

Schwarzacher, T., Heslop-Harrison, P.: **Practical *in situ* Hybridization**. - BIOS Scientific Publishers, Oxford 2000. Paperback, 216 pp. GBP 21.95. ISBN 1-85996-138-X.

Only about one decade *in situ* hybridization (based on non-radioactive protocols) has been used as an essential method in cell and molecular biology. During this short time period *in situ* hybridization has become a powerful technique used to characterize and locate nucleic acid sequence within the cell. This method brought us the unique possibility of precise visualization of almost any sought part of DNA or RNA in nucleus or any other localization in cell. But *in situ* hybridization in laboratory practice needs to use specialized and appropriate equipment and protocols to obtain the best of this method.

The book *Practical in situ Hybridization* aimed at researchers that wish to use efficient and reliable protocols in their work and those who need to check the validity and interpretation of obtained data. The book is divided into 13 chapters. The first one introduces basic principles of the *in situ* hybridization experiment, and the second one deals with the common molecular cytogenetic practice (as storage reagents, preparing solutions, safety, equipment, costs, *etc.*). Chapter 3 makes clear the principles of choose and prepare of probe for DNA or RNA detection. The next chapter brings a list of suitable labels and explains labeling methods for one label or mixture of labels. The fifth chapter describes how to

prepare the biological material to labeling from fixing through embedding and cutting section to chromosome spreading. The next chapter characterizes the whole mount technique. Chapter 7 deals with kinetics probe-target hybrid and with factors affecting stringency. Chapters 8, 9, and 10 illustrate methods for DNA:DNA and DNA:RNA *in situ* hybridization, and techniques for reaching good sensitivity and selectivity of detection. Microscopy and analysis of signal and imaging is topic of the chapter 11. The next chapter summarizes the experiences with faults and troubles of *in situ* hybridization. The last chapter is a rich list of literature cited in the book.

All chapters that describe any techniques present detailed protocols for different modification of experiments. Book is completed with appendixes contained buffers and basic solutions, contacts to major suppliers, and abbreviations. A subject index is also present.

This book is very useful for laboratories or workers who need *in situ* hybridization as a method for research or any analysis. The book offers both general overview and step by step manual in the topic treated.

I. BABŮREK (Praha)