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Concerning female researchers and low birth rate

By JSPS Stockholm Office Director Yoshiaki Fujii

In springtime in Stockholm, all the plants sprout altogether and many flowers are blooming. In middle of April, white birch and oak trees put forth quite plain flowers together with yellowish green sprouts. Because of the abundance of birch and oak trees, a lot of people in Sweden suffer from hay fever due to the exposure to pollen. After spending one year in Stockholm, I have noticed that there are many kinds of cherry trees such as Yama-zakura, Oshima-zakura, Uwamizu-zakura (bird cherry) and others which are considered to be cherry, because of the appearance of bark, leaf, and shape of flower, though they are still anonymous for me. In the royal garden, there are quite a number of double-flowered cherry trees (Yae-zakura) and they are in bloom from the end of April to the beginning of May. During this time, a cherry blossom festival is held and is crowded with many people including Japanese. Around May Day, albeit in early summer in Japan, it is still chilly and in a sense of spring in Stockholm.

Strolling neighboring parks on a shiny Sunday, I was a little surprised to see such a lot of people with children or babies living in town, coming out of the surrounding apartments and enjoying sunbathing. Many people were lying in the sun, barely-clad in swimsuits, making me to think of the possibility of skin cancer. A Swedish friend of mine, however, taught me that sunlight is necessary to produce vitamin D within the human body and I recollected that I had learned this principle a long time ago in my school days. Actually, in Nordic countries, the sunlight is necessary for healthy development of children and sunbathing is not merely a fashion, but a physiological phenomenon.

Although Sweden was one of the first countries in the world that had faced the problem of aging society with a low birth rate, the recent appearance of children in the city makes me feel that this problem has already been solved. Looking at the population pyramid issued in 2005 by the Ministry of Internal Affairs and Communications, Statistics Bureau of Japan, you will notice that the population pyramid of Japan is very similar to Sweden in that the populations of the baby boom generations just after the World War II and then the next baby boom generations were increased in the graph to form a small bulge. After the second baby boom generation, the birth rates of Japan have continued to dwindle steadily, but in the case of Sweden, the birth rates decreased temporally and turned to increase above 2 around 1990. Immediately thereafter, by tight finances, it fell down sharply below 1.5 in 2000. Along with recovery of economy in Sweden, however, the birth rate began to be restored to 1.77 in 2005 and further to 1.95 in 2010. Therefore, it may be expected that the birth rate is approaching the population replacement level, 2.08 in coming years. This indicates a big difference from the case of Japan that has not yet got out of the problem of low birth rate that is hanging around 1.4. Here, looking into the policies for support of the social advancement of women and child-care, you can understand the reason for recovery of the birth rate in Sweden. When women begin to advance into society, the birth rate will be inevitably decreased. The reduction in birth rate began to occur in Sweden around 1965 when Europe entered the reconstruction period after the World War II. Sweden, that had maintained neutrality during the War, had not suffered from serious damages in industries and agriculture could undertake big demands from many European countries that had been totally destroyed. The situations after the War gave Sweden big opportunities for economic growth and the industrial world in Sweden

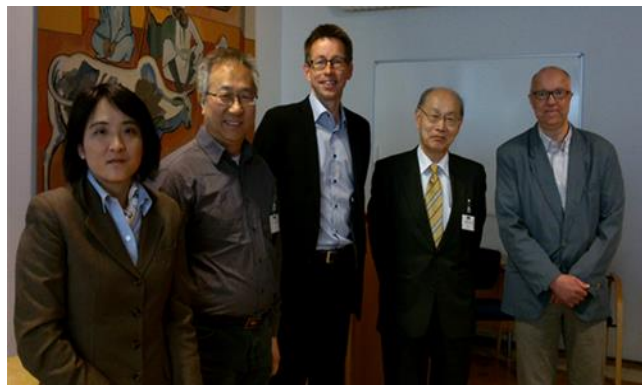
fell into a serious labor shortage, resulting in a promotion of women's participation in society. The birth rate that had restored over 2.0 around 1965 began to fall down rapidly to 1.6 in 1980 in accompany with women's participation in society and rose again as a social problem. In Sweden, however, from the beginning of women's participation in society, the policies have been implemented for promoting equal employment opportunity for men and women and equal pay for equal jobs from perspective of gender equality to establish a society that enable the reconciliation of family life and career. At the same time, the social policies for women to be able to deliver and nurture children without any anxiety who are going to take responsibility for the future of the country have been promoted. The nation as a whole has been promoting the policies for making a livable society for career women who want to have children by supporting the costs necessary for child-care to eliminate the burdens of parents as much as possible under the Child Welfare Act. These efforts of the Swedish people are considered to recently increase the birth rate.

Even if the political powers were replaced, the importance of the financial support of families with children has been recognized as a basic principle by the administration regardless of right and left hand wings and, therefore, these policies have been steadily deepened to make up a generous social welfare system. From the perspective of child's right, this system has been equally applied to the children born out of wedlock as well and it was said that more than half of the children born in 2005 in Sweden were born from couples of cohabitations (Sambo).

In addition, the policy of equal employment opportunity for men and women has been maintained and strengthened as a basic principle to be the characteristic of Sweden. In Sweden, the policy for the equal employment opportunity aims to have more than 40 % of either gender in every category of occupations, such as university and government officials. Incidentally, the proportion of women has already exceeded 40 % in the Diet field and among the cabinet members. In the universities and higher education research institutes in Sweden, of 280,000 employees who were engaged in research and education, 42 % were women in 2007. Although 42 % of postdocs, 57 % of lecturers, and 39 % of senior lecturers were, respectively, occupied by women, it was reported that only 18 % of professors were women. In face of these situations, many universities and institutes in Sweden, such as Stockholm University and Karolinska Institute have made various efforts to increase the female professors. It seems, however, that the situations have not been quite straightforward to be improved. In December last year, Stockholm University that has the second highest proportion (28 %) of female professors in Sweden announced a new program that gives a special support to 26 select female associate professors to encourage their research work and invites excellent female researchers as visiting professor from outside the University in order to further promote gender equality of researchers. I am looking forward to the outcome of the efforts of Stockholm University. A similar effort conducted by Stockholm University in 2006 resulted in the promotion of 15 female associate professors after two years. It is characteristic of Swedish realism that robust efforts are made to approach the goal, once decided.

**This prologue was published in the 2013 Spring edition of JSPS Japanese newsletter.*

SAC Activity Seminar held at SMHI



A SAC Activity Seminar was held at the Swedish Meteorological and Hydrological Institute (SMHI) from April 30 to May 2nd in Norrköping. It was organized by Dr Jonas Olsson

of SMHI, with 40-50 participants. The theme of the seminar was "Meteorological data for hydrological climate studies: experiences and challenges in different regions".

Dr Pontus Matstoms, head of SMHI's Research Division, introduced the first Invited guest speaker, Professor Akiyo Yatagai of the Research Institute for Sustainable Humano-sphere (RISH), Kyoto University.

Other presenters were Dr Heiner Körnich of Stockholm University, Dr Jonas Olsson, and Professor Linus Zhang of Lund University. JSPS Stockholm Office Director Professor Yoshiaki Fujii, also introduced JSPS and its activities in Sweden.

Sweden-Japan Collaboration Symposium held

On 3-4 June, the JSPS Stockholm Office, Lund University and the Royal Institute of Technology (KTH) teamed up to hold a Sweden-Japan Collaboration Symposium titled "Exploring the Future of Light, Matter, and Information on the Nanoscale." Giving presentations on the Japanese side were Dr. Motoichi Ohtsu, Graduate School of Engineering, the University of Tokyo, and 11 researchers from Japan's academic and corporate communities, while the Swedish side saw presentations from Lund's Prof. Anders Gustafsson, KTH's Prof. Lars Thylén, and 11 other frontline researchers. Held at Lund University, the symposium en-

joyed the participation of some 50 students and researchers, who showered the lecturers with questions and engaged each other in animated discussions.

The symposium was also attended by Mr Hideto Matsumoto, first secretary, Embassy of Japan in Sweden, who agreed with the participants that its theme warrants joint endeavor by the two countries. Consideration was given to establishing a program for supporting the continuation and advancement of research in this important area.



Joint Meeting Held between Young Academies of Sweden and Japan



On 12-13 June, the JSPS Stockholm Office supported the first ever meeting between the Young Academy of Sweden and the Young Academy of Japan, held on The Royal Swedish Academy's (KVA) premises in Stockholm. About ten members representing various fields participated from

each academy. After introducing their organizations and activities, they held group discussions and delivered presentations, spurring active Q&A rounds on four themes: Career Tracks & Life and Lab (gender), Future of National Young Academies & International versus National Activities and Collaborations, Science and Technology Policies, and How to Work on Interdisciplinary.

This was the first attempt by the two countries to conduct a bilateral meeting of the Young Academies. It proved to be very successful in fostering the young researchers who will be future science standard-bearers, while giving them the chance to begin and continue accruing international exchange experience.

Visitors from the University of Tokyo's Graduate School of Frontier Sciences

On June 14, Professor Toshiki Watanabe and Project Researcher Makoto Yamagishi of the University of Tokyo's Graduate School of Frontier Sciences visited the Karolinska Institutet (KI) and JSPS Stockholm.

A meeting with KI's Career Service Advisors and International Relations Co-ordinators was held at KI premises, and presentations on researcher employment and career possibilities were given by KI. Dr Professor Akira Kaneko of KI's Department of Microbiology, also shared his experiences as a researcher in Sweden and career paths at the institute.

A visit was also made to the Science and Life Laboratorium (SciLifeLab), which is a collaboration between KI, the Royal Institute of Technology (KTH), Stockholm University and Uppsala University. The Lab



serves as a national resource to support technically advanced research in the area of life science.

SAC Activity seminar: Meteorological data for the large-scale hydrological modeling

By Jonas Olsson (Swedish Meteorological and Hydrological Institute)

A JSPS Sweden Alumni Club Activity Seminar was held at Swedish Meteorological and Hydrological Institute (SMHI), Norrköping, on May 2nd 2013. The common theme of the seminar was "Meteorological data for large-scale hydrological modeling".

Large-scale hydrological modeling means simulating river flow on regional or continental scales, generally involving several large rivers and numerous smaller tributaries. For the simulation, the region is often divided into several (tens of) thousands of sub-basins in which river flow is estimated. This flow is then accumulated in gradually larger rivers, that finally outflows into the sea. SMHI currently performs large-scale hydrological modeling in e.g. Europe, the Arctic and India. Key objectives of the modeling are flood forecasting, sea water quality estimation and climate change impact assessment.

A crucial component of large-scale hydrological modeling is access to good meteorological data of full coverage to use as input, mainly temperature and precipitation. This is difficult as meteorological stations are unevenly distributed over the Earth and therefore advanced processing is required to transform the station data into gridded fields.

The open morning session of the seminar was introduced by Dr. Pontus Matstoms, Head of SMHI Research Division. Then the first invited speaker Prof. Akiyo Yatagai, Research Institute for Sustainable Humanosphere (RISH), Kyoto University, gave an enlightening presentation of the work with developing the APHRODITE database. Prof. Yatagai headed a team of researchers that compiled data from a large number of meteorological stations, with focus on Asia, and processed these data to produce gridded fields of precipitation and temperature. The processing involves careful quality control and advanced spatial interpolation.

Dr. Heiner Körnich presented an evaluation of precipitation data sets from various sources (observations, re-analyses, forecasts) in different regions. In the presentation, pros and cons of the different sources for different applications were emphasized and some first results of high-resolution forecasts shown. Following a short break, Prof. Yoshiaki Fujii presented an introduction of JSPS and its activities in Sweden. Then Dr. Jonas Olsson presented a research project focused on hydrological modeling and climate change impact assessment in India, with specific focus on the Luni River basin. This project is dependent on the APHRODITE data for clim-

ate data post-processing and hydrological modeling.

The second invited speaker, Prof. Linus Zhang, Lund University, gave a presentation of Land Information System (LIS). LIS is a high performance, high resolution land surface modeling and data assimilation system developed by NASA. The main function of this system is to provide high-resolution terrestrial water, energy and biogeophysical processes over small, medium as well as global scales. Prof. Zhang presented results from an application of LIS in Hexi Region, China, and demonstrated some of the powerful possibilities of the system.

After lunch with all invited speakers, JSPS staff and members from the SMHI Research Division, the day continued with a closed group discussion on future research directions related to large-scale meteorological databases, hydrological modeling and climate projections. After a joint plenary session, break-out groups with all speakers were formed, focusing on different issues such as detailed questions on the APHRODITE data and future possibilities of collaboration.

To conclude, the JSPS SAC Seminar was a highly successful event. Some 40 persons attended the open morning session, mainly staff from SMHI (Research as well as other divisions) but also external visitors from e.g. Uppsala University and Swedish University of Agricultural Sciences. The afternoon group discussion was very lively and productive and resulted in a number of new ideas for joint future research. Warm thanks are extended to JSPS for supporting this event.

Jonas Olsson
SMHI, June 2013

Joint Meeting between the Young Academies of Sweden and Japan Stockholm 12-13th June 2013

By Yuji Nishiyama (Tokyo Metropolitan University)

On 12-13th June 2013, a Joint Meeting between the Young Academies of Sweden and Japan was held at Stockholm with the support of the Japan Society for the Promotion of Science (JSPS) and the Science Council of Japan. The objective of the meeting was to promote the interaction between the Young Academies of Sweden and Japan, and to share experiences and build up an international network of young researchers in Sweden and Japan. Ten young researchers from Japan participated in the meeting.

On 12th, we visited some places at Stockholm with a guide of members of the Young Academy of Sweden. First, we visited "SciLifeLab" in the Karolinska Institute. The Karolinska Institute is one of Europe's largest and most prestigious medical universities. We heard reports on research achievements in biological science with the help of Dr. Erik Lindahl. They report was on the development and future of their research and the next-generation genome sequencers that were recently introduced to their laboratory which identify gene sequences at very high speed.

After lunch, we made a visit to the Royal School of Technology, where we looked around the laboratories of robot engineering. We had presentations on the application of robotics in the living space, for example, the adaptation of robots to unknown situations, the collaborative work with human beings, and the communications between the robots. In the evening, we had a guided tour in the Nobel Museum and were lucky enough to visit the underground book storeroom usually closed to the public.

The next day, our Joint Meeting was held at the Royal Swedish Academy of Sciences (RSAS) near Stockholm University. First of all, we had a guided tour in RSAS, especially in the historic rooms used for discussions of the Nobel Committee. We were absolutely overwhelmed by the atmosphere of the room decorated with the portraits of all the successive directors of academy.

The joint meeting began with the introduction of young academies by Dr. Shoji Komai and Dr. Anna Sjöström Douagi. We understood the organization, the activities, and the background of foundation of each academy. The Young Academies of Sweden was founded in 2011 with the support of the Royal Swedish Academy of Sciences. We were told of an impressive and beautiful episode that the RSAS watered plant seeds and gave them to the young researchers in the opening ceremony.

After lunch, there were two scientific presentations. Dr. Yuji Nishiyama gave a presentation "The Honesty of the Humanities in Face of a Catastrophe" and asked what we should do with philosophy or literature after the triple catastrophe on "11th March". Dr. Danica Kragic Jensfelt reported on perspectives from Robotics and computer vision and discussed on the possibilities of object recognition and manipulation.



Finally, all the participants were divided into four groups and engaged in deep discussions on four topics: "Career Tracks & Life in Lab (gender-related)", "Future of National Young Academies & International vs National Activities/Collaborations", "Policies on Science and Technology: Science in Policy Making and Discussion with the Policy Makers", "How to Work on Interdisciplinary".

Although it was a short stay, we were much stimulated both academically and culturally in the visits. The meeting was fruitful in that we were able to promote collaborations between Swedish and Japanese young researchers. We reached a consensus to organize a joint meeting in Japan next year, inviting in turn members of the Young Academy of Sweden. We express deep gratitude to the JSPS and the Science Council of Japan for their strong support.

The members of the Young Academy of Japan



Professor Tomohiro Ichinose

Keio University / Vienna University of Technology

I belong to Vienna University of Technology as a visiting researcher from September 2012 and will go back to Japan in the end of August. I am the oldest member of the Young Academy Committee, Science Council of Japan. My major is landscape ecology and planning, and rural planning. Recently, I focus on sustainable planning in rural areas of Japan adopting depopulation and aging problem. Also, I have some reconstruction projects with my colleagues and students in Kesennuma City, Miyagi Prefecture from April 2011, which was heavily damaged by tsunami at 3.11 disaster. I came from Vienna to Stockholm to attend a joint meeting with the Young Academy of Sweden. I have sometimes visited the south part of Sweden, because I have stayed in Copenhagen many times for study projects. But this was second visit in Stockholm. It was really impressive for me to visit the Royal Swedish Academy of Sciences, which young Carl von Linne concentrated his efforts to establish. The academy is called "Royal" but is independent of the king and government from the beginning. I heard that the Young Academy receive no financial support from the Royal Academy, though it has been established under the Royal Academy. I think that the stories show a strong spirit of independence. After the meeting, I went to Drottningholm Palace whose gardens I aimed at. They strongly attracted me, where baroque, rococo and English landscape styles are mixed. Next time I would like to visit rural areas and national parks in Sweden.



Professor Miyuki G. Kamachi

Kogakuin University, Faculty of Informatics

I luckily joined the Joint meeting between the young academies of Sweden and Japan. It was very impressive for me to know and watch the first stage in the Royal Science Academy, especially on their referred scientists' early footprint and their roles.

At the meeting, I participated in a group discussion entitled "a career tracks, life and lab (gender)". The discussion was very significant since the more concrete situation was able to be shared about the post-doctoral researchers' employment which has become the center of attention even in Japan, and the female scientist's career track.

Taking advantage of this visit, I would like to take part in further discussions by Science Council in Japan, such as the researcher employment issue and the network construction between researchers. Finally, I would like to thank the staff of JSPS Stockholm and the committees of Sweden for their help and hospitalities.



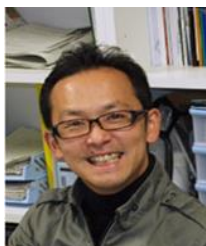
Professor Mitsunobu Kano

Okayama University Graduate School of Medicine,
Dentistry and Pharmaceutical Sciences

After clinical residency, I have been promoting interdisciplinary research between nanotechnology and pathophysiology from medical point of view for almost 10 years. As an example we have shown, using nanoparticle, a vascular factor affecting pancreatic cancer to be intractable. I was in charge of the newly established educational program in University of Tokyo for the medical students to do research, which increased the percentage of students doing research 20 to 30 times more. Last year I moved to the current position to enhance the experiences to the field of pharmaceutical sciences.

It was almost ten years ago when I first visited Sweden, thank my mentor Professor Kohei Miyazono who spent several years in Uppsala. I myself renewed the connection last year by visiting the representatives of Swedish young academy as the delegate from Japanese young academy. I also visited JSPS Stockholm then, following an advice by Dr. Stefan Noreen, the former Swedish ambassador in Japan, and was encouraged to have this joint meeting between both young academies.

Now the meeting was realized, thank related people especially Ms. Naomi Yoshizawa, Prof. Fujii and Dr. Anna Sjöström-Douagi. Participants of similar generation from both countries seemed to find striking similarities in their issues between countries, and to feel togetherness. I hope this meeting may increase closeness of researchers in younger generation between two countries.



Professor Shoji Komai

Nara Institute of Science and technology,
Graduate school of Biological Sciences

I was really impressed to visit Stockholm with big effort from JSPS Stockholm office. Professor Danica Kragic showed us "life log" technology by using of robots, which was interesting for me, because I've recently conducted some "data-oriented behavioral analysis" utilizing image processing techniques. I'm sure this visit to Stockholm will help us to make effective collaboration nationally or internationally in two countries.



Professor Masaki Nakamura

Osaka University, Center for Education in Liberal Arts and Sciences

How can a small nation like Sweden demonstrate such excellent research competitiveness? That was a question I had in mind upon joining the workshop. The discussion with young Swedish researchers and the visit to various laboratories gave me a useful opportunity to think about environmental research issues from different perspectives. I realized that young Swedish researchers, like Japanese scholars, are not satisfied with current situations and are faced with various difficulties, some of which are common to us and others that are not.

A conversation with a Swedish participant during the dinner really impressed me. She told us that she came back to Sweden with her partner, who is also a researcher, because they can raise their children without being fearful about the future in Sweden. With young Japanese academy members, we had illuminating discussions about how we can balance raising children and research, as young researchers are often at the child-rearing stage of their lives. As international competition for acquiring research talent is intensifying, the environment for raising children might be a key factor in attracting competent international researchers. It is not only the research environment but also the living environment that might govern the future of Japanese research competitiveness. I understood the importance of such issues even more keenly as a result of this workshop.



Professor Yuji Nishiyama

Tokyo Metropolitan University

In 2011 the Japanese society suffered a triple catastrophe, which was almost unprecedented in known history: a major earthquake, a tsunami, and a nuclear accident. Much like the etymology of the word "catastrophe" (to overturn), Japanese society was indeed dramatically overturned on March 11. Since 2012, I have lead a collaborative research "Catastrophe and the Humanities". How have human beings represented and interpreted catastrophes, such as natural disasters, epidemics, massacres, or, more recently, nuclear disasters? Why do innocent peoples have to suffer so greatly and so suddenly in such events? With reference to literary works or philosophy books, we question the relation between human beings and catastrophe in order to find our own hope.



Professor Eijiro Sumii

Tohoku University, Graduate School of Information Sciences

My research field is computer science (in particular, theory of Programming languages and computation models), which has no Nobel Prize. Although there exists Turing Award, it has never been given to a Japanese. Our visit to Sweden reminded me of this "problem" and made me think more about it.



Professor Yoshikazu Takahashi

Kyoto university, Disaster Prevention Research Institute

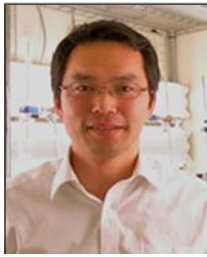
Can our young scientists work better than seniors in interdisciplinary activities? This is my theme in this joint meeting between Sweden and Japan. From my experience as a civil engineer, I presented the importance of sharing the common philosophy between different disciplines for the real success. I really enjoyed the discussion in the meeting and the walking. I found many cute road signs in Stockholm!



Professor Yoshihiro Tanaka

Nagoya Institute of Technology

My background is robotics and mechatronics. I have studied touch sense of humans and developed tactile devices. I am the youngest member of Young Academy of Japan in Science Council of Japan. In the lab tour of the first day, I was impressed that there were some nice pictures of robots with pastel colors, which possibly have been developed in the visited robotics laboratory. I could see interested ideas to provide a good atmosphere and encourage research activities as well as scientific interests. In the Joint Meeting of the second day, we exchanged useful information for activities of Young Academy. Sweden Young Academy was established at the same age as Young Academy of Japan. I would like to deepen the collaboration with Sweden Young Academy in order to support or enhance many researchers in both countries. For example, both young academies could work as a bridge between young researchers in Sweden and Japan. This visit to Sweden was first time for me. Sweden is peaceful and endowed with nature. I hope to visit again.

**Professor Takehito Yoshida**

The University of Tokyo

My research area is ecology and limnology. I study how adaptation of organisms and their population dynamics are connected, by combining the approaches of laboratory experiment using microcosm and mathematical modelling. I also study how a lake ecosystem and its surrounding local community can have a sustainable relationship by practicing ecological restoration in collaboration with the local community.

In the Young Academy of Japan, I am a member of the committee on the future of sciences, where we discuss the role of sciences in the society by sharing and exchanging the opinions from those within and outside the academia. I was very impressed by the independent activities of the Young Academy of Sweden, including developing a science-policy proposal from a viewpoint of young researchers. During this stay, we found that we share various problems and challenges between the two countries, such as career development of young researchers and stimulating collaborations as a source of innovation. I would like to have more chances of exchanges in the near future so that we can discuss the shared problems and challenges more deeply.



"Future Energy Systems – The Role of Hydrogen", Tokai University and The Technical University of Denmark's Energy transition seminar series

By Jacob Skyt Jensen (Tokai University European Center)

On Thursday, June 27, the third seminar in the series, "Energy Transitions: On the Road to Sustainable Energy Societies," was held via video link between Tokai University, Japan, and The Technical University of Denmark (DTU-Risø Campus). The seminar series, launched in 2012, is a joint-project undertaken by both universities for the purpose of promoting exchange and cooperation between Denmark and Japan in the field of energy, and of discussing current and future challenges relating to the transition to sustainable energy systems.

"Future Energy Systems – The Role of Hydrogen" was the title of this third seminar, and it took a closer look at hydrogen technology, its development, and its potential as a component in energy system compositions.



TUEC director, Professor Fusato Taniguchi, bids welcome.

The Program featured four presentations, two from Denmark and two from Japan, and Ms. Camilla Nellemann, PhD Fellow at Rikkyo University, Japan, started things off with the presentation, "The Fukushima Accident: Strategic Implications for Japan's Nuclear Industry." The presentation offered information on recent findings exposing the nuclear disaster as a case of management malpractice and concluded that nuclear power will remain an integral part of Japan's energy system for the foreseeable future. Professor Toshiya Ozaki, also of Rikkyo University, offered supplementary comments to the presentation.

The second presentation, "Fuel Cell Systems for Back-up Power and Micro Combined Heat and Power Systems in Denmark," was delivered by Mr. Per Balslev, director of business development at Dantherm Power, who introduced his company's product line including fuel cell systems for back-up power in cellular phone base stations, fiber optic networks and micro combined heat and power systems (CHP).



Dantherm's Per Balslev lecturing.

The third contribution was made by Dr. Hirohisa Uchida, professor at Tokai University's School of Engineering. Entitled "Japan's Energy Policy and the R&D of Hydrogen Fuel Cell Technology in Japan," the presentation briefly reviewed Japan's energy policy, discussed the current state of hydrogen technology and underlined the important role hydrogen will play in energy storage for renewable energy systems. In addition, the first so-called 'multi fuel station' which opened in Kanagawa, Japan, in April 2013, and offers both gasoline and hydrogen to conventional cars and fuel cell vehicles (FCV's) respectively, was introduced.

The final presentation, "Electrolysis and Fuel Cells R&D," by Professor Søren Linderøth, head of DTU's Department of Energy Conversion and Storage, commented on Danish energy policy, DTU's research and development relating to fuel cells, electrolysis and synthetic fuels, and also comment on the considerable technology transfer taking

place between DTU and industry, especially in collaboration with Topsoe Fuel Cells. In addition, “ene.field,” an EU-wide project demonstrating CHP systems, was introduced, along with “Smart Copenhagen,” a large scale demonstration of electrolysis, hydrogen storage and fuel cells.

The seminar assembled a variety of registered participants on the Danish side, consisting of representatives from academia (students, researchers and professors from DTU, Roskilde University, the University of Copenhagen, and Aarhus University); representatives from private and public sector companies and organizations (Energinet.dk, Danish Power Systems and Institute for Business Cycle Analysis); as well as representatives from the embassies of Russia, Japan, Hungary, Korea, Belgium, the U.S. and Viet Nam.

In extension of the presentations a number of topics were debated, including the issue of subsidy schemes for renewables and the move towards commercial viability; solid oxide fuel cells (SOFC) and solid oxide electrolysis cells (SOEC) and their respective durability and efficiency; liberalization of the power market in Japan, and the status on legislation promoting such a

development; the capacity of micro combined heat and power systems; CO₂ as a possible energy resource; and the importance of democratically committed civil societies in affecting the course of sustainable development.

The concluding comments by the organizers underlined the fact that economic growth and rising energy consumption do not necessarily go hand in hand, and that there are plenty of fuel cell and hydrogen-related applications available that potentially can play a large role in sustainable energy systems. The need for the social aspects to be incorporated as part of the equation in the planning and development of energy systems was also stressed.

A more comprehensive report on the seminar’s content is planned and will be made available on TUEC’s website upon completion.

Both Tokai University and DTU are intent on continuing the cooperation, and a fourth seminar on sustainable energy linking Denmark and Japan will be planned for later this year.



DTU's Professor Søren Linderøth lecturing

Joint Japan-Sweden Research Collaboration

A joint programme with STINT and JSPS with the aim to strengthen Swedish research and higher education by establishing international partnerships and networks.

The applicants should be working at a university in Sweden and have obtained their PhD. Projects may last for up to four years and the proposed project must include at least one Swedish and one Japanese party. The ideal partnership project will have activities consisting of research as well as higher education, although STINT is able to support pure research or education partnerships. It is especially important for young researchers and doctoral students to participate in the exchanges.

STINT:

http://www.stint.se/en/scholarships_and_grants/joint_japan-swedish

STINT Teaching Sabbatical Program

The Swedish Foundation for International Cooperation in Research and Higher Education (STINT) scholarship, "Teaching sabbatical program", will contribute to give Swedish university teachers international experiences which are relevant to their role as a teacher, rather than their researcher one.

Participating teachers' experiences will assist the development of faculties and universities in Sweden. Collaborating universities are based in the US, Singapore, Hong Kong, Japan, the United Arab Emirates.

STINT:

http://www.stint.se/en/scholarships_and_grants/teaching_sabbatical

Up-coming seminars/symposiums

Tohoku University and KTH International workshop

"Flow Dynamics related to Energy, Aerospace and Material Processing, Exploring the future of Light, Matter and Information in the Nanoscale".

When: September 9-11

Where: KTH, Stockholm Sweden.

Sweden-Japan Academic Network

Registration required. More info coming up soon on our website.

When: October 17 (Thursday)

Where: KVA

Joint Symposium on Environmental Science 2013 – Bridging Finland and Japan

As it has been a year since the opening of Hokkaido University's Liaison office in Helsinki, a joint symposium with Helsinki University will be held.

When: November 26-28 (Tuesday-Thursday)

Where: University of Helsinki, Finland

Go to <http://www.jsps-sto.com/events.aspx> for more information.

You are welcome to e-mail us on info@jsps-sto.com if you have any inquiries.

Introducing new staff at JSPS Stockholm



I am Sawae Futakami. I started to work at JSPS Stockholm from April. Before I came here, I had worked at the University of Tokyo.
This is the first time for me to come to Sweden and I am happy to have such an opportunity to come here to work.
I would like to know and learn about Sweden and other Nordic countries through my work.



My name is Marika Tashima. I've been working as an office assistant at the Stockholm office of JSPS since June.
I've always been curious about foreign languages and cultures, which is why I studied Japanese and linguistics at the university. After university, I went to Kyoto for more studies in Japanese. Somehow, 6 months in Kyoto turned into 2 years.
Now I am back home in Sweden and ready to be at your service.

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