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Editorial

Science Symposia at the British Pharmaceutical Conference

The British Pharmaceutical Conference has in recent years mounted a strong science programme with several symposia featuring prominent researchers bringing the latest advances in specific fields to the attention of a wider audience. The 134th consecutive annual meeting last September in the English seaside resort of Scarborough was no exception. In this issue of the *Journal of Pharmacy and Pharmacology* we bring selected papers from that meeting which amply demonstrate the wide breadth of topics covered, and the depth of the individual coverage of the topics.

In a symposium on rheumatoid arthritis, Professor David Blake and colleagues (Chikanza et al 1998) posed the question 'Why Do We Need New Treatments for Rheumatoid Arthritis?' Rheumatoid arthritis is now recognized as a systemic autoimmune inflammatory disease, with a complex biochemistry to be understood by research workers in this field. Although classical treatments with drugs such as myocrisin and sulphasalazine may sometimes be effective at controlling the disease, recent developments have been with drugs which are biological in nature and are targeted at specific sites of the inflammatory cascade of reactions. In turn, this has meant that these drugs may need to be given parenterally and frequently, with obvious disadvantages. The paper is a timely review of the progress that has been achieved and points the way towards the development of specific, orally active drugs. As part of a symposium on Drug Design and Medicinal Chemistry, Professor William Denny of the University of Auckland in New Zealand described 'The Design of Selectively-activated Anti-cancer Prodrugs for use in Antibody-directed and Gene-directed Enzyme-Prodrug Therapies (Denny & Wilson 1998). As with the new therapies for rheumatoid arthritis, the continuing search for effective anti-cancer drugs involves new concepts of treatment, particularly so as to develop entities that can interfere with the cancerous cell without affecting normal cells. Some of the new concepts are summarized with special emphasis on the use of prodrugs which can be activated selectively in tumour tissue. This requires some elegant concepts involving the delivery of an exogenous enzyme by attachment to monoclonal antibodies or as DNA constructs containing the corresponding gene.

A major symposium was organized in association with the UK Controlled Release Society (UKCRS), and three papers from the symposium appear in this issue. Professor Clive Wilson reviewed the 'In-vivo Monitoring of Dosage Forms' (Wilson 1998), in particular the two most widely used techniques of scintigraphy and magnetic resonance imaging. Although these techniques have significant limitations, computing techniques in both fields offer exciting new development particularly in fast three-dimensional imaging. Professor Richard Guy presented a much needed appraisal of the current state of knowledge and experience with iontophoresis as a non-invasive approach to transdermal diagnosis and therapy in his paper on 'Iontophoresis – Recent Developments' (Guy 1998). Developments closer to the market place were described by Harry Seager in his paper 'Drug-delivery Products and the Zydis Fast-dissolving Dosage Form' (Seager 1998). The paper demonstrated that the needs of patients were not just addressed by the therapeutic activity of the medicine, but by developing acceptable formulations, a reminder that high-quality science was just as important in the development phases as in the research phases of pharmaceutical science.

A symposium organized in association with the Drug Metabolism Discussion Group focused on the importance of understanding drug metabolism mechanisms in toxicological studies. Professor Peter Kramer of Merck, Darmstadt, introduced the subject of 'Genetic Toxicology' (Kramer 1998). The effect of the exploding fields of combinatorial chemistry and high-throughput screening could not be better illustrated than in this forward looking paper on the need to continue the transformation of research toxicology in recent years, from its traditional descriptive approach, to one requiring approaches based on its own versions of high-throughput screening and rational activity predictions. For those interested in the related fields of drug design, a symposium was also mounted in collaboration with the UK QSAR Discussion Group and Sirius Analytical Instruments Limited; papers from this symposium appear elsewhere.

The British Pharmaceutical Conference continues its long tradition in Eastbourne this year when the science programme will once again offer the latest reports in a wide coverage of the pharmaceutical sciences.

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