

STRUCTURE, DYNAMICS, INTERACTIONS AND EVOLUTION OF BIOLOGICAL MACROMOLECULES

*Proceedings of a Colloquium held at Orléans, France, on July 5-9, 1982, to
Celebrate the 80th Birthday of Professor Charles Sadron*

Edited by

CLAUDE HÉLÈNE

*Centre de Biophysique Moléculaire, CNRS, Orléans and Muséum National d'Histoire
Naturelle, Paris*

One of the central questions in the life sciences is that of understanding the processes which led to the appearance of the constituents of living organisms on the primitive Earth, and to their evolution toward organized cellular systems. For this reason, structural and dynamic aspects of biological macromolecules have received growing attention during the last few years. Interest in the polymorphism of nucleic acids has recently been revived by the discovery of left-handed double helices. Similarly, the discovery of rapid motion in proteins and nucleic acid macromolecules (previously thought to be rigid structures) has led to new theories about how they recognize their ligands and how substrates are processed by enzymes. The fundamental role played by protein-nucleic acid associations in the expression and regulation of the cellular genome has stimulated many investigations, and general concepts of how specific recognition can be achieved are now emerging. This book, dedicated to Professor Charles Sadron, who was a pioneer in the study of polymers, including biological macromolecules, deals with several subject areas within these fields: structure and dynamics, interactions, and evolution of biological molecules. It contains plenary lectures delivered at a symposium held in Orléans, France, in July 1982 together with contributions from former collaborators of Professor Sadron. The wide range of modern developments dealt with should make this work indispensable for a thorough understanding of how living systems work.

Audience

Researchers and students in the fields of biophysical chemistry of nucleic acids, proteins and their associations, and molecular evolution should find much of value in this volume.



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