International Journal of Pharmaceutics, 86 (1992) 95

IJP 20003

Book Review

Polypeptide and Protein Drugs: Production, Characterization and Formulation
R.C. Hilder and D. Barlow (Eds)
Ellis Horwood, New York, London, 1991, 281 pp.; ISBN: 0-13-677253-6.
Price £45.00.

Polypeptides and protein drugs are becoming the focus of intense pharmaceutical research but many problems are routinely encountered with their synthesis, characterisation, formulations and quality control. Hilder and Barlow from the Department of Pharmacy, Kings College London, have collected together in this book articles by prominent workers in the field which collectively form a comprehensive review of recent developments in polypeptide and protein chemistry and biology relevant to their exploitation as pharmaceuticals. The editors have drawn from experience gained from topics discussed at the 1990 Easter School jointly organised by the Royal Pharmaceutical Society of Great Britain and the Chelsea Department of Pharmacy at King's.

The topics presented in the seventeen chapters cover the structure and folding of proteins; chemical strategies in peptide synthesis; polypeptide production by recombinant DNA technology; HPLC of proteins; their stabilisation by freeze-drying and other methods; the toxicity and safety testing of genetically engineered pharmaceuticals; their pyrogen testing; monoclonal antibodies; development and quality assessment of vaccines; the quality of plasma products; a case history on Interleukin 2; Genotropin – recombinant human growth hormone; development and current therapeutic status of peptide and protein pharmaceuticals; the development of Zoladex – a case history, and site-specific proteins.

There are two appendices, which describe analytical and synthetic techniques; reduction of diketopiperazine formation in Fmoc-peptide synthesis, and capillary electrophoresis. Each chapter is very well referenced to current literature with full references and there is a comprehensive index to the contents.

This is a specialist book which summarises the 'current status of the art' of peptide and protein pharmaceuticals. It will be invaluable to all research workers in the field and will be especially useful to those proposing to embark on research in these areas.

P.F. D'Arcy

School of Pharmacy
The Queen's University of Belfast
Northern Ireland