Report on WWMR 2010-Florence, July 4-9 2010

Against the beautiful backdrop of Florence took place quite easily one of the most interesting conferences I've been to since starting my PhD.

Monday morning saw the conference kicked off with a fascinating talk by the Sacconi prize winning Lyndon Emsley; discussing ultra fast Magic Angle Spinning NMR, its effect on proton spectra, the challenges involved and how to circumvent these. Lyndon also described methods of studying solid-state dynamics by measuring residual anisotropy of NMR interactions and it was easy to see why he won the Sacconi medal.

The talks throughout the conference were varied and interesting with a huge amount focussed on solid-state NMR much to my delight as my field is biological solid state NMR. Within the scope of this report I unfortunately cannot go into all the talks that I found extremely interesting but my favourites were the Haupt effect under static and MAS conditions by Jacco van Beek, Rapid 3D MAS NMR at critical sensitivity by Judith Herzfeld and The amyloid β peptide involved in Alzheimer's disease: Molecular interactions, secondary structure conversions and aggregation by Astrid Gräslund. All of these talks have given me ideas for my own project looking at the interaction between beta-2 microglobulin fibrils and serum amyloid P component.

Richard Ernst's plenary lecture on his use of RAMAN spectroscopy in the study of Nepalese artwork was incredibly informative and engaging with several laugh out loud moments and fellow delegates and I found it incredible that Richard actually has bought himself RAMAN spectrometer for his home!

The poster sessions were also incredibly interesting with more posters than one person could possibly read! Due to the broadness of subjects at the conference they were a good opportunity to find out about relatively unrelated fields by quizzing people on techniques that I don't use. I used the chance to increase my knowledge of dynamic nuclear polarisation which until the conference was a bit of an enigma to me! Some of the posters I found most interesting were solid-state NMR and dynamic nuclear polarisation on membrane proteins by Lenica Reggie, the structure of FgHETs-(218-289) amyloid fibrils by solid-state NMR by Christian Wasmer and structural studies on Tau K19 fibrils using solid-state NMR by Vinesh Vijayan.

My own poster "insights into the structure of beta-2 microglobulin fibrils and the role of serum amyloid P component in their stabilisation" generated quite a lot of interest and I had some very interesting suggestions for future work.

The conference offered very good opportunities to network with some very entertaining hospitality evenings where it must be said that Bruker surpassed themselves in providing food, drink and entertainment to delegates. The end of conference banquet was extremely nice with good food and good but perhaps a little too loud live music; it is after all nice to be able to hear what the person sat next to you is trying to say! All in all an excellent conference!

Garrick Foster Taylor
School of Biological Sciences
University of Southampton