

# FLOW CYTOMETRY IN MICROBIOLOGY

## Technology and Applications

**Edited by: Martin G. Wilkinson**

*Department of Life Sciences, University of Limerick, Ireland*

c. 230 pp, June 2015

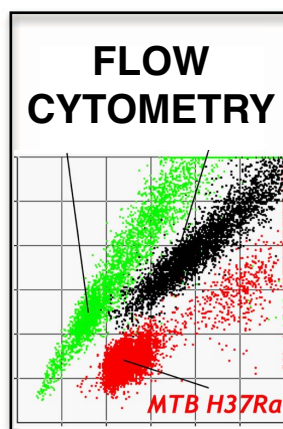
**Hardback:** ISBN 978-1-910190-11-1 £159, \$319.

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Flow cytometry is a powerful technique for the rapid analysis of single cells in a mixture. In microbiology, flow cytometry permits the reliable and rapid detection of single or multiple microbes and can provide information about their distribution within cell populations. Flow cytometry may also lead to a faster means of viability counting of microorganisms while at the same time enabling a better understanding of all bacterial cells within a given population. Specially adapted commercial cytometers for microbial detection are being developed.

In this text renowned authors have brought together a wealth of experience demonstrating the power and limitations of flow cytometry as it currently stands in the field of microbiology. The book commences with an overview of flow cytometry from Professor Howard Shapiro one of the most eminent scientists in the area of flow cytometry. Further chapters discuss cytometry technology and applications in environmental biotechnology, microbial community fingerprinting, clinical microbiology, lactic acid bacteria, spore forming bacteria, yeasts and fungi, water analysis and chip-based cytometry assays. The final chapter describes the adoption of flow cytometry to routine water quality analysis in Switzerland and provides a fascinating case study of how this emerging microbial technology overcame technical, regulatory and practical issues to become a standard rapid quality control methodology.

The book provides a thorough description of flow cytometry and includes practical and up-to-date information aimed specifically at microbiologists. A major work on flow cytometry for microbiologists, this book should be available in all microbiology libraries.



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