NOW ON VIDEOTAPE

SCIENTIFIC INTEGRITY: TWO PERSPECTIVES
THE 1990 PRESIDENT'S FORUM
THE AMERICAN SOCIETY FOR MICROBIOLOGY
ANAHEIM, CALIFORNIA
SPONSORED BY THE NEW BRUNSWICK SCIENTIFIC COMPANY

Suzanne Hadley  
Deputy Director  
Office of Scientific Integrity  
National Institutes of Health  
"The Federal Role: Partnership or Oversight?"

Bernard Davis  
Professor of Microbiology  
Harvard Medical School  
"How Far Should Big Brother's Hand Reach?"

A thought-provoking examination of ethical issues surrounding scientific research funding, conduct, and publication—issues being scrutinized in all branches of government and in the media.

- How serious and frequent are breaches of ethics in science?
- Who should police them?
- How can they be prevented?
- Who is ultimately responsible for scientific misconduct?
- What is the proper role of the federal sector?
- How should the scientific community respond to errors?
- Is scientific creativity threatened by federal regulation?

A Valuable Resource on a Timely Topic  
Running time: 45 minutes  
Videotaping supported by a grant from Abbott Laboratories

Please send me the new videotape Scientific Integrity: Two Perspectives at $20 per tape, including shipping and handling.

<table>
<thead>
<tr>
<th>Price</th>
<th>Quantity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20.00</td>
<td>_______</td>
<td>$ _______</td>
</tr>
</tbody>
</table>

Check payment method

- Check enclosed
- Charge to my  
  - MasterCard  
  - VISA  
  - American Express

Card number: __________  
Expiration date: __________  
Signature: __________

Total purchase $ _______

ASM  
Send to  
Public and Scientific Affairs Board  
American Society for Microbiology  
1325 Massachusetts Avenue, N.W.  
Washington, DC 20005-4171

Complete shipping information

Name: ____________________________
Address: ____________________________
City/State: __________ Zip/Postal Code: __________
Country: ____________________________
Through a joint venture of the American Society for Microbiology and The William Byrd Press, selected ASM journals are now available on CD-ROM (Compact Disc-Read Only Memory).

Unlike other CD-ROM products, Byrd Electronic Publications for ASM include both the full text of the journal as well as high-resolution images of the original pages in which text and graphics are fully integrated. Everything on the original pages appears on your monitor, in place — from the table of contents to the indexes, charts, graphs, and photographs.

Using Byrd’s retrieval software, you can conduct full word searches through thousands of pages to instantly find any search term, and then “turn” to the exact pages where the term occurred. Or, you can browse through a journal or book on screen just as you would with the printed publication in your hands. You can retrieve, display and print the page image on a laser printer or output ASCII text to a floppy disk or dot matrix printer.

Byrd’s proprietary retrieval software was specifically designed for users of scientific publications. It gives you the flexible search functions you need to fully and quickly explore a unique publication database.

A growing number of ASM titles will be available on CD-ROM at affordable prices.

Byrd
Electronic Publications for the American Society for Microbiology

Tell me more about ASM publications on CD-ROM.

Name

Title

Address

Phone: 1-804-264-2711
Fax: 1-804-264-0510
Call Toll-Free: 1-800-234-2973

[ ] Send me more information  [ ] Please send an order form
Byrd Electronic Publications for the American Society for Microbiology

**Current Titles**

Available in three-year sets of a single journal, usually three discs per set. Volumes in the set are 1989-1991. Volumes 1989 and 1990 will be shipped immediately after receipt of an order; 1991 will be shipped in late December. Prices range from $229-$269 for the three-year set with special offers available if you purchase multiple journals.

Antimicrobial Agents and Chemotherapy  
Molecular and Environmental Microbiology  
Infection and Immunity  
Journal of Bacteriology  
Journal of Clinical Microbiology  
Journal of Virology  
Molecular and Cellular Biology

**Computer Systems Specifications**

- IBM-compatible 386/386 personal computer
- High-resolution graphics monitor (VGA)
- CD-ROM drive
- User-friendly Byrd retrieval software
- Laser printer (optional) to print page images, including graphs, charts and photos
- Dot matrix printer to print text only

For technical support there is a toll-free number. Consultation available for hardware selection.

---

**BUSINESS REPLY MAIL**
FIRST CLASS PERMIT NO.37 RICHMOND, VA
POSTAGE WILL BE PAID BY ADDRESSEE

The William Byrd Press, Inc  
CD-ROM Division  
P.O. Box 27481  
Richmond, Virginia 23261-9942

---

Write or call today for complete ordering information.

Call toll-free 1-800-234-2973.
Melding biomedical and behavioral sciences in a revolutionary model for research into the prevention and control of sexually transmitted diseases

CONDENSED CONTENTS

The Importance of an Interdisciplinary Approach to Prevention of Sexually Transmitted Diseases (Spotting and Avoiding)

Biology, Clinical Manifestations, and Epidemiology of Sexually Transmitted Diseases Including HIV Infection: Implications for Interventions and Behavioral Research (3 chapters by Jones and Wasserheit, Anderson, and Brashers and Ronalds)

Behavioral Risk Factors for Sexually Transmitted Diseases Including HIV Infection (6 chapters by Pozniak et al., Eichardt and Wasserheit, Carballo et al., Evans and Geinere, Wool et al., and Jarrett and Wilson)

Approaches to Changing Human Behaviors: Implications for Design of Interventions for Control of Sexually Transmitted Diseases Including HIV Infection (4 chapters by Holm, Smith, Fishbein et al., and Newman et al.)

Behavioral Interventions for Prevention and Control of Sexually Transmitted Diseases Including HIV Infection (5 chapters by Hook, Plot and Logan, Judson and Paulsion, Holmes and Aral, and Green and Washington)

ORDERING INFORMATION/ORDER FORM


Price: $15.00. Canadian price includes 7% GST & S1.30.


Offer number: MCB-036-X.

Please send me the ASM/NIAID monograph Research Issues in Human Behavior and Sexually Transmitted Diseases in the AIDS Era (order number) MCB-036-X.

Quantity: Price/Book: Shipping/Book: Total Cost:

Check one: Payment enclosed Charge to my: MasterCard Visa Amex Eurocard

Card number: Expire:

Signature:

Supply mailing address:

Name:

Address:

City State/Province

Country Zip/Postal code

Send to: Publication Sales American Society for Microbiology 1325 Massachusetts Avenue, NW Washington, DC 20005-4174
Immunochemical Assays and Biosensor Technology for the 1990s

Edited by Robert M. Nakamura, Scripps Clinic and Research Foundation and University of California, San Diego. School of Medicine, La Jolla, Yasushi Kasahara, Fujirebio, Inc., Tokyo, Japan, and Garry A. Rechnitz, University of Hawaii, Honolulu.

Immunochemical assays, fundamental measurement methods in biomedical research and analysis, have recently undergone revolutionary change and development deriving from innovations in the use of nonisotopic labels and in the marriage of biochemistry with electronics. By combining biochemical molecular recognition schemes with suitable transducers to achieve signal tests, researchers have developed more rapid, accurate, and efficient tests for the presence or concentration of desired analytes in biological specimens. Moreover, other assays in the developmental phase hold even greater promise for improved testing efficiency and for decentralization of these complex and sensitive laboratory procedures.

This volume summarizes the principles and applications of fundamental immunochemical assays, various assay formats, and the current state of the art in ultrasensitive and nonisotopic assays. It is intended primarily for anyone working with immunochemical assays who wishes to have a comprehensive view of options now available as well as a glimpse at likely improvements which will occur in this decade. Students and practitioners of modern analytical techniques in immunology, clinical chemistry, diagnostic microbiology, serology, and medical technology will especially benefit.

CONTENTS


III. Biosensors: 14. An Introduction to Biosensors (Ho and Rechnitz); 15. Immunoassays with Electrochemical Detection (Xu et al.); 16. Fiber-Optic Biosensors: Recent Advances and Future Prospects (Lundblad); 17. Amperometric Biosensors (Yamaguchi); 18. Recent Advances in Polymeric Membrane Anion-Selective Electrodes (Wetring et al.); 19. Native Chemoreceptor-Based Sensors (Belli); 20. Pharmacological Biosensors (Eldefrawi et al.)

January 1992. Hardcover
Prices: Member $45.00
Nonmember $51.00
(Limit 3 of one title at the member price.
Prices subject to change without notice.)

Canadian Prices: (include 7% G.S.T.) Member $46.01
Nonmember $52.57
Shipping Charges: (Orders postmarked after 31 December 1991)
U.S.: 1–3 books = $1.50 book; + books = $0.75 book.

Offer number: MCB 2-92040-3.

This is my order for Immunochemical Assays and Biosensor Technology for the 1990s (offer number MCB 2-92040-3).

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price Book</th>
<th>Shipping Book</th>
<th>Total Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

*Total cost = Quantity x (Price Book + Shipping Book)

Supply membership number (if applicable): __________

Check payment method: □ Check enclosed
Charge to my □ MasterCard □ VISA
□ Amex □ EuroCard

Card Number: ___________________________ Expires: ___________________________
Signature: ___________________________ Date: ___________________________

Supply mailing address:

Name ____________________________________________
Address ____________________________________________
City ___________________________________________ State Province __________
Country ______________________________________ Zip Postal Code __________

Send to: American Society for Microbiology
1325 Massachusetts Avenue, NW
Washington, DC 20005-4471

ASM
A fascinating look at the variety of multicellular interactions of microbes...

Microbial Cell-Cell Interactions

Edited by Martin Dworkin, University of Minnesota, Minneapolis

This well-considered compilation of reviews and discussions has as one central theme that the historical concept of microbes as essentially unicellular organisms existing independently of other organisms is conceptually incomplete and misleading; instead, microbial systems manifest a variety of cell-cell interactions and a real understanding, not only of the role of the microbe in nature but also of the nature of the microbe itself, requires that researchers begin to think of microbes as interacting biochemically, genetically, and physiologically with each other. Thus considered, it becomes apparent that the variety of cell-cell interactions manifested by microbial systems represent excellent model systems for examining the mechanistic bases of the cell-cell interactions themselves, with application to the study of multicellular interactions in higher organisms.

The authors provide a representative sampling of the types of interactions among microbes, including mating interactions, involving the exchange of genetic information and including studies of exchanges of mating signals preceding mating; developmental interactions, with a close look at myxobacteria and cellular slime molds; ecological/colonization interactions, represented by discussions of coaggregation, especially in the oral ecosystem, and of bacterial luminescence in fish; and predator-prey interactions, including a look at the mechanisms involved in the Bdellovibrio developmental cycle that ultimately kills the host cell.

This book is directed toward any microbiologist, and the list is a long one, who must deal in a practical sense or in a research context with cell-cell interactions, as exemplified by examinations of mechanisms of pathogenesis, ecological interactions, mechanisms of mating, developmental biology, predator-prey interactions, plant-microbe interactions, and formation of mixed culture communities.

CONTENTS
1. Introduction (Dworkin)
2. Mating Interactions in Gram-Positive Bacteria (Dunny)
3. Conjugal among Enteric Bacteria (Ippen-Ihler and Maneewannakul)
4. Chlamydomonas Mating Interactions (Goodenough)
5. Cell-Cell Interactions Involved in Yeast Mating (Kurjan)
6. Intercellular Interactions during Dictyostelium Development (Schaap)
7. Cell-Cell Interactions in Myxobacteria (Dworkin)
8. Role of Intercellular Chemical Communication in the Vibrio fischeri-Monocentor Fish Symbiosis (Dunlap and Greenberg)
9. Rhizobium-Legume Symbiosis (Roth and Stacey)
10. Coaggregation: Adherence in the Human Oral Microbial Ecosystem (Kolenbrander)
11. Intercellular Signalling in the Bdellovibrio Developmental Cycle (Gray and Ruby)


Offer number: MCB-037-3.

Please send me Microbial Cell-Cell Interactions (offer number MCB-037-3).

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Price/Book</th>
<th>Shipping/Book</th>
<th>Total Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

*Total Cost = Quantity × (Price/Book + Shipping/Book).

Check one:

[ ] Payment enclosed

Charge to my [ ] MasterCard [ ] VISA [ ] Amex

[ ] EuroCard

Card number: __________________________________________ Expires: __________

Signature: __________________________________________ Date: __________

Supply mailing address:

Name __________________________

Address _________________________

City __________________________ State/Province __________

Country ________________________ ZIP/Postal code ________

Send to: ASM

Publication Sales
American Society for Microbiology
1325 Massachusetts Avenue, NW
Washington, DC 20005-4171
Ever had the tables turned on you? If the answer is yes, you need the new

ASM Style Manual for Journals and Books

This newly revised and updated edition will assist every author who submits papers to ASM. Prepared by ASM's professional editorial staff specifically for the ASM journals and books, the manual incorporates all of the information you need to ensure stylistically and grammatically correct manuscripts.

The new edition includes two new chapters, "Proofreading" and "Books." In addition, it features in-depth instructions for assembling and editing the new References section, which recently replaced the Literature Cited section in ASM journal articles.

CONTENTS
1. Preparation of Manuscripts
2. Numbers and Measurements
3. Scientific Nomenclature
4. English
5. Sources for Materials
6. Abbreviations
7. References
8. Illustrations
9. Tables
10. Proofreading
11. Books
12. Words, Abbreviations, and Designations
Appendix A. Journal Specifications
Appendix B. Journal Production Cycle
Bibliography
Index

ASM Publication Sales
American Society for Microbiology


_______ copy(ies) at the member price of $23.00..................$.
_______ copy(ies) at the nonmember price of $28.00........$.

Total amount of purchase: ..............................................$.

Canadian residents add 7% to cover the GST.
Check one:  □ Payment enclosed □ MasterCard □ VISA □ American Express
Card Number ___________________________ Name ___________________________
Expires ___________________________ Address ___________________________
Signature ___________________________ City, State/Province ___________________________
Member number ___________________________ Zip/Postal Code, Country ___________________________

Send order to Publication Sales, American Society for Microbiology, 1325 Massachusetts Ave., NW, Washington, DC 20005-4171.