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NEW RELEASE



The 3rd edition of DNA and Biotechnology introduces readers to the fascinating world of DNA science and cell biology while demonstrating the many ways that advances in biotechnology have an impact on our daily lives.

DNA and Biotechnology, 3e

The Awesome Skill

Molly Fitzgerald-Hayes
Frieda Reichsman

KEY FEATURES:

- Engaging and straightforward scientific writing style
- Comprehensive forensics chapter
- Parallel pedagogic material designed to help both readers and teachers
- Highlights the latest scientific discoveries
- Outstanding full-color illustrations that walk the reader through complex concepts

DESCRIPTION:

Appropriate for a wide range of disciplines, from biology to non-biology, law and nursing majors, *DNA and Biotechnology* uses a straightforward and comprehensive writing style that gives the educated layperson a survey of DNA by presenting a brief history of genetics, a clear outline of techniques that are in use, and highlights of breakthroughs in hot topic scientific discoveries.

RELATED TITLES:

Clark: MOLECULAR BIOLOGY: UNDERSTANDING THE GENETIC REVOLUTION (2005, ISBN: 978-0-12-175551-5)

Clark/Pazdernik: BIOTECHNOLOGY: APPLYING THE GENETIC REVOLUTION (2009, ISBN: 978-0-12-175552-2)

Rennerberg: BIOTECHNOLOGY FOR BEGINNERS (2006, ISBN: 978-0-12-373581-2)

ISBN: 978-0-12-048930-5

PREVIOUS EDITION ISBN:
978-0-12-048920-6

PUB DATE: October 2009

LIST PRICE: \$99.95

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 800

TRIM SIZE: 8.5w x 11h"

PRINT RUN: 2850

AUDIENCE: Introductory courses for students looking for careers in molecular biology, biotechnology, microbiology, genetics, nursing and other applied life science; teachers and interested lay persons.

SHELVING CLASSIFICATIONS:

SCIENCE / Molecular Biology,
SCIENCE / Biotechnology,
SCIENCE / Biophysics

BISAC CODES: SCI049000,
SCI010000, SCI009000

MARKETING: Textbook marketing campaign including email and direct mail, print and online advertising, and conference promotions

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AC/92/Bur - May 2009 Package

Fitzgerald-Hayes: DNA and Biotechnology, 3e (978-0-12-048930-5)

TABLE OF CONTENTS:

Chapter 1 The roots of DNA Research
Chapter 2 The Double Helix
Chapter 3 DNA in Action
Chapter 4 Tools of the DNA Trade
Chapter 5 Working with DNA
Chapter 6 Human Genomics
Chapter 7 Bioinformatics
Chapter 8 DNA in Forensics
Chapter 9 Exploring Cell Fate
Chapter 10 Genetic Diseases
Chapter 11 Gene Therapy
Chapter 12 Stem Cell Research
Chapter 13 Pharmaceutical Biotechnology
Chapter 14 Animal Biotechnology
Chapter 15 Agricultural Biotechnology
Chapter 16 Genes and Race

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NEW RELEASE



Essential, updated volume containing the top-downloaded protocols from Methods in Enzymology's stem cell trilogy.

Essential Stem Cell Methods

Edited by:

Robert Lanza

VP Research & Scientific Development, Advanced Cell Technology, MA, USA; Adjunct Professor, Institute of Regenerative Medicine, Wake Forest University School of Medicine, NC, USA

Irina Klimanskaya

Advance Cell Technology, Worcester, MA, USA

A Volume in the Reliable Lab Solutions Series.

KEY FEATURES:

- Provides powerful research opportunities for those interested in perusing work in pluripotent stem cells, disease modeling, and other aspects of basic stem cell research
- Refines, organizes and updates popular methods from flagship series, Methods in Enzymology
- Highlights top downloads, enhanced with author tips and tricks and pitfalls to avoid

DESCRIPTION:

As part of the Reliable Lab Solutions series, this volume offers an abridged and comprehensive update of selected chapters that first appeared in the three-volume stem cell series published in Methods in Enzymology. Currently, stem cells are of great interest to scientists and clinicians due to their unique ability to differentiate into various tissues of the body, making them a promising source of cells for regenerative medicine and drug discovery as well as an excellent model of vertebrate development.

Essential Stem Cell Methods features a detailed set of protocols written by experts in the field and hand-selected by the editors to help researchers drive advances in this fast-moving field. The result is a clear set of step-by-step methods which steer the reader through the challenges of stem cell isolation and differentiation and provide a handy guide for researchers in the field.

Please note- this ISBN replaces 978-0-12-374741-9

RELATED TITLES:

Lanza et al: Essentials of Stem Cell Biology (Nov 2005, ISBN-10/13: 0-12-088442-9/ 978-0-12-088442-1)

Lanza: Handbook of Stem Cells, Two-Volume Set with CD-ROM (Sep 2004, ISBN-10/13: 0-12-436643-0/ 978-0-12-436643-5)

ISBN: 978-0-12-375061-7

PUB DATE: late April 2009

LIST PRICE: \$75.00

DISCOUNT: Agency

FORMAT: Paperback

AUDIENCE: Researchers in biochemistry, cell and molecular biology, developmental biology and genetics.

SHELVING CLASSIFICATIONS:

SCIENCE / Life Sciences / General, SCIENCE / Biotechnology, SCIENCE / Biochemistry

BISAC CODES: SCI086000, SCI010000, SCI007000

MARKETING: House and paid ads in relevant journals, included in subject area mailings, displayed at related exhibits and online

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AC/92/Che - January 2009 Package
Mail Date 8/2008

Lanza: Essential Stem Cell Methods (978-0-12-375061-7)

TABLE OF CONTENTS:

Section 1: Organ-Derived Stem Cells

1. Neural Stem Cell Isolation and Characterization ; Rodney L. Rietze and Brent A. Reynolds
2. Neural Stem Cells and Their Manipulation; Evan Snyder
3. Retinal Stem Cells; Thomas A. Reh and Andy J. Fischer
4. Dental Pulp Stem Cells; He Liu, Stan Gronthos and Songtao Shi
5. Spermatogonial Stem Cells; Jon M. Oatley and Ralph L. Brinster
6. Stem Cells in the Lung; Xiaoming Liu, Ryan R. Driskell and John F. Engelhardt
7. Pancreatic Cells and Their Progenitors; Seth J. Salpeter and Yuval Dor
8. Pluripotent Stem Cells from Germ Cells; Candace L. Kerr, Michael J. Shambloott and John D. Gearhart
9. Amniotic Fluid and Placental Stem Cells; Dawn M. Delo, Paolo De Coppi, Georg Bartsch, Jr. and Anthony Atala
10. Cord Blood Stem and Progenitor Cells; Mervin C. Yoder
11. Purification of Hematopoietic Stem Cells Using the Side Population; K.K. Lin and Margaret A. Goodell
12. Microarray Analysis of Stem Cells and Differentiation; Howard Y. Chang
13. Tissue Engineering Using Adult Stem; Cells Daniel Eberli
14. Mesenchymal Stem Cells and Tissue Engineering; Nicholas W. Marion and Jeremy J. Mao

Section II: Embryonic Stem Cells

15. Murine Embryonic Stem Cells; Andras Nagy and Kristina Vintersten
16. Human Embryo Culture; Amparo Mercader, Diana Valbuena and Carlos SimÃ³n
17. Human Embryonic Stem Cells; Douglas Melton
18. Characterization and Evaluation of Human Embryonic Stem Cells; Chunhui Xu
19. Feeder-Free Culture of Human Embryonic Stem Cells; Michal Amit and Joseph Itskovitz-Eldor
20. Neural Stem Cells, Neurons, and Glia; Steven M. Pollard, Alex Benchoua and Sally Lowell
21. Hematopoietic Cells; Malcolm A.S. Moore, Jae-Hung Shieh and Gabsang Lee
22. Cardiomyocytes; Xiangzhong Yang, Xi-Min Guo, Chang-Yong Wang and X. Cindy Tian
23. Insulin-Producing Cells; Insa S. Schroeder, Gabriela Kania, Przemyslaw Blyszczuk
24. Transgene Expression and RNA Interference in Embryonic Stem Cells; Holm Zaehres and George Q. Daley
25. Lentiviral Vector-Mediated Gene Delivery into Human Embryonic Stem Cells; Michal Gropp and Benjamin Reubinoff
26. Engineering Embryonic Stem Cells with Recombinase Systems; Frank SchnÃ¼tgen, A. Francis Stewart, Harald von Melchner and Konstantinos Anastassiadis
27. Tissue Engineering Using Embryonic Stem Cells; Shahar Cohen, Lucy Leshanski and Joseph Itskovitz-Eldor

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NEW RELEASE



A must-have compendium for the end-user interested in signaling

Intercellular Communication in the Nervous System

Edited by:

Robert Malenka

Stanford University School of Medicine, Palo Alto, CA, USA

KEY FEATURES:

- Chapters offer impressive scope with topics addressing neurotransmitters/receptors, synaptic structure and organization, neuropeptides, gap junctions, neuropharmacology and more
- Richly illustrated in full color with over 200 figures
- Contributors represent the most outstanding scholarship in the field, with each chapter providing fully vetted and reliable expert knowledge

DESCRIPTION:

Intercellular communication is part of a complex system of communication that governs basic cellular activities and coordinates cell actions. The ability of cells to perceive and correctly respond to their environment is the basis of growth and development, tissue repair, and immunity as well as normal tissue homeostasis. Errors in cellular information processing are responsible for diseases such as cancer, autoimmunity, diabetes, and neurological and psychiatric disorders. There is substantial drug development concentrating on this and intercellular communication is the basis of much of neuropharmacology. By understanding cell signaling, diseases may be treated effectively and, theoretically, artificial tissues may be yielded. Neurotransmitters/receptors, synaptic structure and organization, gap junctions, neurotrophic factors and neuropeptides are all explored in this volume, as are the ways in which signaling controls neuroendocrinology, neuroimmunology and neuropharmacology. *Intercellular Communication in the Nervous System* provides a valuable desk reference for all scientists who consider signaling.

RELATED TITLES:

Bradshaw/Dennis, Handbook of Cell Signaling, (2003, 9780121245467)

Hammond, Cellular and Molecular Neurophysiology, 3e (2008, 9780123741271)

Byrne/Roberts, From Molecules to Networks, (2003, 9780121486600)

ISBN: 978-0-12-375072-3

PUB DATE: September 2009

LIST PRICE: \$150.00

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 800

TRIM SIZE: 7.25w x 10.25h "

AUDIENCE: Basic neuroscientists, neuroendocrinologists, neuroimmunologists and neuropharmacologists

SHELVING CLASSIFICATIONS: MEDICAL / Neurology, MEDICAL / Neuroscience

BISAC CODES: MED056000, MED057000

MARKETING: Clustered with related titles in direct mail, e-mail, and online promotions.

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--/26/Oxf - May 2009 Package

Malenka: Intercellular Communication in the Nervous System (978-0-12-375072-3)

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NEW RELEASE



Molecular Diagnostics, 2e

Edited by:

George Patrinos

Erasmus University Medical Center, Rotterdam, Netherlands

Wilhelm Ansorge

European Molecular Biology Laboratory, Heidelberg, Germany

KEY FEATURES:

- Contains state-of-the-art techniques for the detection of the underlying genetic heterogeneity leading to inherited disorders
- Includes in-depth discussion of ethical and safety considerations
- Identifies genetically modified organisms (GMOs)
- Covers forensic analysis and everyday issues in a diagnostic laboratory

DESCRIPTION:

The Second Edition of *Molecular Diagnostics*, the only book dealing with diagnosis on a molecular level, discusses current molecular biological techniques used to identify the underlying molecular defects in inherited disease. The book delves further into the principle and brief description of the technique, followed by examples from the authors' own expertise.

Contributors to the 2e are well-known experts in their field, and derive from a variety of disciplines, to ensure breadth and depth of coverage.

Molecular Diagnostics, Second Edition is a much needed resource for graduate students, researchers, physicians and practicing scientists in molecular genetics and professionals from similar backgrounds working in diagnostic laboratories in academia or industry, as well as academic institutions and hospital libraries.

RELATED TITLES:

Trent/Molecular Medicine, April 2005, \$79.95, 0-12-699057-3

Innis/PCR Applications, 1999, HB, \$89.95, 0-12-372185-7, PB, \$66.95,

ISBN: 978-0-12-374537-8

PREVIOUS EDITION ISBN:

978-0-12-546661-5

PUB DATE: September 2009

LIST PRICE: \$129.95

DISCOUNT: Agency

FORMAT: Hardback

AUDIENCE: Physicians and practicing scientists in molecular genetics; professionals working in diagnostic laboratories in academia or industry; biotechnology and pharmaceutical companies.

SHELVING CLASSIFICATIONS:

SCIENCE / Genetics, SCIENCE / Molecular Biology, MEDICAL / Pathology

BISAC CODES: SCI029000, SCI049000, MED067000

MARKETING: Key title marketing including direct mail, advertising, e-mail and online campaigns; displayed at key meetings

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AC/92/Bur - May 2009 Package

Patrinis: Molecular Diagnostics, 2e (978-0-12-374537-8)

TABLE OF CONTENTS:

Molecular Diagnostics in the post-genomic era; Allele-Specific Mutation Detection; Oligonucleotide Ligation Assays for the Diagnosis of Inherited Diseases; Enzymatic and Chemical Cleavage Methods to Identify Genetic Variation; Mutation Detection by Single-Strand Conformation Polymorphism and Heteroduplex Analysis; Capillary Electrophoresis; Temperature and Denaturing Gradient Gel Electrophoresis; Two-Dimensional Gene Scanning; Real-Time Polymerase Chain Reaction; Pyrosequencing; Dynamic Allele-Specific Hybridization; High Performance Liquid Chromatography of Nucleic Acids; Molecular Cytogenetics in Molecular Diagnostics; Analysis of Human Splicing Defects Using Hybrid Minigenes; Detection of Large Genomic Rearrangements; MLPA and MAPH to detect Genomic Duplications and Deletions; DNA Microarrays and Genetic Testing; Human Genome Microarray in Biomedical Applications; Oligonucleotide DNA and resequencing Microarrays for Genetic Testing; The Application of Proteomics to Disease Diagnostics; Protein Truncation Test; Mass spectrometry and its applications to proteomics; Microarray-based proteomics: Identifying molecular signatures for cancer diagnostics; Identification of Genetically Modified Organisms; Pharmacogenetics and Pharmacogenomics: Impact on Drug Discovery and Development; Nutrigenomics: integrating genomic approaches into nutrition research; Molecular Diagnostic Applications in Forensic Science; Molecular Autopsy; Molecular Biology in Mass Disasters; Molecular Diagnostic and Therapeutic Developments in Biodefense; Molecular Diagnostics and Comparative Genomics in Clinical Microbiology; Preimplantation Genetic Diagnosis; Genetic Monitoring of Laboratory Animals; Locus-Specific and National Mutation Databases in Molecular Diagnostics; Whole-genome sequencing in the post-genomic era; Safety Analysis in Retroviral Gene Therapy: Identifying Virus Integration Sites in Gene-Modified Cells; Automated DNA Hybridization and Detection; The Use of Microelectronic-Based Techniques in Molecular Diagnostic Assays; Miniaturization Technologies for Molecular Diagnostics; Human Gene Patents and Genetic Testing; Genetic Counseling and Ethics in Molecular Diagnostics; Genetic Testing and Psychology; Personalized medicine; Safety in Biomedical and Other Laboratories; Quality Management in the Laboratory;

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NEW RELEASE



A must-have compendium for the end-user interested in sleep research

The Neuroscience of Sleep

Edited by:

Robert Stickgold

Harvard Medical School, Boston, MA, USA

Matthew P. Walker

University of California, Berkeley, CA, USA

KEY FEATURES:

- Chapters offer impressive scope with topics addressing neural functioning, disorders, development, and more, carefully selected by one of the most pre-eminent sleep researchers
- Richly illustrated in full color with over 100 figures
- Contributors represent the most outstanding scholarship in the field, with each chapter providing fully vetted and reliable expert knowledge

DESCRIPTION:

Sleep is the natural state of bodily rest, common to all mammals and birds and also seen in many reptiles, amphibians and fish. For most species, regular sleep is essential for survival, yet the specific purposes of sleep are still only partly clear and are the subject of intense research.

This volume is comprised of the editors' selection of the most relevant articles on sleep from the *Encyclopedia of Neuroscience*, resulting in the first comprehensive collection of introductory articles on the neuroscience of sleep. Articles explore sleep's impact on neural functioning, sleep disorders, the relation between sleep and other clinical disorders, a look at sleep from a developmental perspective, and more.

RELATED TITLES:

Basbaum, *The Science of Pain* (2008, 9780123746252)

Al'Absi, *Stress & Addiction* (2007, 9780123706324)

Glimcher, *Neuroeconomics* (2008, 9780123741769)

ISBN: 978-0-12-375073-0

PUB DATE: September 2009

LIST PRICE: \$99.95

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 400

TRIM SIZE: 7.25w x 10.25h "

AUDIENCE: Basic and clinical researchers in sleep science and various areas of neuroscience

SHELVING CLASSIFICATIONS:
MEDICAL / Neurology, MEDICAL / Neuroscience, SCIENCE / Biology

BISAC CODES: MED056000, MED057000, SCI008000

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Stickgold: The Neuroscience of Sleep (978-0-12-375073-0)

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NEW RELEASE



Dramatically expand exposure to the protective chemicals that can reduce the risk of cancer, heart disease, gastrointestinal disease and others by choosing the right fruits and vegetables.

Bioactive Foods in Promoting Health

Fruits and Vegetables

Edited by:

Ronald Watson

University of Arizona, Tucson, USA

Victor R. Preedy

King's College, University of London, UK

KEY FEATURES:

- Identify bioactive fruit and vegetable options for the prevention or treatment of illness
- Moves from general overview to disease-specific applications providing a framework for further research and deeper understanding
- Includes discussion of issues and challenges, permitting critical analysis and evaluation

DESCRIPTION:

Bioactive compounds refer to extranutritional elements that occur, typically in small amounts, in various foods. In the past 10 years, significant study has been given to the health benefit of these compounds such as the antioxidant properties in certain nuts, berries and vegetables.

While vegetables have traditionally been seen to be good sources of vitamins, the roles of other constituents have only recently become more widely recognized. *Bioactive Foods in Promoting Health* reviews the science and presents new hypotheses and conclusions on the effects of different bioactive components of the diet, derived particularly from vegetables, to prevent disease and improve the health of various populations.

Organized by overall health impact, specific health concern, and by food, this book will be important for those seeking alternative and supplemental health improvement options based on dietary structure.

RELATED TITLES:

VEGETABLES, FRUIT AND HERBS IN HEALTH PROMOTION (2000, \$169.96, 978084300387) Watson and Preedy, CRC

ISBN: 978-0-12-374628-3

PUB DATE: October 2009

LIST PRICE: \$99.95

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 656

AUDIENCE: Health scientists including nutritionists and dieticians will use this book to identify currently known beneficial uses of fruit and vegetables in order to address the needs of their clients, as well as to explore alternative and additional options. Public health workers will better understand the challenges and issues of promoting the inclusion of fruit and vegetables in a healthy lifestyle -- and develop strategies for overcoming those concerns. Food chemists will use the information in identifying the beneficial components in healthful selections and combinations of fruits and vegetables, and will use that knowledge to create new healthful combinations and foods.

SHELVING CLASSIFICATIONS:

MEDICAL / Nutrition,
TECHNOLOGY / Food Industry & Science

BISAC CODES: MED060000,
TEC012000

MARKETING: food science catalog, promote at annual food show: IFT

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JP/90/Kid - May 2009 Package

Watson: Bioactive Foods in Promoting Health (978-0-12-374628-3)

TABLE OF CONTENTS:

Part I: Fruit and Vegetables in Health Promotion; The role of fruits and vegetables in health; Community intervention to increase consumption of fruits and vegetables; Barriers to fruit and vegetable-based diets; Methods to increase fruit and vegetable consumption; School-based fruit and vegetable intervention; Increasing fruit and vegetable use at home; Sour taste and fruit consumption; Dried fruit and vegetables role in health; Part II: Effect of Fruit and Vegetables on Specific Health Concerns; Fruit and vegetable consumption and cardiac health; Fruits and brain function; Vegetables in the prevention of obesity and related disease; Fruit and vegetable intakes and asthma; Fruit and vegetables: bone minerals; Consequence of low fruit and vegetable use; PART III: Health impacts of Individual Vegetables; Anthocyanins from fruits and vegetables: Role in disease prevention; Soy isoflavones and health promotion; Soy and aging prevention; Legumes and prevention of heart disease; Garlic and diabetes; Broccoli and health; Tomatoes in the prevention and treatment of cancer; Vegetables and ocular health in seniors; Vegetable oils: Health or disease?; Spinach Vitamin A and health; Isothiocyanates in vegetables as cancer chemopreventative agents; Artichoke effect on GI and irritable bowel syndrome diseases; PART IV: Actions of Individuals or Groups of Fruit on Health; Pomegranate in the prevention and treatment of cancer; Berries and anti-cancer effects; Strawberries and berries in health promotion; Apples and health; Kiwifruit; Plum; Safety of herbs in combination with traditional drugs; Vitamin C changes due to fruit and vegetable intakes;

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NEW RELEASE



The only practical guide for students and professionals embracing one of the most promising avenues for advances in diagnosis, prevention and treatment of human disease

Essential Genomic and Personalized Medicine

Edited by:

Huntington Willard, Ph.D

Institute for Genome Sciences & Policy, Duke University, Durham, NC, USA

Geoffrey S. Ginsburg

Institute for Genome Sciences & Policy, Duke University, Durham, NC, USA

KEY FEATURES:

- Full color throughout
- Includes contributions on genetic counseling, ethical, legal/regulatory, and social issues related to the practice of genomic medicine from leaders in the field
- Introductory chapter highlights differences between personalized and traditional medicine, promising areas of current research, and challenges to incorporate the latest research discoveries and practice
- Ancillary material includes case studies and lab questions that highlight the collaborative approach to the science

DESCRIPTION:

Derived from the comprehensive two-volume set *Genomic and Personalized Medicine* also edited by Drs. Willard and Ginsburg, this work serves the needs of the evolving population of scientists, researchers, practitioners and students that are embracing one of the most promising avenues for advances in diagnosis, prevention and treatment of human disease. From principles, methodology and translational approaches to genome discoveries and clinical applications, *Essential Genomic and Personalized Medicine* will be a valuable resource for various professionals and students across medical disciplines, including human genetics and genomics, oncology, neuroscience, gene therapy, molecular medicine, pharmacology, and biomedical sciences. Updates with regard to diagnostic testing, pharmacogenetics, predicting disease susceptibility, and other important research components as well as chapters dedicated to cardiovascular disease, oncology, inflammatory disease, metabolic disease, neuropsychiatric disease, and infectious disease, present this book as an essential tool for a variety of professionals and students who are endeavoring to develop the diverse and practical field of genomic and personalized medicine.

RELATED TITLES:

Lanza/ Essentials of Stem Cell Biology; 978-0-12-088442-1; Nov 2005; 584 pgs; \$142/ 120 EUROS/ 84.00 GBP

ISBN: 978-0-12-374934-5

PUB DATE: October 2009

LIST PRICE: \$125.00

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 800

TRIM SIZE: 8.5w x 11h"

AUDIENCE: general practitioners, specialists, and students across medical disciplines, research professionals in human genetics/genomics, oncology, neuroscience, gene therapy, molecular medicine, and related areas

SHELVING CLASSIFICATIONS:

SCIENCE / Biology, SCIENCE / Life Sciences / General, SCIENCE / Genetics

BISAC CODES: SCI008000, SCI086000, SCI029000

MARKETING: Key title marketing including direct mail, advertising, e-mail and online campaigns; displayed at key meetings

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Part I. Genomic Approaches to Biology and Medicine

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1. Introduction
2. The Human Genome
3. Principles of Population Genomics
4. Epigenomics and its Implications for Medicine
5. Systems Biology and the Emergence of Systems Medicine Technology Platforms for Genomic Medicine
6. Genome-Wide Association Studies and Genotyping Technologies
7. DNA Methylation Analysis: Providing New Insight into Human Disease
8. Transcriptomics: Global Expression Analysis and Genomic Medicine
9. DNA Microarrays in Biological Diversity and Patient Care
10. Proteomics: The Deciphering of the Functional Genome Informatic and Computational Platforms for Genomic Medicine
11. Fundamentals and History of Informatics
12. Bioinformatic and Computational Analysis for Genomic Medicine
13. Health Information Retrieval for Consumers

Part II. Translational Approaches in Genomic and Personalized Medicine

Enabling Strategies in the Translation of Genomics into Medicine

14. Genomics to Health: Challenges and Opportunities
15. Application of Biomarkers in Human Population Studies
16. Pharmacogenetics and Pharmacogenomics
17. The Role of Genomics in Drug Discovery and Development
18. Clinical Implementation of Translational Genomics
19. The Role of Genomics in Enabling Prospective Health Policy Challenges in Genomic & Personalized Medicine
20. From Sequence to Genomic Medicine: Genome Policy Considerations
21. Educational Strategies in Genomic Medicine
22. Federal Regulation of Genomic Medicine
23. Economic Issues and Genomic Medicine
24. Public-Private Interactions in Genomic Medicine: Research & Development Genomic Medicine & Public Health
25. What is Public Health Genomics?
26. Why Do We Need Public Health in the Era of Genomic Medicine?
27. Principles of Human Genome Epidemiology
28. Genomics & Population Screening: Example of Newborn Screening
29. Family History: A Bridge Between Genomic Medicine and Disease Prevention Clinical Technologies Supporting Personalized Medicine
30. Molecular Imaging as a Paradigm for Genomic and Personalized Medicine
31. PET Imaging in Genomic Medicine
32. MRI for Molecular Imaging Applications: Overview, Perspectives and Challenges
33. Viral Chip Technology in Genomic Medicine
34. Vaccines Against Infectious Disease
35. Stem Cells
36. Gene Therapy

Part III. Disease-Based Genomic and Personalized Medicine: Genome Discoveries and Clinical Applications

Cardiovascular Genomic Medicine

37. Principles and Applications
38. Congenital Heart Disease
39. Perioperative and Procedural Medicine - Oncology Genomic Medicine
40. Cancer Genes, Genomes, and the Environment
41. Lymphomas
42. Leukemias
43. Melanoma
44. Diagnostic - Therapeutic Combinations in the Treatment of Cancer
45. Inflammatory Disease Genomic Medicine
46. Environmental Exposures and the Emerging Field of Environmental Genomics
47. Asthma
48. Chronic Obstructive Pulmonary Disorder Disease
49. Diagnosis, Management and Disease Mechanisms of Cirrhosis in the Era of Genomic Medicine
50. Metabolic Disease Genomic Medicine
51. Obesity
52. Diabetes
53. Metabolic Syndrome
54. Nutrition and Diet
55. Neuropsychiatric Disease Genomic Medicine
56. Alzheimers and Dementia
57. Epilepsy Predisposition and Pharmacogenetics (Walley, Goldstein)
58. Psychiatric Disorders (Zuchner, Krishnan)
59. Depression Pathophysiology and Pharmacogenomics (Bondy)
60. Infectious Disease Genomic Medicine
61. AIDS (Zagury et al)
62. Viral Infections (Patarca)
63. Bacterial Infections (Johnson)
64. Diagnosis, Management and Disease Mechanisms of Hepatitis in the Era of Genomic Medicine (Shackel, Patel, McHutchison)

ELSEVIER

NEW RELEASE



Liquid Membranes

Principles and Applications in Chemical Separations and Wastewater Treatment

Edited by:

Vladimir S Kislik

KEY FEATURES:

- Provides comprehensive information on the principles and applications of a variety of liquid membrane separation processes
- Contains a critical analysis of new technologies published in the last 15 years

DESCRIPTION:

This product provides comprehensive information on liquid membrane separations, presenting the principles and applications of a variety of liquid membrane separation processes. A critical analysis of new technologies and their theoretical background is presented, as well as directions for future development.

RELATED TITLES:

1. Membranes for Industrial Wastewater Recovery and Re-use, 2003, by S. Judd, 9781856173896
2. Nano and Micro Engineered Membrane Technology, by CJM van Rijn, 2004, 9780444514899
3. Ion-Exchange Membrane Separation Processes, by H Strathmann, 2004, 9780444502360

ISBN: 978-0-444-53218-3

PUB DATE: late October 2009

LIST PRICE: \$175.00

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 450

TRIM SIZE: 6.25w x 9.375h "

AUDIENCE: Researchers in the area of membranes and their applications as well as chemical engineers, graduate students, consultants and other scientists working in the area of membranes, wastewater, separations, pharmaceutical and water management

SHELVING CLASSIFICATIONS:

SCIENCE / Environmental Science, SCIENCE / Biotechnology, TECHNOLOGY / Engineering / Chemical & Biochemical

BISAC CODES: SCI026000, SCI010000, TEC009010

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Kislik: Liquid Membranes (978-0-444-53218-3)

TABLE OF CONTENTS:

1. Introduction, General Description, Definitions and classification. Overview.
2. Carrier-facilitated coupled transport through liquid membranes: general theoretical considerations and influencing factors
3. Supported liquid membranes and their modifications. Definition, classification, theory, stability, application and perspectives.
4. Emulsion liquid membranes: definitions and classification, theories, module design, applications, new directions and perspectives
5. Bulk hybrid liquid membrane processes with organic water- immiscible carriers (BOHLM). Application in chemical, biochemical, pharmaceutical and gas separations
6. Bulk hybrid liquid membrane processes with water-soluble carriers (BAHLM). Application in chemical and biochemical separations
7. Liquid membranes in gas separations
8. Application of liquid membranes in wastewater treatment
9. Potential progress in liquid membrane science and engineering

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NEW RELEASE



A mathematically sound but accessible and engaging introduction to the Bayesian paradigm, written specifically for ecologists and wildlife biologists

Bayesian Inference

With Ecological Applications

William A Link
Richard J Barker

KEY FEATURES:

- Engagingly written text specifically designed to demystify a complex subject
- Examples drawn from ecology and wildlife research
- An essential grounding for graduate and research ecologists in this rapidly adopted statistical technique
- Companion website with analytical software and examples
- Leading authors with world-class reputations in ecology and biostatistics

DESCRIPTION:

Statistical theory is primarily a product of the 20th century. The prevailing school of thought builds on the frequentist philosophy developed by R.A. Fisher, the eminent biological theorist and experimentalist. Fisher's philosophy has been so thoroughly embraced that it has been labeled the "classical" approach, even though the alternative Bayesian philosophy antedates it by more than a century. Frequentist thinking has prevailed over Bayesian primarily because of the practical difficulty of fitting all but the simplest Bayesian models. Wildlife statistics has been almost entirely conducted in the frequentist mode. However, wildlife data are most naturally described in terms of hierarchical models, and these models are best analyzed using Bayesian tools. The advent of fast personal computers and easily available software has nearly removed the difficulties in fitting Bayesian models, and hierarchical models in particular. Hierarchical models describe stochastic population processes governing data, and these processes are the real focus of scientific inquiry. This book takes the reader into the domain of Bayesian inference in which complex hierarchical modeling is made possible.

RELATED TITLES:

Royle et al. Hierarchical Modeling and Inference in Ecology: The Analysis of Data from Populations, Metapopulations and Communities (Academic Press, 2008)
MacKenzie et al. Occupancy Estimation and Modeling: Inferring Patterns and Dynamics of Species Occurrence (Academic Press, 2005)
Williams et al. Analysis and Management of Animal Populations (Academic Press, 2002)

ISBN: 978-0-12-374854-6

PUB DATE: October 2009

LIST PRICE: \$59.95

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 400

AUDIENCE: Graduate students and researchers in animal ecology, population ecology, wildlife management, conservation biology, and ecological and biological statistics.

SHELVING CLASSIFICATIONS:

SCIENCE / Ecology, SCIENCE / Zoology, SCIENCE / Biology

BISAC CODES: SCIO20000, SCIO70000, SCIO08000

MARKETING: This text provides a mathematically rigorous yet accessible and entertaining introduction to Bayesian inference with relevant examples that will be of interest to biologists working in the fields of ecology, wildlife management and environmental studies.

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Link: Bayesian Inference (978-0-12-374854-6)

TABLE OF CONTENTS:

Chapter 1. Bayesian Inference

Chapter 2. Probability

Chapter 3. Statistical Inference

Chapter 4. Posterior Calculations

Chapter 5. Bayesian Prediction

Chapter 6. Priors

Chapter 7. Multimodel Inference

Chapter 8. Hidden Data Models

Chapter 9. Closed-Population Mark-Recapture Models

Chapter 10. Latent Multinomials

Chapter 11. Open Population Models

Chapter 12. Individual Fitness

Chapter 13. Autoregressive Smoothing

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NEW RELEASE



Ecology and Classification of North American Freshwater Invertebrates, 3e

Edited by:

James H. Thorp

University of Kansas - Lawrence, USA

Alan P. Covich

Colorado State University, Department of Fishery and Wildlife Biology, Fort Collins, U.S.A.

KEY FEATURES:

- Contains extensive and detailed classification keys for the identification of diverse freshwater invertebrates
- Many drawings and color photographs of freshwater invertebrates
- Single source for broad coverage of the anatomy, physiology, ecology, and phylogeny of all major groups of invertebrates in inland waters of North America, north of Mexico

DESCRIPTION:

The 3e of *Ecology and Classification of North American Freshwater Invertebrates* continues the tradition of in-depth coverage of the biology, ecology, phylogeny, and identification of freshwater invertebrates from the USA and Canada. This edition is in color for the first time and includes greatly expanded classification of many phyla and a downloadable set of references for all chapters.

RELATED TITLES:

Wehr & Sheath, *Freshwater Algae of North America* 2002.

Wetzel, *Limnology* 3e. 2001.

Dodds, *Freshwater Ecology*. 2002.

Hauer & Lamberti, *Methods in Stream Ecology*, 1996.

Benke et al. *Rivers of North America*. 2005.

ISBN: 978-0-12-374855-3

PREVIOUS EDITION ISBN:
978-0-12-690647-9

PUB DATE: October 2009

LIST PRICE: \$139.95

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 1028

TRIM SIZE: 8.5w x 11h"

AUDIENCE: Advanced undergraduates, graduate students, researchers, faculty and staff at universities and consulting companies interested in freshwater biology and ecology, limnology, environmental science, invertebrate zoology and related fields.

SHELVING CLASSIFICATIONS:
SCIENCE / Biology, SCIENCE / Life Sciences / General, SCIENCE / Physiology

BISAC CODES: SCI008000, SCI086000, SCI056000

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Thorp: Ecology and Classification of North American Freshwater Invertebrates, 3e (978-0-12-374855-3)

TABLE OF CONTENTS:

- 1 INTRODUCTION TO INVERTEBRATES OF INLAND WATERS
- 2 AN OVERVIEW OF INLAND WATER HABITATS
- 3 PROTOZOA
- 4 PORIFERA
- 5 CNIDARIA
- 6 FLATWORMS: TURBELLARIANS AND NEMERTEA
- 7 GASTROTRICHA
- 8 ROTIFERA
- 9 NEMATODA AND NEMATOMORPHA
- 10 MOLLUSCA: GASTROPODA
- 11 MOLLUSCA: BIVALVIA
- 12 ANNELIDA (CLITELLATA): OLIGOCHAETA, BRANCHIOBDELLIDA, HIRUDINIDA, AND ACANTHOBDELLIDA
- 13 BRYOZOANS
- 14 TARDIGRADA
- 15 WATER MITES (HYDRACHNIDIAE) AND OTHER ARACHNIDS
- 16 DIVERSITY AND CLASSIFICATION OF INSECTS AND COLLEMBOLA
- 17 AQUATIC INSECT ECOLOGY
- 18 INTRODUCTION TO THE SUBPHYLUM CRUSTACEA
- 19 OSTRACODA
- 20 CLADOCERA AND OTHER BRANCHIOPODA
- 21 COPEPODA
- 22 DECAPODA

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NEW RELEASE



The only book devoted to the findings of the southern hemisphere "dusky" dolphin

The Dusky Dolphin

Master Acrobat off Different Shores

Edited by:

Bernd Würsig

Texas A&M University, Galveston, Texas, USA

Melany Würsig

KEY FEATURES:

- Only book on a southern hemisphere dolphin
- Written by a cadre of experts intimately familiar with dolphin field work
- Heavily illustrated with charts, figures, tables, and all color photos
- Each chapter begins with a personal vignette, giving a poetic interlude to what is essentially a scientific work

DESCRIPTION:

Much has been written about dolphins and whales and excellent books exist especially on the charismatic bottlenose dolphins and killer, humpback and sperm whales. But detailed studies have been carried out on a handful of other species, and this book summarizes our state of knowledge of a little dolphin – the southern hemisphere “dusky” and compares its behavioral strategies in different environs.

The editors, Bernd and Mel Würsig, began studying duskies in Patagonia, Argentina in 1972. Although they have been to many parts of the Earth since then - including work on Amazon and Yangtze river dolphins, Hawaii for the delicate lovely spinner dolphin, the Arctic for bowhead and gray whale work, and bottlenose dolphins in several milieus - they have always returned to their first love of unraveling the social patterns and life strategies of duskies that exist in small groups in semi-enclosed bays and as herds of well over 1,000 in the open ocean. This book documents the latest research, from their feeding patterns to their acrobatic skills. It is full of scientific facts, with a sense of poetry and wonder of the unknown.

RELATED TITLES:

Perrin, Würsig & Thewissen, Eds: *Encyclopedia of Marine Mammals*, 2e; 9780123735539; 2009

Berta, Sumich & Kovacs: *Marine Mammals: Evolutionary Biology*, 2e; 9780123694997; 2006

ISBN: 978-0-12-373723-6

PUB DATE: October 2009

LIST PRICE: \$89.95

DISCOUNT: Agency

FORMAT: Hardback

PAGES: c. 416

TRIM SIZE: 6w x 9h "

AUDIENCE: Marine biologists; mammalogists; students of animal behavior; students of social ecology

SHELVING CLASSIFICATIONS:

SCIENCE / Marine Biology,
SCIENCE / Zoology, NATURE /
General

BISAC CODES: SCI039000,
SCI070000, NAT000000

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