

Introduction

I am delighted to write the Introduction to the Annual Report on the activities of the Astbury Centre in for Structural Molecular Biology in 2009. The year marked the tenth anniversary of the establishment of the Astbury Centre as a formal University Centre, which was celebrated at the Astbury@10 meeting in June. In its first ten years, the Astbury Centre has thrived as an interdisciplinary research centre, bringing together scientists from diverse backgrounds from across the University of Leeds.

This annual report provides a snapshot of the Astbury Centre's research portfolio in 2009. The report describes many scientific advances within the Centre that have addressed major problems in modern biology. Many of the reports demonstrate that an interdisciplinary approach can have a tremendous impact on problems that are relevant to global society. The Biology Faculty of 1000 highlighted research from the Centre on prion protein lipid rafts (Hooper), the vacuolar ATPase motor (Trinick), the synthesis of diverse small molecules (Nelson), and the mechanism of the dynein motor (Burgess, Knight). Rongjun Chen was awarded two prizes recognising the potential of his research to impact on business and industry. Alison Ashcroft and Adam Nelson delivered major lectures associated with the Hites Award (for an outstanding publication in *Journal of the American Society of Mass Spectrometry*) and the Royal Society of Chemistry Corday-Morgan medal respectively.

A major highlight of 2009 was, undoubtedly, the residential research retreat held in Kendal in September. The retreat was attended by 120 members including many postdoctoral researchers and PhD students. Over 60 people presented their research in the form of a poster or a lecture, and the diversity of the science presented reflected the broad remit of the Centre. The standard of the research presented was remarkably high, and the quality of the meeting certainly surpassed the international conferences that I attended in 2009!

Astbury Centre members continue to be very successful in raising external grant income, including many of our newly appointed staff who have succeeded in getting their first major grants funded. In addition, Andrew Wilson secured one of the University's first two European Research Council Starter grants; and Sheena Radford and David Brockwell are investigators on the first BBSRC Lola (Longer and Larger) grant to be awarded to the University. At the end of 2009, Astbury Centre members were applicants on grants totaling around £46M. Developing strong and sustained links with relevant industries has been a major objective within the Centre this year, and we were delighted to host 17 delegates from 11 companies to our Industry Open Day in the autumn.

Postdoctoral researchers and postgraduate students continue to make major contributions to the activities of the Centre. Nicole Timms has done a superb job leading the Astbury Society which has organised many enjoyable social and scientific events this year including the Sports Day and barbecue associated with the Astbury@10 meeting. The Society organised the Murder Mystery networking event that formed part of the research retreat: this event was exceptionally ingenious, and will, I'm sure, be remembered by members for many years to come! Many researchers have been externally recognized for the excellence of their work including George Preston and Martin Fisher, who won prizes at RSC events; James Kendall, who won a poster prize at an EU-funded training course on membrane proteins; and Gareth

Morgan won a poster prize at the White Rose Protein Forum. In 2009, 32 postgraduate students were awarded a PhD degree, and 36 new PhD students initiated a research project with a supervisor from the Astbury Centre.

The Astbury Centre continues to host a vibrant and highly international seminar programme. The Astbury@10 meeting featured presentations from Peter Knight; Simon Phillips, our founding Director; and Ben Davis and Kim Nasmyth from the University of Oxford. The talks spanned many of the broad research interests of members of the Centre including structural biology, biophysics, chemical biology and molecular interactions in cells. In total, there were 18 seminars in 2009 which were presented by visitors from institutions in 9 different countries.

We have formally welcomed 5 new members to the Astbury Centre in 2009: Stefan Auer, Robin Bon, Lorna Dougan, Alex O'Neill and Sarah Staniland. Carola Hunt left the University to move to a Chair at the University of Freiburg. We were very sorry that Donna Fletcher left the University in 2009, having provided many years of unstinting administrative support to the Centre.

2010 promises to be an exciting year for the Centre. We are planning a research away day in the autumn that will be held at the Thackray museum in Leeds. In addition, the Centre is contributing to a major exhibition at the museum celebrating the career of William Astbury as part of the Royal Society's celebration of its 350th anniversary; the exhibition will describe Astbury's enduring contributions to structural biology, and will highlight his legacy in the context of research from the Centre that is relevant to society today.

The Centre produces a regular electronic Newsletter that describes our on-going activities. Details of how to receive an electronic copy of this Newsletter may be found on the Astbury Centre website. This annual report (as well as those from previous years) is also available as a PDF document that can be downloaded from our website.

Finally, I would like to thank our editors, Alan Berry and David Brockwell, for leading the preparation of this Report, ably assisted by Sue Wright.

Adam Nelson

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