



# Japan Society for the Promotion of Science San Francisco Office

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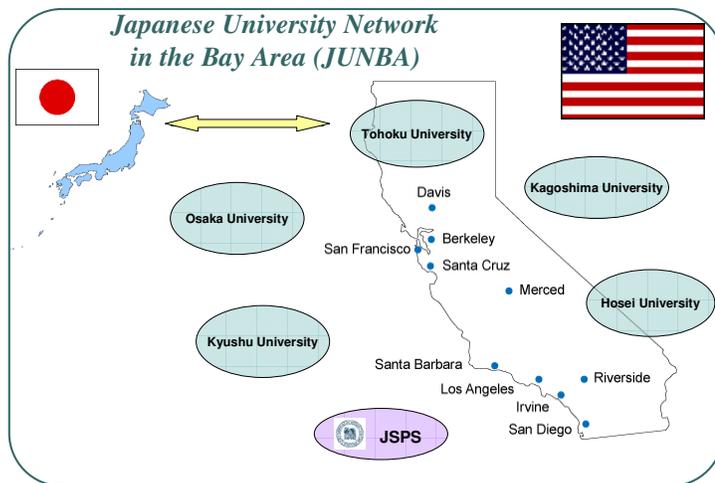
## Strengthening the Partnerships in JUNBA ( Japanese University Network in the Bay Area)

### JUNBA is starting a new era!!

Japanese University Network in the Bay Area, JUNBA is starting a new era from this autumn by reinforcing its framework.

JUNBA is the network between organizations that have offices in the Bay Area. The core members are Japanese universities offices and JSPS SF Office, located in San Francisco Bay Area.

The mission of JUNBA is to contribute to the academic development and new industrial creation in Japan and the U.S. through to promote internationalization of Japanese Universities, to help foster the future's foremost talents in the world, and to support educational-industrial exchange and cooperation between Universities and companies.



### Volume IV

Issue September 2006

#### Inside this issue:

Strengthening the partnerships in JUNBA 1

Events of Summer 2006 2 - 3

Reception/Symposium/  
Students visit SF Office

Report of University Visit 3

Column

Bay Area & Japan Related 4

News :

“Kagoshima University”

“University of Tsukuba” 5

“ICSTI’06”

Interview with Former 6

JSPS Fellow in the U.S.

Upcoming Events of 2006



Thursday, September 28th

The 17th JUNBA Meeting at Tohoku University US Office, in Los Altos, CA.

The network itself was established in autumn 2004, and routinely had meetings and information exchanges. However, the members discussed organizing their network more solidly and wanted to improve their activity base to become more lively.

The President of this new JUNBA is Prof. Yoshikatsu Murooka, the Executive Director of Osaka University, San Francisco Center, and Prof. Seishi Takeda, the Director of JSPS SF Office is Vice President, in charge of administrative support for JUNBA.

The regular meeting will be held once a month, and the first JUNBA Symposium in the Bay Area is planned for January 12, 2007.

For more detailed information, please see the website : <http://www.jspsusa-sf.org/junba/>

If you have any specific questions, please contact us : [webmaster@jspsusa-sf.org](mailto:webmaster@jspsusa-sf.org)



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# Events of Summer 2006

## RECEPTIONS **Gatherings of Japanese fellows held in Berkeley!**

### The 5<sup>th</sup> Gathering of Japanese fellows

**July 28 17:00-19:30**

On 28 July, the JSPS San Francisco Office held a "Gathering of JSPS Japanese Fellows" in Berkeley, California. Its purpose was to promote trans-disciplinary exchange among Japanese researchers working in the US and to deepen a sense of collegiality while facilitating network building among them. The Office held the first of these gatherings in 2004. This, the fifth such gathering, brought together 27 Japanese researchers. Some were fellows under JSPS's "Postdoctoral Fellowships for Research Abroad" and "Research Fellowships for Young Scientists" programs and others were invited Japanese scientists doing research in the US.

The meeting began with remarks by San Francisco Office director Dr. Seishi Takeda. After a toast, time was given to allow the participants to engage in free conversation. The casual atmosphere made it easy for them to relax and get to know each other. The participants were then asked to introduce themselves and their research work. This added impetus to the conversation among them on such subjects as where and what they had researched and their experiences of living in the US and other countries. Following this time slot, talks were given by Prof. Katsumori Matsushima, The University of Tokyo, and Prof. Toshihiko Nishimura, deputy

director, Tohoku University's US Office, on the significance of doing research overseas and the importance of networking with Japanese colleagues. The young Japanese researchers were both motivated and encouraged by these messages based on the professors' wealth of personal experience.

After the gathering closed with remarks by Dr. Takeda, the participants continued their lively discussions, raising expectations of contacts and networks developing among them in the future.



*Research participants gathered at Hotel Durant, near our San Francisco Office, in Berkeley, CA. (Friday, July 28th)*

## Symposium 'Scientific Mobility Conference' at Stanford University



ment, with a focus on the UK, Germany, Singapore and France.

JSPS San Francisco Office participated in this event as one of many organizations and foundations from all over the world. In the conference, the director of JSPS San Francisco Office, Dr. Seishi Takeda introduced JSPS outlines and programs - referencing 3 of our fellowship programs which are available for researchers in the United States -.

And our office displayed a booth - featuring JSPS brochures, fellowship guidelines, our current newsletter and JSPS general information. Many participants visited our booth, and the staff of our office introduced JSPS programs. It was a good and valuable opportunity for our office to meet new people interested in JSPS programs.

On September 7th, a Conference titled "Scientific Mobility" was held at Stanford University. This event was designed for graduate students and postdocs from the Bay Area, in finding a greater understanding of 1)How to transition from trainee to employee working with the visa system in the US, and 2)Global opportunities, temporary or permanent,

## Kagoshima University Students visit JSPS SF Office

On the 13<sup>th</sup> of September, eleven Japanese graduate students and five staff from Kagoshima University visited our office.

Dr. Seishi Takeda, director of our office, explained JSPS's outline and introduced its programs such as fellowships for young researchers and Grants-in-Aid for Scientific Research. They intently listened to his talk, and some of them asked questions in the middle of his lecture. They were interested in how to get grants, review systems of research programs, and support for post docs, so most of their questions focused on these matters. Dr. Takeda also talked about the history of Silicon Valley. They sometimes laughed and nodded their heads, showing that they enjoyed his interesting talk. After that, there was casual conversation among the guests and our staff. We exchanged our business cards and talked about the life in the U.S and so on. The chatting was lively and vigorous, continuing right up until they left our office. We hope that this event inspired their interest in the U.S and eagerness about their research prospects.



# Events of Summer 2006

## REPORT OF UNIVERSITY VISIT

### UC Irvine

Date : **Monday, September 11th, 2006**

Where : **University of California, Irvine**  
Office of Research and Graduate Studies

UC Irvine's Department of Government Relations & Research Development cordially invited JSPS San Francisco Office to come down to southern California and give a intimate presentation of the opportunities offered by our organization, for faculty and researchers interested in working with Japan. The JSPS staff met with Director Randall Black and RGS Editor Elspeth Riley on Monday, September 11<sup>th</sup>. They had so kindly set up the meeting venue and coordinated the guest list. Director Seishi Takeda introduced the research opportunities offered through the JSPS fellowship programs, and joint colloquium prospects which seemed to interest many. Following a stimulating Q & A session, many attendees stuck around to

network with our staff. We feel this new relationship with UC Irvine offers much potential.

During our visit down south, the JSPS San Francisco Office took the liberty of touring around the UC Irvine and UCLA campuses. Both campus visits posed historically educational and offered contrast to our well-known UC Berkeley. We're looking forward to traveling again.



*Prof. Anne Walthall, at UC Irvine was asking about JSPS-SF Joint Colloquium and our fellowship.*

- UCI - <http://www.uci.edu/>
- UCLA - <http://www.ucla.edu/>

### Column

## “Affordability” for Whom ? University for Whom ?



*Ryuji Koyama*  
JSPS San Francisco office  
Advisor  
Visiting Scholar of UC, Office  
of the President

It is said there is an “affordability crisis” in California higher education today, that is, because of fee increases and the rising costs of going to college, including California’s expensive housing, the ability of students and families to finance higher education is becoming a critical issue. It is argued not only among colleges and universities in California but also by the California Post-secondary Education Commission (CPEC) and the Public Policy Institute for Higher Education. “Student fees have escalated dramatically and the overall cost of attendance, increased levels of debt and a decline in the buying power of grant aid might be putting higher education beyond the reach of many California families”, they say. And one recent public opinion poll “showed growing concern about college costs and accountability eroding an otherwise favorable view of higher education.”

The average debt level of California students has jumped substantially in the period 1995-96 to 2003-04 (\$10,763→\$17,075 for undergraduates and \$19,803→\$34,284 for graduates [source:EdFund]). Debt levels, particu-

larly at the graduate level, are said to be “forcing students to make their career choices that can effectively preclude lower paying, public service careers.”

These arguments seem all the more intense here in the United States, where some of the benefits of higher education are directly (and frankly) related to the amount of lifelong earnings.

Then what is the prescription for this issue? It is natural to put emphasis on the importance of need-based grant aid. For example, CPEC considers the possibility that “fees should be “frozen” at current-year levels for the next five years, with the State providing the funds that would have been generated by increases in student fees.” The problem is, of course, how the government (either state or federal) should provide financial resources for these funds. Behind the government lies the severe eyes of the taxpayers. To what extent can they give priority on grant aid for higher education over many other important issues? Or is it easy for them to propose a tax increase? In this situation, “affordability” issues seem to be a part of the problem of “accountability”.

After all, it should be asked - “Affordability for whom?” To be sure, affordability is an important and urgent

issue, but, at the same time, there is no easy way for the argument to develop. It has only just begun.

In order to cope with this issue, it seems helpful for us to go back to the basic point of view, that is, to ask what the mission of universities or higher education is.

On this fundamental theme, there have been many opinions, such as that of Humboldt of Germany in the 19<sup>th</sup> century who thought that professors were principally researchers and that the most significant education is to introduce the latest accomplishment of professor’s research, or that of Ortega y Gasset of Spain in the early 20<sup>th</sup> century who thought liberal-arts education was the most important, followed by fostering professionals, and finally “in addition to them” professors were expected (or allowed) to research. In the latter half of the 20<sup>th</sup> century former President Kerr of University of California pointed out that universities’ fundamental missions consisted of teaching, research and public service and that present-day universities could be expressed as ‘multiversities (not uni-)’. It can be said that his opinion is the most broadly accepted way of thinking today. And we, in the 21<sup>st</sup> century, should appreciate the legacy of these arguments and further investigate on this theme in the context of our own age.

## Mutual Arrangements of Liaison Offices between Faculty of Fisheries, Kagoshima University and the University of the Philippines in the Visayas

*Tatsuro Matsuoka (Professor and Dean, Faculty of Fisheries, Kagoshima University)*

The Japan Office of the University of the Philippines in the Visayas opened in the campus of the Faculty of Fisheries, **Kagoshima University** in April, 2006. The office is composed of an academic staff room, seminar room and semi-wet laboratory suitable for fisheries and aquatic science researches. This arrangement is based on the newly signed cooperation agreement between the two institutions and the Philippine Office of the Faculty of Fisheries has opened in the Miyagao campus of the University of the Philippines since February, 2006. Mutual provisions of the spaces for overseas offices are the first cases for both Kagoshima University and the University of the Philippines and that at the level including laboratory spaces must be quite unique even among universities over Japan. The office in Kagoshima is now occupied by an associate professor newly employed by



*(Prof. Emerlinda Roman, President of the University of the Philippines, who are addressing at the official opening of Kagoshima Office of the University of the Philippines in the Visayas. )*

the Faculty of Fisheries from the Philippines. The two institutions annually exchange approximately 25 researchers being sent and accepted to each other, therefore, these offices will be fully utilised from the field-work season this year.

This arrangement is the very fruit of the academic cooperation between the two institutions since 1998. They have implemented one of the Core University Research Cooperation Programs funded by the **Japan Society for Promotion of Sciences (JSPS)**. The program is a large umbrella organised by two universities individually selected in Japan and one of the Asian countries and participated by other institutions in the two countries in a certain academic field for 10 years. The program led by the Faculty of Fisheries and the University of the Philippines in the Visayas is entitled as, 'Research on management and conservation of fishery resources and aquatic environment in the Philippines', where a variety of activities such as *in situ* surveys and researches, international seminars and exchange of researchers including post-graduate students are conducted.

Internationalisation is one of the policy items of Kagoshima University, which is located in one of the Southernmost prefectures of Japan and aims at expansion of its academic activities Southwards to the Southeast Asia and the South Pacific regions. The university established the Centre for International Planning recently, which indicates the university policy clearly. Faculty of Fisheries is the most active one of those of Kagoshima University and the establishment of the Philippine Office is a stepping stone for Kagoshima University to consolidate its overseas centre in the region. Kagoshima University starts a medium-term education and research project being granted by the Ministry of Education and Sciences of Government of Japan this year. It is



*(Prof. Glenn Aguilar, Chancellor of the University of the Philippines in the Visayas, Prof. Yukihiko Nagata, President of Kagoshima University, Prof. Emerlinda Roman and Prof. Tatsuro Matsuoka, Dean of Faculty of Fisheries, Kagoshima University (from left) at the tape-cutting ceremony for the new laboratory. )*

entitled as, 'Production of man-power internationally capable in the fields of aquatic environment, food resources and medical services', of which the research team is formed with researchers of Faculties of Fisheries, Agriculture and Medical Sciences. Such a bit unusual assemblage of the faculties are attributed to the intention to study on a range of phenomena which are prevailing over the near-shore inferior area which is usually inhabited by poor multitudes and where researches toward poverty alleviation is necessary over the world.

The Faculty of Fisheries is also anticipating formation of a new international research project on 'Evaluation and solution to negative impacts to fishery resources and environment in aquatic field' in the region and embryonic research team has been organised. The man-power production policy of the Faculty of Fisheries is written as, 'provision of graduates who are highly educated in the fields of rational utilisation of fishery resources and conservation of aquatic environment, capable to produce new culture to lead all aquatic-related activities in tropical and sub-tropical regions and contribute to sustainable development of both international and local communities'. The Faculty wishes to achieve the goal combining the education and research activities beyond the international standards.

<http://www.kagoshima-u.ac.jp/html/subcon/annai/an01e.html>



## ~ Fluency Information Theory and its Applications to Multimedia ~

In the Center for Tsukuba Advanced Research Alliance (TARA), University of Tsukuba, team of researchers lead by Professor Kazuo Toraichi race towards gaining the de-facto- standard of the next-generation multimedia description formats, based on **Fluency Information Theory**.

When multimedia including audio and video are stored or processed, they are converted to their **digital** formats, and are later converted to **analog** signals again, upon reproduction.

The "**Fluency Information Theory**", introduced by Prof. Toraichi by 1980 is capable of overcoming the limits in conventional theories and **allows a flexible conversion between analog and digital signals**. This theory also generalizes both the Shannon's sampling theorem and the Wavelet

Transform, and is expected to become the unified media coding technology as the kernel of future IT.

Based on this theory, Fluency multimedia systems can store digital information compactly, achieving high quality multimedia reproduction. In this project funded by the **CREST program of Japan Science and Technology Agency (JST)** and the **Urban Area Collaboration Promotion by MEXT**, the goal is to position multimedia systems based on the Fluency Theory as the international standard of next-generation IT.

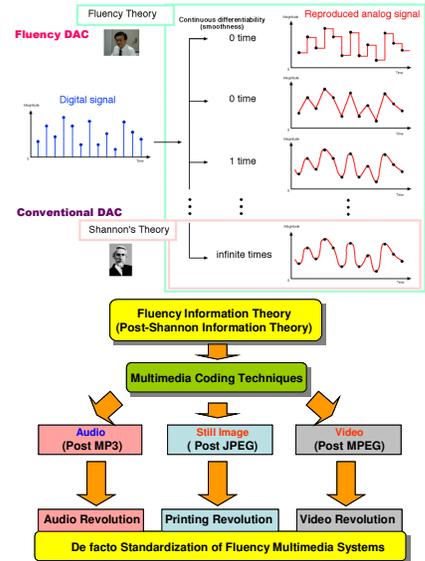
Various multimedia systems based on the theory have been developed so far. **Fluency Audio Systems** reproduce high quality audio with ultrasound (over 20 kHz) components from standard CD. The products have won numerous awards at home and abroad, and the scheme is becoming a world standard for high-end audio reproduction. **Fluency DTP System** creates large-size printed materials such as poster and banner easily on personal computer in high resolution and without jaggedness. **Fluency TV** can recreate high quality picture as in HDTV from conventional signals.

By these achievements in cooperation with numerous IT firms, Prof. Toraichi received the Funai Information and Scientific Promotion Award in 2004 and the Inoue Harushige Award in 2005.

<http://www.wslab.risk.tsukuba.ac.jp/project/homepage.html>

<http://www.ist.go.jp/kisoken/kenkyu/crest/h1303/index.html>

<http://www.toshiareaproject-tsukuba.jp/>



## The Fourth International Congress on the Science and Technology of Ironmaking (ICSTI'06)

Organized by **Iron and Steel Institute of Japan**

Co-organized by **Graduate School of Engineering, Osaka University**

Building on the successes of the previous congresses, the 4th International Congress on the Science and Technology of Ironmaking will be held **from November 26 to 30, 2006 at the Osaka University Convention Center**. The first congress was held in Sendai, Japan in 1994, the second was held in Toronto, Canada in 1998 and the third was held in Düsseldorf, Germany in 2003. For the fourth congress, we return to Japan.

In the final decade of the 20th century, the iron and steel manufacturing industry focused mainly on sustainable development. Global warming is an urgent problem that hinders sustainable development. On the other hand, recent economic developments worldwide, and especially in the BRICs, have resulted in a vast demand that the iron and steel manufacturing industry must meet as best it can. **In this first decade of the 21st century, we must therefore aim for even greater efficiency and higher productivity that takes into account the need for sustainable development.** The task confronting us now is to ensure environmentally friendly production while at the same time generating high productivity.

The International Congress on the Science and Technology of Ironmaking has consistently provided an excellent venue to discuss and find solutions to the global prob-

lems. The Fourth Congress promises to be another valuable opportunity for exchanging ideas on the issues described above. **About 170 papers will be presented. Discussions will cover all aspects of ironmaking from scientific and technological viewpoints, including resources, conventional and innovative new processes and facilities, energy, and environmental issues in ironmaking.** The conference also encompasses thermodynamics, transport phenomena, reaction models, the physical properties of ironmaking and environmental technologies derived from ironmaking technologies. Participants will have the opportunity to visit an integrated steel works that incorporates impressive, state-of-the-art technology. Further information can be found at the following website.

**ICSTI'06 website:**  
<http://www.isij.or.jp/ICSTI2006/>

# Interview with Former JSPS Fellow in the U.S.

## Taisuke Yamada's Interview

Hailing from Japan, Dr. Taisuke Yamada is conducting research in the Department of Chemistry at Georgetown University, Washington, D.C. After receiving his master's degree, in 2003 he was awarded a JSPS Research Fellowship for Young Scientists. In 2004, he received his PhD in Chemistry from Kumamoto University.

Since May 2005, Dr. Yamada has been working at Georgetown University as a Postdoctoral Fellow. His research background is design and synthesis of self-assembling nano materials, particularly organogel, and the evaluation of their chemical and physical functions. A number of materials exhibiting dynamic functions have been created by his team. His current research project is preparation of Room Temperature ionic liquids.

JSPS SF was able to have a brief interview with Dr. Yamada in Washington, D.C.

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

The U. S. is one of world's leading countries in my field and there is an authority in my field at Georgetown University. An exciting American life was also very attractive.

### What is your impression of the research environment in the U.S.?

### How is it different from your lab in Japan?

I am very impressed that researchers in the lab have strong enthusiasm for research and the higher ability. And we can concentrate on each other's research because of these distinct responsibilities.

### What merits do you drive from conducting your research in the U.S.?

It is more useful to increase my independence in the competitive environment. On the other hand, I could realize that Japan was well respected globally for its quality of science in many different fields. We can see a lot of products made in Japan, such as cars, cameras and PC's etc. My perception has changed a little after coming here.

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

My dream is to be a person who can create or produce something new and useful. I hope I am able to make other people happy with my research work. I think that one significant problem for the young generation is to be unable to tell their dreams. If you have a dream, you can do anything. Go abroad and change the World!



### Dr. Taisuke Yamada

MS (Chemistry) Graduate School of Science & Technology, Kumamoto University, Japan, 2000

JSPS Research Fellowships for Young Scientists 2003-05

Ph.D. (Chemistry) Graduate School of Science & Technology, Kumamoto University, Japan, 2004

Postdoctoral Fellow, Department of Chemistry, Georgetown University, U.S., 2005-

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### - Upcoming JSPS Fellowship Deadlines -

Please note that the upcoming deadlines for the JSPS Postdoctoral Fellowship (Short-term) are :

**November 2nd, 2006 & January 5th, 2007**

If you are interested in applying, please be sure to get your completed application to the JSPS SF Office at least **one week prior** to the above dates. JSPS SF can send your application directly to our headquarters!

### - Japan Foundation Fellowship -

We are also introducing Fellowship provided by Japan Foundation in addition to our own. If you are interested in Japan Foundation, please visit this site :

<http://www.jfnj.org/hqactivities.html#fellow>

## Upcoming Events of Autumn 2006

### JSPS and CJS (Center for Japanese Studies, UC Berkeley) 3rd Annual JOINT COLLOQUIUM

*Responses to Destruction in Japan: A Multi-Disciplinary Symposium*

University of California at Berkeley

October 13th-14th, 2006

JSPS and CJS Joint colloquium will take place from October 13th to 14th at University of California at Berkeley. This 3rd Joint Colloquium will focus primarily on responses to natural disasters in modern Japan. Composed of researchers from the natural sciences, social sciences, and humanities, we will consider political, social, cultural, economic and technological dimensions of responses to catastrophe, and examine how disasters have offered opportunities for effecting changes in engineering, architecture, urban design, and disaster prevention/mitigation strategies. The session on Oct 13th is free and open to the public. If you are interested in the program or details, please see our website <http://www.jspsusa-sf.org/>



### 2006 Osaka University Forum

" Frontier Biomedical Research and Beyond "

**DATE** : December 4 (Monday) and 5 (Tuesday), 2006  
**VENUE** : Hyatt Regency La Jolla at Aventine, San Diego, CA  
**HOSTS** : Osaka University, University of California, San Diego  
**SPONSORS**: The Burnham Institute, The Salk Institute for Biological Studies, The Scripps Research Institute, JSPS, APRU, Biocom  
**SUPPORTS**: Osaka University, The 21<sup>st</sup> COE Programs of Osaka University Graduate School of Medicine and Dentistry  
**REGISTRATION** : free **URL**: <http://www.osaka-u-sf.org/forum>  
**FURTHER INFORMATION** : [info@osaka-u-sf.org](mailto:info@osaka-u-sf.org)  
 Dr. Yoshikatsu MUROOKA / Executive Director  
 Osaka University, San Francisco Center

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@jspsusa-sf.org](mailto:webmaster@jspsusa-sf.org).

Check out our website!

[www.jspsusa-sf.org](http://www.jspsusa-sf.org)