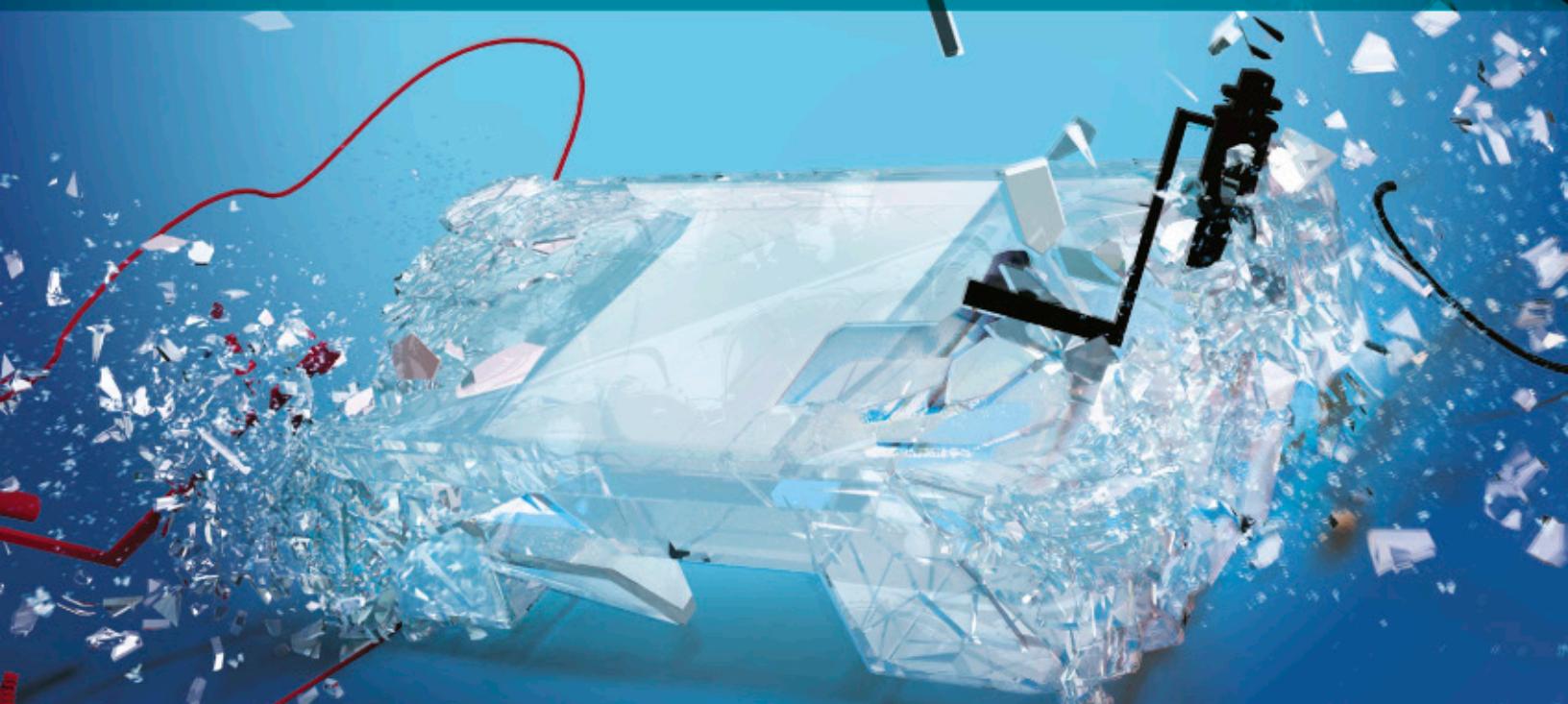


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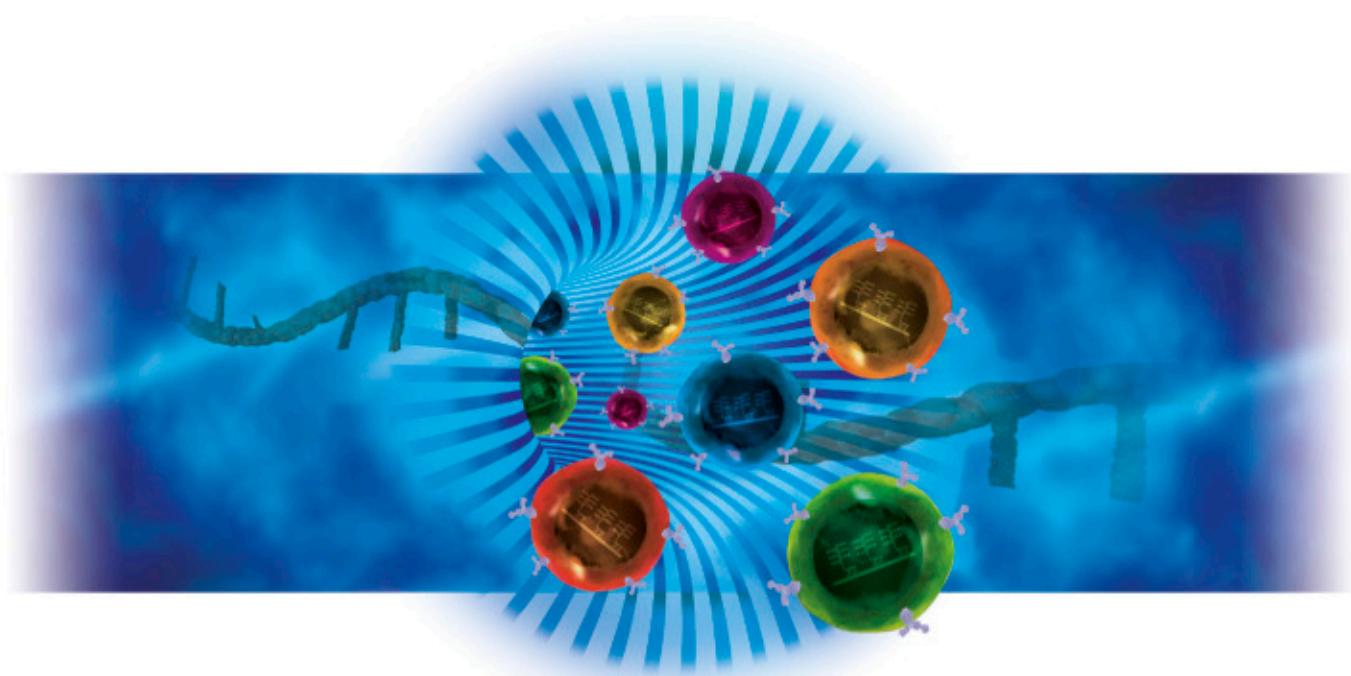
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A BIOINFORMATICS GUIDE FOR MOLECULAR BIOLOGISTS

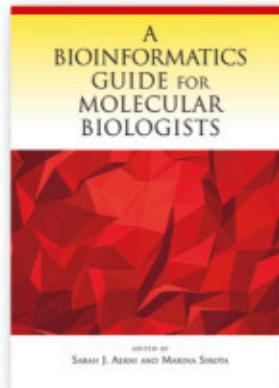
Edited by Sarah Aerni and Marina Sirota, *Biomedical Informatics Program, Stanford University School of Medicine*

Informatics can vastly assist progress in research and development in cell and molecular biology and biomedicine. However, many investigators are either unaware of the ways in which informatics can improve their research or find it inaccessible due to a feeling of "informatics anxiety." This sense of apprehension results from improper communication of the principles behind these approaches and of the value of the many tools available. In fact, many researchers are inherently distrustful of these tools. A more complete understanding of bioinformatics offered in *A Bioinformatics Guide for Molecular Biologists* will allow the reader to become comfortable with these techniques, encouraging their use—thus helping to make sense of the vast accumulation of data. To make these concepts more accessible, the editors approach the field of bioinformatics from the viewpoint of a molecular biologist, (1) arming the biologist with a basic understanding of the fundamental concepts in the field, (2) presenting approaches for using the tools from the standpoint of the data for which they are created, and (3) showing how the field of informatics is quickly adapting to the advancements in biology and biomedical technologies. All concepts are paired with recommendations for the appropriate programming environment and tools best suited to solve the particular problem at hand. It is a must-read for those interested in learning informatics techniques required for successful research and development in the laboratory.

2014, 328 pp, illustrated (64 4C, 26 B&W), index

Hardcover \$79

ISBN 978-1-936113-22-4



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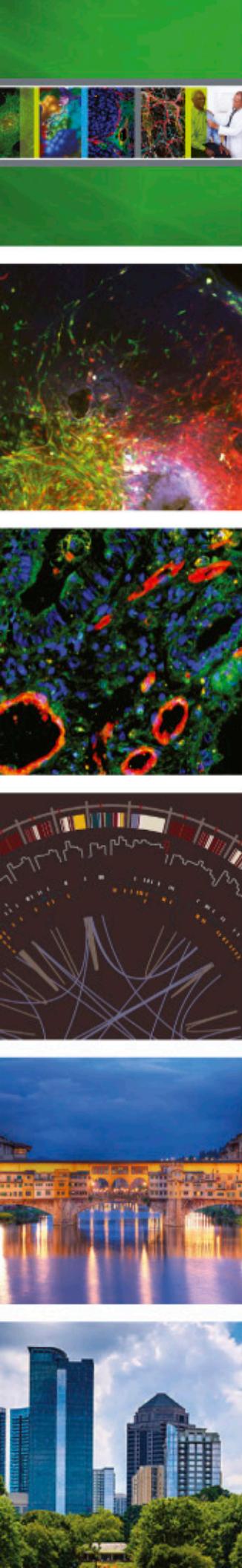
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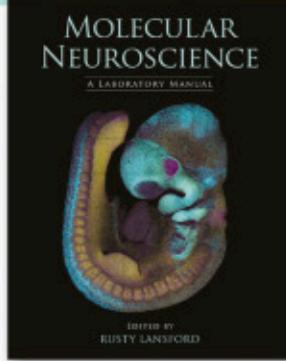
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Edited by Rusty Lansford, *California Institute of Technology*

This laboratory manual serves as a comprehensive practical guide to molecular and cellular step-by-step methods for neuroscientists, detailing fundamental and advanced techniques for working with cells, DNA, RNA, gene transfer, and imaging. The techniques included in this manual were developed in the Advanced Techniques in Molecular Neuroscience course offered annually at Cold Spring Harbor Laboratory, as well as protocols drawn from its best-selling lab manuals. It is an essential resource for all neuroscientists, from graduate students upward, who seek to use molecular techniques to probe the complexities of the nervous system.

2014, 648 pp., illus. (64 4C, 50 B&W), index

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Paperback \$90

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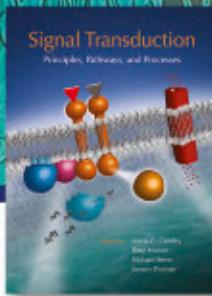
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SIGNAL TRANSDUCTION



Edited by Lewis Cantley, *Harvard Medical School*, Tony Hunter, *The Salk Institute*, Richard Sever, *Cold Spring Harbor Laboratory*, and Jeremy Thorner, *University of California, Berkeley*

Signal transduction pathways are molecular circuits that define how cells communicate with each other and respond to their environment. This new textbook for the first time provides a comprehensive view of the subject by covering both the basic mechanisms involved and the roles of signal transduction in fundamental biological processes. It starts by describing the basic players—signals, receptors, second messengers, and effectors—before comprehensively mapping the various different signaling pathways that operate in cells. It then goes on to provide detailed descriptions of how signal transduction functions in essential processes such as cell growth and division, metabolism, sensory perception, immunity, and reproduction.

2014, 464 pp., illus., index

Hardcover \$165 £110

ISBN 978-0-879699-01-7

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