

From Duplexes to Quadruplexes – Understanding DNA structure and Function

1st – 4th July 2014, University of Reading

UK academic lead: Dr John Brazier, Lecturer in Pharmaceutical Chemistry, University of Reading

Japan academic lead: Professor Shigeki Sasaki, Professor of Bioorganic and Synthetic Chemistry, Kyushu University

Both the UK and Japan have very strong track records of research within nucleic acids and this symposium will provide the perfect opportunity to bring these two communities together, and investigate how each country can effectively collaborate with one another. The RSC's Nucleic Acids Group organize several international meetings, and an annual UK networking meeting, and in Japan there is an annual Nucleic Acids Symposium series, with occasional international meetings, but there is no current meeting that focusses on bringing together researchers from both countries specifically to enhance UK-Japan collaboration. The proposed symposium aim to address this, and facilitate strong collaborative links. The programme includes a visit to Diamond Light Source and Research complex, a day of meetings to discuss research projects at the University of Reading, research seminars from Japanese professors and invited UK academics, and attendance at the RSC sponsored Nucleic Acids Forum.

The symposium was a great success, with both the Japanese delegates and UK organizers clearly feeling the benefit of the opportunity to networking in this way. The symposium started with a tour of the world class facilities available close to the University of Reading, at the Diamond Light Source and Harwell Research Complex. The Japanese delegates were shown around two beam lines of direct interest to the research theme of nucleic acids, B23 CD spectroscopy and IO2 a MX beam line for x-ray crystallography, which generated a lot of conversation about science and the availability of resources. The tour of the Research complex and the Ultra laser facility was likewise a great success.

The second day of the symposium focused on the research being conducted at Reading with the Brazier and Cardin groups, with presentations from several members. Once again these presentations generated healthy debate between the UK and Japanese delegates, and formed a sound basis for future discussion on collaborative research.

The third day of the symposium featured presentations from the Japanese academics along with four UK academics. The presentations were opened by the Vice Chancellor Sir David Bell, followed by the Director of the JSPS London Office Professor Takeyasu. The quality of the presentations was very high, and clearly had an impact on the UK audience, with several comments relating to the calibre of the Japanese academics.

The fourth day involved attending the Royal Society of Chemistry sponsored Nucleic Acids Forum 10, a networking event for UK based researcher in the field of nucleic acids which fitted well with the theme of the JSPS symposium. The presentations were mainly given by young scientists either towards the end of their PhD or early post-doctoral researchers, giving the Japanese academics an insight into the future direction of science within the UK.

Since the successful completion of the symposium, there has been several communications regarding future collaborations, with both UK and Japanese academics looking at the exchange of materials and personnel. One journal article has now been submitted after fruitful discussion during the second day of the symposium allowed any issues to be addressed and will facilitate this research moving forward. It was quite clear from the symposium that the UK and Japan have very strong research communities within the field of nucleic acids, which will inevitably result in a number of opportunities for collaborative research. – John Brazier.

