

2019.11.29

Special Features

Inaugural Ceremony for the Establishment of the JSPS Alumni Club in Norway JSPS-RCN Joint Seminar



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Prologue

Flight-free movement, then use of Skype, nevertheless necessity of face-to-face meeting

Tadaharu Tsumoto, Director, JSPS Stockholm Office

Thanks to the global climate movement triggered by a Swedish teen climate activist, Ms. Greta Thunberg, some people are now considering to avoid flights when they plan a trip. Airplanes are considered to consume more fossil fuels so that they have a worse influence on the global warming than trains, ships or even cars of a certain type such as electric cars. According to an article in the Local, the Swedish English news site, the Flygfritt (in Swedish, flightfree in English) campaign was started by two Swedes in an attempt to persuade 100,0000 people in the country to give up flights for a year (Catherine Edwards, April 11, 2019). Personally I'd rather have a favourable feeling for this campaign, because I do not like to receive the bothering metal and liquid check at the security checkpoint and to wait for flights at the boarding gate of the airport. I had unpleasant experiences a couple of times (fortunately not so often) that I left my belongings without collecting them from the trays of the security checkpoint and then spent tedious time to wait for a delayed flight at the gate, although these are nothing to do with a massive ejection of greenhouse gas from airplanes. Consequently my personal feeling these days is: I wish I could avoid flights if there is another option of travel to my destination. In reality, however, this is not possible, just a dream.

Needless to say, the main mission of our office is to facilitate research collaborations and exchanges of researchers/students between Japan and the Nordic/Baltic countries that are, in the alphabetical order, Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden. Therefore I have to visit most of these countries and meet with many researchers/students in universities and officers in various funding organizations. Since the most major cities even in Sweden and the other countries are located a little bit far from Stockholm I have to take flights to attend events such as alumni club activity seminars in those cities to save travelling time. But it is still timeconsuming even if I take flights. To avoid such a timeconsuming trip now we have convenient tools thanks to the development of information technology, such as the audiovisual telecommunication system or video conference system called Skype, LINE, FaceTime or other similar application systems. Therefore I am obliged to use the Skype or similar system to talk with members of the alumni clubs about arrangement of meetings or seminars. These systems

are very useful so as to save time and travel expenses. According to my experiences, however, the video conferences through those systems have some drawbacks, as I already mentioned in the previous English version of our newsletter (Vol 25, 2016).

The video conference system still has drawbacks

As mentioned above, I have a lot of experiences to use the video conference systems such as Skype. So far, however, I am not completely satisfied with these systems as far as the currently available ones are concerned. As I stated in the previous newsletter, the recognition of facial expression including movements of the mouth and eyes of a person you face plays a critical role in the human communication. We are able to detect a change in emotion of a person by recognizing subtle movements of eyes or facial muscles. With the currently available systems it is often difficult to detect such a subtle change in face and eyes. Also I often have a difficulty in hearing voices of persons on the monitor screen, although this is probably due to the poor quality speakers of our office computer. In addition I would like to point out that physical contacts with a faced person called "skinship" such as hand shaking are usually essential for starting a friendly and constructive exchange of opinions among people. Furthermore, as I mentioned previously, a video conference is often not appropriate in a meeting consisting of many attendants. In such a large conference, for example, it is difficult to guess whether most of the participants are for or against the opinion of a presenter. In a large conference it is desirable or even necessary to view faces of all participants to guess whether the conference has reached a consensus of most attendants. In other words, it is not easy to "read the wind" in a video conference. Thus, the present video conference systems in which facial expressions of all participants are not clearly recognized on line with sufficient spatiotemporal resolution are not yet satisfactory as a means of a large conference. In sum, a conventional face-to-face conference still has an advantage in the point that it is relatively easy to guess a consensus of participants.

Finally I would like to point out that the hard- and softwares of the telecommunication systems are making rapid progress day by day so that I hope these drawbacks will be overcome in the near future.



Photo: Peggy Marco (https://pixabay.com/illustrations/meeting-relationship-business-1019875/)

Inaugural Ceremony for the Establishment of the ISPS Alumni Club in Norway

On October 17, 2019, Inaugural Ceremony for the Establishment of the JSPS Alumni Club in Norway (ACN) was jointly held by ACN, Research Council of Norway (RCN), Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (Diku) and JSPS Stockholm Office at RCN in Oslo. From JSPS Stockholm Office, Director Tsumoto, Deputy Director Yoshihara and International Program Associate Izumi participated. From JSPS headquarters, Mr. Noriyoshi Masuko, Senior Managing Director, and Ms. Eriko Tone, International Program Associate at Center for WPI Research Center Initiative, attended.

This ceremony was held to commemorate the official establishment of the club with people who have supported and contributed to the club's establishment. Future collaborations with related institutions were confirmed as well at the ceremony.

The ceremony was moderated by Dr. Alexander Karl Rothkopf, ACN board/ University of Stavanger, and opening remarks were given by Dr. Anders Øverby, Chair of ACN/ Center of Education in Kongsvinger. Subsequently, congratulatory speeches were made by five distinguished guests: H.E. Ambassador Masahiro Tauchi from the Embassy of Japan in Norway; Senior Managing Director Masuko; Director Tsumoto; Dr. Kristin Danielsen, Executive Director in the Division for International Cooperation at RCN; and Ms. Else Kathrine Nesmoen, Head of Section for Work Integrated Learning at Diku.

Mr. Masuko expressed his gratitude to Dr. Øverby for his leadership and other enthusiastic members who played an important role for the establishment of the club. In addition, he wished that the club's activities will contribute to promoting academic exchanges between Norway and Japan.

In his speech, Director Tsumoto expressed his expectation for further development of the club with referring to his words at the JSPS meeting in 2017, in which he mentioned the importance of establishing the alumni club in Norway.

Chair Øverby gave a speech and looked back the club's path to its official establishment. He explained the JSPS meeting in 2017 which was the beginning of this path, and also talked about the first self-organized event of the club "Norway-Japan Alumni and Researcher Gathering" in FY2018.

The ceremony was closed with a video message from Prof. Rasmus Gjedssø Bertelsen, Vice Chair of ACN/ UiT The Arctic University of Norway, who unfortunately could not join this day.

For this ceremony approximately 20 guests from various institutions gathered together, and it was a wonderful opportunity to share the club's mission and future vision.

For more details about the establishment of ACN, please see the <u>newsletter vol. 36</u>.



Goup photo with guests



ACN Chair Øverby



H.E. Ambassador Tauchi



Senior Managing Director Masuko



Director Tsumoto



Dr. Danielsen, Executive Director at **RCN**



Ms. Nesmoen, Head of Section for Work Integrated Learning at Diku



ACN Vice Chair Gjedssø Bertelsen



Dr. Rothkopf, ACN Board Member



Participants at the ceremony



During the ceremony

ISPS-RCN Joint Seminar FY2019 "The Ocean Brings Us Together!"

On October 17, 2019, JSPS-RCN Joint Seminar was held at RCN following the Inaugural Ceremony for the Establishment of the ACN. The seminar was jointly held by ACN, RCN, Diku and JSPS Stockholm Office and supported by the Embassy of Japan in Norway.

This seminar was held for the first time to promote academic exchange between Norway and Japan. The theme was "The Ocean Brings Us Together!".

Following the opening remarks by Director Tsumoto and Dr. Danielsen from RCN, an overview on JSPS activities was presented by Deputy Director Yoshihara.

Then Mr. Vidar Helgesen, Special Envoy for the Ocean at the Norwegian Ministry of Foreign Affairs, gave a presentation titled "An Ocean of Possibilities for Achieving the SDGs by 2030—The High-level Panel for a Sustainable Ocean Economy". In his presentation, Mr. Helgesen explained Norwegian government's efforts to reach the goal of the SDGs especially about the goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

For this seminar, Dr. Takashi Kikuchi, Director of Institute of Arctic Climate and Environment Research (IACE) was invited from Japan and gave a lecture titled "Recent Progress on Japan's Arctic Research". Please find the detailed report of this seminar by Dr. Kikuchi on page 20.

In addition to Dr. Kikuchi, latest researches on arctic and ocean conservation were presented by researchers based in Norway: Prof. Peter Haugan, Program Director at Norwegian Institute of Marine Research (IMR); Prof. Kerim Hestnes Nisancioglu, University of Bergen; and Prof. Paul Wassmann, UIT The Arctic University of Norway. Participants enjoyed the lectures and the following vigorous Q&A discussions.

Closing remarks were given by Senior Managing Director Masuko.

This seminar was successful with about 40 participants. Please visit the link below and watch the seminar online: https://videoportal.rcn.no/?fbclid=lwAR2lhnlmXh9djWoasLY94ihC4d-f09-4Da8fJ9rYeXgpY4GQiFl9M8DkOd8#/videos/510a33f8-4c5e-41bd-93aa-b706cbb1d24a

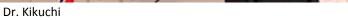


Group photo with participants





Mr. Helgesen

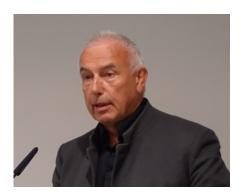




Prof. Haugan



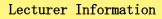
Prof. Hestnes Nisancioglu



Prof. Wassmann



During the panel discussion





Takashi Kikuchi

Director of the Institute of Arctic Climate and Environment Research (IACE), Research Institute for Global Change (RIGC), Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

Takashi Kikuchi obtained PhD degree in Science (Geophysics) from Hokkaido University in 1996. He has served as a Research Scientist at JAMSTEC since 1997, Team Leader of the Arctic Ocean Climate System Reseach at JAMSTEC since 2009, Deputy Director of IACE at JAMSTEC since 2015 and appointed to current position in 2019.

The 4th Pan Nordic Alumni Club Chair Meeting

On August 22, 2019, the 4th Pan Nordic Alumni Club Chair Meeting was held through Skype. Three alumni club chairs, including Dr. Ville Syrjälä, Chair of ACF; Prof. Carl Winsløw, Chair of ACD; and Dr. Øverby, Chair of ACN, participated, while Dr. Elin Palm, Chair of SAC was absent due to her other business. This time, the Chair of ACN joined the meeting for the first time since its official establishment in April, 2019. From JSPS Stockholm Office, Director Tsumoto, Deputy Director Yoshihara, International Program Associate Izumi, and Liaison Officer Ishii attended. The JSPS Pan Nordic Alumni Club Chair Meeting was initiated in FY2016. It is held annually in order to create a platform for the chairs of the Nordic Alumni Clubs to meet and exchange information.



JSPS Stockhom Office during the meeting

Topics of discussion at the meeting were: how to increase the number of

applications for the activity seminars, and how to increase the number of participants of the seminars. Opinions on how to enhance the Alumni Club's activities were also exchanged among Alumni Club chairs.

Stockholm Innovation Summer School 2019

From August 29 to September 7, 2019, a student exchange program among Karolinska Institutet, KTH Royal Institute of Technology, Stockholm University and the University of Tokyo titled "Stockholm Innovation Summer School 2019" was held in Stockholm.

On September 2, 20 students from the University of Tokyo visited our office as a part of this program. International Program Associate Izumi and Yoshinaka gave a presentation about an overview of office's activities. It was followed by questions and discussions regarding academic interaction between Japan and Sweden, outreach activities and so on.

On September 5, we were honored to hold a welcome reception at Stockholm University for those students from the University of Tokyo and 20 students from Stockholm University. From our office, Deputy Director Yoshihara, International Program Associate Izumi and Yoshinaka participated. It was an excellent opportunity for students to socialize and interact.



Students from the University of Tokyo visited JSPS Stockholm Office



Group photo at Stockholm University

The 1st SAC Board Meeting FY2019

On September 9, 2019, SAC held the online Board Meeting. Dr. Palm, Prof. Imre Pázsit, Dr. Johan Eriksson and Prof. Mohammad Asadzadeh attended. From JSPS Stockholm Office, Deputy Director Yoshihara, International Program Associate Izumi and Liaison Officer Ishii participated.

After the opening remarks by Dr. Palm, information about the JSPS Pan Nordic Alumni Club Chair Meeting on August 22, and the upcoming SAC activity seminars were shared. Afterward, the board discussed activities in the coming winter, such as the Sweden-Japan Academic Network Seminar and the SAC General Assembly.

The 1st SAC Activity Seminar FY2019

On September 24 and 25, 2019, the 1st SAC Activity Seminar for FY2019 was held at Linköping University. The title of the seminar was "AI in Japan and Sweden". From JSPS Stockholm Office, Director Tsumoto, and Liaison Officer Ishii attended.

The seminar was opened with welcome remarks by the organizer, Dr. Palm of Linköping University, Chair of SAC, then Director Tsumoto presented JSPS activities. The keynote lecture titled "On Regularization and Reliability of Deep Convolutional Networks" was presented by Dr. Atsuto Maki, KTH Royal Institute of Technology. Overall, nine lectures were given during these two days, and AI was discussed from various perspectives including technology, ethics and governance. It was a great opportunity for academic interaction with 50 participants. Dr. Palm's detailed report of the event can be found on page 16.



Dr. Maki during his lecture



Group photo with participants

ISPS-ETAg Seminar

On September26, 2019, JSPS-ETAg Seminar was jointly held by the Estonian Research Council (ETAg) and JSPS Stockholm Office at Centennial Hotel Tallinn.

Following the opening remarks by Director Tsumoto, information on activities of ETAg and JSPS Stockholm Office were presented by Dr. Aare Ignat, Chief Specialist of ETAg and Deputy Director Yoshihara separately.

For this seminar, Prof. Hiroshi Kageyama, Kyoto University, and Prof. Mikk Lippmaa, University of Tokyo, were invited from Japan. Prof. Kageyama gave a presentation titled "New frontiers in Materials Science with Mixed-anion Compounds", while Prof. Lippmaa's presentation was titled "Whence comes our hydrogen?". Please find a detailed report of the event by Prof. Kageyama on page 17.

Following the presentations by four researchers, a panel discussion was held. Dr. Liis Seinberg, National Insitute of Chemical Physics and Biophysics, acted as a moderator during the discussion and the four panelists actively exchanged their opinions about environmental issues.

This event was a first opportunity for JSPS Stockholm Office to jointly hold a seminar in Estonia, and was a great success with about 40 participants.



(From left) Prof. Lippmaa, Prof. Kageyama, Dr. Açik and Prof. Stern during the panel discussion

The 3rd KVA-JSPS Seminar FY2019

On October 1 and 3, 2019, the 3rd KVA-JSPS Seminar FY2019 was jointly held by the Royal Swedish Academy of Sciences (KVA) and JSPS Stockholm Office at Chalmers University of Technology and Albanova University Center. From JSPS Stockholm Office, Director Tsumoto, Deputy Director Yoshihara, International Program Associate Yoshinaka and Liaison Officer Hansson participated.

The invited speaker from Japan was Prof. Yasunobu Nakamura, Research Center for Advanced Science and Technology, the University of Tokyo, and Team Leader at Superconducting Quantum Electronics Research Team, RIKEN Center for Emergent Matter Science. He gave lectures titled "Hybrid quantum systems based on collective excitations in solid". Please find a detailed report by Prof. Nakamura on page 18. The series of seminars was successful with about 130 participants.



Prof. Nakamura during his lecture

The 1st ACN Board Meeting FY2019

On October 3, 2019, the board members of ACN held a online meeting. Dr. Øverby, Prof. Bruno Laeng and Dr. Rothkopf attended. From JSPS Stockholm Office, Deputy Director Yoshihara and International Program Associate Izumi participated. Following the opening remarks by Dr. Øverby, information about the JSPS Pan Nordic Alumni Club Chair Meeting on August 22, and upcoming events such as Inaugural Ceremony for the Establishment of the ACN and JSPS-RCN Joint Seminar was shared and discussed. Afterward, members exchanged their opinions about how to enhance the Alumni Club's activities.

The ACD Activity Seminar FY2019 "Lesson Study between Didactical Research and the Teaching Profession"

On October 8, 2019, ACD Activity Seminar for FY2019 titled "Lesson Study between Didactical Research and the Teaching Profession" was held at Copenhagen University. From JSPS Stockholm Office, Director Tsumoto and Liaison Officer Ishii

For this seminar, Dr. Koji Otaki, Hokkaido University of Education, was invited from Japan and gave a lecture titled "Studying Lesson Study - an anthropological perspective". Please find a detailed report about this seminar by Dr. Otaki on page 19. A panel discussion on the future of lesson research and the interaction with academic research was held with panelists based in Japan, Denmark and Sweden. Participants were actively engaged in the discussion and it was an excellent opportunity for an academic interaction.



Participants during the semiar

2019 Nobel Prize Announcements

Physiology or Medicine

William G. Kaelin Jr., Dana-Farber Cancer Institute, Brigham and Women's Hospital, Harvard Medical, Howard Hughes Medical Institute, USA, Sir Peter J. Ratcliffe, University of Oxford, Francis Crick Institute, UK and Gregg L. Semenza, Johns Hopkins University, USA

"for their discoveries of how cells sense and adapt to oxygen availability"

Physics

James Peebles, Princeton University, USA

"for theoretical discoveries in physical cosmology"

Michel Mayor, University of Geneva, Switzerland and Didier Queloz, University of Geneva, Switzerland/ University of Cambridge, UK

"for the discovery of an exoplanet orbiting a solar-type star"

Chemistry

John B. Goodenough, The University of Texas, USA, M. Stanley Whittingham, Binghamton University, State University of New York, USA and Akira Yoshino, Asahi Kasei Corporation, Meijo University, Japan

"for the development of lithium-ion batteries"

Literature

Olga Tokarczuk, Poland (for 2018)

"for a narrative imagination that with encyclopedic passion represents the crossing of boundaries as a form of life"

Peter Handke, Austria (for 2019)

"for an influential work that with linguistic ingenuity has explored the periphery and the specificity of human experience"

Peace

Abiy Ahmed Ali, Ethiopia

"for his efforts to achieve peace and international cooperation, and in particular for his decisive initiative to resolve the border conflict with neighbouring Eritrea."

Economic Sciences

Abhijit Banerjee, Massachusetts Institute of Technology (MIT), USA, Esther Duflo, MIT, USA and Michael Kremer, Harvard University, USA

"for their experimental approach to alleviating global poverty"

Laureate Information



Akira Yoshino

Asahi Kasei Corporation, Honorary Fellow / Meijo University, Professor / Nobel laureate in Chemistry

Akira Yoshino was born in 1948 in Suita, Japan. In 1972 he obtained M.S. degree from Kyoto University, and entered Asahi Kasei Corporation. He has served as a manager at Product Development Group, Rechargeable Ion Battery Group, and Battery Materials Business Development Dept. He obtained doctor's degree in Engineering in 2005. Various prizes have been awarded to him e.g. National Commendation for Invention- Invention Prize of MEXT Minister, Yamazaki-Teiichi Prize, the Kato Memorial Prize, the Charles Stark Draper Prize, the Medal with Purple Ribbon, and Commendation for Science and Technology by MEXT Minister.

Source and Photo: https://www.asahi-kasei.co.jp/asahi/en/r and d/interview/yoshino.html

The ACF Activity Seminar FY2019 "Biomaterials in cellular and tissue microenvironments"

On October 24 and 25, 2019, the ACF Activity Seminar for FY2019, which was titled "Biomaterials in cellular and tissue microenvironments" was held at Turku University. From JSPS Stockholm Office, Deputy Director Yoshihara, and Liaison Officer Ishii participated.

Following the opening remarks by Prof. Pekka Vallittu, Dean of the Institute of Dentistry, University of Turku, Deputy Director Yoshihara gave a presentation on the overview of JSPS activities and international fellowship programs.

On the day 1, total of six lectures were made by researchers based in Finland, Sweden, UK and Japan, including Prof. Michael Gasik, Aalto University and Vice Chair of ACF. For this seminar, Prof. Takao Hanawa, Tokyo Medical and Dental University, was invited from Japan and made a presentation on the day 2, which was titled "Chemical and topographical modification of materials surface to add biofunctions".

This 2-day event was a success with about 80 participants. You can find a detailed report of this seminar from Prof. Gasik in the next issue.



Prof. Hanawa during his lecture



Prof. Gasik during his lecture

The 2nd SAC Activity Seminar FY2019 "Orthopedic Musculoskeletal Regeneration"

On October 28, 2019, the 2nd SAC Activity Seminar for FY2019 was held at Karolinska Institutet (KI). This seminar was titled "Orthopedic Musculoskeletal Regeneration". From JSPS Stockholm Office, Director Tsumoto, Deputy Director Yoshihara, Liaison Officer Hansson and Ishii attended.

Welcome remarks were given by Prof. Maria Eriksdotter, Dean of KI South, and Director Tsumoto. For this seminar Prof. Mitsuo Ochi, President of Hiroshima University, was invited from Japan and gave a presentation titled "Cartilage repairemerging technology- ". In total, eight presentations were made by researchers from Sweden and Japan. It was a great opportunity for an academic interaction in the field of medical science.



Group photo of the participants

On the following pages, we will introduce reports from participants of the JSPS Summer Program FY2019. This year's program was held between June 12 and August 22, and the following six young researchers from Sweden visited Japan to learn more about the Japanese research system and gain invaluable experiences. We have also posted these reports on our website: https://www.jsps-sto.com/fellowships-3/report-2-2-3-3-2/

Name: Anna Asratian

Title: Research engineer

Institution: Linköping University

Host Institution in Japan: Advanced Telecommunications Research Institute

International (ATR)



How I managed in following my research plan:

Going to Japan, I took on a completely foreign method of analysis. As every project has its ups and downs, so did mine, but in the end, I accomplished and learnt more than I expected I would do. During my stay, the research institute I worked at was very supportive of my journey in Japan and helped a lot.

Accomplishments and experiences I would never have gotten unless I joined the Summer Program:

As a participant of the JSPS Summer Program, I had the opportunity to get a multidimensional experience of Japan. Not only did I get to experience the working environment and culture in the research institute I visited, but I also got to experience the beautiful cities and sights of Japan, the tasty food and part of the daily life of the Japanese people. In addition to the research and travelling, I also had the opportunity to attend the annual conference of Japan Neuroscience Society (Neuro2019) in Niigata.

How I can make use of this experience in my future research:

First of all, trying a new method completely outside my comfort zone was a big challenge, but an exciting one. I gained a lot of confidence trying something new and finding myself solving problems I would never be presented to before. Secondly, working and surviving in a completely different culture and country is also a great challenge that prepares you for future collaborations and communications with people from all over the world.

Message for future participants:

Be open and ready for an amazing experience. You never know where you will end up, this might be an amazing experience with many new adventures in a beautiful country like Japan, and it can also give you new opportunities and projects for the future. Try as much as you can, both at work and in private. Only you set the limits of what you can experience in Japan.

Name: Dauren Mussabek

Title: PhD student

Institution: Lund University

Host Institution in Japan: Nagasaki University



How I managed in following my research plan:

Two months seemed short for a plan completion and I became a bit worried as the first week passed at the host institution. Yet, despite the hot and humid weather, friendly colleagues and excellent supervision were very helpful in following the research plan. The working environment and atmosphere smoothly put me back on rails. Although not every activity aligned with the plan, and there were certain deviations, the final outcomes were very useful and important.

Accomplishments and experiences I would never have gotten unless I joined the Summer Program:

Thinking out of the box and being flexible with design were the key experiences at Nagasaki University. It is probably the case when desired results are obtained with a method you did not even consider earlier. I am very grateful to members of the laboratory for access to equipment and excellent help with analysis. I managed with measurements in a short time and the suggested instrument replaced me an excessive analysis.

I had an amazing opportunity to participate in ongoing fieldwork. I was able to assist in sampling and on-site measurements; we explored various areas, from urban and industrial to agricultural and recreational. As I often communicate with municipalities and operators in my own work, it was particularly interesting to study the interaction between authorities and research institutions.

How I can make use of this experience in my future research:

The data analysis and a new technique will expand the methodology of my project. Learning new approaches and aspects are essential in engineering. The experience I gained during the summer program will help me to expand my research and professional area. Time in Nagasaki helped me to rethink my goals and life in general. I found a moment of peace in a burden of PhD studies. I am impressed by SOKENDAI, and the network it provides. I am happy to establish a connection with Nagasaki University. And I will certainly work on future collaboration between institutions.

Message for future participants:

JSPS and SOKENDAI took excellent care of the program participants. You may not be used to the way things are done at first. Yet, very soon, you will discover a certain structure and purpose behind most of the things. Japan will welcome you with a great hospitality and respect. I believe it is fair to respond in the same manner, please behave. There is a time and place for everything. Travel light and minimize your arsenal!

Name: Giacomo Gravina

Title: PhD student

Institution: University of Gothenburg

Host Institution in Japan: University of Tokyo



How I managed in following my research plan:

Before starting the JSPS Summer Program, I was in touch with Professor Shigeo Okabe, who hosted me in Japan. We had a few skype calls and emailed each other in order to plan my experiments properly. This helped me to study and focus on the topic before leaving Sweden, in order to be ready once I was at the University of Tokyo.

Accomplishments and experiences I would never have gotten unless I joined the Summer Program:

During the Summer Program, I had the possibility to learn an imaging technique in vivo. This method gives information about the changes of biological processes over time in vivo. Since this method is difficult to perform and since Professor Okabe is an expert on that, I learnt the best way to perform the surgery in order to apply it for my future projects.

How I can make use of this experience in my future research:

The JSPS Summer Program was useful for my future career development. I have always believed that international experiences are the best way to increase my interpersonal skills as well as for creating international research network, critical for future collaborations. In addition, this experience helped me to develop new technical skills as well as personal accomplishments. Due to the amount of things learnt during the Summer Program in Japan, I consider this experience crucial for my future research and career.

Message for future participants:

Since the beginning of my PhD, I've always wanted to participate in the JSPS Summer Program. Now, as a former JSPS fellow, I would say that it was a great experience both personally and professionally, learning new things every day. During my stay in Japan, I enjoyed quite every moment doing different activities, travelling and discovering Japanese culture and society. Since we were hosted by a Japanese family, we had the opportunity to know deeper Japanese society and tradition. In addition, the JSPS Summer Program was also an amazing possibility to meet people from all over the world.

Name: Karl Olofsson Title: PhD student

Institution: KTH Royal Institute of Technology

Host Institution in Japan: University of Tokyo



How I managed in following my research plan:

My research at the University of Tokyo was quite ambitious and was on trying a new microfluidic concept to culture tumor cells in 3D. Since my project in Japan was not an extension on an already existing project, there was a startup phase which took some time. That in combination with a new environment, new lab and new routines put me slightly behind my initial goals but I was overall happy with what I was able to achieve.

Accomplishments and experiences I would never have gotten unless I joined the Summer Program:

The JSPS Summer Program gave me experiences on both a professional and cultural level that would have been hard to encounter otherwise. It was really rewarding to work in a new lab where I got new ideas and established a valuable network in Japan. The JSPS Summer Program also provided me with new cultural experiences, even though I have visited Japan several times. In particular, the home stay during the first week was incredible.

How I can make use of this experience in my future research:

My visit in Japan provided me mainly with two things; an extended network which will be of great benefit in the future and in my career, and the new ideas that I got from spending time in a new lab environment.

Message for future participants:

I would recommend anyone interested in spending time in a new lab environment to apply for the JSPS Summer Program. The program is very well planned and gives you the opportunity to meet new people and learn new techniques not available in your home lab.

Name: Laura Barbieri

Title: PhD student

Institution: Karolinska Institutet

Host Institution in Japan: University of Tokyo



How I managed in following my research plan:

I joined this particular group because I wanted to repeat my experiments in a new experimental model that they have developed. Thus, I had to adapt my experiments to a new environment and new equipment. Although many of the techniques that I used were not routinely performed in the lab, everyone, from my group and not only, showed extreme availability and kindness in helping me. In the end I managed to successfully conclude all the experiments that I had planned, and also ship material to and from Sweden.

Accomplishments and experiences I would never have gotten unless I joined the Summer Program:

If I did not join this program, I would never have discovered and experienced how living and working in Japan is. I would never have had a chance to work with the amazing people I worked with. I would never have met extraordinary friends from all over the world, who I shared unique moments with, which I am sure will keep us attached forever. In addition to this, my results have already led to establishing a collaboration with the group in Tokyo and I am excited about the possibility of joining them again one day.

How I can make use of this experience in my future research:

In the near future, I will use the results obtained in Tokyo as a starting point for a new project, based on the research model that I used there and that we will now start using also in Stockholm, as part of a new collaboration between our groups. Moreover, the people I met and the experiences I had, gave me new exciting inputs on my future research and, more generally, career. I hope to keep collaborating and one day have a chance to go back and have another research experience in Japan.

Message for future participants:

Be open minded, Japanese culture can look and be very different from what we are used to, but differences can teach us a lot, especially about ourselves. Be respectful, but don't be scared of being yourself. I realized that following my instinct always led to the best results. Don't be afraid of breaking the ice. Try to engage with your colleagues and to communicate as much as you can. Go out, travel, live everyday with enthusiasm and curiosity, because every day is going to teach you something new and special. Work efficiently and try to involve your colleagues.

Name: Rayendra Anandika

Title: PhD student

Institution: Luleå University of Technology

Host Institution in Japan: Tokyo Institute of Technology



How I managed in following my research plan:

Before the program started, I discussed with my host researcher about what I would do during the program. We didn't plan to do too much work within 2 months. That's because I wanted to spend my time in Japan in a calm pace. In this way, I could have time to enjoy life in Japan, expand my network by visiting various colleagues both in industry and academia, and experience Japanese mindset about work and life in general. Since our plan was to continue our work when I came back to Sweden, I am still working on the research that I initiated in this program.

Accomplishments and experiences I would never have gotten unless I joined the Summer Program:

One valuable thing that I got during this program was that I met a lot of researchers and professionals that work in my research field. During the program, I had the chance to visit East Japan Railway Company's (JR East) Research and Development Department and presented my research to them. Beside this, I also visited some researchers: Prof. Takahiro Saitoh in Gunma University, Prof. Yoshihiro Mizutani, Prof. Eiichi Sasaki, and Prof. Tinh Quoc Bui in Tokyo Institute of Technology. All of them appreciated my work and gave me precious insights about my research that can make my work better.

How I can make use of this experience in my future research:

Having met many researchers who work in the same research field certainly enriched my views about my research, both from industrial and academia views. Furthermore, I will plan to do collaborations with them in the future. There are some research grants that can be applied to fund international research collaboration, including JSPS grant programs.

Message for future participants:

This program is really awesome! JSPS held all events within the program perfectly. You will enjoy every single day from the beginning. One thing to keep in mind is that you need to be careful in choosing your supervisor. In Japan, the supervisor takes an important and central role for all lab members, including you. Your work pace depends on your supervisor's work pace. You can be working intensely or moderately because of your supervisor. So it is good to do some "research" about your future supervisor before you contact anyone, so that you can find a supervisor that matches with your preferred work style.

The 1st SAC Activity Seminar FY2019 "AI in Japan and Sweden"

Elin Palm, Associate Professor, Centre for Applied Ethics, Linköping University, Chair of JSPS Alumni Club in Sweden

A two-day multi-disciplinary workshop titled "Cogito Ergo Sum? Al in Japan and Sweden" was held at Linköping University (LiU) on September 24 and 25, 2019. The workshop was arranged by Elin Palm, Head of Centre for Applied Ethics, LiU. Technology developers and researchers within technical domains such as machine learning and deep learning were brought together with scholars from social and political sciences and applied ethics in order to contribute to a broad assessment of Al. Conditions under which AI can be considered reliable, beneficial and justifiable were discussed from different angles. Benefits and risks were highlighted.

Among the many challenges, Dr. Atsuto Maki, KTH Royal Institute of Technology, mainly addressed the questions in the interpretability and overfitting of deep networks. In his much-appreciated keynote lecture, Dr. Maki explained the complex process of training artificial systems for image recognition as well as to obtain a proper response in situations with uncertainty. In particular, a new approach to network regularization¹ for reliably predicting class probabilities was introduced. Another trial was that of understanding, not only how the system works, but how they behave for unexpected inputs. Capacity limits of the technical development of advanced autonomous systems were discussed e.g. by Dr. Fredrik Heintz, LiU. Social implications of robotics were dealt with in the talks of Dr. Martin Magnusson, Örebro University, who focused benefits and drawbacks of automation on the workplace, and of Dr. Ryoko Asai, Uppsala University, who discussed potential risks associated with robotics and children. In presentations dealing with fundamental ethical questions in relation to AI, Dr. Lars Lindblom, LiU, explored the meaning and value of rationality and Dr. David Moats, LiU, provided a critical perspective on data and data usage in relation to AI. Questions of how AI should be implemented and governed were discussed in the talks of both Ms. Maria Nordström, KTH, and Dr. Palm, LiU, focusing questions of democracy and legitimacy. Dr. Heintz also provided a general overview of research and development in the domain of AI in Sweden and, in particular, the Wallenberg



Dr. Palm during her lecture

AI, Autonomous Systems and Software Program (WASP) cluster.

The workshop was successful in several respects. It attracted a large audience with 60 participants from the whole country. It was highly interactive with a lively Q&A session on day two. At this early stage of development, before the technology is entrenched in society, much can be gained from identifying and highlighting benefits and risks associated with the technology. Workshop participants contributed to a much-needed mapping of risks and potentials from different theoretical and disciplinary perspectives and with sound contestation in debates. The workshop also demonstrated the benefits of research funded by the Japan Society for the Promotion of Science (JSPS) and many programs that the organization supports. In this way, JSPS activities were communicated to a rather broad audience of students that in the future may benefit from JSPS programs.

Reference:

¹ A. Maki, Towards Principled Regularization of Deep Networks – from Weight Decay to Feature Contraction. Science Robotics, 4 (30), DOI: 10.1126/scirobotics.aaw1329, 2019.



Participants during the seminar

ISPS-ETAg Seminar

Hiroshi Kageyama, Professor, Graduate School of Engineering, Kyoto University

On September 26, 2019, a joint seminar of JSPS and ETAg was held in Tallinn, Estonia. I attended as a researcher from the Japanese side. I, as the first speaker, gave a lecture titled "New frontiers in Materials Science with Mixed-anion Compounds". In this lecture, I mainly introduced two research topics from my group at Kyoto on mixed-anion compounds, which are attracting attention as gamechanging materials. The first one concerns development of emerging functions utilizing hydride anions in an oxide and the other development of oxyhalides as a visible-light responsive catalyst for water splitting. These works have been funded by the "Mixed Anion" project from Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT) (2016-2021) and the CREST project from Japan Science and Technolgy Agency (JST) (2014–2020). Secondly, Prof. Raivo Stern from National Institute of Chemical Physics and Biophysics gave a lecture entitled "NMR insight to dimer quantum magnets – BaCuSi₂O₆ and SrCu₂(BO₃)₂". He showed interesting NMR measurements on quantum spin systems, especially using state-of-the-art experimental tools combined with ultra-strong magnetic fields. Subsequently, Dr. Ilona Oja Açik from Tallinn University of Technology gave a lecture entitled "Thin films for energy and environmental applications", which focused on the development of thin film materials for solar cells. Finally, Prof. Mikk Lippmaa, the University of Tokyo, gave a lecture titled "Whence comes our hydrogen?" on hydrogen energy development and the thin film growth technology. Many of the lectures featured current energy issues, such as the use of solar energy and the realization of a hydrogen society. There were researchers from a range of research fields such as biochemistry among the audience.

Following the lectures, a panel discussion held. Moderated by the chair Dr. Liis Seiberg, four speakers got on stage, and answered various questions from participants, mainly about energy issues, global warming issues, and environmental issues. The discussion was very exciting and interesting as it not only concerned scientific questions, but also political matters. Participants were particularly interested in energy related issues, and there were many questions about hydrogen that Prof. Lippmaa and I talked about. I think there is no denying that global issues have been ignored by politicians, as it was mentioned in a recent UN speech by Ms. Greta Thunberg. At the same time, I thought it is about time for researchers and research



Prof. Kageyama during his lecture

organizations in each country to stop pursuing only their own profits. Shouldn't we work together as a multi-country and take a researcher initiative to explore a science-based way to solve the global problems? After the seminar, we had a social gathering and deepened our friendship. Many people from Estonian universities and institutions spoke to me, and I wanted to do research exchanges in the future.

Estonia seems to be getting stricter on research budgets, where the research budget is concentrated, and it is extremely difficult to obtain a budget. Even full-time researchers cannot rest assured. Many Japanese researchers feel that the situation in Japan is exactly the same. In my "Mixed Anion" project from MEXT, we pursue extensive collaborative research as a virtual "one team" with over 60 PI researchers throughout Japan, leading to many interesting results in this emerging research field. I believe that both Japan and Estonia should stop this overselection and concentration, and introduce this style now. If not, we won't be able to compete with big powers like China and the United States. Now there is a strong tendency to get things done in just a few words. Is it all right to go on with such a "Twitter" politics and "Twitter" science?

Not stopping with this symposium, I think that it is important to further develop the exchange between the two countries through science. I would like to contribute not only to personal joint research but also to networking between the two countries.



Group photo with participants

Reports

The 3rd KVA-ISPS Seminar FY2019

Yasunobu Nakamura, Professor, Research Center for Advanced Science and Technology, the University of Tokyo/ Team Leader, Superconducting Quantum Electronics Research Team, RIKEN Center for Emergent Matter Science

I visited Sweden from September 29 to October 5, 2019, and gave two KVA-JSPS lectures titled "Hybrid quantum systems based on collective excitations in solid" on October 1 and 3 in the Department of Microtechnology and Nanoscience (MC2) at Chalmers University of Technology in Göteborg and the Department of Physics at KTH Royal Institute of Technology in Stockholm, respectively. The lecture tour was kindly hosted by Prof. Tord Claeson and Prof. Per Delsing of Chalmers, and Prof. David Haviland of KTH, under the support by JSPS. It was a very fruitful week for me to see old friends and have chances to meet and discuss with many other researchers and students. It has been ten years since my last visit in Göteborg, and it was my first visit to Stockholm.

I have been working on superconducting quantum computing technology. My connection with Chalmers dates back to the early 1990s, when we studied intensively mesoscopic—between microscopic and macroscopic electron devices. At that time, Tord and his postdoctoral researchers, Per and David, were producing world-leading results on single-electron devices and superconducting small tunnel junctions. I personally learned a lot from their publications and theses. Later on we got acquainted in conferences and started to communicate often. What I learned at that time was crucial in the following development of a superconducting quantum bit (qubit) and it led to the current research on quantum computers.

Also in Chalmers, currently the team of Per Delsing participates in the EU Quantum Flagship project as well as the Quantum Technology project funded by the Wallenberg Foundation, a private foundation in Sweden. The team of David Haviland is also involved in the latter.

In the KVA-JSPS Seminars, I discussed in front of the enthusiastic audience of more than fifty persons how we can use a superconducting qubit for controlling and reading other degrees of freedom in solids, such as spin-wave excitations in ferromagnetic materials and phonon excitations in crystals. While the gubit is a major element in



Prof. Nakamura during his lecture

quantum information processing technology including quantum computing, it is also expected that a qubit is applied to sensing and communication as an excellent tool for quantum control and measurement.

During the week, I gave two other seminar talks on "Microwave quantum optics in superconducting circuits" in Chalmers on September 30 and NORDITA next to KTH on October 4, respectively. During free times, including on October 2, I visited many groups in the universities and discussed with people intensively. Every day, I enjoyed lunch and dinner together with the hosts as well as other researchers and students. It was a great opportunity to get to know many of them and will be useful for future collaborations.



Prof. Nakamura with participants

Reports

The ACD Activity Seminar FY2019

The anthropological theory of the didactic as a link between Japan and Denmark

Koji Otaki, Lecturer, Department of Teachers Training, Hokkaido University of Education

This report is about a seminar—lesson study between didactical research and the teaching profession—which was held in Copenhagen on October 8, 2019. The word didactical research indicates research in didactics which is the science studying diffusion of knowledge in human society, e.g., the teaching of mathematics. Lesson study originated from Japan is a certain type of schoolteachers' collective work and/or of institutional systems for it, which aims to improve the quality of lessons, and to develop skills and knowledge for teaching. Japanese schoolteachersespecially those in compulsory education levels—have an occupational culture of observing their lessons and discussing them with each other. This professional custom is attracting the interest of many people around the world, because they expect that it is probably a factor of Japanese children's high scores in several international achievement tests, that is, PISA (Program for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study). In Copenhagen, lesson study has been actively implemented and studied by a didactic community with Prof. Carl Winsløw at the center. This event reported here can be regarded as a part of such research and practice.

My main role in the seminar was to give a 1-hour presentation about our research on lesson study and more general schoolteacher collective work about their own lessons. One of the reasons why I became a speaker in the event was of course because I have frequently observed lesson study as a Japanese researcher, but I think that this was secondary. In my view, another important reason was that I use the ATD, i.e. the anthropological theory of the didactic, which is a research program in French didactic tradition. Prof. Winsløw and his colleagues have studied didactic phenomena by using of the ATD. I got to know him in a conference of this theory. In addition, I have sometimes visited the University of Copenhagen for didactic research within the framework of the ATD, and ongoingly conducted research with his Ph.D. (ex-) students. Since Prof. Winsløw was the organizer of this seminar as well as the Chair of



Prof. Winsløw during his presentation



Dr. Otaki during his lecture

ACD, I guess that such relationship was a main factor that he asked me to give this talk.

A characteristic of didactic research in the French tradition is that it emphasizes the importance of theories. To teach something is quite familiar for most people, since it is a fundamental human action. Because of this fact, we tend to estimate that we know facts pertaining to the teaching well. However, understanding a certain fact well is different from feeling something familiar to it. This should be obvious when we recall some examples related to natural scientific domains. For example, many people can skillfully make use of smart phones, but this never means that they generally understand the mechanism of them which is based on products of natural science. Furthermore, social facts like didactic ones are even closer to us because we are involved in them. In other words, didactic phenomena are easily misrecognized that they are transparent for us. This property of objects of study makes it difficult to understand them rather than the cases of natural science in some sense. Consequently, we need sound viewpoints for getting rid of the illusion of transparency and for scientifically studying didactic phenomena. This is the reason why the French didactic tradition highlights theories.

In my presentation, I introduced an applied theory of the ATD which we are creating now—its keyword is the adjective para-didactic. This theory is useful for studying lesson study. I feel that theories can support our communication, whenever I am in international academic situations. We often say that mathematics is an internationally shared language. In my opinion, this is an evidence that mathematics is a well-constructed theory. Good theories allow us to mutually understand each other in a different dimension with natural languages. Educational studies tend to hesitate about becoming international compared to natural scientific research. Based on my personal observation, this is due to not only linguistic and cultural barriers, but also to the quality of didactic theories, which is much younger than natural scientific ones.

Reports

ISPS-RCN Joint Seminar FY2019

Takashi Kikuchi, Director, Institute of Arctic Climate and Environment Research, Research Institute for Global Change, Japan Agency for Marine-Earth Science and Technology (IACE/ RIGC/JAMSTEC)

Norway is located on the western side of Eurasia continent and the area extended to the Arctic. Norwegian people live closely related to the Arctic both climatologically and socioeconomically. In contrast, Japan is on the eastern side of Eurasia and not directly connected with the Arctic. However, scientists recently said that the climate in Japan, especially in winter, is affected by sea ice reduction of the Arctic Ocean, which is so-called the Arctic - midlatitude teleconnection. There is a long history of research collaboration between Norway and Japan, which includes Ocean and Arctic climate research collaboration.

Keeping the Sustainable Development Goals (SDGs) in mind, JSPS-RCN joint seminar titled "The Ocean Brings Us Together!" was held at the Research Council of Norway (RCN) on October 17, 2019. Japanese and Norwegian scientists had presentations of their activities about Ocean and Arctic. As the first speaker of the presentation session, I introduced the on-going Japan's Arctic research project, Arctic Challenge for Sustainability (ArCS) and our latest scientific results focused on the Arctic Ocean environmental changes. In this project, Japanese scientists investigated the status and trends of on-going Arctic Ocean environmental changes and their impact on the Arctic marine ecosystem. In the Pacific sector of the Arctic Ocean, drastic sea ice reduction causes warming, freshening, and ocean acidification, significantly. In addition, eddy activities and ocean mixing are enhanced. Such dynamical changes of the Arctic Ocean condition influence marine biogeochemistry and ecosystem, e.g., northward shift of plankton and fish species and concern of vulnerability of marine ecosystem to rapid environmental changes. Also, I presented future plan of the international cooperation for the Arctic Ocean research. For better understanding of the Arctic Ocean changes, the Arctic Ocean scientists plan international coordinated campaign in 2020-2021, named "Synoptic Arctic Survey (SAS)", to fill the gaps in our understanding of the Arctic Ocean and how it's changing. SAS will provide not only a synoptic view of the changes occurring in the Arctic Ocean but also integrated data sets to advance model development and prediction.

From Norwegian side, three professors had presentations on Ocean and Arctic research activities. Professor Peter Haugan of Norwegian Institute of Marine Research (IMR) introduced "UN Decade of Ocean Science for Sustainable Development (2021-2030)" which was proclaimed by the UN General Assembly on December 5, 2017, and asked the Intergovernmental Oceanographic Commission (IOC) to coordinate the process. Prof. Haugan concluded that the Decade would be a once in a lifetime opportunity and that Norway and Japan would be well placed for specific cooperation. Professor Kerim Hestnes Nisancioglu of University of Bergen had a presentation titled "The climate of an ice-free Arctic Ocean" and introduced the research project Arctic Sea Ice and Greenland Ice Sheet Sensitivity (ice2ice). The Arctic is warming at an alarming rate which is two to three times higher than the global mean. The



Prof. Kikuchi during his lecture

climate prediction model indicated that such warming and consequent environmental changes continue to at least middle of this century. The comparison between on-going changes and projected results which are obtained from Greenland Ice core data are presented. Professor Paul Wassmann, UiT The Arctic University of Norway, presented the pan-Arctic perspective conceptual model as a Mediterranean type ocean that is surrounded by Eurasia and Amerasian continents, tightly connected to the North Atlantic and Pacific oceans, and entangled into the climatological dynamics of the Northern Hemisphere. Four fundamental variables (ice cover, light climate, nutrient/ food availability and advection) were shown to know about oceanographic and marine ecosystem conditions of the Arctic Ocean. A panel discussion was done with a couple of questions from audiences to speakers. Some of the questions were about social literacy and transparency to on -going climate and environmental changes especially in the Arctic and relationship between stakeholders and scientists. The importance of communication with stakeholders and outreach activities are mentioned by speakers. The reception was held after the seminar and panel discussion. We had an interesting and comfortable time with all of the participants. It was really fruitful time for me to have good discussions and to be able to exchange our knowledge among the participants.

Finally, I would like to express my sincere thanks to JSPS Stockholm Office, RCN, and all persons who contributed to holding this seminar. It was a great pleasure for me to have a good opportunity to introduce our research activities on the Arctic Ocean. We recognize the importance of Arctic and Ocean research especially under on-going global warming situation. International cooperation is an indispensable factor to conduct Arctic and Ocean research. I hope that we will have a good opportunity to disseminate new and useful findings, again.

Reports — Meetings

2019.8.28 Visit by Dr. Morita from Kochi University

Dr. Sachiko Morita, Associate Professor at Kochi University, visited our office and met with Director Tsumoto and Deputy Director Yoshihara. She visited Sweden for her research and we shared the information on career counseling and career design research in the Nordic countries.



Dr. Morita in the middle

2019.9.25 Meeting with Chargé d'Affaires ad interim of the Embassy of Japan in Estonia

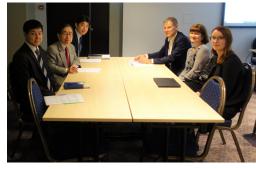
Director Tsumoto, Deputy Director Yoshihara and International Program Associate Izumi visited the Embassy of Japan in Estonia and met with Chargé d'Affaires ad interim of Japan Hajime Matsumura. We shared the current situation of Estonian-Japanese collaboration, and confirmed joint effort with partner institutions.



Chargé d'Affaires a.i. of Japan Matsumura in the second from the left

2019.9.26 Meeting with Director General of ETAg

Director Tsumoto, Deputy Director Yoshihara and International Program Associate Izumi met with Dr. Andres Koppel, Director General of ETAg, and discussed how to cooperate with each other and enhance academic collaboration between Estonia and Japan.



Dr. Koppel in the third from the right

2019.10.4 Visit by Prof. Sato from Tohoku University

Prof. Masafumi Sato from Tohoku University, former first secretary of the Embassy of Japan in Sweden, visited us. We exchanged views about biobank, and confirmed further academic collaboration between Sweden and Japan.



Prof. Sato in the middle

Reports — Meetings

2019.10.17 Meeting with Executive Director of RCN

Senior Managing Director Masuko, Director Tsumoto and Deputy Director Yoshihara visited RCN office and met with Dr. Kristin Danielsen, Executive Director and discussed how to cooperate with each other and enhance academic collaboration between Norway and Japan.



Dr. Danielsen in the second from the right

2019.10.18 Visit by Mr. Masuko from the JSPS Headquarters

Mr. Masuko, Senior Managing Director, and Ms. Tone, International Program Associate, visited us at the JSPS Stockholm Office. We shared information on our recent activities and discussed the success of the JSPS-RCN Joint Seminar which was held on the previous day.



Mr. Masuko in the right of the front row Ms. Tone in the second from left of the front row

2019.10.25 Visit by President Nakanishi from Hoshi University

Prof. Tomoko Nakanishi, President of Hoshi University and Professor at Graduate School of Agricultural and Life Sciences at the University of Tokyo, visited us. She visited Stockholm to attend IVA's events and we exchanged information of our recent activities.



President Nakanishi in the right

2019.10.28 Visit by President Ochi from Hiroshima University

Prof. Mitsuo Ochi, President of Hiroshima University, Prof. Toshiyuki Sato, Executive Vice President and Ms. Yuriko Kawakubo, Chief Manager of International Exchange Group, former Deputy Director of our office, visited us. We exchanged the information on our recent activities and discussed the seminar where Prof. Ochi delivered a lecture on the same day.



President Ochi in the middle of the front row

Between Swedish and Japanese

Tomoko Svedlund Ishii, Liaison Officer, JSPS Stockholm Office

My son is turning three soon, and his language development is astonishing. Every day I'm surprised to see him using a new word, which he gained from somewhere. Because of him, I think about a language often, and I get new insights for language.

Since my son is having a Swedish father and a Japanese mother, he is growing up with two languages. As the ability to write and read develops at a later stage, my son is learning two languages only by what he hears. This has resulted in some interesting expressions from him. One day, my son suddenly started to say "farfar itai" and "farmor itai" with a sad face. Farfar/farmor is a Swedish word, which means grandfather/grandmother, while itai means pain in Japanese. I didn't understand what he meant to say, as I knew that his grandparents were not in pain. Another day, I heard him saying "handen aitai", which can be translated into "I want to meet my hand". It didn't make sense but I came to understand how he was confusing Japanese words and a Swedish word. He was mixing up the Swedish word "aj" (ouch in English) and a Japanese word "aitai" since "aj" and "ai" sound similar. This was strengthened because "aj" and "itai" happen to have a similar meaning.

This reminds me of the period when I didn't understand Swedish at all, and I listened to Swedish as a melody rather than a language. It feels nostalgic, as it is irreversible and you cannot go back to this period once you start to understand the language. One thing I still remember is that I was wondering why Swedish people saying "masaru" all the time. For me, *masaru* is a Japanese name for male and it was funny to hear the word in Sweden on a subway and street occasionally. One day I came to know that what I heard as "masaru" was actually "vad sa du?" which means, "what did you say?" in Swedish. Since then, it no longer sounds as funny as it used to do.

Language is more than just words and grammar. It reflects the history and the culture of people who use it. This makes language deeply interesting, and at the same time difficult to understand.

One day I was asked by a Swedish friend to tell him the meaning of an email that he had received in Japanese. He was contacting a Japanese company for a job opportunity and it was a reply from the company people. Before he showed me the email, he said it might be a negative answer

as he noticed a word "sumimasen", which means "sorry/ excuse me", several times in the text. But what I found out was quite the opposite. The company was interested in him. I think Japanese people use "sorry" much more often and also in a boarder way compared to Swedish, and it can even mean similar to thank you in certain occasions. For instance, when someone helps you, there are two aspects: you are thankful to that person for the help, while you are also sorry for troubling the person. In my opinion, Japanese tend to feel the latter.

A Swedish phrase that was difficult for me to understand was "om du vill" which means "if you like". When Swedish people ask someone for lunch or dinner, I often heard "if you like" in the end of a sentence. For example, "We are having home party next weekend. Come and join us, if you like." In this case, all my focus went to the last three words and I started to wonder if this person truly wanted me to join or not. It sounded to me like: if you want to, you can join. Not necessarily expressing that the person asking would be happy to have you there. Compared to saying "I would be happy if you want to come". You may think I'm too negative but I was not the only one who was confused by this but also some of my Japanese friends told me the same.

As long as I live in Sweden, I have to struggle with language difficulties. Compared to my son, my language development is very slow and it feels like an endless process trying to understand the country and its people. Sometimes I get tired especially during this season of cold and dark days. However, recently I was encouraged by two great news that might bring Sweden and Japan closer in the future. One is about the signing of the Japan-Sweden Working Holiday Agreement¹, which aims to promote youth exchanges between the countries. Another is about the launch of a direct flight between Tokyo and Stockholm in 2020².

My life goes on and I will keep on floating between Swedish and Japanese, trying to narrow the distance between the two. It is important to not forget enjoying it.

References:

https://www.mofa.go.jp/press/release/press4e 002593.html ²https://www.thelocal.se/20191119/sweden-to-get-directflights-to-tokyo-next-year



Photo: Tokyo city view by the author

Message from the Alumni Club Members

The JSPS Alumni Club in Finland (ACF)

In this section we introduce JSPS Alumni Clubs through an interview with a club member. This time we met Dr. Timo Kuuluvainen, who is a regular member of ACF.

Name: Timo Kuuluvainen

Title/ Position: Associate Professor / University Lecturer

Affiliation: University of Helsinki



Q: Could you briefly introduce yourself and tell us about your relationship with the JSPS Alumni Club in Finland?

A: I work as a University Lecturer in Silviculture and an Associate Professor of Forest Ecology at the Department of Forest Sciences at the University of Helsinki. My research is focused on the fundamental interactions between forest structure and dynamics, and biodiversity in the boreal forest, using both empirical and modeling approaches. I am particularly interested in using this understanding of forest ecosystem dynamics in developing sustainable forest ecosystem management practices, which can be applied in the emerging era of rapid global changes. This research is conducted in the framework of a wide international research network including many excellent researchers from Japan.

Q: Could you tell us about your experience in Japan as a JSPS fellow?

A: Although I had met Japanese researchers in conferences, my contacts with researchers actually started in 2009, when I was an invited keynote speaker at the IUFRO (International Union of Forest Research Organizations) conference on uneven-aged forest management. Since then I started to search for possibilities for deeper interaction with Japanese researchers in my study area. Joining the Alumni Club was a natural thing to do. Thanks to the grant from JSPS, in autumn 2010, I spent one month in University of the Ryukyus in Okinawa, where my host was Professor Yasuhiro Kubota, followed by one month stay in Hokkaido University hosted by Professor Toshiya Yoshida and Professor Takayoshi Koike. Since then other members of our research group and I have visited Professor Kubota's lab several times for intensive research periods. The JSPS BRIDGE Fellowship Program had been instrumental in making this possible.



Meeting a sacred tree in Hokkaido. Professor Toshiya Yoshida on the right and two of his students on the left

Message from the Alumni Club Members

Q: How has the JSPS program contributed to your career and/or research?

A: The JSPS BRIDGE Fellowship Program has been a key facilitator in starting and continuing a very fruitful collaboration with Japanese researchers. This collaboration has resulted in several high impact research articles. Researchers from Professor Kubota's group have also visited Finland many times for short working periods, and just recently a post-doctoral researcher Junichi Fujinuma spent an academic year with us in Helsinki in 2018-19. Overall, the Japanese dimension in my work has brought a lot of stimulus and helped me in my career.

Q: How has the Alumni Club membership contributed to your career and/or research?

A: I have actively participated in academic seminars organized by ACF and they have been highly fruitful hearing of high quality researches and discussing with interesting people from different disciplines. All sharing the keen interest in Japan, its culture and science.

Q: How would you like the ACF to be in the future, for example in terms of activities?

A: ACF could perhaps even more directly promote social interaction among the members. One possibility could be to divide the alumni members into smaller discussion groups by research fields in some meetings, to enhance exchange of information and experiences.

Q: Do you have any message for aspiring applicants for the JSPS programs and Alumni Clubs?

A: JSPS programs make it possible to build exiting research collaborations with top quality researchers in Japan. Working with them is a joy! Do not miss this opportunity!

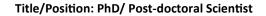


My main research collaborator Professor Yasuhiro Kubota in Chichibu research forest.

Reports from Japanese Researchers in the Nordic/Baltic Countries

In this section we ask Japanese researchers to present their experiences and research in their respective countries. For this issue we asked Dr. Fumi Suomi, a researcher at University of Helsinki, to present her research and experiences in Finland.

Dr. Fumi Suomi





Twitter:@fumi_suomi

Years	Degree	Institute	Location
2012	Ph.D.	Faculty of Biochemistry and Molecular Medicine, University of Oulu	Oulu, Finland
2002	M.S.	Institute for Chemical Research (ICR), Kyoto University	Kyoto, Japan
2000	B.S.	Faculty of Chemistry, Materials and Bioengineering, Kansai University	Osaka, Japan

Years	Position	Institute	Location
2018 - present	Postdoctoral Researcher	Faculty of Medicine, Research Program for Stem Cells and Metabolism, University of Helsinki	Helsinki, Finland
2015-2018	Postdoctoral Researcher	Faculty of Medicine, Research Program for Molecular Neurology, University of Helsinki	Helsinki, Finland
2013-2015	Postdoctoral Researcher	Biocenter Oulu, Department of Medical Biochemistry and Molecular Biology, University of Oulu	Oulu, Finland
2012-2013	Postdoctoral Researcher	Biocenter Oulu, Department of Biochemistry, University of Oulu	Oulu, Finland

Reports from Japanese Researchers in the Nordic/Baltic Countries

Q: What are you currently researching in Finland?

A: My research target is mitochondria, which are in charge of energy production and many other roles in a cell, including production of biosynthetic intermediates and stress response. Mutations in the genes encoding mitochondrial proteins cause many human diseases including neurodegenerative diseases. Interestingly, organelle shapes look different in mitochondrial disease patient cells compared to those in healthy cells. I'm particularly interested in the tight link in the shape and function of mitochondria in response to cellular need or stress. To maintain the healthy condition in cells, damaged mitochondria are recognized by quality control systems and turned over. Currently I'm working on a model which illuminates mitochondrial shape and turnover status by fluorescent signals, aiming to uncover the molecular mechanism behind mitochondrial homeostasis in health and disease.

Q: How did you get interested in your research subject?

A: My research interest on the dynamic morphology of mitochondria arose during my Ph.D. study on mitochondrial fatty acid synthesis. This pathway is highly conserved from yeast to human. When any part of this pathway is disrupted, tubular structure of mitochondria goes fragmented. The morphological variety of this organelle is observed in healthy tissues as well. In heart muscle, where continuous energy production is needed, mitochondria look highly dense compared to other tissues. How does it sense the need to change the shape in response to cellular need or stress? How is the dysfunction of the organelle recognized? What is the machinery involved in the mitochondrial membrane dynamics? Answering these questions will lead to the development of therapeutics of human diseases, and also, understanding the base of biology.



McWilliams team in Christmas jumper. Dr. Suomi in a mitochondriac one on the right

Q: Why did you choose your current institution to conduct your research?

A: During my Ph.D. study in University of Oulu, I had a chance to attend a lecture given by Professor Anu Suomalainen-Wartiovaara from University of Helsinki. Her talk about mitochondrial disease and the way she approached the problem fascinated me to the mitochondrial biology field. Biomedicum Helsinki and Institute of Biotechnology in University of Helsinki conducts mitochondrial research that is highly recognized in this field. Currently, Centre of Excellence in Research on Mitochondria, Metabolism and Disease (FinMIT), funded by the Academy of Finland, is led by many research groups focused on a variety of problems in mitochondrial biology. McWilliams Lab was established in 2018 in Helsinki and I joined the team in the early stage of the establishment of the lab. Research in this lab is focused on the understanding of the quality control of mitochondria, termed mitophagy in neural development, and degeneration and repair. Overall, University of Helsinki is a dream place for a "mitochondriac": a biochemist with a chronic and unusually intense interest in mitochondria: by Oxford Dictionary.

Q: What has been the most challenging aspects of your research so far?

A: In conducting research in molecular biology field, there are multiple ways to answer your question. Research is increasingly competitive, therefore, you need to ask the right question and solve the question in a limited time. Quite often your experiment gives an answer which you did not expect before, which gives you another problem to solve. This is the fun and challenging part in research.

Q: Compared to Japan, what is your impression of the research environment in Finland?

A: I think I made a good choice to conduct research in Finland as a female researcher. This country is well aware of gender equality compared to Japan, which is well reflected in social support for example. I'm currently working in a team called WILS in University of Helsinki, Women In Life Science in Helsinki (https://blogs.helsinki.fi/wmn-network/). I'm interested in how Finland established the current status in gender equality and how this can be achieved in Japan.

WILS symposium in 2019

Q: Do you have any advice for young scientists who dream of going to Finland

A: To any young scientist, I recommend to go abroad and this does not matter where you are going. Living in a different culture opens your eyes, which will be reflected in your research career in the future. Finnish research institutes are international and as a researcher, it is not difficult to live without being fluent in Finnish. Most of you may be afraid of cold weather in winter, however, houses are well insulated and warm and comfortable. I am rather reluctant to go back to Japan in wintertime because of coldness inside of the house. If you want to explore white and snowy winter, if you want to join quiet but humorous people, as you may see from Moomin books, Finland is the place to live.

Academic Information



New law opens door to national research misconduct agency

In June of 2019, the Swedish parliament passed a law to create a government agency to investigate research misconduct. The agency will become active in January 2020 and will oversee cases of misconduct from public higher education institutions, central government agencies, municipalities, county councils and private education providers.

Source: https://www.universityworldnews.com/post.php?

story=20190713060533406



Photo: jarmoluk (https://pixabay.com/ja/photos/%E7%A0% 94%E7%A9%B6%E5%AE%A4-%E8%A7%A3%E6%9E%90-%E5% 8C%96%E5%AD%A6-%E7%A0%94%E7%A9%B6-2815641/)



Finnish Science Award to Professor Heli Jantunen

The Finnish Science Award is granted every second year to Finland-based researcher or research group in recognition of significant scientific achievement. Prof. Heli Jantunen of the University of Oulu was granted this year's award for her trailblazing work on electroceramics.

Source and photo: https://www.oulu.fi/university/news/finnish-science-award



Prof. Heli Jantunen



<u>Universities and students to benefit under new government</u>

Social Democrat leader Mette Frederiksen was elected Prime Minister of Denmark in June of 2019. Frederiksen's government plans to roll back the former government's university budget cuts and improve study and work opportunities for international students.

Source: https://www.oulu.fi/university/news/finnish-science-award



Denmark's Prime Minister Mette Frederiksen

Photo: https://www.socialdemokratiet.dk/da/politik/udlaendingepolitik/

Academic Information



Multidisciplinary 'bachelor honours' degree sparks interest

University of Oslo has launched an innovation in its study programme which is a three-year multidisciplinary, mentor-oriented bachelor honours degree course for 20 especially motivated and gifted students from 2019 to 2022. This new course became the most sought after and competitive this year in Norway. The degree will offer 210 credits under ECTS (the European Credit Transfer System) and it is 10 credits more than ordinary courses.

Source: https://www.universityworldnews.com/post.php? story=20190824065529488

Photo: andrew_t8 (https://pixabay.com/photos/ library-la-trobe-study-students-1400312/)



Estonian government okays plan for youth tourist visas with right to employment with Japan

The Estonian government endorsed a draft agreement whereby Estonia and Japan would be able to issue to young people of ages 18-30 from the other country multiple entry visas with the right to employment for a period of up to 12 months. According to the spokespeople for the Estonian government, this intergovernmental agreement will entitle holders of the visa to enter into employment without prior registration with the Police and Border Guard Board.

Source: https://www.baltictimes.com estonian govt okays plan for youth tourist visas with right to em ployment with japan/



Photo: jackmac34 (https://pixabay.com/ photos/estonia-tallinn-roofing-912315/)



Japan budget requests for FY2020

General-account budget requests from government agencies and ministries for fiscal year 2020 are expected to hit a record high of 105 trillion yen. The anticipated rise reflects growing debt-serving costs and social security expenditures against the backdrop of the country's aging population.

The requested science and technology budget for next fiscal year is 4,571 trillion yen, which is an increase of 333 billion yen (7.9%). Expenses for promotion of science and technology, which comprise the central part of the science and technology budget, were estimated to 1,618 trillion yen. This is a major increase of 258,3 billion yen (19%).

Sources: https://www.japantimes.co.jp/news/2019/08/29/business/japan-2020-budget-requests-105-trillion/ #.XcVwZTNKiUk

https://www.nippon.com/en/news/yjj2019090501238/japan-fy-2020-budget-requests-hit-record-high.html https://sci-news.co.jp/topics/2610/

Academic Information



The 35th International Prize for Biology to Dr. Naomi Ellen Pierce

The 35th (2019) International Prize for Biology is awarded to Dr. Naomi Ellen Pierce, Hessel Professor of Biology, Harvard University, USA. Dr. Pierce is one of the world's leading figures in entomological research, and her main research theme is the symbiotic relationships between insects and other organisms. To mark the award to Dr. Pierce, a commemorative symposium will be held in Tokyo, Japan on November 30 and December 1.

Source and photo: https://www.jsps.go.jp/english/e-biol/35 awardee.html



Dr. Naomi Ellen Pierce



2019 Autumn Conferment of Japanese Decoration

On November 3, 2019, the Government of Japan announced the foreign recipients of the 2019 Autumn Conferment of Japanese Decoration. From Sweden, Mr. Björn O. Nilsson, former President of the Royal Swedish Academy of Engineering Sciences (IVA) and Governor of Norrbotten County, is awarded the Order of the Rising Sun, Gold Rays with Neck Ribbon for his contribution to the promotion of the exchange of industry and academia and mutual understanding between Japan and Sweden.

Source: https://www.se.emb-japan.go.jp/press release japanese decoration 3 november 2019.pdf



Mr. Björn O. Nilsson

Photo: https://www.se.emb-japan.go.jp/nihongo/news 191103.html



<u>Japanese research into growth of human organs in animals gets</u> preliminary approval

A science ministry committee of experts approved Japan's first research involving the injection of human induced pluripotent stem (iPS) cells into fertilized animal eggs with the aim of growing human organs.

Source: https://www.japantimes.co.jp/news/2019/07/24/national/japan-start-research-growing-human-organsanimals/#.XcWBIzNKiUk

Call for Applications

JSPS Postdoctoral Fellowship Program

Application period: October 22, 2019 to January 31, 2020

Eligibility: Pre/Postdoc researchers

Duration of stay: 1-12 months (Short-term)

12-24 months (Standard)

Terms of award: Round-trip ticket, research support allowance, monthly maintenance allowance, etc. URL: https://www.stint.se/en/program/external-programmes/jsps-postdoctoral-fellowship-program/

https://www.jsps-sto.com/fellowships-3/

Summer Program FY2020

Application period: October 22, 2019 to February 7, 2020

Eligibility: Master's/ doctoral students and/or postdoctoral researchers

Period in Japan: June 9, 2020 to August 19, 2020

URL: https://www.stint.se/en/program/external-programmes/jsps-summer-program/

https://www.jsps-sto.com/fellowships-3/



International Fellowship for Research in Japan

JSPS Postdoctoral Fellowships for Research in Japan (Short-term) FY2020

The program provides opportunities for pre-/ post-doctoral researchers to conduct cooperative research with leading research groups in universities and other Japanese institutions with the duration of 1 to 12 months.

Recruitment	Application deadline (from host institution to JSPS)	Periods for arrival in Japan
2nd (FY2020)	Jan 17, 2020	Aug 1, 2020 - Mar 31, 2021
3rd (FY2020)	Jun 5, 2020	Jan 1, 2021 - Mar 31, 2021

URL: https://www.jsps.go.jp/english/e-oubei-s/index.html

JSPS Postdoctoral Fellowships for Research in Japan (Standard) FY2020

The program provides opportunities for postdoctoral researchers to conduct cooperative research with leading research groups in universities and other Japanese institutions with the duration of 12 to 24 months.

Recruitment	Application deadline (from host institution to JSPS)	Period for arrival in Japan
2nd	May 8, 2020	Sep 1, 2020 - Nov 30, 2020

URL: https://www.jsps.go.jp/english/e-ippan/index.html

JSPS Invitational Fellowships for Research in Japan FY2020

The program provides overseas researchers who have an excellent record of research achievements with an opportunity to conduct collaborative research, discussions, and opinion exchanges with researchers in Japan.

This program consists of three options of Long-term and Short-term.

Recru	itment	Program	Application deadline (from host institution to JSPS)	Period for arrival in Japan
2nd		Short-term	May 8, 2020	Oct 1, 2020 - Mar 31, 2021

URL: https://www.jsps.go.jp/english/e-inv/index.html

<u>Upcoming Seminars and Symposia</u>

10-year Anniversary Ceremony for the establishment of the ACF

Date: December 12 (Thu), 2019

Venue: Academy of Finland, Helsinki, Finland

Organizers: ACF, Academy of Finland, Hokkaido University Europe Office in Helsinki, JSPS Stockholm Office

All Alumni Meeting in Finland FY2019

"Japan-Finland 100 years / JSPS Alumni Club in Finland 10-year Anniversary Seminar"

Date: December 12 (Thu), 2019

Venue: Academy of Finland, Helsinki, Finland

Speakers: Ms. Lisa-Akari Ishii, Lighting Designer/ Prof. Maarit Karppinen, Aalto University/

Prof. Shinichiro Tabata, Hokkaido University/ Dr. Kristiina Jokinen, Al Research Center of AIST Tokyo Waterfront/

Dr. Aki Tsuruta, Finnish Meteorological Institute

A video message from Ms. Motoko Ishii, Lighting designer, President of Motoko Ishii Lighting Design Inc.,

100 years of Finnish-Japanese Friendship Envoy

Organizers: ACF, Academy of Finland, Hokkaido University Europe Office in Helsinki, JSPS Stockholm Office

Supporter: the Embassy of Japan in Finland

URL: https://www.jsps-sto.com/event/all-alumni-meeting-2019/

* Please visit the link above to register by December 5

IVA-JSPS Seminar FY2019

Date: December 13 (Fri), 2019 Venue: IVA, Stockholm, Sweden

Speakers: Dr. Akira Yoshino, Honorary fellow of Asahi Kasei Corporation/ Nobel laureate in Chemistry 2019 and others Organizers: IVA, the Embassy of Japan in Sweden, Sweden-Japan Foundation (SJF), Swedish Foundation for Strategic

Research (SSF), JSPS Stockholm Office

URL: https://www.iva.se/en/tidigare-event/future-battery-technology-and-ecosystem/

* Please visit the link above to register

The 4th Norway-Japan Academic Network

Date: January 30 (Thu), 2020 Venue: RCN, Oslo, Norway

The 8th Sweden-Japan Academic Network

Date: February 5 (Wed), 2020

Venue: Swedish Museum of Natural History, Stockholm, Sweden

The 5th Japan Alumni and Researcher Assembly

Date: March 6 (Fri), 2020

Venue: University of Copenhagen, Copenhagen, Denmark

JSPS Stockholm Office's New Brochure

We have undated our office's brochure.

Please visit the link below:

https://www.jsps-sto.com/wp-content/uploads/2019/07/2019brochure.pdf



JSPS Stockholm Office E-mail Magazine

We began issuing an e-mail magazine in April 2019, which includes information about our seminars, symposia, alumni activities and international fellowship programs.

To sign up for our e-mail magazine, please register from here:

https://www.jsps-sto.com/newsletter-2/emailmagazine/

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Our newsletters are also available on our website for reading online.

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Cover Photo: Maple tree in Tokyo, Japan



Photo by Tomoko Svedlund Ishii