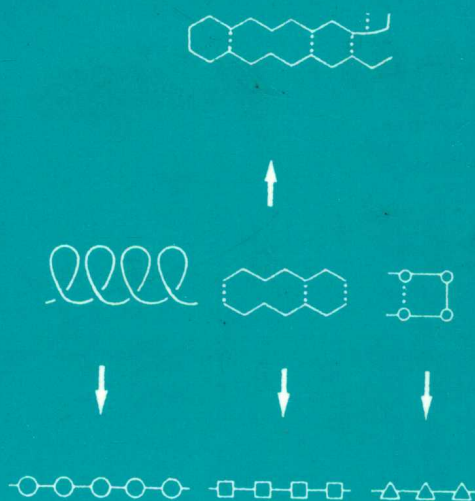


Methods in Protein Sequence Analysis • 1986

Edited by

Kenneth A. Walsh



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PREFACE

Methods in Protein Sequence Analysis - 1986

brings together reports of the most recent methodology available to protein chemists for studying the molecular detail of proteins. The papers in this volume constitute the proceedings of the Sixth International Conference on Methods in Protein Sequence Analysis, which was held at the University of Washington in Seattle, Washington on August 17-21, 1986. This series of conferences has taken place during a period when new techniques in protein chemistry and molecular biology have enabled not only exploration of the control of protein function, but also deduction of the genetic origin of proteins, and laboratory generation of rare protein molecules for therapeutic and commercial use. The current reports are focused on the means by which experimental questions can be answered rather than on the biological implications in specific systems.

The scope of the meeting was quite broad, emphasizing microanalytical techniques and the relative merits of DNA sequencing, mass spectrometry and more traditional degradation techniques. A highlight of the meeting was the growing awareness of the role of mass spectrometry in the analysis of proteins. The complementarity of protein sequencing and DNA sequencing techniques was apparent throughout the discussions and several papers dealt with the strategy of obtaining sequence information from small amounts of protein in order that appropriate oligonucleotide probes could be constructed and the encoding nucleic acids sequenced and manipulated. The importance of protein chemistry in the

biotechnology field was also stressed. Besides debating the practical limits of analytical stringency and the best approaches for gaining information from subnanomole quantities of protein, contributors also dealt with the range of posttranslational modifications that are not evident from an analysis of DNA sequences alone.

The scientific program of the conference included both oral and poster presentations. Most of the oral presentations are represented by manuscripts included in this volume. In addition, the authors of several particularly timely poster presentations were asked to contribute manuscripts to this volume. Taken together, these papers provide up-to-date accounts of modern techniques in protein chemistry and a source of timely experimental methods that are suitable to probe for a greater understanding of the role of proteins in living systems.

The editor is grateful for the thoughtful guidance of the Scientific Program Committee, for many hours of help by an organizing committee of his laboratory colleagues, and for the corporate sponsors and individual donors that made this conference possible. Special thanks for editorial help are due to Michael Byford, Harry Charbonneau, Marshall Elzinga, Lowell Ericsson, Mark Hermodson, Tom Marti, Hans Neurath, Richard Perham, Katheryn Resing, John Scott, Brigitte Wittmann-Liebold and Richard Woodbury. Finally, since the editor was on sabbatical leave during a critical phase of production of this volume, the organizational efforts and editorial help of his secretary, Mary K. Woods, are gratefully acknowledged.

Kenneth A. Walsh
September 10, 1986

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