathering of JSPS Japanese Fellows in San Francisco

JSPS San Francisco holds what it calls “Gatherings of JSPS Japanese Fellows.” This confabulation is held three times each year, one of them mainly for researchers residing in the East Coast, while the rest are held at JSPS SF Office generally for researchers residing in the West Coast.

The 19th such gathering was held on January 27th at JSPS San Francisco, and attended by 23 fellows under both JSPS’s Research Fellowships for Young Scientists and Post-doctoral Fellowships for Research Abroad. Among them were three people who belong to MEXT (Ministry of Education, Culture, Sports, Science and Technology-Japan). Four researchers came all the way from Georgia Institute Technology, making them the furthest traveled among the participants this time. Also, seven members of JSPS’s Tokyo headquarters and San Francisco Office attended this meeting.



JSPS San Francisco director Dr. Seishi Takeda opened the meeting with welcoming remarks, followed by Mr. Isao Oshiro, head of JSPS Research Fellowship Division, who gave an explanation on the institutional system of JSPS fellowships for Japanese doctoral and postdoctoral researchers. Then the participants introduced themselves and their research activities. There was time for questions after each presentation, and everyone was very stimulated and impressed by the many questions and ideas that were brought up by the participants. Finally, Mr. Toshiaki Tanaka, advisor at JSPS SF Office from MEXT, introduced his career and gave a brief summary of Grants-in-Aid for Scientific Research. At the reception which followed, participants exchanged their information research views, and experiences of living and doing research in the U.S. As a result, they appreciated that this meeting provided a good opportunity to meet other researchers, because it can be hard to get to know each other even while conducting research at the same university in the U.S. Many participants also said that if JSPS SF continues to hold gatherings like this, they would like to participate again.



The gathering gave the young Japanese researchers dispatched to the U.S. under JSPS fellowship programs an opportunity to build mutual networks, which will be valuable in strengthening exchange among them not only while residing in the U.S. but even after they return to Japan. Believing such opportunities to be very meaningful, JSPS will continue to proactively support them in the future as well.

EVENTS OF WINTER 2012

JAPAN'S INFORMATION TECHNOLOGY CHALLENGE: Government Policies and Market Dynamics in the Digital Age

Date: February 6th, 2012

Organizers: Japan Society for the Promotion of Science (JSPS), Center for Japanese Studies (CJS), Berkeley Roundtable on the International Economy (BRIE)

Supported by: Consulate General of Japan in San Francisco

Venue: Alumni House, University of California Berkley

This workshop, held by CJS, BRIE and JSPS, invited leading experts in the United States and Japan to address critical issues for information technology and Japan, particularly on the emerging platforms of Cloud Computing and Next Generation Mobile, along with digital content, and the policy and market structure issues linking domestic and global markets.

CJS Chair Dr. Steven Vogel opened the meeting with welcome remarks, followed by JSPS SF Office director Dr. Seishi Takeda's introduction of JSPS SF activities. In the morning, the first session was held with presentations about the global context of Japan's IT challenge which focused on how to take advantage of cloud computing and IT in the future. The second session in the afternoon mainly focused on Japan's IT strategy in which participants discussed government policy and business models; its background, present situation, and future. Finally, Dr. Jun Murai, professor of Keio University gave the keynote speech regarding "Japan's IT Strategy: Successes and Failures". Only this speech was open to the public and approximately thirty people attended as observers. Dr. Murai gave an informative and captivating lecture which examined the successes and failures of Japan's IT strategy while presenting new plans and goals to set based on these past experiences and lessons. Through this workshop, a fruitful dialogue was exchanged between scholars and industry experts in the area of information technology who shed light on what government policies could help Japan become more competitive in IT manufacturing and services.



As always, should you have any specific questions or if you would like to be added to our mailing list, feel free to contact us at

webmaster@jpspsusa-sf.org.

Check out our website !
www.jpspsusa-sf.org

THE OFFICE STAFF SWITCH

JSPS San Francisco Wishes a Heartfelt Farewell to Program Coordinators

Tomomi Norita and Rieko Inagawa have fulfilled their 1 year training as Program Coordinators for JSPS San Francisco. Returning to Japan at the end of March, they start working for the universities which they each belong to. Here are some comments from our Program Coordinators about their stay in the U.S.

Tomomi Norita from Shimane University

Q1. What did you accomplish during your time here in the U.S. and with JSPS San Francisco?

Norita: I have learned how to organize symposiums through JUNBA and other workshops with American universities. I am very happy to have had many opportunities to meet different kinds of people, including friends, students and professors and to have several interviews with some provosts, directors and administrative staffs at American universities. Moreover, I met many Japanese researchers, talked to them about their research activities, the environment that surrounds them and their lives. These things have provided a good opportunity to know and compare and contrast the higher education system between Japan and America. I have experienced a lot of precious and quality time here. I would like to take advantage of the information I have acquired here after going back to Japan.

Q2. What will you miss the most about America?

Norita: I will miss friends, traveling, national parks, the warm winter season, delicious coffee, outlet malls, the Cheesecake Factory, potato chips, and many other things. Actually, there are so many nice things that it's difficult to choose.



Rieko Inagawa from Hokkaido University

Q1. What did you accomplish during your time here in the U.S. and with JSPS San Francisco?

Inagawa: During my stay here, I was able to make cherished friends who I want to keep in touch with after going back to Japan. I also think I was able to gain a deeper knowledge of the higher education system here by talking with some faculty and administrative staff working for U.S. universities. With JSPS San Francisco and Japanese universities' overseas offices in Bay area, I've learned how to make a presence in order to accomplish missions in a foreign country.

Q2. What will you miss the most about America?

Inagawa: I think I'll miss the friendly people of California, especially my friends. I was so surprised to find that there are many more students than I expected who study Japanese related things at UC Berkeley. They are good Japanese speakers and know a lot about Japanese culture and history as well. Now I think we have to keep making efforts to attract people to study in Japan and thank those who have a curiosity about Japan. Of course, I'll definitely miss the calm and beautiful Bay.



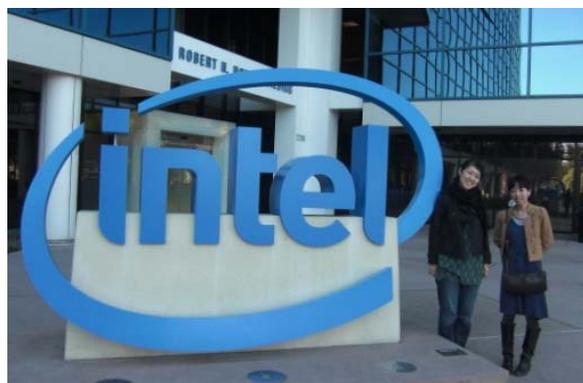
JSPS San Francisco Welcome a New Member

Naomi Nakaoka , the new Deputy Director of TUS San Francisco Office

Naomi Nakaoka is the 7th deputy chief of the TUS (Tokyo University of Science) San Francisco office. She has worked at TUS for the past 6 years. The first year, she worked in the Academic Affairs Section, and she now works at Kagurazaka Campus Student Service.

Her main job in Japan is to manage financial aid for students. Her other duties include investigating natural disasters to support students financially and publicity work to inform high school students about TUS and so on.

This is the first time for her to live in a foreign country, so this opportunity acts as a very good stimulus in various respects. The objective which she came to California is to investigate about higher education in America and also investigate the international activities of Japanese universities. She informs the members in TUS of this helpful news. She liked to visit other universities when she lived in Japan, because it is fun for her to find different characteristics of other universities. She especially likes to go to their cafeterias to observe students acting naturally. She hopes that the news she gleans inspires the students at TUS in a good way to come and study in America.



Right: Naomi Nakaoka

Kobe University



THE JAPANESE ACCOUNTING REVIEW
Research Institute for Economics and Business Administration, Kobe University

The Launch of The Japanese Accounting Review (TJAR)

The academic staff in the accounting department of the Research Institute of Economics and Business Administration, Kobe University, has just launched Japan's first international refereed accounting journal—The Japanese Accounting Review (TJAR). In effect, this represents the first attempt in Japan to establish an English-language journal devoted to accounting research.



The objective behind TJAR is to encourage Japanese accounting scholars to more actively engage in publishing their own research. For example, at present, it encourages them to publish their views on the significance of adopting International Financial Reporting Standards (IFRS) originating in Europe not only as the international standards literally but also as those domestically applicable. TJAR is expected to publish articles that empirically examine such IFRS issues. Moreover, TJAR hopes to provide an international forum for accounting scholars not only from Europe and the United States but also from the rest of the world, including Asia, to disseminate their ideas about scientifically interesting accounting scenes, such as the adoption of IFRS described above.

It is of course important to analyze accounting scenes using empirical methods because these methods are prevalent in the United States, the locus of accounting research. However, TJAR also seeks and strives to disseminate research different from so-stylized. TJAR aims to serve as an international forum for accounting research that draws on diverse philosophies and employs different methodologies. The responsibility of such a journal is best suited to the Research Institute, because it is the only organization in Japan that focuses on management and accounting research.

JSPS San Francisco Always Welcomes Your News

We are looking forward to hearing your news regarding international related events and so on.

If you have any news about your institution or your research, please feel free to ask us about including it in this newsletter.

This newsletter will be distributed to international sections in Japanese universities and subscribers in the Bay Area.

Kyushu University**International Institute for Carbon-Neutral Energy Research (I²CNER)**

I²CNER Annual Symposium and International Workshop 2012

I²CNER held the first Annual Symposium on January 31st and an International Workshop and Joint Research Symposium with the Research Center for Hydrogen Industrial Use and Storage (HYDROGENIUS) on February 2nd at Ito campus, Kyushu University. The aim of these events was to celebrate and present I²CNER's achievements since its establishment in December 2010.

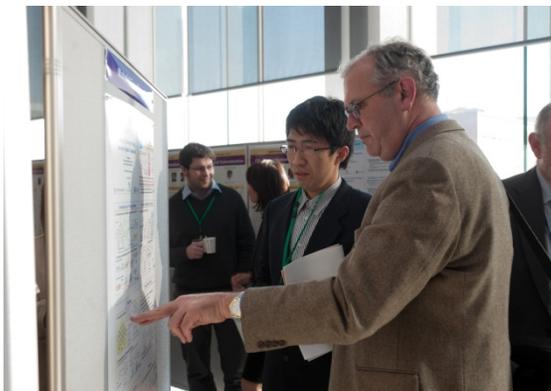
On January 31st, the day officially began with greetings from Setsuo Arikawa, President of Kyushu University, Mitsuyuki Ueda, Director, Office for Basic Research Projects, Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Toshio Kuroki, WPI (World Premier International Research Center Initiative) Program Director. They mentioned the catastrophic Great East Japan Earthquake and highlighted the importance of future transition to alternative energy expressing their hopes for I²CNER's contribution to create a sustainable and low-carbon society. Around 170 people including researchers from overseas participated in the symposium.

The symposium was divided into four sessions with a total number of nineteen presenters. After each presentation, time was set aside for Q&A sessions, which were led by the chairpersons. All the sessions had an active Q&A between the audience and the speakers. Finally, Petros Sofronis, Director of I²CNER referred to their international partnership with research institutions in the United States, Europe and Asia, and emphasized its importance. At the poster sessions, researchers put outlines of their work in the lobby and met with other scientists to explain and discuss them.

On February 2nd, people gathered again on campus for the I²CNER International Workshop and HYDROGENIUS & I²CNER Joint Research Symposium. A total of nine workshops were held with participants moving around campus to attend the events relating to their individual research interests.



Q&A

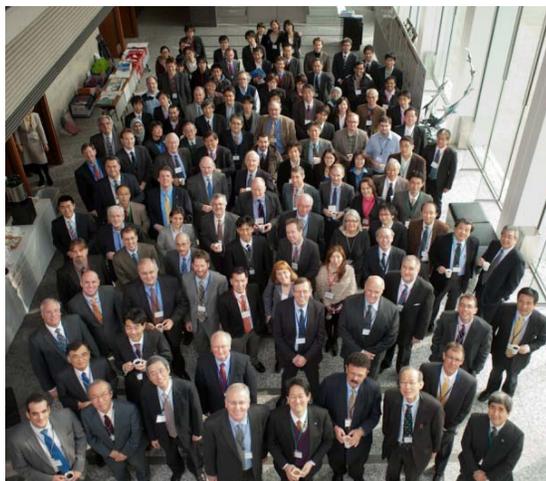


Poster Session

BAY AREA & JAPAN RELATED NEWS



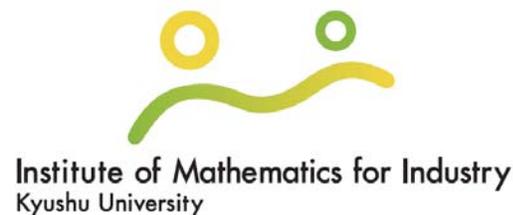
Closing Remarks



Group Photo

Institute of Mathematics for Industry (IMI), Kyushu University (Established in April 2011)

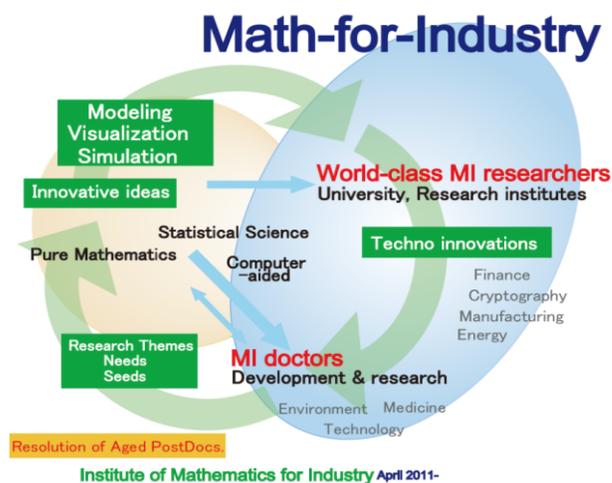
The purpose of IMI is to act as “an institute to develop industrial mathematics by amalgamating a broad area of mathematical research”. In order to develop applications for the industry from a long-term perspective, researchers in pure mathematics have been appointed, in addition to mathematicians focused on applications, to collectively contribute to mathematics to innovate the industry. The establishment of IMI in April 2011 is the realization of one of the major plans in the ongoing Global COE Program "Education and Research Hub for Mathematics-for-Industry" of the Ministry of Education, Culture, Sports, Science and Technology of Japan (FY2008-2012).



All 25 tenured and tenure-track professors of the institute have responsibility for, in addition to research, the education of Master and Ph.D. course students in the Graduate School of Mathematics, Kyushu University. Besides those professors, there are a number of post-doctoral positions.

The institute has three main divisions: (1) Advanced Mathematics Technology, (2) Applied Mathematics, (3) Fundamental Mathematics, and, in February 2012, the newly established (4) Laboratory of Advanced Software in Mathematics. In addition, in order to efficiently promote the above projects/activities, the Visiting Scholars Division, and Partnership Promotion and Technical Consultation Room have been set up.

Our main activities are summarized as: 1. Promoting collaboration with industry, 2. Organizing workshops and study groups, 3. Holding seminars for industry-academia partnerships and mathematical tutorials, 4. Raising PhDs and future human resources in Real-World with mathematical background, 5. Journal (Journal of Math-for-Industry and MI-Lecture Notes publications).



<http://www.imi.kyushu-u.ac.jp/eng/>



東京工業大学
Tokyo Institute of Technology

TIER: Tokyo Institute of Technology International Education and Research Program

In October 2011, two projects at Tokyo Institute of Technology were recognized under the Japanese government's MEXT (Ministry of Education, Culture, Sports, Science and Technology) "Re-Inventing Japan Project". The university developed the projects "TKT CAMPUS Asia Consortium" and "World-Class University Alliance for Educating Techno-Scientific Leaders" to enhance partnerships with world-class universities.

Both projects aim to nurture internationally oriented researchers, scientists, business personnel, and international organization staff. The "TKT CAMPUS Asia Consortium" is a collaborative research-oriented educational program established in cooperation with Tsinghua University and the Korean Advanced Institute of Science & Technology (KAIST). The "World-Class University Alliance for Educating Techno-Scientific Leaders" provides support at all stages of the education process from admission to graduation and onto employment, through a cooperative network of leading science and technology universities in Europe, America, and Asia.

Tokyo Institute of Technology has developed a program for student exchange with participating consortium universities. The program is called the "Tokyo Institute of Technology International Education and Research Program," or TIER for short.

TIER promotes international education opportunities under its inbound programs: the Tokyo Tech International Research Opportunities Program (TiROP) for undergraduate and master students; and the Doctor Course Joint Supervision Program for graduate level students. Complete with a summer program and customized research guidance, these programs offer a new model for science and technology exchange.

In addition, TIER aims to support outbound Tokyo Tech students, who will have the opportunity to study abroad at prestigious universities and expand their academic and research skills at a global level.

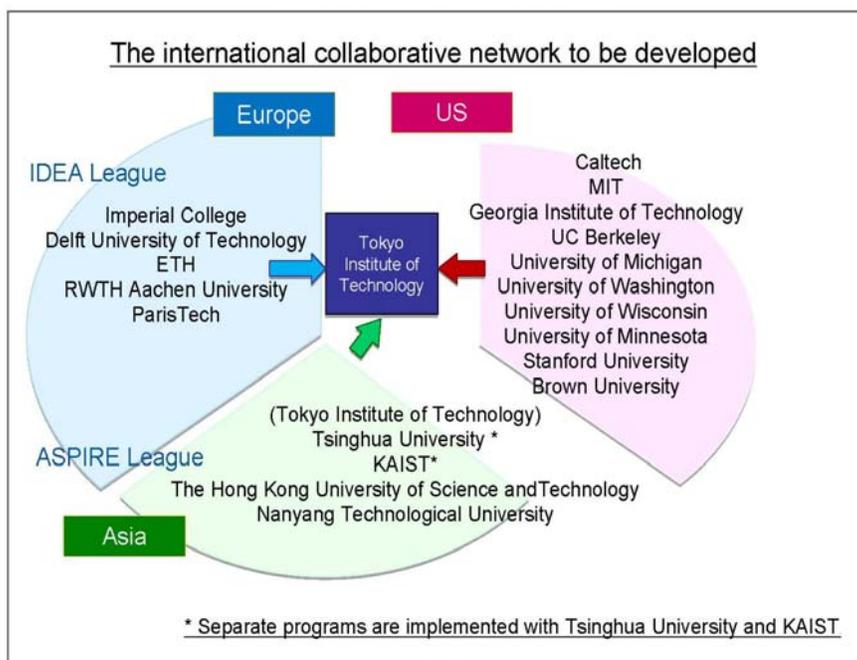
Through TIER, Tokyo Tech's newest framework for study abroad, the university endeavors to enhance its efforts as an international organization and to advance global educational opportunities for students at home and abroad.

Further information:

TiROP: <http://www.ipo.titech.ac.jp/tirop/>

MEXT's "Re-Inventing Japan Project":

http://www.jsps.go.jp/j-tenkairyoku/data/download/01_kouboyouryou_2.pdf





Kochi University Research Project

“Research Center for Global Environmental Change by Earth Drilling Sciences”

Integrated Ocean Drilling Program (IODP), an international research program for scientific ocean drilling led by Japan and the U.S., was launched in October 2003. To support the activity of IODP, the Kochi Core Center (KCC) was also established in 2003 as an organization at Kochi University under collaboration with the Japan Agency for Marine-Earth Science and Technology (JAMSTEC). KCC is one of the three main IODP core repositories in the world and has state-of-the-art instruments for high precision analyses. With the benefit of these facilities, Kochi University started a research project emphasizing research in earth drilling sciences. The main research theme of the project is to investigate changes in the earth's environmental system, particularly on (1) earth environmental changes, (2) material cycling in seismogenic zones and (3) submarine resources. Members of the project have been actively participating in scientific cruises including IODP Expeditions and tackling the three key research subjects.



Fig. 1. The drilling vessel JOIDES Resolution at Ogden Pier, Victoria, British Columbia. IODP Expedition 323 (Bering Sea paleoceanography) started on July 2009.



Fig. 2. A newly discovered deep-sea fault scarp at the Nankai Trough during dive observation by the manned submersible Shinkai 6500.



Fig. 3. Photograph of deep-sea sediment core COR-1bPC taken from the Conrad Rise in the Indian sector of the Southern Ocean during the research vessel Hakuho-maru cruise KH-10-7 (December 2010 to January 2011). Sediments are mainly composed with fossil diatoms, which is one of major phytoplankton in the ocean. Lighter colored sediments means warm climate for the Holocene, and darker sediments correspond to the last glacial period. We are investigating to understand the processes and mechanisms in a global climate change using these sediment cores.

Contact: **Minoru IKEHARA**, Center for Advanced Marine Core Research,
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URL: <http://www.kochi-u.ac.jp/marine-core/geeds/index.html>



Kyushu University California Office

2011 Kyushu University Robert Huang Entrepreneurship Program (QREP) Has Been Completed

The Robert T. Huang Entrepreneurship Center of Kyushu University (QREC) aims to nurture students with an interest in entrepreneurship and global points of view and encourages students to challenge themselves to create new values. One of the main goals of Kyushu University California Office (CA Office) is also to expose students to different ideas and cultures through various programs and to bring as many students as possible to Silicon Valley or, otherwise, to the United States.

In order to achieve such common goals, QREC and CA Office co-hosted the 7th Kyushu University Robert Huang Entrepreneurship Program (QREP). This program is an annual Silicon Valley Program utilizing a fund donated by Dr. Robert Huang, who graduated from Kyushu University and became very successful in the United States as the CEO and Founder of SYNEX Corporation. Many other alumni also joined him in contributions. The main objective of this program is to educate students in entrepreneurship spirits including self-establishment, challenging spirits, multi-culture environment and how to nurture leadership.

From March 4th to 9th 2012, 21 Kyushu University students, along with 4 Waseda University students, came to Silicon Valley and deeply immersed themselves in its culture, such as its environment of high-tech industries, entrepreneurial spirits, venture capital activities, innovation spirits and its broad cultural diversity. All students stayed in a hotel for a week, visiting several companies along with Stanford University while receiving various lectures by visionaries of Silicon Valley. All students were so active and enthusiastic that there was never enough Q&A time. After each lecture, we observed students making a long line to talk to lecturers and ask many questions. The students were very enthusiastic about sharing many ideas and discussing their future plans with each other.

The Japanese students also gave a presentation to the Stanford students on the 2011 Tohoku earthquake and Tsunami that hit Japan on March 11th. They explained what is going on in Japan to recover from such a huge disaster and what we need to do for the future. Their presentations stimulated the Stanford students and gave them food for thought, which led to a deeper understanding of not only international cooperation but also cultural differences and similarities between both countries.

At the farewell reception, all students made a short speech on what they learned through this program. We were so pleased and impressed to know that many students were able to get out of the box they were confined in and learn how to change their way of thinking in a more global way. Their speeches made us realize how important this program was for them. Even though QREP was a short program, its impact has been quite immense.



Lecture on Entrepreneurship



Field Trip at Plug & Play



Discussion with Stanford University students

Interview with JSPS Fellow in the U.S.



Dr. Toshihide Kurihara

2001: M.D., School of Medicine, University of Tsukuba

2001-2005: Resident, Department of Ophthalmology, Keio University Hospital

2005-2009: Ph.D. candidate and COE research assistant, Keio University Graduate School of Medicine

2009: Ph.D. in Medicine, Keio University Graduate School of Medicine

2009-2011: Manpei Suzuki Diabetes Foundation Postdoctoral Fellow at Division of Biological Sciences, UC San Diego and at Department of Cell Biology, the Scripps Research Institute

2011-present: JSPS Postdoctoral Research Fellow at Department of Cell Biology, the Scripps Research Institute

Dr. Kurihara is a M.D./Ph.D. scientist and an ophthalmologist. After completing residency in ophthalmology at Keio University Hospital, he started basic biomedical research. He has been studying physiological and pathological development of retina and retinal disease. Currently, he is proceeding with research about hypoxia response in the retina with Professor Martin Friedlander at the Scripps Research Institute in La Jolla, California.

Q1: Why did you choose the U.S. to pursue your research?

That's because there are a couple of laboratories in the US which have been doing projects compatible with my interest. When I decided to go abroad for postdoctoral training, moving to the US was not a priority. Actually, I was thinking to go to a country where English is the primary language such as the US, Canada, UK or Australia because now obviously English is the primary language in the scientific field. Definitely, the training in speaking, listening, and writing in English was an important consideration for my postdoctoral period, but not the highest priority. The most important thing for me was to be able to do the kind of research that I wanted to do. Such kinds of laboratories were found in the US eventually.

Q2: What is your impression of the research environment in the U.S.? How is it different from your lab in Japan?

The biggest difference between the US and Japan in the research field is budget, I think. We apply for public or

private grants in Japan as well as in the US. I feel, however, that the amount of the grants from NIH is much higher than in Japan, sometimes by like two digits. These enriched funds make researchers in the US more able to concentrate only on their research with well-endowed supplies, materials, devices, and people.

Q3: What merits do you derive from conducting your research in the U.S.?

As you know, the US is one of the most active countries in terms of science among the world and a gathering spot for excellent researchers from all over the world. Surprisingly, 70% of postdocs in our institute are from foreign countries. Through interaction with researchers from various backgrounds both inside and outside the US, I can study, learn, and grow here.

Q4: What is your dream? And do you have any advice about doing research abroad for young researchers?

Similar to other biomedical researchers, my short and long term objectives are to have my own laboratory to conduct research projects as an independent principal investigator, and to cure actual patients suffering from eye diseases with my discovery. In addition, I have my specific dreams. The first dream is to send my fellows to the lab of Dr. Peter Westenskow, my best colleague in my current lab, after he and I establish our own labs respectively. The second dream is to invite my mentor, Prof. Marty Friedlander for his honorable lecture to an international meeting in Japan which I will hold in the future. To make these dreams come true, I

would like to make my best effort for current and future projects.

In present days, according to the development of information technology, some people would say that it is not always necessary to physically move to foreign countries to learn and experience them. However, I can now say from my own personal experience that there are lots of things you can obtain only when you actually live and work in a certain place. For this reason, I strongly encourage young researchers in Japan to do research abroad!

Interview with JSPS Fellow in the U.S.



Dr. Shuko Takeda

2004: M.D., Hokkaido University, School of Medicine (Top of the class)

2004-2005: Resident, Osaka University hospital, Osaka

2005-2006: Resident, Nissay hospital, Osaka

2010: Ph.D., Graduate School of Medicine, Osaka University

2010Apr.-2010Dec.: Research Fellow, Graduate School of Medicine, Osaka University

2011Jan.-2011Mar.: Project Assistant Professor, Graduate School of Medicine, University of Tokyo

2011Apr.-present: JSPS Postdoctoral Research Fellow at Department of Neurology, Massachusetts General Hospital, Harvard Medical School

Shuko Takeda was born in Hokkaido, Japan. His admiration for Ryotaku Maeno, an 18th-century scholar who studied Western science and medicine from Dutch sources, motivated him to study in the Faculty of Medicine at Hokkaido University. He graduated at the top of his class in 2004 and went on to go through clinical training in neurology and psychiatry at Osaka University Hospital and other institutions. He began basic research on Alzheimer's disease at the Osaka University Graduate School of Medicine in 2006 and was awarded a Ph.D. in 2010. He continued researching dementia and doing clinical work, and after serving as a Project Assistant Professor at the University of Tokyo, he went to Harvard University and Massachusetts General Hospital as a JSPS Research Fellow in 2011, and has since been doing research on Alzheimer's disease in the laboratory of Professor Bradley T. Hyman.

Q1: Why did you choose the U.S. to pursue your research?

For me, the question of where to do research was almost as important as the question of what to research. I felt that the information gathering I could do as an individual and the information that I heard from my superiors and colleagues was not very reliable, so when I looked back over the annually announced world university rankings for the past ten years and compared them, I found that the universities in the United States were ranked much higher than those in other countries. Of these universities, Harvard had by far the best reputation, so I decided to study abroad at Harvard.

Q2: What is your impression of the research environment in the U.S.? How is it different from your lab in Japan?

I know only the environment at Harvard, so what I'm saying is limited to my experiences here, but I feel that there are two major differences from research laboratories in Japan. One is that there is a lot of collaborative research. The other is the high quality of everyday discussions. Superb researchers from all over the world have gathered here, so you find diverse value systems existing in the same place, and I feel that this allows multifaceted interpretations of things. This is very important for moving research forward, and I think it may be a primary factor in the excellence of American research institutions.

Q3: What merits do you derive from conducting your research in the U.S.?

In order to have one's paper accepted by an academic journal, the quality of the content of one's research is, of course, important, but the trust and confidence that the research institution has in the community has an influence that we cannot disregard. In other words, even if the content of two research papers was exactly the same, the paper from the research laboratory with a reputation for achievement and reliability would tend to be evaluated more favorably than a paper from an unknown research laboratory. Confidence in a research laboratory or university is generally measured in terms of the total number and quality of papers published in the past, and American research laboratories outshine others in this sense, too. To begin with, the editorial departments of most of the authoritative scientific journals are in the United States, so I think this is one reason why research conducted in the United States is likely to be evaluated so highly. That's why famous American research laboratories are likely to produce superior pa-

pers, which is why superb researchers tend to cluster there, which is why a high quality research environment develops. It's a kind of benevolent cycle. I decided to do research in the U.S. in order to utilize these advantages.

Q4: What is your dream? And do you have any advice about doing research abroad for young researchers?

My goals are divided into long-term goals, medium-term goals, and short-term goals. My long-term goal is to build up a new Japanese educational stronghold in Hokkaido. I want to create an institution of higher education that trains people who are "elite" in the true sense of the word. My ultimate dream is to turn out a continuous stream of elites from Hokkaido who will be responsible for Japan in the future.

My medium-term goal is to make a broadly based, profound contribution to Japanese society by finding a cure for dementia. I want to make a contribution to Japan's aging society by developing new diagnostic methods and therapeutic drugs for Alzheimer's disease.

My short-term goal is carry out a lot of high-quality research projects in my current laboratory, and along the same lines, to produce a lot of papers. I advise those of you who will be studying abroad in the future to once again make a thorough review of Japanese history and culture. American research institutions in particular are composed of many ethnic groups, and it is a lot of fun and a valuable experience to discuss culture and history with those kinds of colleagues.

Interview with JSPS Fellow in the U.S.



Dr. Koji Yamano

2004: B.S., Department of Chemistry, Faculty of Science, Nagoya University
 2006: M.S., Department of Chemistry, Graduate School of Science, Nagoya University
 2006-2009: JSPS Research Fellowship for Young Scientists (DC1)
 2009: Ph.D., Department of Chemistry, Graduate School of Science, Nagoya University
 2009-2011: G-COE Postdoctoral Fellowship, Nagoya University
 2011-present: JSPS Postdoctoral Fellowship for Research Abroad

Dr. Koji Yamano is currently conducting research in molecular and cellular biology, specifically mitochondrial quality control of mammalian cells, at the National Institute of Neurological Disorders and Stroke (NINDS) –National Institutes of Health (NIH).

Mitochondria are one of the essential membrane-embedded, sub-cellular structures which produce cellular energy known as ATP (Adenosine Triphosphate). Although mitochondria sometimes are damaged by ROS (Reactive Oxygen Species), which are produced as a natural by-product of cellular metabolism, cells are equipped with a sophisticated system to selectively clear these damaged mitochondria. Interestingly, Parkin and PINK1, two gene products linked to familial forms of Parkinson's disease, have been identified for selective elimination of the damaged mitochondria. Dr. Yamano is currently trying to understand the molecular mechanism which allows cells to discriminate between good and bad mitochondria.

He was first involved in the study of mitochondrial protein import using budding yeast at Nagoya University under the supervision of Prof. Toshiya Endo. After receiving a PhD followed by his 1st postdoc carrier, he changed his model organism from yeast to mammals and started his 2nd postdoc at NIH in the US.

Q1: Why did you choose the U.S. to pursue your research?

Because Richard J. Youle, my current supervisor was there. In 2008, his group reported that Parkin translocates to damaged mitochondria and triggers selective elimination of damaged mitochondria. That paper actually enticed me to join his lab.

Q2: What is your impression of the research environment in the U.S.? How is it different from your lab in Japan?

I am not sure if the following impressions are applicable to other universities and institutes in the US, but I have found several differences between the research environments in Japan and the US. The US has built an efficient research environment for researchers to focus on their investigation without being busy with "annoying" details. There are a multitude of supporting staff and excellent managers responsible for these details. I feel grateful for their support, which makes it possible for us to concentrate solely on research. In contrast, in Japan, scientists are usually responsible for these details including maintenance of experimental equipment and tons of paperwork unrelated to their research.

Another thing I've noticed is one's attitude towards performing experiments. Many of my co-workers use their time in the most productive way possible, in other words, they work very hard during working hours and cherish discussion at lunch time, but enjoy their private life with their families on weekends. After observing their time management skills, I have to apologize to my family for my poor time management...

Q3: What merits do you derive from conducting your research in the U.S.?

As you know, lately, the quality of Japanese scientific research has been improving, so I agree that we can engage in high quality research in Japan. However, there are some obvious merits to conducting research in the US. In the US, gathering the latest information, including unpublished data, as soon as possible is absolutely imperative in the field of biology. This is probably because NIH is a huge agency under the US government responsible for biomedical research, and there are many related seminars and conferences each day of each month. Through presentations by famous scientists and young researchers who I

believe will become leading scientists in the near future, I can get valuable information that is not available in Japan via the internet, and I can also learn how to give an impressive presentation.

Furthermore, I'm very happy to pursue research while being surrounded by highly experienced and cooperative co-workers from all over the world. There are those who are good in biochemistry and those who are experts in cell biology. One has an extreme interest in genetic engineering and another is involved in genomic and chemical screening, and so on. I have been learning a lot from my co-workers as well as my boss.

Q4: What is your dream? And do you have any advice about doing research abroad for young researchers?

I would like to establish my own laboratory in the future. But now, I am excited about my current research, some of which I believe will contribute to a better understanding of science.

Scientific research is one of the most wonderful jobs that allow you to fulfill your intellectual curiosity while doing something really enjoyable. Recently, I read an interesting article about "regrets of the dying" written by an Australian nurse who spent several years working in palliative care, caring for patients in the last 12 weeks of their lives. According to the article, the most common regret of the dying is "I wish I'd had the courage to live a life true to myself". I think it's important to try and honor your dreams along the way. If you want to pursue research abroad, why don't you jump out of the lukewarm research/monotonous daily life in Japan and get started with an active and fulfilling period of professional and personal time in the US?

I'd like to thank the JSPS office for giving me the opportunity to write this article. And, thank you for taking your time to read it.