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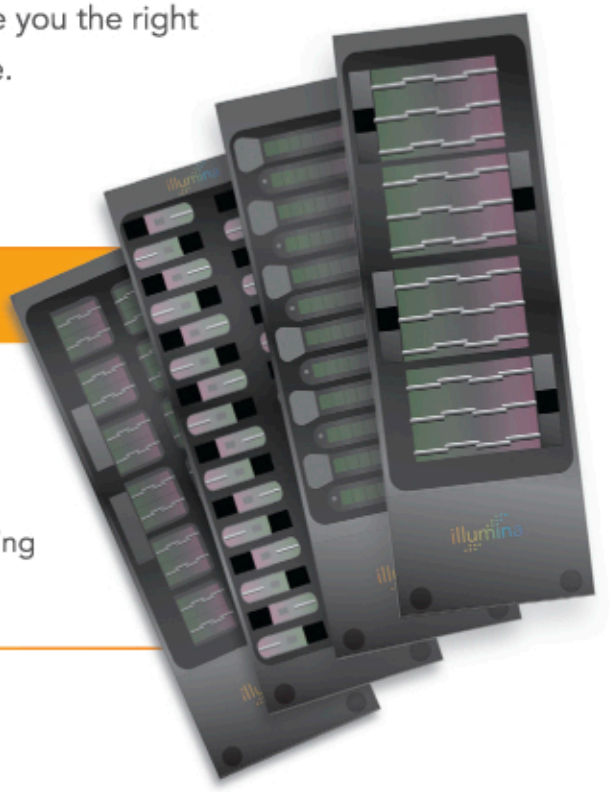

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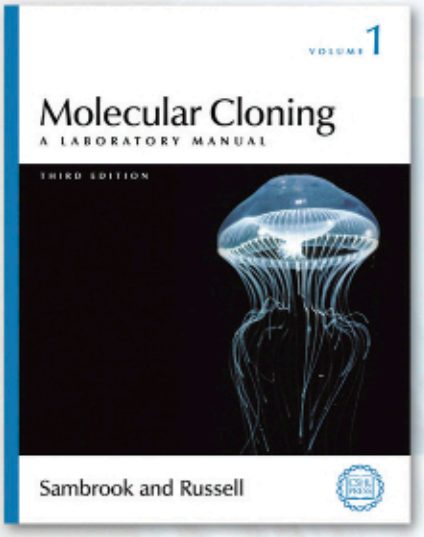



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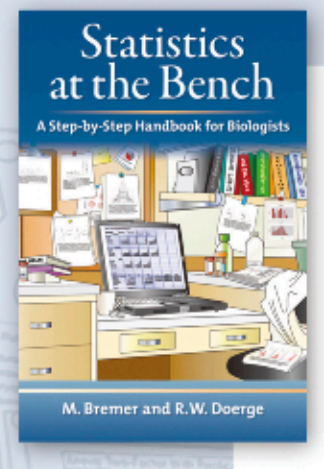
## A Step-By-Step Handbook for Biologists




By Martina Bremer, *Department of Mathematics, San Jose State University, California,* and Rebecca W. Doerge, *Department of Statistics and Agronomy, Purdue University, Indiana*

*Statistics at the Bench* is a convenient bench-side companion for biologists, designed as a handy reference guide for elementary and intermediate statistical analyses. The expectations for biologists to have a more complete understanding of statistics are growing rapidly. New technologies and new areas of science, such as microarrays, next-generation sequencing, and proteomics, have dramatically increased the need for quantitative reasoning among biologists when designing experiments and interpreting results. Even the most routine informatics tools rely on statistical assumptions and methods that need to be appreciated if the scientific results are to be correct, understood, and exploited fully.

This book is not a textbook. It is a hands-on manual for working scientists. *Statistics at the Bench* provides a simple refresher for those who have forgotten what they once knew, and an overview for those wishing to use more quantitative reasoning in their research. Statistical methods, as well as guidelines for the interpretation of results, are explained using simple examples. Throughout the book, examples are accompanied by detailed Excel commands for easy reference.

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# *Postdoctoral Fellows*

As part of the NHGRI-funded Center of Excellence in Genomics Science (Wisconsin CEGS, Dr. Michael Olivier, Director), the NHLBI-funded National Center for Proteomics Research and Development (Dr. Andrew Greene, Director), and the Biotechnology Innovation Center at the Medical College of Wisconsin, we are recruiting motivated and talented postdoctoral fellows with expertise and experience in:

- Proteomic mass spectrometry (quantitative isotopic labeling approaches, LTQ-Orbitrap and/or Q-ToF, SRM and MRM analysis)
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- Protein-DNA interaction (ChIP, crosslinking)
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For questions, information, or to apply, please contact Theresa Lins (tlins@mcw.edu).

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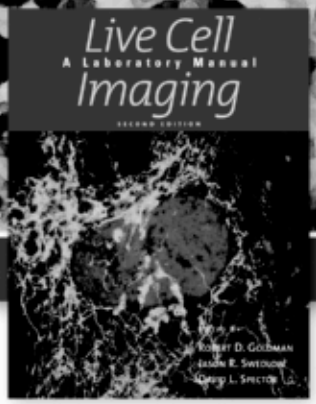


# Live Cell Imaging

## A Laboratory Manual

## Second Edition

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The second edition of *Live Cell Imaging: A Laboratory Manual* expands upon and extends the collection of established and evolving methods for studying dynamic changes in living cells and organisms presented in the well-known first edition. There are 16 new chapters and the 21 updated chapters in this new edition. They include advances in atomic force microscopy, structured illumination microscopy and other 3-D approaches, as well as imaging in single cells in animals and in plants. New analytical options include live high-throughput/high-content screening in mammalian cells and computational analysis of live cell data. The manual presents hands-on techniques as well as background material, and can serve as a text in advanced courses. The first section covers principles and fundamental issues of detection and imaging; the second provides detailed protocols for imaging live systems.

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