

Op den Kamp, J.A.F. (ed.): **Lipid and Protein Traffic. Pathways and Molecular Mechanisms.** - Springer-Verlag, Berlin - Heidelberg - New York - London - Paris - Tokyo - Hong Kong 1998. 364 pp. DM 220.00. ISBN 3-540-64115-7.

This book belongs to the NATO Advanced Studies Institute Series, Series H: Cell Biology, Vol. 106. It covers summary of contributions presented at the meeting „Molecular mechanisms of lipid and protein traffic“, held in Cargèse, France, in June 1997. This symposium was a great opportunity to present and discuss the major progress in the field of membrane dynamics.

The book is not subdivided into special sections or chapters, on the other hand, individual papers - together 31 - follow without respect to their topics. Individual contributions contain frequently very illustrative figures, graphs, and flow charts, articles were prepared ready to print in order to speed up the publishing. Recent advances in our knowledge in membrane biogenesis, assembly, and metabolism of individual membrane components are discussed. The contributions are concentrated to a range of organisms including prokaryotes, animals and plants. All cellular organelles are dealt with, as mitochondria, peroxisomes, chloroplasts, Golgi apparatus as well as nucleus. A stress was put on mitochondrial biogenesis, chloroplast assembly and protein transport into peroxisomes. The complicated process of membrane assembly is concentrated on the two major membrane components, proteins and lipids with regards to their trafficking, sorting, translocation and insertion into membrane are dealt with great details. Studies on peptides with special function in protein translocation, like signal peptides, which bind to proteins and have a role in signal transmission, were also presented. There is a description of a quite rare mono-ubiquitination of special receptor protein on cell surface and this modification causes downregulation of this receptor function. Several contributions are devoted to influence of toxins on membrane pores and their function. Also a folding of proteins is discussed and specially role of chaperons in this process. Many articles have general importance but several are concentrated to very special topic. Interesting is the contribution on myocardial cell damage caused by lipid peroxidation under oxidation stress which has important implications on human health care.

The importance of the symposium and this book have consisted in increasing of our understanding of membrane biogenesis and dynamics and relationship between structure and function of subcellular membranes.

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