

Introduction

It's a great pleasure to write this Introduction to the Annual Report on the activities within the Astbury Centre during 2006. As I described on these pages last year, the only constant in life is change and this has been yet another hectic period in our development. The University Research Institutes, Molecular Biophysics (IMB) headed by Sheena Radford, and the Institute of Bionanosciences (IoB) headed by myself, have been rolled formally into the Astbury management structure, together with the new developments in Chemical Biology headed by Adam Nelson. With Structural Molecular Biology, these now form the major scientific themes of the Centre, although realistically we all expect that elements of everyone's work will cross backwards and forwards between these headings, as indeed they should in a true inter-disciplinary environment. Significantly, the attractions of the Astbury Centre have been recognised by a large number of newly appointed staff who joined the University over the last year across many different departments and Faculties. We also seem to have more collaborations outside our traditional Faculty base. Reflecting these changes and our increasing membership we have initiated additional meetings between the managing Executive Committee and members to facilitate communications and allowed ever wider participation in our activities.

The Astbury Society formed by our postdoctoral and postgraduate colleagues has also made major contributions to forging the personal links between laboratories, departments and disciplines essential to our future with a series of highly enjoyable social events, including our first Annual Astbury Lecture, given by Prof. Steve Chapman, Pro-Vice Chancellor for Research at Edinburgh University. Steve's exciting and highly amusing seminar was followed by a BBQ and "Sports Day" in which he was an enthusiastic and highly competitive participant (see photos on the Astbury Web Site). A pizza and beer Quiz Evening also sticks in the memory although the senior PI teams were clearly at a disadvantage in what was billed as a "music round".

Astbury members continue to be very successful in raising external grant income. A special mention here must go the award of yet more inter-disciplinary UK BBSRC PhD studentships to Astbury under the auspices of the SCIBS scheme. Many thanks to Adam Nelson and Bruce Turnbull for the hard work they put in to secure this funding on our behalf.

As well as welcoming new members, sadly we must also say goodbye to present and former colleagues. On a personal note I would like acknowledge the help and encouragement I always received from Simon Baumberg who sadly died in April 2007 after a brief illness. Simon had only just retired from the University where he had made major contributions to our understanding of the control of gene expression, his work spawning structural projects in the Stockley, Parsons and Phillips' laboratories, and latterly additional projects in collaboration with Kenny McDowall. He will be sadly missed. Alastair Smith is also leaving us towards the end of the year to pursue the development of a technical spin-out company, Avacta Ltd. Alastair has made major contributions helping to establish advanced biophysics in the University and we all wish him well in the future, especially if Avacta can be persuaded to support some Astbury seminars! Last year I reported that my former Deputy Director, Steve Homans had been appointed as Head of one of the new Institutes within the Faculty of Biological Sciences. It seems there is no holding him back and we congratulate him this year on his appointment as the new Dean in FBS from August 2007.

The pages that follow describe some of the highlights of our work over the last year. These reports have largely been written by our younger researchers. Their tremendous enthusiasm for this kind of interdisciplinary work augurs well for our future. As always I am particularly

struck by the breadth of activity in the Centre, ranging from the sophisticated applications of synthetic organic chemistry to the developments in single molecule biophysics. In between these extremes you will find groundbreaking activity in many traditional areas for structural biology, e.g. the developments in mass spectrometry for analysis of non-covalent self-assembling macromolecular complexes. The Astbury Centre has always been outward looking and this tradition continues with the many external collaborations acknowledged in these pages, from both within the UK and beyond. We would welcome discussions with anyone wishing to collaborate or simply to make use of our facilities, the details of which can be found via our web page (<http://www.astbury.leeds.ac.uk/>). These brief summaries, however, only scratch the surface of the work of the Centre. I hope you enjoy reading them, and if you wish to learn more please visit our website or contact the Director. The Centre also continues to host a very successful seminar programme that illustrates aspects of work within the Centre.

The Centre produces a regular Newsletter describing its activities. If you would like to receive an electronic copy of this Newsletter it can be downloaded from (<http://www.astbury.leeds.ac.uk/>). This annual report is also available as a ~17MB PDF document that can be downloaded from our web site.

Finally I would like to thank our Editor, Alan Berry, once again for another outstanding job getting the Report together, ably assisted by Donna Fletcher.

Peter G. Stockley

Director, Astbury Centre for Structural Molecular Biology

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