

J. Karn

**HIV- A PRACTICAL APPROACH
VOL. 1 VIROLOGY AND IMMUNOLOGY**
Ed.: IRL Press - Oxford University Press

Contents:

Part I Growth and isolation of HIV

- Biological safety when working with HIV
- Virological and molecular genetic Techniques for studies of established HIV isolates
- Isolation and biological characterization of primary HIV-1 isolates
- HIV infection of macrophages
- HIV infection of dendritic cells
- Vectors based on HIV

Part II Analysis of HIV infection

- Quantitative assays for virus neutralization
- Detection of HIV entry into cells
- Detection of viral DNA by the polymerase chain reaction (PCR)
- Detection of viral RNA by the polymerase chain reaction (PCR)
- Sequence analysis of virus variability based on the polymerase chain reaction (PCR)

Part III Immunology

- Humoral immune responses and detection during HIV infection
- Quantification of CD4-positive T lymphocytes
- CD4-positive T cell responses to HIV-1 infection
- Lymphokine responses to HIV infection
- HIV-1-specific cytotoxic T lymphocytes and ADCC responses

Dalla prefazione:

It is now 12 years after the discovery of HIV, and in spite of an intensive worldwide research effort, we are still a long way from understanding and controlling AIDS. Sadly, we do not even know why HIV infections produce a lengthy asymptomatic phase followed by the catastrophic loss in CD4-positive T cells that leads to the immunodeficiency. Indeed, our present ignorance of the pathogenic mechanisms involved in AIDS has permitted Dr Peter Duesberg and others to argue that HIV is not the casual agent in AIDS. The arguments they have put forward are complex, but can be easily answered. These two volumes are guides to how to study HIV in the laboratory. As the reader of these books will quickly see, HIV research is highly multidisciplinary. Virtually every technique

used in modern medical research, ranging from cloning viruses and classical virological studies of their growth properties to the expression of recombinant viral antigens and the analysis of their structure by x-ray crystallography or NMR, to studies of antigens, antibodies, and cellular immune responses could have been legitimately included in these volumes. A complete compendium of all these methods would have been unwieldy and unreadable. Instead, these two volumes focus on the specialized techniques which are unique to studies of HIV.

W.J. van Venrooij, R.N. Maini
**Manual of Biological Markers
of Disease**

Ed.: Kluwer Academic Publishers
Hardbound, ISBN 0-7923-4242-9
NLG 500.00/ USD 330.00/GBP 205.00
Paperback, ISBN 0-7923-4243-7
NLG 140.00/USD 92.50/GBP 57.50

**Section A: Methods of Autoantibody
Detection**

This section provides well structured protocols for autoantibody detection. Step-by-step procedures are accompanied by explanatory notes and comments, clear diagrams, line illustrations and excellent photo illustration. Extensive literature references lead the way to further background information. The methods presented were validated by more than 40 leading laboratories active in sera analysis, which indicates that these methods have been found to be practically useful and lead to consistent inter-laboratory results: consensus in autoantibody detection.

Section B: Autoantigens

This Section contains the first compilation of full, detailed information on autoantigens related to important autoimmune diseases. The chapters are all structured according to an easy reference fixed template structure: specific detection methods, cellular localization, biochemical characteristics, function, cDNA and derived amino acid sequence, gene structure, B- and T-cell epitopes and lists of published monoclonal antibodies. The text is greatly enhanced by many beautiful schematic figures and photo illustrations. As in section A, extensive literature references are provided. The in-

formation for this section was brought together by leading experts in their fields. This *Manual* is an ideal text and reference book for bench scientists working in the field of autoimmunity, but also for rheumatologists, general (internal medicine) physicians or clinical immunologists caring for patients with autoimmune disorders.

R.M. Caprioli, A. Malorni, G. Sindona
Selected Topics in Mass Spectrometry in the Biomolecular Sciences

Ed: Kluwer Academic Publishers
 November 1997, 612 pp.
 Hardbound, ISBN 0-7923-4849-4
 NLG 460.00/USD 260.00/GBP 155.00
 NATO ADVANCED SCIENCE
 INSTITUTES SERIES: C
 Mathematical and Physical Sciences 504

Contents and contributors:

Part I

- Methods in Mass Spectrometry. Electrospray Ionization: Theory and Application; S.J. Gaskell
- Atmospheric Pressure Ionization (ESI and APCI); A. Raffaelli
- Matrix-Assisted Laser Desorption - Ionization (MALDI) Mass Spectrometry: Principles and Applications; M. Karas, U.Bahr.
- High sensitivity ESI and MALDI MS; T.B. Farmer, R.M. Caprioli
- Optimised GS/MS interfacing systems and Operating Conditions; P.J. Arpino
- Quantitative Analysis by Mass Spectrometry: Some Important Considerations; M.W. Duncan
- Optimization of Mass Spectrometric Ionizations Efficiency Data; I.T. Ozgen, et al.
- Role of Internal Energy in Mass Spectrometric Fragmentation; K. Vèkey
- Interaction of Metal Ions and protons with Simple Biomolecules. Structure Information from Bond Energies and Entropy Effects; B.A. Cerda, et al.
- A Promising Marriage Between Theory and Experiment: Density Functional Method versus Mass Spectrometry; T. Marino, et al.

Part II: Instrumentation for Mass Analysis and Detection

- Recent Advances in Magnet Sector Mass Spectrometry; O.V. Menirovskiy, et al.
- Quadrupole Mass Filters and Quadrupole Ion Traps; R.G. Cooks, et al.
- Time-of-Flight Mass Spectrometry; M.L.

Vestal

- Combined Analyzer Technologies; P. Kofel, U.P. Schlunegger
- Fourier Transform Mass Spectrometry; M.L. Easterling, I.J. Amster

Part III: Application to Biomolecules

- Proteins; Characterization by MS in Pharmaceutical Industry; D. Muller et al.
- Folding Pathways of Disulphide containing Proteins; M.Ruoppolo, et al.
- Integration of Chemical Modification Reactions and Mass Spectrometry Methods in Protein Characterisation; S. Foti
- PSD-MALDI Analysis of Peptides; B. Spengler
- Development of a Mass Spectrometric Approach for the Characterisation of Hemoglobin Adducts; P. Ferrante, et al.
- Reactivity of Antineoplastic Drugs with model Peptides Studied by Advanced Mass Spectrometry Methodologies; V. Carbone, et al.
- Application of Mass Spectrometry in Biochemical Studies of Nucleosides, Nucleotides and Nucleic Acids; R.P. Newton
- MALDI Mass Analysis of Oligonucleotides; U. Bahr, M. Karas. DNA Adducts in Human Carcinogenesis; H. Bartsch
- MALDI MS of Oligo and Polysaccharides; D. Garozzo
- Mass Spectrometry of isoeicosanoids as Novel Lipid Substances; R.C. Murphy, R.J. Waugh
- The Role of Mass Spectrometry in the Characterization of Plant Metabolites from Crude Extracts; A. De Nino, et al.
- Environmental Applications of Mass Spectrometry: Toxaphene Analysis; F.I. Onuska, R.J. Maguire.
- The Determination of Polar Compounds in the Aquatic Environment; M.J.F. Suter
- Some Mass Spectrometry Contributions in the Study of Cultural Heritage; P. Agozzino
- Index