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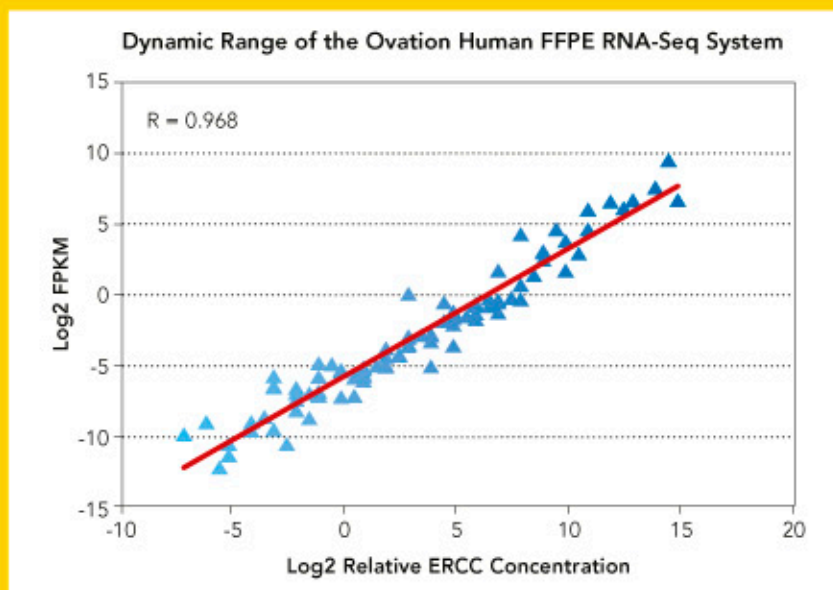
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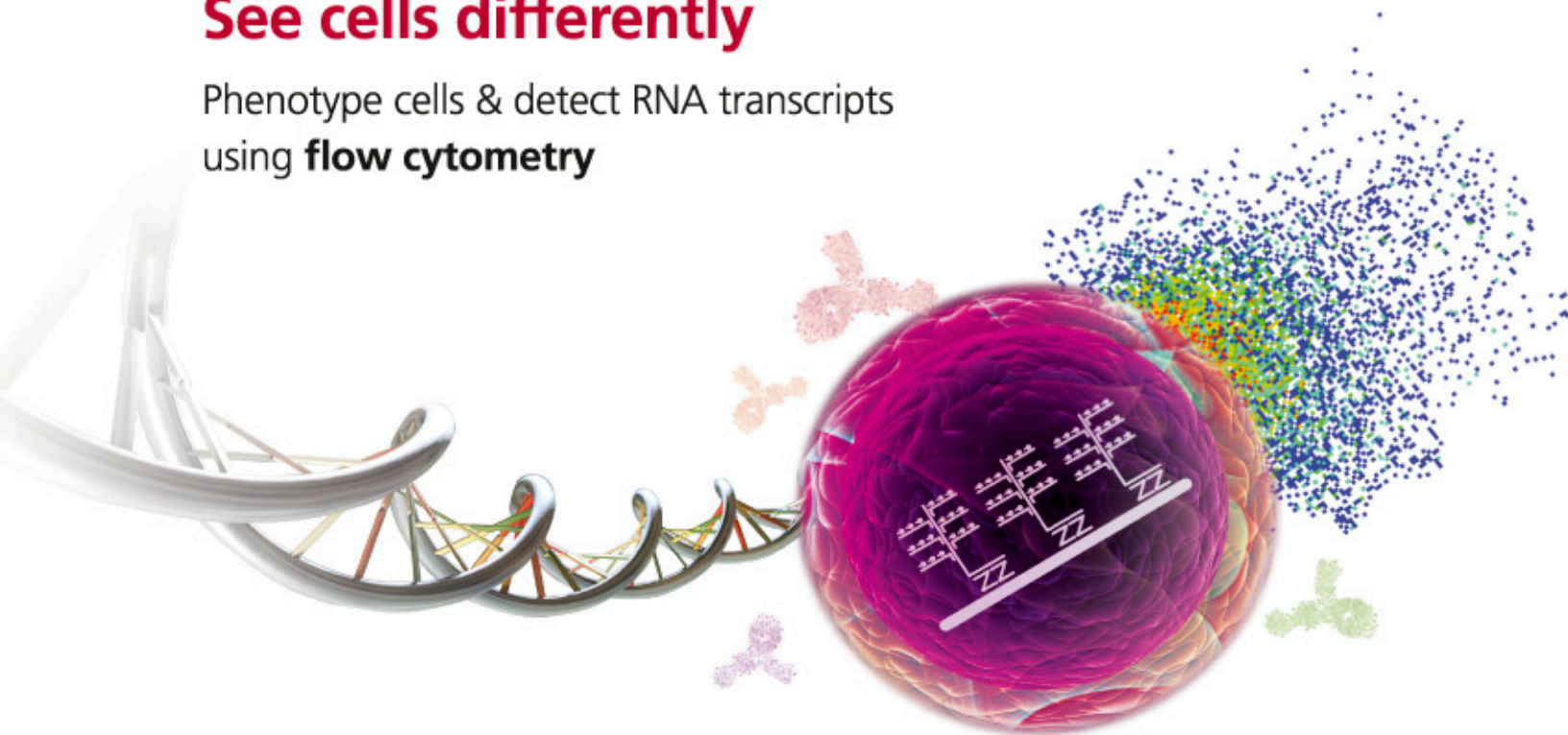
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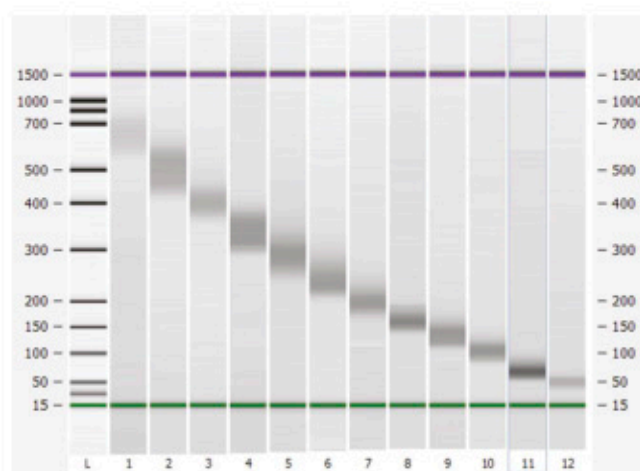
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MOUSE MODELS OF CANCER

A LABORATORY MANUAL



Edited by Cory Abate-Shen, *Herbert Irving Comprehensive Cancer Center, Columbia University College of Physicians and Surgeons, Columbia University Medical Center*, Katerina Politi, *Yale Cancer Center, Yale University School of Medicine*, Lewis Chodosh, *Abramson Cancer Center, Perelman School of Medicine, University of Pennsylvania*, and Kenneth P. Olive, *Herbert Irving Comprehensive Cancer Center, Columbia University Medical Center*

The laboratory mouse is an important model for studying cancer and its treatment. This book includes both background information and step-by-step protocols for generating mouse models that accurately recapitulate many features of human cancer. It covers genetic models, including transgenic germline models, gene knockouts and knockins, and conditional and inducible systems, as well as models derived using chemical carcinogens, RNA interference, tissue recombination, and other strategies. Techniques to characterize tumor development, progression, and metastasis in these mice

using state-of-the-art imaging, histopathological, surgical, and other approaches are described. The uses of these models in preclinical and translational research are also discussed.

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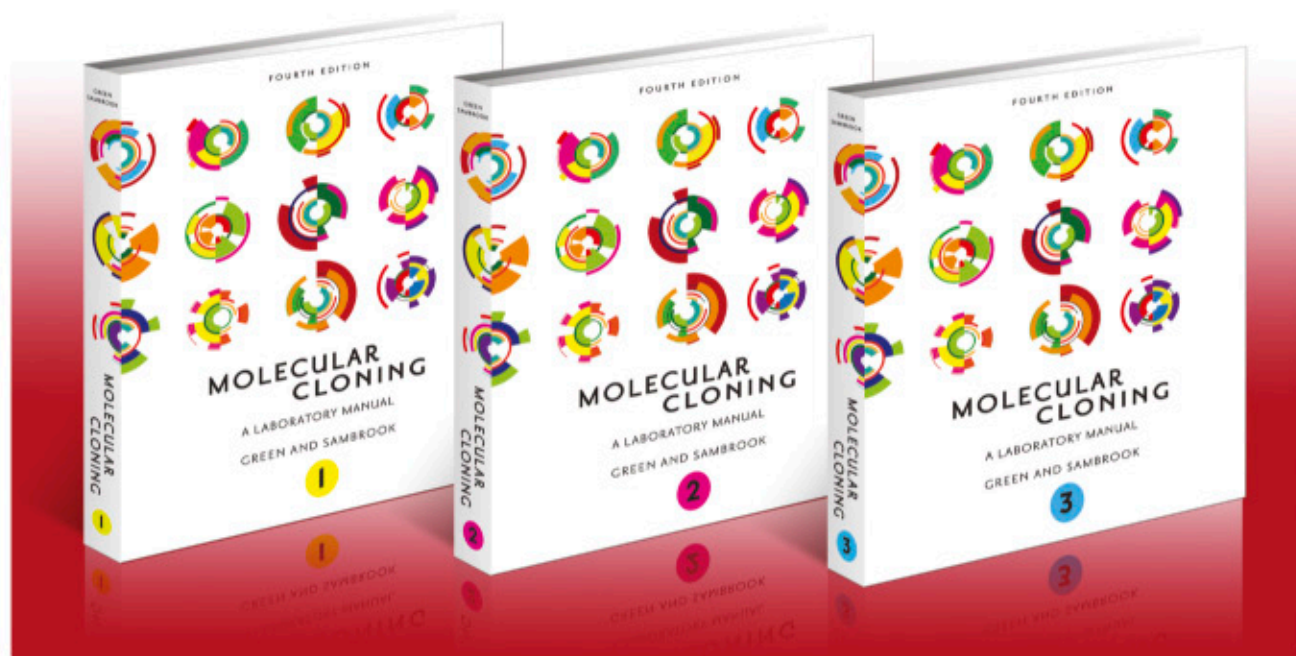
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By Michael R. Green, *Howard Hughes Medical Institute, University of Massachusetts Medical School* and Joseph Sambrook, *Peter MacCallum Cancer Institute, Melbourne, Australia*

Molecular Cloning: A Laboratory Manual has always been the one indispensable molecular biology laboratory manual for protocols and techniques. The fourth edition of this classic manual preserves the detail and clarity of previous editions as well as the theoretical and historical underpinnings of the techniques presented. Ten original core chapters reflect developments and innovation in standard techniques and introduce new cutting-edge protocols. Twelve entirely new chapters are devoted to the most exciting current research strategies, including epigenetic analysis, RNA interference, genome sequencing, and bioinformatics. This manual is essential for both the inexperienced and the advanced user.

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Manipulating the Mouse Embryo

A Laboratory Manual, Fourth Edition

By Richard Behringer, *University of Texas, M.D. Anderson Cancer Center*; Marina Gertsenstein, *Toronto Centre for Phenogenomics, Transgenic Core*; Kristina Vintersten Nagy, *Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto*; and Andras Nagy, *Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto*

This fourth edition of "The Mouse Manual" is once again the definitive reference source on mouse development, transgenesis techniques, and molecular biology. Its preeminent authors Richard Behringer, Marina Gertsenstein, Kristina Nagy, and Andras Nagy have reorganized and updated this edition to include new information and protocols on:

- generation of induced pluripotent stem cells
- RNA microinjections
- lentiviral microinjections and infection
- assisted reproduction techniques for sperm and embryo cryopreservation
- isolation, generation, and transplantation of spermatogonial stem cell lines
- in utero electroporation of gene constructs into postimplantation embryos
- vibratome sectioning of live and fixed tissues for imaging thick tissue sections
- whole-mount fluorescent staining methods for three-dimensional visualization

Recombinant DNA techniques and methods for studies of mouse embryonic development have been updated from previous editions, as has the wealth of information on mouse laboratory strains, mouse housing and breeding, surgical procedures, assisted reproduction, handling of embryos, and micromanipulation setups. The first edition of this classic work appeared more than 20 years ago, with authors that included Brigid Hogan, Rosa Beddington, Frank Costantini, and Elizabeth Lacy. The field's technological sophistication has grown exponentially but the manual remains the essential practical and theoretical guide for all students, lab technicians, and investigators who work with mice.

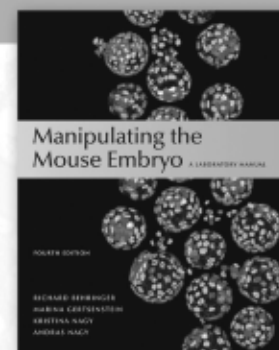
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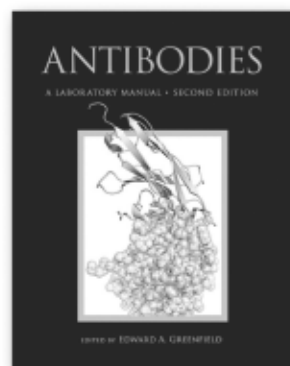


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ANTIBODIES

A Laboratory Manual, Second Edition



Edited by Edward A. Greenfield, *Dana-Farber Cancer Institute*

The second edition of the now-classic lab manual *Antibodies*, by Harlow and Lane, has been revised, extended, and updated by Edward Greenfield of the Dana-Farber Cancer Center, with contributions from other leaders in the field. This manual continues to be an essential resource for molecular biology, immunology, and cell culture labs on all matters relating to antibodies. The chapters on hybridomas and monoclonal antibodies have been recast with extensive new information and there are additional chapters on characterizing antibodies, antibody engineering, and flow cytometry. As in the original book, the emphasis in this second edition is on providing clear and authoritative protocols with sufficient background information and troubleshooting advice for the novice as well as the experienced investigator.

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