

Stevenson Fund Report – Rainbow Lo

Research Placement at The University of Hong Kong (HKU), Hong Kong (P. R. China).
– Dec 2018-March 2019



Left: Harbour skyline, right: Chong Yuet Ming Fountain at the University of Hong Kong.

With the assistance of the Stevenson Fund, I was able to undertake a three month placement under Professor Vivian W.-W. Yam, the Philip Wong Wilson Wong Professor in Chemistry and Energy, at the University of Hong Kong.

Prof. Yam and her group have extensive knowledge and experience working with luminescent supramolecular assemblies for a range of applications including optoelectric materials and chemosensors for molecular recognition of key biological processes or substrates such as ions, proteins and DNA. They are pioneers in the synthesis of d^6 , d^8 and d^{10} transition metal complexes and their photophysical, supramolecular assembly, and luminescence sensing and imaging studies.

I was particularly interested in a group of luminescent platinum(II) complexes bearing planar heteroaromatic systems (previously developed in Prof. Yam's lab) for the purposes of binding to non-canonical DNA structures called G-quadruplexes, which are relevant in cancer biology. During my time at The University of Hong Kong I designed and synthesised these complexes so they could be used in a biomedical setting by adapting the existing synthetic methodology. In addition, I learnt the techniques for photophysical characterisation such as how to obtain solid and glassy state emission spectra. This placement was an invaluable opportunity to collaborate with a distinguished coordination chemistry scientist on a project related to my research and further develop my technical repertoire. Moreover, it was a chance to gain exposure working in different research group and to foster links between Imperial and the University of Hong Kong. During my time there, I was also invited to attend departmental research seminars, a XRD lecture series run by a postdoc in the group, and group activities such as badminton and hiking. This helped to enhance the overall experience greatly.

Since the placement, I am happy to report the continued successful collaboration between our groups. Overall, I thoroughly enjoyed my time in Hong Kong and am grateful to the Stevenson Fund for this opportunity, and to Prof. Yam and her group for making it an unforgettable experience.