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Konijn, T. M., Houslay, M. D., Van Haastert, P. J. M. (eds.): **Activation and Desensitization of Transducing Pathways**. NATO ASI Series, Series H: Cell Biology, Vol. 44. Springer Verlag, Berlin, 1990. 323 pp. ISBN 3-540-50382-X.

This book contains the proceedings of a NATO Advanced Research Workshop held in May 1989 in Noordwijkerhout (The Netherlands) within the activities of the NATO Special Programme on Cell to Cell Signals in Plants and Animals and represents already the 28th volume devoted to this research field.

The content of the book is divided into 8 parts: Chemotaxis and chemosensing, Cyclic nucleotide – coupled systems, G-protein activation, Visual transduction, Auxin – coupled systems, Ion conductance, and Cellular systems. Three contributions of the first part are devoted to bacterial chemotaxis and to the role of C-AMP and inositolphosphates in the life cycle of *Dictyostelium discoideum*. Several examples of hormone-regulated adenylase cyclase activity, including both activation and desensitization, in animal systems are described in the second part. Further, metabolism of inositolphosphates and the role of phosphoinositides in hormonal regulation are dealt with. Mechanisms of G-protein activation by hormone-receptor complex is reviewed, as well as the role of light-induced c GMP phosphodiesterase in visual transduction. Only three contributions are devoted to plants, to auxin-coupled systems. They describe modulation of sensitivity of protoplasts to auxin, auxin-binding proteins from maize coleoptiles and the role of GTP-binding protein in auxin-mediated phosphoinositide response in plant cell membranes. Last two contribution attempt to summarize our knowledge on the control of two complex processes – proliferation, differentiation and function of human thyroid cells and activation of the secretory pathway in neuronal cells during in vitro differentiation.

Although the book is mostly devoted to animal and bacterial systems, it brings a survey of the progress in studies of signal transducing pathways, which might be very useful also for plant physiologist. I recommend the book to all plant scientist interested in signal transduction systems.

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