

## *Preface*

---

This series of Specialist Reports, originally named Amino Acids Peptides and Proteins has reached its Silver Anniversary Edition. Many aspects of this broad field of endeavour have undergone great changes over the past 25 years, and the volume of publications has continually expanded. By the time Volume 17 was reached the Senior Reporter (Dr. John Jones) stated that 'an exhaustive review of a year's output could no longer be contained in a single volume' and hence it was decided to contract the scope, and shift the emphasis of the title to Amino Acids and Peptides only. Even after this major surgery the literature continued to expand, but many yearned for coverage of the exciting developments which were also happening in the Protein field. Hence the great satisfaction this year in securing the assistance of Dr. Jennifer Littlechild to provide an overview in Chapter 5 of the very interesting current developments in Protein Research. The title of the series, in its silver anniversary edition, reverts to its inaugural form, and the sincere hope is that it will continue with this breadth of coverage.

Re-visiting the covers of Volume 1 in the series confirms the phenomenal changes which have occurred over the 25 years. In 1969 there were only 213 citations in the peptide synthesis section, with only about a dozen involving 'synthesis on a polymeric support'. In recent volumes, citations in this area usually top the 600 mark. In Volume 1 the Senior Reporter (Dr. Geoffrey Young) listed as the important advance of the year, the 'chemical synthesis of material having the enzymic activity of ribonuclease' which on reflection seems a good choice of words for those pre-hplc times. There are no citations in Volume 1 for, multi-dimensional nmr techniques, molecular dynamics, FAB-mass spectrometry, multiple peptide syntheses, custom-designed peptide surrogates, and the development of peptidomimetic drugs based on protease inhibition. These are now very much part of everyday usage in this field. International Peptide/Protein Symposia in Europe, America and Japan have no problems in attracting a thousand participants. Within this expansion the discipline has also undergone a change of emphasis from its chemical origins into more inter-disciplinary fields. The wide-ranging and demanding problems being approached by the peptide and protein fraternity really demand the multi-disciplinary approach.

What new horizons the next 25 years will reveal are difficult to predict. We are already experiencing a new thrust into glyco-peptides and -proteins, a greater understanding of the mechanism of immune response, and peptido-receptor ligand interactions are slowly being

rationalised. Peptide-based vaccines could be around the corner, and further useful peptido-mimetics will be designed from more selective screening programmes based on natural sources or possibly from synthetically created peptide libraries.

With this series continuing into Volume 26, it is hoped that the fruits of the considerable labour of our Reporters in providing an authoritative collection of the annual research output will assist in guiding workers into the vast literature in the field. For a significant number of the last 25 volumes Graham Barrett (AminoAcids) and Donald Elmore (Peptide Synthesis) have been unstinting in their efforts in compiling their annual chapters, and I wish to thank them again for their continued support. Christine Bladon has again taken care of the peptido-mimetic area and this year we benefit from the biennial coverage of Metal Complexes of Amino Acids and Proteins by Kevin Nolan and Hay, assisted by Dr. Souidi. To everyone, a most sincere thanks for your great help.

John S. Davies  
University of Wales, Swansea