

## **Report on JSPS-funded bilateral project: “International Research Network for Virus Infections and Host Responses”**

### Aim

The aim of the programme was to develop candidate vaccines against the human T cell leukaemia virus, HTLV-1.

### Background

Professor Masao Matsuoka’s group (Kyoto University) had made several fundamental contributions to the understanding of the functions of one of the viral genes, called HBZ. Our group, in Imperial College London, had discovered that the immune response to HBZ was associated with protection against HTLV-1-induced diseases. The group leaders (Matsuoka and Bangham) met at international conferences and agreed that, by bringing together the complement knowledge and expertise in their respective research groups, significant advances would be made possible.

### Progress

With matching funds from JSPS and from the Royal Society in London, a series of short-term visits between laboratories was made by both students, postdoctoral Fellows and PIs. From the Kyoto laboratory, visits of one to four weeks were made to London by Drs Keiko Yasuma (January to February 2014) Michi Miura (April 2014), Rie Furuta (November to December 2014), and Mikiko Izaki (November 2018). From London, Charles Bangham visited the Kyoto laboratory in 2013 and 2014, Dr. Lucy Cook in January 2014 and Dr. Aileen Rowan in March 2015.

### Outcome

The programme had numerous significant beneficial outcomes. First, there was a productive exchange of knowledge and techniques on specific laboratory methods between the two laboratories. Second, the Kyoto laboratory developed an exciting new candidate vaccine. Third, the programme made important contributions to the PhD theses and postdoctoral work of several individuals. Fourth, the programme resulted in the publication of three original data papers, co-authored by Matsuoka and Bangham and their respective group members, and two reviews co-authored by Matsuoka and Bangham (one now in-press). Finally, Dr. Michi Miura was recruited to a postdoctoral position in Imperial College.

### Postscript

The collaboration between the laboratories has continued after the end of the JSPS and Royal Society funding, with continued exchange visits between the laboratories.

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May 2019

