Spector, D.L., Goldman, R., Leindwand, L. (ed.): **Cells: A Laboratory Manual. Volume 3: Subcellular Localization of Genes and Their Products.** - Cold Spring Harbor Laboratory Press, Cold Spring Harbor 1998. 714 pp. ISBN 0-87969-522-6.

The cell biology reaches great progress in last two decades, many new techniques and methods have appeared. Since 1985 there have been a growing need for a laboratory manual as a source of reliable protocol. Ten year later, the editors asked more than 125 experts to provide protocols that have been moulted into this manual. The collection of protocols, that arose, is very useful for molecular biologists, cell biologists as well as biomedical researchers. Protocols in the manual have been tried and tested in laboratories around he world, and their reliability has been proved. The accompanying illustrations serve both to demonstrate the power of the procedures and, in some cases, as troubleshooting guides. The title "Cells: A Laboratory Manual" contains three volumes:

Volume 1: Culture and Biochemical Analysis of Cells

Volume 2: Light Microscopy and Cell Structure

Volume 3: Subcellular Localization of Genes and Their Products

The first volume involves six sections with this content: Cell Culture and Analysis, Metabolic Labeling and Protein Modification, Subcellular Fractionation, Protein Identification and Analysis, Protein Expression and Interactions, and Antibodies as Tools in Cell Biology. The second volume concerns with the cell structure and its function visible in the light microscope.

Newly issued and the last volume „Subcellular Localization of Genes and Their Products" is divided into three sections. Section 11 (sections are numbered from the first volume) Visualization of Organelles, Proteins, and Gene Expression, contains 13 different protocols as preparation of cells and tissues for fluorescent microscopy, detection of the enzyme activity (β-galactosidase or alkaline phosphatase) in tissues, immunofluorescence localization of actin and nucleic acids, analyzing of DNA and RNA replication. Section 12 concerns with *in situ* hybridization using fluorescence or ^{3}H-labeled probes. This section also contains protocol for comparative genomic hybridization and *in situ* polymerase chain reaction. Section 13 gives attention to the electron microscopy. Methods for both the transmission electron microscopy and the scanning electron microscopy are presented. The scanning transmission electron microscopy (STEM) providing visualization of the individual biological molecules directly without staining is also described. This section also contains freezing methods, freeze fracture and freeze substitution. Appendices at the end of the volume give to laboratory workers useful information about stock solutions, buffers, common media, microscopy filters and important emission or excitation spectra, localization markers for subcellular components and similar information.

All the three volumes together create an excellent manual for any biological laboratory and practically any work on the cellular level.

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