Van Duijn, B., Wiltink, A. (ed.): **Signal Transduction - Single Cell Techniques.** - Springer-Verlag, Berlin - Heidelberg - New York 1998. 468 pp. DM 128.00. ISBN 3-540-62563-1.

The coming end of genomic era is connected to the growing importance of functional studies of overwhelming amount of genes identified. To achieve such a goal new techniques of cell analysis are being developed. Among the most important are experimental approaches allowing to study the function of components of cells *in vivo*. Technological progress made it possible to go down and run experiments on the single cell level. This manual was compiled to help experimental biologists of many different interests to step into (or develop further) this field.

Fifty three scientists participated in creating the manual divided into three, respectively eight main topics as follows: Handling of cells in single cell experiments, Introduction to the patch-clamp technique, Single channel measurements, Whole cell measurements, Introduction to fluorescence measurements of intracellular ions, Flow cytometer measurements, Microfluorescence measurements and Confocal microscopy. Being myself plant biologist I was happy when I found that plant cell is in this book very well represented in all possible aspects of the study. In fact - some techniques have been pioneered by plant cell biologists, *e.g.*, laser microsurgery so important in overcoming cell wall barrier in plant cells. There are several chapters devoted specifically to plant cell techniques: Preparation of patchable plant cell protoplasts and a procedure for improvement of gigaseal formation (by Vogelzang and Blom-Zandstra), The study of (plant) ion channels reconstituted in planar lipid bilayers (by Miedema), Measurement of whole cell potassium currents in protoplasts from tobacco cell suspensions (Van Duijn) and Inward rectifying potassium conductance in barley aleurone protoplasts (by Flikweert and Wang).

Most contributions are accompanied by the detailed protocols including composition of solutions used during the experiments. Rich empirical experience is pronounced in parts dealing with the possible pitfalls of methods presented. Progress in the field of single cell techniques is so rapid that soon it will be necessary to publish additional volume. Cell biology community should welcome this editorial work.

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