

Highlights of my week at the Collagen GRS and GRC, July 2013

Chloé Yeung, University of Manchester

The Gordon Research Conference for Collagen, entitled 'In the Context of Matrix, Cells and Regenerative Medicine', was held at Colby-Sawyer College in sunny New London, New Hampshire. The five-day meeting (from 14th-19th July) was preceded by the two-day Gordon Research Seminar for Collagen. The GRS was created to provide early-career scientists including PhD students with an opportunity to present and discuss their work in an international setting.

The GRS on 13th-14th July was organised by Lydia Murray (University of Glasgow) and Jorge Fallas (University of Washington) and was attended by 40 young scientists and opened with a keynote lecture by Leena Bruckner-Tuderman (Universitäts-Hautklinik Freiburg) on new findings and therapeutic strategies on type VII collagen in the pathobiology of skin diseases, which included epidermolysis bullosa – a blistering disease. The remainder of the GRS was made up of three sessions, in which young scientists presented novel findings on the topics of 'Collagen in Disease', 'Collagen-Protein Interactions' and 'New Directions in Collagen Research'. Highlights for me included Vanessa Lopez-Alpuche (University of Oulu) who spoke about type XVIII in hair follicle cycling and skin tumours; Abhishek Anan (Rice University) who discussed the challenges in designing collagen mimetic peptides; and Michael Randles (University of Manchester) who presented mass spectrometry data to reveal the composition of the glomerular extracellular matrix. The atmosphere of the meeting was very relaxed and informal, and each talk was followed by lively discussions that continued into the two poster sessions over a beer or two!

Since the first Collagen GRS in 2011, the organisers of the Collagen GRC have selected short talks from GRS to present at the main meeting. The four speakers selected from this year's GRS were Abhishek Anan, Veronique Van de Bor (Le Centre National de la Recherche Scientifique), Mike Randles and myself, which I was really chuffed about!

After the GRS ended on the Sunday afternoon, over 100 of the GRC attendees arrived and joined those of us who had attended the GRS for dinner. All the lunches and dinners were held in the newly refurbished and air-conditioned dining hall and poster room. (Just to point out that a highlight of the week for many was the variety of delicious food on offer!) All around, young scientists were chatting away with leaders of the field and the overall mood was one of excitement for the stimulating program put together by Karl Kadler (University of Manchester) and Collin Stultz (Harvard-MIT), the chair and vice chair of the meeting.

There were many highlights of the GRC presentations for me. Just to list a few: David Hulmes (Institute for the Biology and Chemistry of Proteins, Lyon) presented his lab's latest success in solving the crystal structure of the C-propeptides of procollagen III and how it may explain the severity of phenotypes in numerous disease-related mutations; Michael Rape (University of California Berkley) and Maria Antonietta De Matteis (Telethon Institute of Genetics and Medicine, Naples) presented their work on the age-old dilemma of how procollagen is packaged and transported through the secretory pathway; Adam Isabella (University of Chicago) showed amazing videos of live imaging of basement membrane during the remodelling of egg chamber in *Drosophila*; Giorgio Calli (Boston Children's Hospital) spoke about Prdm5-regulated collagen gene transcription; and Fiona Watt (King's College, London) told us how different signals from the epidermis regulate dermal remodelling. The most lively and memorable discussion followed the presentation by Qing-Jun Meng's (University of Manchester) in the evening session on 'Genetic Mechanisms of Disease'. He showed his latest discovery of circadian rhythms in cartilage tissue and how their disruption may compromise tissue homeostasis. The audience was captivated and a lively and engaging discussion ensued and continued well into the evening at the bar. There are always new and surprising things to be discovered in the collagen field, in addition to the existing big questions!

Other highlights from the meeting were the presentation of a gift to Peter Bruckner (University Hospital of Münster, Germany) to commemorate his 17-year service as the ISMB treasurer-secretary and the competitive game of football (or soccer!) between the USA and the Rest of the World. Everyone either attended to watch or play, which echoed the friendly and inclusive atmosphere of the meeting.

I would strongly recommend all young scientists studying collagen to attend the next GRS and GRC in 2015 because my attendance allowed me to present my work and receive valuable feedback from renowned scientists in the field. The daily poster sessions greatly enhanced my networking skills. In the spirit of the GRC, the presentations and posters consisted of exciting and new, unpublished data, which was really relevant to my research, and has proved to be of great value!