

Voice! from Alumni member

Vol.10 Dr Catherine Holloway



At the symposium "Measuring Accessibility by Mapping Mobility" (Dr Holloway is standing on the left behind the table.)

Dr Catherine Holloway, a former JSPS fellow, has been developing research links with colleagues in Japan for disability innovation. Now she is actively working with Japanese partners to help them learn from the London 2012 Paralympic legacy for Tokyo 2020. She hopes for further collaborations between Japan and the UK in this field.

Dr Catherine Holloway

Senior Lecturer, UCL Interaction Centre, University College London
Academic Director, Global Disability Innovation Hub

Award Records related to JSPS/ JSPS London

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| 2010 | Awarded JSPS Pre/ Postdoctoral Fellowship (Short-Term) for a 4-month fellowship to establish research collaborations at Kansai University, Osaka |
| 2012 | Awarded JSPS London FURUSATO Award for Follow-up funding to establish collaborations with Tohoku University, Japan. |
| 2013 | Awarded JSPS London Symposium/ Seminar Scheme to host 'Measuring Accessibility by Mapping Mobility' which embedded co-design workshops, talks and technology design into a 1-day symposium. |

When I first visited Japan on a short-term fellowship it was to visit Kansai University and to investigate the biomechanics of attendant wheelchair propulsion. I went to study under Prof Uchiyama and with Dr Suzuki. It was an amazing experience. I learnt a lot about the cultural differences between the UK and Japan; but actually, I noticed a lot of similarities between Irish culture and Japanese culture. We both for example have great respect for education.

My initial visit has led to a number of opportunities to further develop research links between Japan and UCL. In particular, I returned to Tohoku University to investigate the use of wearable

technology to measure wheelchair pushing metrics with Prof Watanabe, from this we published [a paper](#) and have also had a number of exchanges of students between the UCL PAMELA facility and Tohoku university. We also held a joint symposium funded by JSPS on the subject of accessibility and mapping mobility in 2013, this brought together leaders from across Japan and the UK to discuss the future of accessibility of both the physical and digital environments.

My initial research and publications focussed on wheelchair accessibility, on measuring the biomechanical effort needed for wheelchair users to push their wheelchair across everyday

footway surfaces. Results have shown that simply boarding a bus, via a ramp means that over [four times body weight is transferred](#) through the shoulder of wheelchair users. This is important as up to 70% of wheelchair users suffer shoulder injuries, which prevent them from being able to push themselves independently without acute pain.



An experiment measuring burdens on the shoulder of wheelchair users

This activity was part of a wider momentum which helped to create the [Global Disability Innovation Hub](#) (GDI Hub) which was launched in Sept 2016 on the back of the London 2012

Paralympic Legacy. GDI Hub is currently working with partners to ensure we can maximise the opportunities to exchange learning and culture between London and Tokyo for Tokyo 2020. GDI Hub exists to accelerate a movement for disability innovation for a fairer world. GDI Hub works across institutions, geographies and disciplines to develop new ways of thinking around disability. This means we help to develop new assistive products, both through cutting edge research (e.g. developing a new upper limb prosthetic for lower income countries) and developing an ecosystem of innovation in east London. Our ecosystem partners with people from around the world to ensure we have global reach.

One example of this is the [Enable Makeathon](#), which has helped accelerate ideas for assistive technologies. We are very interested in partnering with Japanese colleagues in the area of Disability Innovation and would call on colleagues in the Arts as well as the sciences to get involved in GDI Hub to help further collaboration between Japan and the UK and to utilise the opportunity of Tokyo 2020 to make a lasting legacy for the academic community as well as the disabled community.

JSPS Alumni Association of the UK and the Republic of Ireland (RoI)

Please join the JSPS Alumni Association of the UK and the Republic of Ireland (RoI)!

As a former JSPS Fellow, we would like to ask you to join the JSPS Alumni Association of the UK and the Republic of Ireland (RoI). Our Alumni Association was established in 2003 and carries out a number of activities throughout the UK and RoI with numerous benefits for members. One of them is "The JSPS London Symposium and Seminar Scheme." The aim of this scheme is to provide support for members holding a symposium or seminar and to create high quality collaboration in cutting edge/ internationally competitive areas at institutional or departmental level between research institutions in the UK or RoI and Japan. Under this scheme, JSPS London will partially support the following matters*:

*The detailed support is subject to change.

1

Costs for inviting symposium/ seminar speakers from Japan

2

Costs for hiring a venue, printing materials, advertising and so on*

3

Strategic support to help advertise and organise the event.

The application details of this scheme will automatically be e mailed to registered Alumni members during our next call. For further information please contact JSPS London by email at enquire@jspm.org. Again, this is exclusively open to the JSPS Alumni members. So why not join us today?

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Joining us

Simply register your membership here
http://www.jspm.org/alumni_association/

Once registered you will receive an ID number and password to access the Alumni Association web pages and can start networking.