Testimonials: Research stay at the University of Bayreuth through the German Academic Exchange Service (DAAD), Bayreuth-Melbourne Colloid/Polymer Network

June 2017 – July 2017

Alessia Weiss

The University of Melbourne

Department of Chemical Engineering

Nanostructured Interfaces and Materials Science group (Prof. Frank Caruso)

Based on the research exchange of Heike Herold, a PhD student in Thomas Scheibel's group (University of Bayreuth), with Frank Carusos's research group (The University of Melbourne), a 4-weeks revisit to the University of Bayreuth was conducted by Alessia Weiss.

The ongoing collaborations between both groups combines materials sciences and particle's bio-nano interactions. Engineered spider silk particles, which Thomas Scheibel is well known for, were chemically modified by incorporating biocompatible and biodegradable crosslinkers. Furthermore, the formation of the biomolecular corona formed from human serum was investigated. Research on both projects is still ongoing and will result in a peer-reviewed publication in a high impact scientific journal.

As part of this exchange, a lecture was given at the Bayreuth Summer School. The talk was part of the course "Advanced Polymers in Engineering & Energy" with the title "Nanotechnology at Biomedicine – From Nanoengineering of Polymer Particles to Biomedical Applications".

Funding for the collaborative work was provided by the German Academic Exchange Service (DAAD), and both research groups. All travel expenses such as airfares, accommodation, and research expenses were covered in accordance with the academic stay rates and terms.