

### **Dr Stephen Wren** **Joint Winner of the 2006 Chromatographic Society Jubilee Medal**



Dr Stephen Wren is a Principal Scientist within the Pharmaceutical and Analytical Research and Development group of AstraZeneca at Macclesfield in the UK. His work involves the application of existing analytical techniques to assist in the development of new pharmaceuticals, and the identification and development of new analytical approaches to help this process in the future.

He completed a PhD in physical organic chemistry at the University of York where extensive use of GC in kinetic studies, column chromatography for reagent purification, and NMR, MS, and IR for product characterisation led to his general interest in analytical chemistry.

Following work on environmental analysis at the Laboratory of the Government Chemist in London he joined the former ICI Pharmaceuticals in Macclesfield.

Stephen has been active in research into analytical chemistry for a number of years, both via individual investigation and by collaboration with leading academics, with whom he has helped to supervise 8 PhD students. He has authored or co-authored 29 peer reviewed publications most of them covering separation science, especially in the field of capillary electrophoresis.

One area of interest is in trying to improve understanding of the physical processes that underlie separations, and then exploiting that understanding to develop improved separation methods. An example of this is in using capillary electrophoresis for the separation of enantiomers. His series of papers and book explored how a simple competition model could be used to explain complex behaviours and optimise separation conditions.

Dr Wren is now investigating how HPLC separating power can be improved by the use of smaller stationary phase particle sizes in conjunction with elevated pressures.