

JSPS Fellow's Experience

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Host Institution: National Institute for Materials Science, Atomic Beam Group
Host Researcher: Dr. Yasushi Yamauchi (山内泰)
Fellowship period: September 2009 – December 2010

I had heard of the opportunities available for foreigners to perform research in Japan under various JSPS programs from colleagues whilst studying for my PhD several years ago. With this in mind, along with a desire to internationalise my CV, I applied to the long-term program to work for one year in the group of Dr. Yasushi Yamauchi at the National Institute for Materials Science in Tsukuba. Both the group of Dr. Yamauchi and my own specialise in studying the electronic, chemical, and magnetic properties of surfaces and interfaces that are relevant to various materials systems currently attracting a great deal of attention, such as those used in spintronic applications and organic electronic devices. Prior to applying to the program, Dr. Yamauchi and I had never previously collaborated although after sending an email to introduce myself and outline my intentions for the research project, he kindly agreed to act as host-researcher. His experience in hosting other JSPS Fellows and good command of English greatly helped with the application process.

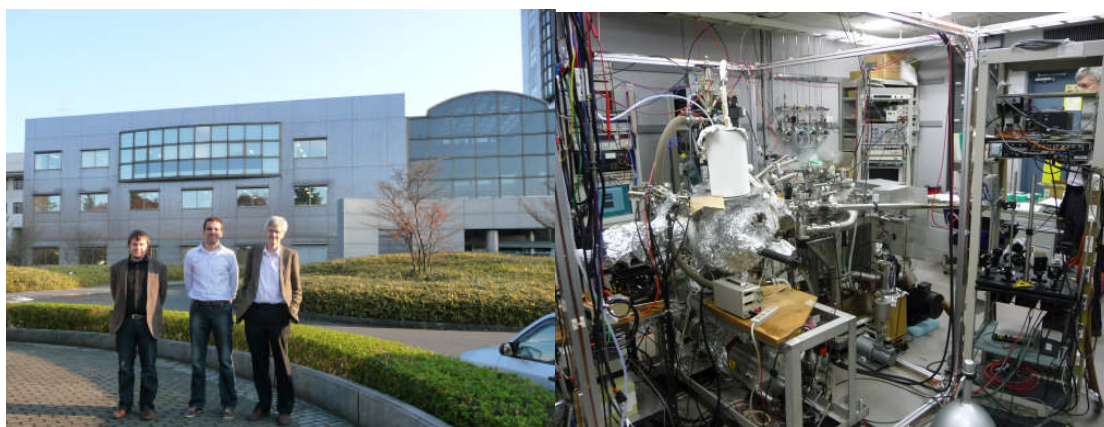
I was intending to take a crash course in Japanese before the start of my contract but could not arrange appropriate tuition in time. However, after arriving in Japan I found onward travel to Tsukuba and my accommodation fairly straightforward with no major problems. That is not to say I didn't experience a culture shock after stepping off the plane, by no means a bad thing and completely expected. It's a sensory overload of unfamiliar sights, sounds, and tastes although, for me at least, it did not take long to embrace this new and high-quality way of life.

On being shown my room at the purpose-built accommodation for foreign researchers, Ninomiya House, I did all I could not to step into the kitchen with my shoes on, however, with two large suitcases and my host researcher following after me, I ended up falling in anyway. No alarms went off and I didn't forever sully the floor with muddy shoes but the sanctity of this tradition immediately struck home. This would not be the first time that I would be impressed by Japanese appreciation of procedural discipline.

Tsukuba is a Science City around an hour away from Tokyo via the relatively new and extremely convenient Tsukuba Express. Only around 50 years old, the city was constructed to house many scientific institutions and as such has a much higher density of foreign researchers than elsewhere in Japan, many of which stay at the excellent Ninomiya House from where an excellent view of Fuji-san can be seen on a

clear day. Possibly due to its youth, some people find Tsukuba a little sterile at times and lacking the traditional culture seen elsewhere in Japan (think Milton Keynes or Canberra) although with Tokyo so close, I didn't feel I missed anything in this regard. In fact, I really enjoyed living in the city, in large part due to the many friends made from all across the globe. Watching the football World Cup in the bars of Tsukuba with such an international crowd was a memorable experience.

The scientific facilities at the National Institute for Materials Science are exceptional and I found my time there extremely productive. So much so, that after the expiration of my planned one-year stay, I applied (successfully) to JSPS to extend my contract for a further three months. This enabled me to complete a study on the growth of organic semiconductors on ferromagnetic substrates, an investigation that was not in my original research plan. Fortunately, the other members of my group could all speak good English preventing any language barrier in the lab. Also, despite the sometimes negative reports of the Japanese work ethic, I found the research environment to be relaxed and enjoyable, whilst at the same time stimulating. The large budget associated with the Fellowship enabled me to present the research output from the project at two conferences in Japan and at two in the USA, whilst the generous stipend easily supports a good lifestyle of travelling and eating out.



Outside the National Institute for Materials Science with visiting colleagues from York and the laboratory where I performed the majority of research during the Fellowship.

The holiday allowance on the JSPS program is very generous and allowed me to return to the U.K. twice and to explore Japan when family visited. I will not attempt to give a detailed account of my travels here as there is simply too much to report (see below for some photographic highlights). For advice on where to go and what to see, well-known guide books are pretty comprehensive although take in recommendations from other foreign researchers and Japanese friends and colleagues. My advice for prospective Fellows is to begin travelling and exploring the country as soon as possible after arriving. I was a little complacent in my first few months thinking that I had plenty of time to 'get in all in' but of course the list of things to do only grows and grows as your knowledge of the country increases.

Japan's reputation of being highly efficient and organised is fitting and I found various procedural tasks, such as obtaining a re-entry permit (necessary for leaving and returning to Japan multiple times), a Japanese driving licence (no test needed for U.K. citizens), and an alien registration card surprisingly simple, even with the language barrier. With so many foreign researchers based in Tsukuba, a large support network exists and so whenever problems did arise they could be quickly solved. There are many chances to enrol in Japanese language classes which are run at beginner and intermediate level at many research institutes in Tsukuba and also at Ninomiya House. I took both classes over the first six months of my stay and found a basic knowledge of Japanese genuinely helpful in everyday life. Away from the research environment, understanding of English is minimal. I would recommend that anybody preparing for a trip to Japan to at least learn hiragana and katakana.

If you are reading this with an opportunity to visit Japan, either through the JSPS program or otherwise, then I wholeheartedly recommend that you take it. I found my fifteen month stay there to be immensely rewarding, both personally and professionally, and will hopefully return many times. To have established links to researchers in Japan is extremely beneficial to the career of a scientist and to couple this with the chance to experience the unique culture the country has to offer highlights the value of a JSPS Fellowship.



Some highlights from Japan. Left-to-right from top: the courtyard at Ninomiya House; ceremony at a Grand Sumo Tournament in Tokyo; Asimo!; Nikko; Gyūtan (cow's tongue) in Matsushima and supermarket sushi (only ~£4 for this); view of Fuji-san from my room at Ninomiya House; beautiful beaches in Okinawa.