

UK/RoI-Japan Symposium on frontier technologies: from single molecules to cells and tissues, 4th-5th July 2016, Henry Wellcome Building, University of Leicester

This was a two-day symposium, aiming to facilitate UK-JAPAN collaborations. On day 1, both Japanese and UK speakers gave short presentations (12-15 min) to introduce their technical expertise, research findings and potential applications of the technologies. A conference dinner was held where all the participating PIs and invited speakers (including postdocs and early career researchers) from various institutes were invited, as well as University of Leicester Pro-Vice Chancellors, Prof. Ian Gillespie and Prof. Sarah Dixon. On day 2, JSPS introduced available funding schemes. In addition, potential IP issues were discussed with University of Leicester staff and the University of Leicester core biotechnology services were introduced. Attendees then had a structured networking session to explore potential collaborations followed by lunch. In the afternoon of the 2nd day, issues associated with exchange activities between UK and Japanese Universities were discussed between Japanese attendees, University of Leicester organisers and JSPS staff. The English Learning Teaching Unit (ELTU) from University of Leicester made a short presentation about academic English writing and presentation skills.

In total, 21 scientific presentations were made, among which, 6 were presented by postdocs/young research career scientist. For them, it was a great opportunity to present their work, have active discussion and meet with people. 19 attendees (about 25%) gave feedback where overall, all the sessions were appreciated but particularly, “single molecule analysis”, “optical imaging” and “chemical and structural biology” sessions were highly appreciated as well as the JSPS presentations. In addition, for those who attended, discussion for the future collaborative plans was found highly useful.

During the symposium, participants from the Japanese and UK institutes (Tokyo Metropolitan University, Tokyo Institute of Technology, University of Leicester, University of Nottingham and University of Warwick) presented their expertise, which highlighted complementary strengths between the research groups and institutions. Therefore, the symposium was a great occasion for the attendees to recognize the importance to establish close relationships between researchers from different backgrounds, so that multidisciplinary approaches can be taken in order to address a wide range of important scientific questions. On the 2nd day, JSPS representatives presented available JSPS funding schemes (such as the Core-to-Core programme) to foster a long lasting UK-JAPAN

consortium. Possibilities to apply for these opportunities have been discussed between UK and Japanese delegates since.

A number of technologies presented during the symposium have been originally developed by the symposium delegates. Interested attendees could discuss with the presenters for possibilities of future collaborations. Technologies developed by two Japanese research groups, “In cell NMR” technology by Prof. Ito’s group and “Mintbodies” by Prof. Kimura’s group, particularly attracted much attention and novel collaborative plans were discussed during the symposium dinner and the discussion time between the interested research groups.

During the first day, the schedule included 21 presentations by PIs and postdocs from various institutes. This day served as a great opportunity to overview their research areas and expertise. A certain number of PIs have already initiated discussions for potential UK-JAPAN collaborative projects.

Administrative procedures required for exchange activities between UK and Japanese universities at the institutional level were discussed during the afternoon of day 2. This helped us to generate immediate action plans towards implementing research-based exchange activities between the UK and Japanese institutes.

Two UK-JAPAN collaborations are currently running between the symposium delegates, Prof. Ito, Tokyo Metropolitan University, and Dr Dominguez, University of Leicester and Prof. Hirota, Tokyo Metropolitan University and Prof. Fry, University of Leicester. During the symposium dinner and the discussion time, these groups had intensive discussion about the concrete collaborative plans for the coming months. It has been agreed that a few members from the Hirota lab will visit the Fry lab in the University of Leicester for 3 months to conduct a collaborative project. Similarly, a member of the Dominguez lab will visit the Ito Lab for 3 months.

By simulating possible modes of UK-JAPAN collaborations (such as a few weeks or a few months visit of PI/postdoc/PhD students or conducting specific experiments designed over Skype conversations without an actual visit. Either way, consumables need to be funded), it was extensively discussed how available JSPS funding schemes would be adapted to the actual scenes of collaborations. This helped us to draft plans to apply for some of the JSPS funding schemes in the very near future. Also, BBSRC-funded UK delegates will look for the next BBSRC JAPAN partnering awards (call TBC).

The follow-up activities of the symposium will be organised by the symposium organisers, who will peer review future collaborative grant applications and

develop mobility partnership schemes for UK-Japan postgraduate and early career researchers from labs with active collaborations. To maximize impact, some of the recorded presentations are made available for the registered attendees. These will help increase opportunities to set up collaborations with wider parties and will be an excellent stimulation for younger Japanese students/researchers who could not attend the meeting.

-By Dr Kayoko Tanaka, University of Leicester and main organiser of this symposium



Presentation from Professor Ed Louis, University of Leicester, on the latest Gene Editing Technologies.