

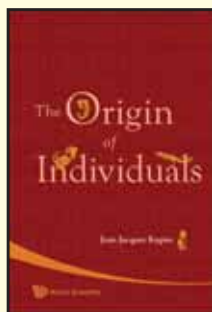
NOTABLE TILES OF CELL/ MOLECULAR BIOLOGY

THE ORIGIN OF INDIVIDUALS

by **Jean-Jacques Kupiec** (*Ecole Normale Supérieure & INSERM, France*)

Key Features

- Reviews the importance of some of the latest and the more unexpected data obtained in molecular biology
- Presents a new theory breaking with classical genetic determinism and introducing stochasticity at the heart of cellular physiology
- Puts the biological data and theory into their historical and philosophical perspective, showing the importance of philosophy, even in what seems a purely experimental research



The book presents a new approach to biological systems based on cellular Darwinism.

Readership: Researchers, students and lay readers interested in biology, especially embryogenesis.

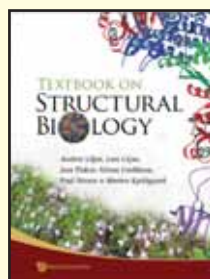
276pp Feb 2009
978-981-270-499-3 US\$76 £62

TEXTBOOK OF STRUCTURAL BIOLOGY

by **Anders Liljas** (*Lund University, Sweden*), **Lars Liljas** (*Uppsala University, Sweden*), **Jure Piskur** (*Lund University, Sweden*), **Göran Lindblom** (*Umeå University, Sweden*), **Poul Nissen & Morten Kjeldgaard** (*University of Aarhus, Denmark*)

Key Features

- This is the first comprehensive textbook on structural biology
- Extensively illustrated with color figures
- All the authors have research experience in most of the different fields covered



Written by a team of leading scientists in the field, it covers all the essential aspects of proteins, nucleic acids and lipids, including the rise and fall of proteins, membranes and gradients, the structural biology of cells, and evolution — the comparative structural biology.

Readership: Undergraduate and graduate students in structural biology, chemistry, biochemistry, biology and medicine.

580pp Feb 2009
978-981-277-207-7 US\$128 £96
978-981-277-208-4(pbk) US\$88 £66

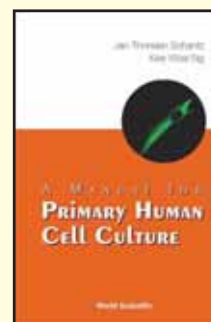
Manuals in Biomedical Research – Vol. 6 A MANUAL FOR PRIMARY HUMAN CELL CULTURE (2nd Edition)

by **Kee Woei Ng** (*Institute of Medical Biology, Singapore*) & **Jan-Thorsten Schantz** (*Technical University of Munich, Germany & National University of Singapore, Singapore*)

This improved second edition also includes a new section on stem cells and additional material on transfection. It should serve as a foundation for individual researchers to experiment, explore, and establish niche protocols for their specific needs. With its compact physical format that makes it portable and flexible for usage in a laboratory setting, the manual will be a useful guide for all beginners in primary human cell culture work.

Readership: Graduate students and scientists embarking on cell culture; biologists; medical practitioners; laboratory technicians; junior college and polytechnic students.

250pp (approx.) Sep 2009
978-981-283-477-5(pbk) US\$48 £36



HIGHLIGHTS

4D ELECTRON MICROSCOPY Imaging in Space and Time

by **Ahmed H Zewail** (*California Institute of Technology, USA*) & **John M Thomas** (*University of Cambridge, UK*)

Pg 4

THE THIN BONE VAULT The Origin of Human Intelligence

by **Fredric M Menger** (*Emory University, USA*)

Pg 5

STEM CELL MICROENVIRONMENTS AND TISSUE ENGINEERING

edited by **Satya Prakash & Dominique Shum-Tim** (*McGill University, Canada*)

Pg 4

FROM STRUCTURAL GENOMICS TO FUNCTIONAL GENOMICS

Methods and Applications

by **Ioannis Ragoussis** (*Wellcome Trust Centre for Human Genetics, UK*)

Key Features

- Written by an internationally well-respected expert who is very experienced in the techniques covered
- Provides an overview of current genomics tools and enhances the reader's understanding of underlying principles
- Is of practical benefit to readers in terms of aiding decision-making processes at the laboratory level (e.g. which method to apply in diagnostic laboratories) as well as improving their written research work

Readership: Academics, clinical researchers and scientists, and final-year undergraduates and postgraduates in genetics and genomics, cell and molecular biology, and structural biology.

300pp (approx.) **Spring 2010**
978-1-84816-318-8 **US\$88** **£66**

ONCOGENIC MUTATIONS OF TYROSINE KINASES IN HUMAN MALIGNANCIES

edited by **Hsing-Jien Kung & Clifford G Tepper** (*University of California Davis, USA*)

Key Features

- A compilation of detailed reviews addressing mutations of protein tyrosine kinases (PTKs) specifically known to be causally-related to human malignancies
- Explains the molecular basis for PTK-mediated oncogenesis and the basis for exploitation of these as therapeutic targets
- Edited by a world-renowned expert in the field, Hsing-Jien Kung, who has studied tyrosine kinases for nearly 30 years

This book highlights the most commonly occurring TK mutations associated with human neoplasms. Each chapter presents a detailed examination of the molecular pathogenic mechanisms engendered by these mutations, including aberrant triggering of signaling pathways and their manifestation as aggressive biological behavior.

Readership: Researchers in cancer medicine, biochemistry/biological chemistry, cell/molecular biology/structural biology; oncologists; graduate level and advanced undergraduate level courses (years 3 & 4).

200pp (approx.) **Winter 2009**
978-981-270-546-4 **US\$98** **£49**

MORE THAN ONE WAY TO BUILD A NEW HUMAN

Embryos and Twins and Chimeras; Symmetry, Sex, Self, Soul and Schizophrenia

by **Charles E Boklage** (*East Carolina University, USA*)

Key Features

- There are no competing titles — there is no book, in print or out, that goes where this book goes, at any level
- That these topics are discussed at all before a general audience is unique
- These are the results of over 35 years of research
- Very nearly everything that came before is wrong, and that does matter — very much, to any honest effort to understand the biology of becoming human

This book defines its own new field — (human) developmental biology as a basic discipline within the humanities — while simultaneously answering both century-old hardcore cell biology questions such as those about how twinning and chimerism and the anomalies associated with these phenomena happen, and how these variations relate to the usual process, and also anti-scientific pseudo-biological assertions about when and how human life begins.

Readership: For intelligent people who want to understand the biology of the usual and some unusual ways of becoming human.

470pp (approx.) **Fall 2009**
978-981-283-513-0(pbk) **US\$55** **£41**

HUMAN STEM CELLS AND THE LIVER

Basic Research and Clinical Applications

edited by **Mark A Zern & Christine Jung** (*University of California, Davis, USA*)

Key Features

- All chapters are written by researchers with recognized expertise in their respective fields of liver and stem cell biology, thereby providing the most up-to-date research findings with relevant perspectives about the future direction
- The book demonstrates how the field of stem cells is developing from an emphasis on its basic underpinning to a renewed effort to drive it towards clinical relevancy

This book provides a comprehensive overview of the applicative potential of various types of stem cells, both embryonic and adult, in the treatment of liver diseases. It serves as a primer in the regenerative potential of stem cells by describing in-depth the recent advancement of science and technology in pursuit of methods for directing these cells into the differentiation pathways of hepatocyte-like cells for use in cell transplantation and for the creation of bioartificial liver assist devices.

Readership: Graduate students, post-doctoral fellows, and established researchers interested in stem cell research and its application in liver biology and regenerative medicine; ambitious undergraduates and other non-experts who are interested in a comprehensive overview of how research in stem cell biology is being explored for the treatment of liver-related diseases; hepatologists.

400pp (approx.) **Fall 2009**
978-981-283-571-0 **US\$98** **£74**

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UMBILICAL CORD BLOOD**A Future for Regenerative Medicine**

edited by **Suzanne Kadereit** (*University of Konstanz, Germany*) & **Gerald Udolph** (*National University of Singapore, Singapore*)

Key Features

- Covers several paradigms of non-embryonic stem cell biology and the potential of stem cells for regenerative medicine
- One of the first book with the same in-depth focus on all the stem cells within the umbilical cord
- Presents an overview of an abundant scientific literature on stem cell research
- Serves as a primer and reference book for medical fellows and researchers, and as a teaching tool in graduate schools

This book provides a consolidated, up-to-date overview of basic research on hematopoietic and mesenchymal stem cells contained within umbilical cord tissue, as well as other more recently described stem and precursor cells of not yet fully elucidated potential. It also takes an in-depth look at basic and translational research efforts with stem cells from the umbilical cord in academic institutions and biotech companies.

Readership: Academics and researchers in non-embryonic stem cell research, undergraduate and graduate biology students, professionals in pharmaceutical and biotechnology sector, anyone interested in stem cells research.

200pp (approx.) **Winter 2009**
978-981-283-329-7 **US\$75** **£41**

HUMAN ONCOGENIC VIRUSES

edited by **Jing-Hsuing James Ou** (*University of Southern California, USA*) & **T S Benedict Yen** (*University of California, San Francisco, USA*)

Key Features

- Consists of chapters written by experts in their respective areas of research
- Includes an introductory chapter that discusses viruses and cellular transformation

This book is therefore timely, providing a comprehensive review of the molecular biology of oncogenic viruses and the cancers they cause. Viruses that are discussed in the individual chapters include hepatitis B virus, hepatitis C virus, human papilloma viruses, Epstein–Barr virus, Kaposi's sarcoma virus and human T-cell leukemia virus type 1.

Readership: Graduate students and postdoctoral fellows in infectious diseases, microbiology/virology, oncology/cancer research, and cell/molecular/structural biology; medical students, physicians and non-experts who are interested in understanding the relationship between oncogenic viruses and the cancers they cause.

300pp (approx.) **Winter 2009**
978-981-283-346-4 **US\$90** **£49**

PROTEIN–PROTEIN COMPLEXES**Analysis, Modeling and Drug Design**

edited by **Martin Zacharias** (*Jacobs University Bremen, Germany*)

Key Features

- Covers protein–protein interactions at the structural level in great detail
- Describes the structure of protein–protein complexes, and also gives insight into the mechanism of complex formation and the forces that drive complex formation
- Covers to some degree the emerging field of designing new protein–protein interactions, i.e. how to interfere with protein–protein interactions that are of medical importance through drug design

The book consists of about 15 review chapters, written by experts, on the characterization of protein–protein interfaces, structure determination of protein complexes (by NMR and X-ray), theory of protein–protein binding, dynamics of protein interfaces, bioinformatics methods to predict interaction regions, and prediction of protein–protein complex structures (docking and homology modeling of complexes, etc.) and design of protein–protein interactions. It serves as a bridge between studying/analyzing protein–protein complex structures (interfaces), predicting interactions, and influencing/designing interactions.

Readership: Graduate students and researchers in bioinformatics and computational biology, biophysics, biochemistry, structural biology, and drug design.

500pp (approx.) **Winter 2009**
978-1-84816-338-6 **US\$118** **£89**
978-1-84816-339-3(pbk) **US\$68** **£51**

MICRORNAS IN DEVELOPMENT AND CANCER

edited by **Frank J Slack** (*Yale University, USA*)

Key Features

- There is currently no such book available
- This book brings together experts from the rapidly emerging field of microRNAs to discuss, in one volume, their roles in development and cancer
- The book gives a comprehensive overview of this emerging topic

This book goes into detail on how microRNAs represent a paradigm shift in thinking about gene regulation during development and disease, and provide the oncologist with a potentially powerful new battery of agents to diagnose and treat cancer.

Readership: Cancer researchers, geneticists, molecular biologists and cell biologists.

300pp (approx.) **Winter 2009**
978-1-84816-366-9 **US\$85** **£64**

SCIENCE AT THE NANOSCALE**An Introductory Textbook**

by **Chin Wee Shong, Sow Chorng Haur & Andrew T S Wee** (*National University of Singapore, Singapore*)

“This book provides a very detailed and interesting overview of the fundamental principles of nanoscience, discusses the background of several nanoscience experimental techniques, and sheds light on some of the visionary and important applications in the truly interdisciplinary area of nanotechnology. This book will be a useful reference book for graduate students, and is expected to attract a lot of attention, not only from new graduate students, but also from more senior scientists interested in the fascinating area of nanoscience and nanotechnology, and those who are involved in a wide spectrum of disciplines ranging from physics, chemistry, surface science, spectroscopy, materials science, engineering to medicine.”

Wael Mamdouh and Flemming Besenbacher
University of Aarhus, Denmark

Key Features

- Practical and user-friendly textbook that can be adopted for introductory undergraduate courses in nanoscience and nanotechnology, materials science and engineering, physics and chemistry unlike most graduate-level and specialized texts on nanoscience
- Instructor-friendly, with sample test questions and practical laboratory exercises included in the Appendices to assist the instructor

Readership: This book is suitable for science undergraduates, and can be used as a reference for pre-university science students.

200pp (approx.) **Fall 2009**
978-981-4241-03-8 **US\$88** **£66**

STEM CELL MICROENVIRONMENTS AND TISSUE ENGINEERING

edited by **Satya Prakash & Dominique Shum-Tim** (*McGill University, Canada*)

Key Features

- An update of the clinical application of these cutting-edge new therapies, as reported first-hand by the experts, is provided
- Various ongoing bioengineering works aimed at improving the current efficiency of cell therapy are described
- The combination of basic research, ongoing developing technologies and clinical applications is unified in one comprehensive book
- This is the only known book on stem cell bioengineering

Readership: Graduate students, upper level undergraduate students, academics and researchers in medicine, cell biology, biochemistry, genetics, developmental biology, and animal science; life science scientists; medical doctors; surgeons; biotechnology and pharmaceutical industry professionals.

450pp (approx.) **Summer 2009**
978-981-283-788-2 **US\$128** **£96**

MOLECULAR DIAGNOSTICS

The Key Driver in Personalized Cancer Medicine

edited by **Jan T Jørgensen** (*CMC Contrast, Denmark*) & **Henrik Winther** (*Dako, Denmark*)

This unique book provides a thorough overview of developing molecular cancer diagnostic assays, which are the prerequisites for optimal solutions within personalized cancer medicine. The book takes the reader through definitions of the pharmacodiagnostic concept, historical perspectives of the early steps into molecular cancer diagnostics linked to therapy, the basis of different diagnostic molecular techniques, ongoing research, drug-diagnostic co-development, assay validation, clinical trial methodology, regulatory issues around pharmacodiagnosics and future aspects within personalized cancer medicine.

Readership: Oncologists, pathologists, academic cancer researchers and scientists and others working in the drug and diagnostic industries.

400pp (approx.) **Fall 2009**
978-981-4241-44-1 **US\$159** **£119**

MICRORNA PROFILING IN CANCER

A Bioinformatics Prospective

edited by **Yuriy Gusev** (*University of Oklahoma, USA*)

Key Features

- Includes a foreword written by one of the leading world-class experts and pioneers of microRNA research in human cancer Dr. George Calin (MD Anderson Cancer Center)
- Consists of chapters written by an international team of scientists from six countries, including researchers from the US National Cancer Institute; the Canadian National Cancer Council; the Australian genomics consortium; and several academic and biotech industry groups from USA, Canada, England, Germany, and France

This volume contains adaptations and critical reviews of the recent state-of-the-art studies, ranging from technological advances in microRNA detection and profiling, clinically oriented microRNA profiling in several human cancers, to a systems biology analysis of global patterns of microRNA regulation of signaling and metabolic pathways. Interactions with transcription factor regulatory networks and mathematical modeling of miRNA regulation are also discussed.

Readership: A broad audience of academic, and biotech and pharmaceutical industry biomedical scientists, physicians involved in cancer research, oncologists, computational biologists, and bioinformaticians who are involved in basic, translational and clinical research as well as college educators, undergraduate and graduate and medical students.

300pp (approx.) **Summer 2009**
978-981-4267-01-4 **US\$129** **£97**

4D ELECTRON MICROSCOPY

Imaging in Space and Time

by **Ahmed H Zewail** (*California Institute of Technology, USA*) & **John M Thomas** (*University of Cambridge, UK*)

No monograph in existence attempts to cover the revolutionary dimensions that EM in its various modes of operation nowadays makes possible. The authors of this book chart these developments, and also compare the merits of coherent electron waves with those of synchrotron radiation. They judge it prudent to recall some important basic procedural and theoretical aspects of imaging and diffraction so that the reader may better comprehend the significance of the new vistas and applications now afoot.

This book is not a *vade mecum* — numerous other texts are available for the practitioner for that purpose. It is instead an in-depth expose of the paradigm concepts and the developed techniques that can now be executed to gain new knowledge in the entire domain of biological and physical science, and in the four dimensions of *space* and *time*.

Readership: Academics and researchers in the fields of physical chemistry, chemical analysis, solid state physics, electron microscopy, scanning, tunnelling, nanoelectronics, molecular biology, molecular imaging and structural biology.

200pp (approx.) **Summer 2009**
978-1-84816-390-4 **US\$74** **£56**
978-1-84816-400-0(pbk) **US\$48** **£36**

Journal of Innovative Optical Health Sciences (JIOHS)

Aims & Scope

JIOHS serves as an international forum for the publication of the latest developments in all areas of photonics in biology and medicine. JIOHS will consider for publication original papers in all disciplines of photonics in biology and medicine, including but not limited to:

Photonic therapeutics and diagnostics
Optical clinical technologies and systems
Tissue optics
Laser-tissue interaction and tissue engineering
Biomedical spectroscopy
Advanced microscopy and imaging
Nanophotonics and optical molecular imaging
Multimodal and hybrid biomedical imaging
Micro/nanofabrication
Medical microsystems
Optical coherence tomography
Photodynamic therapy

JIOHS provides a vehicle to help professionals, graduates, engineers, academics and researchers working in the field of intelligent photonics in biology and medicine to disseminate information on the state-of-the-art technique.



MOLECULES: NUCLEATION, AGGREGATION AND CRYSTALLIZATION

Beyond Medical and Other Implications

edited by **Jan Sedzik** (*Karolinska Institute, Sweden*) & **Paolo Riccio** (*Potenza University, Italy*)

Key Features

- Suitable as an advanced text for graduate students and non-experts alike
- Contains sufficiently detailed text to capture the interest of curious readers
- Serves as an introduction to explore the research literature in the field
- Includes contributions by prominent authors such as Nobel Laureate Carlton Gajdusek

This volume, dealing with *Nucleation, Aggregation and Crystallization*, consists of a compilation of lectures offered at the international course held at Karolinska Institute and at the scientific meetings of the MARIE Network.

Written by leading scientists in the field, including one Nobel Laureate, this book provides a unique perspective between the physical and chemical sciences on the one hand, and the biological and medical sciences on the other, and should be of considerable value to scientists, physicians, students, and the interested lay public.

Readership: Academics and undergraduate and graduate students in biochemistry, structural biology, neuroscience, protein chemistry, physical chemistry, and medicine, as well as the general public.

300pp (approx.)	Spring 2009	
978-981-283-264-1	US\$98	£53
978-981-283-265-8(pbk)	US\$68	£37

HANDBOOK OF PORPHYRIN SCIENCE With Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine (A 5-Volume Set)

edited by **Karl M Kadish** (*University of Houston, USA*), **Kevin M Smith** (*Louisiana State University, USA*) & **Roger Guilard** (*Université de Bourgogne, France*)

"This new series of volumes of the monumental Porphyrin Handbook, under the expert stewardship of the same three editors, is vivid testimony to the continuing broad interest and deep impact of the chemistry of these Pigments of Life."

Jean-Marie Lehn
Nobel Laureate, Chemistry
College de France, France

Key Features

- Consists of thousands of pages of articles written by internationally recognized experts in the field along with thousands of relevant literature citations
- Vast array of information on porphyrin science consolidated into an up-to-date multi-volume series of clear and concise coverage, including hundreds of figures, tables and structural formulas

Readership: Chemists, physicists, material scientists, polymer scientists, spectroscopists, electrochemists, electronics and photonics engineers, biochemists, biophysicists, medicinal chemists and clinicians.

2000pp (approx.)	Spring 2010	
978-981-4280-16-7(set)	US\$1850	£1388



THE THIN BONE VAULT

The Origin of Human Intelligence

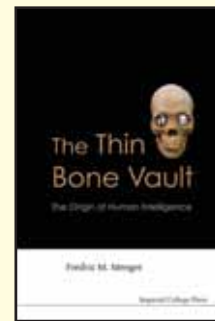
by **Fredric M Menger** (*Emory University, USA*)

Key Features

- A particularly lucid description of the strengths and weaknesses of Darwinian evolution, written in an enjoyable style palatable to anyone interested in biology
- Ample citations of natural phenomena to stimulate general interest in the reader
- A novel discussion of human intelligence that has no counterpart in current books
- An "epigenetic" theory of evolution in the final pages of the book that complements the natural selection concept

Readership: General public; biology and anthropology undergraduates and graduates.

312pp	Feb 2009	
978-1-84816-336-2	US\$58	£44



RNA VIRUSES

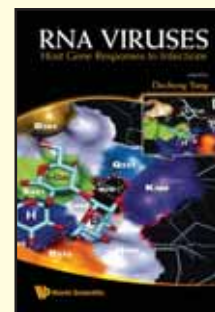
Host Gene Responses to Infections

edited by **Decheng Yang** (*University of British Columbia, Canada*)

Organized into 27 highly accessible and well-illustrated chapters, this volume explores state-of-the-art knowledge of the molecular mechanisms of RNA virus infection and host-virus interactions. This comprehensive compilation of the altered gene expression profiles and signal transduction pathways in host cells in response to the majority of human/animal RNA viruses opens new directions for basic and clinical research on viral pathogenesis, and also provides valuable biomarkers for researchers to select gene targets in the development of diagnostic tests and antiviral therapeutics for a number of infectious diseases.

Readership: Undergraduate and graduate students in microbiology, and academic and industry researchers in virology.

724pp	Jan 2009	
978-981-283-379-2	US\$136	£79



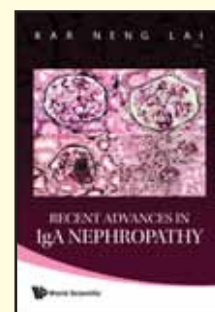
RECENT ADVANCES IN IGA NEPHROPATHY

edited by **Kar Neng Lai** (*University of Hong Kong, China*)

This outstanding volume provides a comprehensive overview of the advances in this disease over the last ten years. It covers the genetics, epidemiology, clinicopathological features, pathogenesis, prognostic mechanisms, and treatment of this unique disease. Twenty-seven chapters are written by 43 experts from 13 countries; these experts have been providing forefront scientific findings to the scientific community for the last 20 years. The book covers all clinical, pathological and molecular aspects of IgA nephropathy.

Readership: Nephrologists, internists, pathologists, and molecular biologists, as well as graduate students or research scientists in the field of kidney diseases.

440pp	Jan 2009	
978-981-283-586-4	US\$136	£110



A SECOND GENESIS

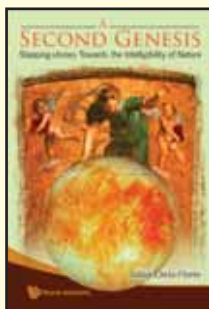
Stepping-Stones Towards the Intelligibility of Nature

by **Julian Chela-Flores** (*The Abdus Salam ICTP, Italy & Instituto de Estudios Avanzados, República Bolivariana de Venezuela*)

A Second Genesis enquires why nature is intelligible. The fast growth of technology and deeper understanding of the humanities have provided significant clues. Answering the question why nature can be understood requires an introduction to the new science of astrobiology and the exploration of the Solar System. A careful discussion of a "second Genesis" is presented, namely our present awareness that life may have emerged on other worlds. Writing this volume has been motivated by the need to encourage a constructive dialogue between science and faith. Such an objective for a new book is timely, since science is inserted with well-defined frontiers in the context of human culture. Similarly, the frontiers of faith do not require religion to justify itself in scientific terms, avoiding current unnecessary controversies.

Readership: General readers interested in the position of humans in nature; scientists; philosophers; theologians.

248pp **Dec 2008**
978-981-283-503-1 **US\$48** **£28**



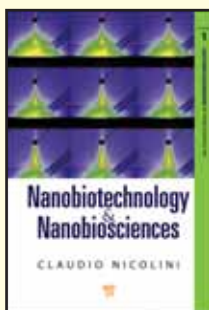
Pan Stanford Series on Nanobiotechnology – Vol. 1
NANOBIOTECHNOLOGY AND NANOBIOSCIENCES
 by **Claudio Nicolini** (*University of Genoa, Italy*)

"This is an impressive compendium of the work of Professor Nicolini and others in the critical area of nanotechnology. Wide ranging in its scope, it addresses the crucial junction between nanotechnology and biology. The label free detection methods covered here will provide powerful new tools for understanding molecular interactions and the nanoscale materials will find far reaching applications in both biology and engineering."

Joshua LaBaer
 Harvard Medical School, USA

Readership: Researchers and students in nanobiotechnology and nanobiosciences fields.

380pp **Nov 2008**
978-981-4241-38-0 **US\$119** **£64**
981-4241-38-5



MOLECULES WITH SILLY OR UNUSUAL NAMES

by **Paul W May** (*University of Bristol, UK*)

"... it would make an excellent present for a chemist, giving hours of enjoyment over the holiday period."

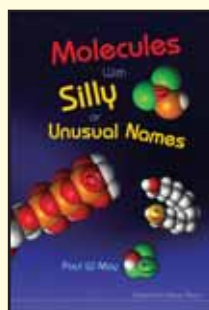
Chemistry World

Key Features

- No competing book
- One does not need to be a scientist to appreciate it
- Lots of informative and humorous photos/images
- Ideal Xmas present or stocking filler-type book, e.g. for parents to buy for their children who are studying science at school/university
- As well as being funny, it is educational too

Readership: General public, science students, academics, medics and industrial scientists.

188pp **Aug 2008**
978-1-84816-207-5(pbk) **US\$32** **£17**



PRAISE OF CHROMOSOME "FOLLY"

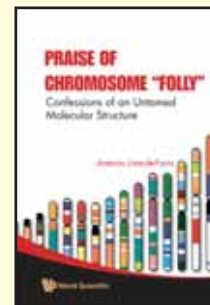
Confessions of an Untamed Molecular Structure

by **Antonio Lima-de-Faria** (*Lund University, Sweden*)

This timely book contains the latest information on the molecular organization of the chromosome. The information is original and is presented in an unorthodox way, while carefully chosen elucidating and attractive figures serve to add clarity to the subject treated. Thus, the book will add greatly to the general debate on the evolution of living organisms, and will be of particular interest to these in the biotechnological industry.

Readership: General educated public, geneticists, evolutionists, molecular biologists and biotech industry specialists.

380pp (approx.) **Aug 2008**
978-981-281-479-1 **US\$83** **£48**
978-981-281-094-6(pbk) **US\$51** **£30**



WHO ARE WE? MICROBES, THE PUPPET MASTERS!

by **Yuan Kun Lee** (*National University of Singapore, Singapore*)

Key Feature

- There is no comparable book of the same kind.
- It could be a reference book for higher-secondary and tertiary education life science teachers, and is a thought-inspiring text for students and any one who is interested to understand the "human"

Readership: Life science students and general public.

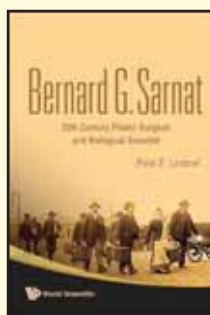
100pp (approx.) **Oct 2008**
978-981-283-560-4(pbk) **US\$23** **£14**



BERNARD G SARNAT**20th Century Plastic Surgeon and Biological Scientist**by **Pete E Lestrel** (University of California, Los Angeles, USA)

"Dr Bernard Sarnat (Bernie) has sparked all his life, bringing a glow of living to everyone he has touched. As a surgeon-scientist grounded in medicine, dentistry, general surgery and plastic surgery, Bernie has been an outstanding faculty teacher in medical schools and dental schools in Chicago, St Louis and Los Angeles.

During his career, Dr Sarnat has been recognized as a caring, skillful and compassionate plastic surgeon. He has been well described as the "Dean of Plastic Surgery" by his Los Angeles colleague, Harvey Zarem, MD, formerly Chairman of the Division of Plastic and Reconstructive Surgery at the UCLA School of Medicine. It has been a privilege for me to share my surgical life with Bernie for over half a century."

**Joseph E Murray, MD, FACS****Nobel Laureate in Physiology or Medicine 1990**

Readership: Researchers in biology of bone and teeth; students in biology, dentistry, medicine; general readers with an interest in science and medicine.

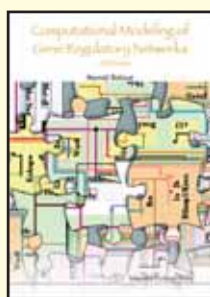
360pp **Aug 2008**
978-981-281-317-6 **US\$61** **£51**

COMPUTATIONAL MODELING OF GENE REGULATORY NETWORKS — A PRIMERby **Hamid Bolouri****Key Features**

- Provides a comprehensive review of a rapidly growing and highly popular subject
- Written by a leading authority on the subject
- Suitable for people without a strong theoretical background, while at the same time including extensive references of key publications and websites in the footnotes for more advanced readers
- Contains about 100 color figures that provide intuitive illustrations of complex concepts

Readership: Undergraduate- and graduate-level experimental biology students and researchers and practicing biologists; computational biology students and researchers; students and researchers in bioengineering, genome sciences, and related disciplines.

340pp **Aug 2008**
978-1-84816-220-4 **US\$64** **£37**
978-1-84816-221-1 (pbk) **US\$42** **£25**



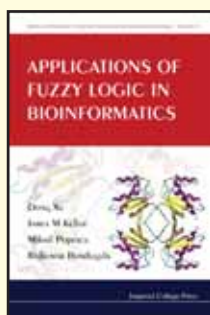
Series on Advances in Bioinformatics and Computational Biology – Vol. 9

APPLICATIONS OF FUZZY LOGIC IN BIOINFORMATICSby **Dong Xu, James M Keller, Mihail Popescu & Rajkumar Bondugula** (University of Missouri-Columbia, USA)**Key Features**

- Bridges two important research areas — computational intelligence and bioinformatics
- Provides appendices on fundamental biological concepts and online resources related to the book
- James Keller, a renowned scientist in computational intelligence, pioneered a number of methods in fuzzy set theory
- Dong Xu, a well-known researcher in bioinformatics, developed several widely-used bioinformatics tools

Readership: Postdoctoral fellows, students, senior investigators and professional practitioners/bioinformatics experts. Also used as a textbook for upper undergraduates and graduates in bioinformatics.

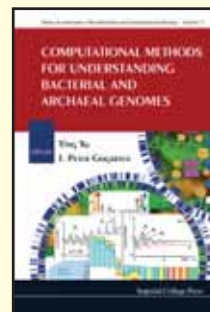
248pp **Aug 2008**
978-1-84816-258-7 **US\$93** **£55**



Series on Advances in Bioinformatics and Computational Biology – Vol. 7

COMPUTATIONAL METHODS FOR UNDERSTANDING BACTERIAL AND ARCHAEL GENOMESedited by **Ying Xu** (University of Georgia, USA) & **J Peter Gogarten** (University of Connecticut, USA)**Key Features**

- Tightly integrates theoretical discussions and computational approaches pertaining to prokaryotic genomes
- Provides, where appropriate, comparative studies of bacterial versus archaeal genomes
- Includes contributions from leading researchers in the field, including Peter Gogarten, Anne Summers, Julio Collado Vides, Eberhard Volt, Ying Xu, and John Wooley

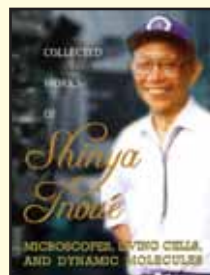


Readership: Graduate students and microbiologists in microbial genomics and bioinformatics.

496pp **Aug 2008**
978-1-86094-982-1 **US\$127** **£75**

COLLECTED WORKS OF SHINYA INOUÉ**Microscopes, Living Cells, and Dynamic Molecules (With DVD-ROM)**edited by **Shinya Inoué** (Marine Biological Laboratory, USA)**Key Features**

- Publications by Shinya Inoué, pioneering cell biophysicist for six decades and winner of the 2003 International Prize for Biology, collected in one volume
- Details the stepwise advances in microscopy alternating with advances in the understanding of living cell behavior
- Includes high quality photo-micrographs, not commonly found in journal articles and book chapters
- Appended DVD documents historic records of cell division and other dynamic cellular events recorded by the author and his associates



Readership: Cell biologists, biophysicists, graduates and advanced undergraduates as well as optics and microscope manufacturers and image processing equipment/software manufacturers.

1016pp **Jul 2008**
978-981-270-388-0 **US\$198** **£107**

STEM CELL REPAIR AND REGENERATION**Volume 3**

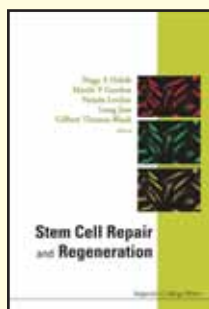
edited by **Nataša Levičar**, **Nagy A Habib**, **Myrtle Y Gordon** & **Ioannis Dimarakis**
(Imperial College London, UK)

Stem cells have generated considerable interest recently in the scientific, clinical, and public arenas. The third book in the *Stem Cell Repair and Regeneration* series offers contributions from numerous areas bridging medicine and the life sciences.

This volume explores novel stem cell therapeutic strategies for myriad diseases, including renal failure, retinal disease and myocardial infarction.

Readership: Life science scientists; biomedical researchers; academics, postgraduate students and advanced undergraduate students in cell biology, biochemistry and genetics; surgeons; clinicians; biotechnology and pharmaceutical industry professionals.

320pp **May 2008**
978-1-86094-980-7 **US\$125** **£71**
1-86094-980-0

**CHARTING NEW PATHWAYS TO C₄ RICE**

edited by **J E Sheehy**, **P L Mitchell** & **B Hardy** (International Rice Research Institute, The Philippines)

Key Features

- Authored and edited by esteemed and well-known expert researchers within the industry
- No other publication to date describes options for engineering a major change in the fundamental biology of the world's most important crop. Because rice feeds half of the world's population, advances in C₄ research will have a great impact on the campaign to end world hunger. It is also a trailblazer for research on other important crops
- Covers a wide range of scientific/technical topics, including various alternatives for achieving C₄ photosynthesis in rice, opportunities for practical application, and social and economic ramifications of the research

Readership: Scientists and researchers in molecular biology, plant physiology, agricultural/crop science; development agencies; international research institutions like the IRRI.

436pp **Apr 2008**
978-981-270-951-6 **US\$104** **£63**

**NUCLEAR RECEPTOR COREGULATORS AND HUMAN DISEASES**

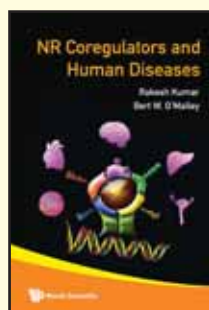
edited by **Rakesh Kumar** (The University of Texas MD Anderson Cancer Centre, USA) & **Bert W O'Malley** (Baylor College of Medicine, USA)

Key Features

- The first book in the area of coregulators covering human diseases
- A timely addition to the literature since coregulator biology is an emerging scientific subfield of molecular biology, and has increasing importance to human pathologies
- Each chapter is prepared by pioneers in the specific research areas
- Edited by major and founding contributors in the field

Readership: Academic, medical students, residents, fellow and biomedical research students.

616pp **Mar 2008**
978-981-270-536-5 **US\$210** **£123**

**STRUCTURE-BASED STUDY OF VIRAL REPLICATION****(with CD-ROM)**

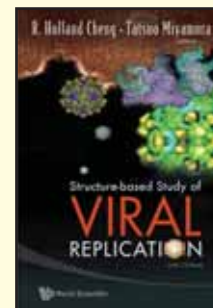
edited by **R Holland Cheng** (University of California, Davis, USA) & **Tatsuo Miyamura** (The National Institute of Infectious Disease, Japan)

Key Features

- The first comprehensive book, written by the leading researchers in the field, that covers the advances in the field of virus architectures in the event of infection cycles in the broader context of bioinformation
- Summarizes the state-of-art knowledge of the relationship between the virus structure and capsid assembly and genome packaging, the long-evolved mechanisms adopted by a diversity of host and diseases
- Also includes discussions of a pre-released database, integrating virus genomics and bioinformatics into one repository of search engine — a truly invaluable reference for researchers
- Includes a CD-ROM with numerous color illustrations in high-resolution format

Readership: Microbiologists, virologists, researchers and academics in cell/molecular biology and structural biology, postgraduates in molecular biology and structural chemistry, educational instructors and industrial researchers.

664pp **Jan 2008**
978-981-270-405-4 **US\$129** **£76**
978-981-270-406-1 (pbk) **US\$87** **£52**

**MAX DELBRÜCK AND COLOGNE****An Early Chapter of German Molecular Biology**

edited by **Simone Wenkel** (University of Cologne, Germany) & **Ute Deichmann** (University of Cologne, Germany & Leo Baeck Institute, UK)

Key Features

- The first book to depict the difficult venture of establishing molecular biology at a German university after WWII
- Provides a valuable source of reference for historians and scientists
- Goes beyond the scope of a mere historical treatise by discussing issues of contemporary science policy
- The renowned contributors include Walter Doerfler, Fritz Melchers, Benno Müller-Hill, Klaus Rajewsky, Peter Starlinger and Hans-Georg Zachau

Readership: Academics and graduate students in biology, genetics, and molecular biology; historians of science; officials of funding agencies and in science policy; journalists.

332pp **Jul 2007**
978-981-270-547-1 **US\$82** **£45**

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CURRENT TOPICS IN BONE BIOLOGY

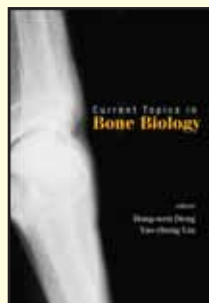
edited by **Hong-wen Deng** (Creighton University, USA, Xi'an Jiaotong University, P R China & Hunan Normal University, P R China), **Yao-zhong Liu** (Creighton University, USA), **Chun-yuan Guo** (P&G Pharmaceuticals, USA) & **Di Chen** (University of Rochester Medical Center, USA & Nankai University Medical College, China)

Key Features

- Book covers both classic topics in bone research and new advances
- Topics covered represent the most active areas of bone research
- Contributions from leading experts such as Dr Harold M Frost, regarded by most as the most influential theoretician in skeletal biology in the last fifty years, and Dr Webster S S Jee

Readership: Scientists and researchers in the bone field; clinicians, especially endocrinologists, orthopedists, gynecologists and pediatricians; medical students; and students majoring in biomedical sciences (undergraduate and graduate).

540pp
978-981-256-209-8 May 2005
US\$133 £77



RNA SILENCING

by **Esra Galun** (The Weizmann Institute of Science, Israel)

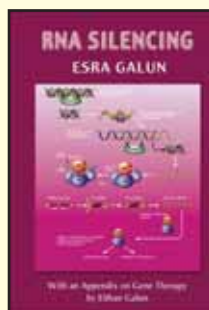
Key Features

- Deals comprehensively with all aspects of gene silencing by short RNA sequences
- Useful for a wide range of readers including undergraduate students, graduates, as well as researchers and teachers of biology
- Written in a readable and informal style

This book focuses on an emerging, central issue in molecular genetics and the development of eukaryotes: the control of gene expression by small species of RNA. As an exciting new field of endeavor, it is the first book by a single author to deal comprehensively with RNA silencing.

Readership: Graduate students in molecular genetics and related fields, scientists engaged in gene regulation, lecturers, researchers, and investigators in the biotech industry.

468pp
978-981-256-206-7 Apr 2005
US\$92 £63



Molecular Aspects of Fish and Marine Biology – Vol. 2

FISH DEVELOPMENT AND GENETICS The Zebrafish and Medaka Models

edited by **Gong Zhiyuan** (National University of Singapore, Singapore) & **Vladimir Korzh** (Institute of Molecular and Cell Biology, Singapore)

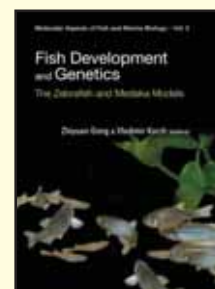
Key Features

- Contributed by active researchers working in the field of developmental biology of the zebrafish and medaka
- Covers essentially all major topics from early development to organogenesis as well as several most important genetic tools
- Represents most updated reviews in selected areas of the rapidly developing field

The zebrafish is the most important fish model in developmental and genetic analyses. This book contains 19 review articles covering a broad spectrum of topics, from development to genetic tools.

Readership: Upper level undergraduates, graduate students, academics and researchers in cell & molecular biology, fish & marine biology and genetics.

688pp
978-981-238-821-6 Nov 2004
US\$190 £121



STRUCTURAL ASPECTS OF PROTEIN SYNTHESIS

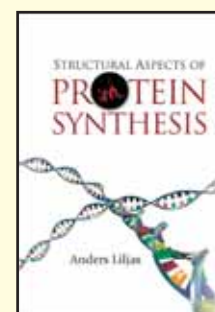
by **Anders Liljas** (Lund University, Sweden)

Key Features

- Summarizes the basic insights into ribosome structure and function
- Highly illustrated with simplified drawings and color plates to present all the major steps of protein synthesis
- Includes an extensive and up-to-date list of references

Readership: Upper level undergraduates and graduate students with an interest in protein synthesis; researchers in cell and molecular biology, biochemistry and biophysics wanting to get an overview of translation.

308pp
978-981-238-863-6 Sep 2004
US\$116 £75
978-981-238-867-4 (pbk) US\$60 £40



Journal of Biological Systems (JBS)

Aims & Scope

The Journal of Biological Systems is published quarterly. The goal of the Journal is to promote interdisciplinary approaches in Biology and in Medicine, and the study of biological situations with a variety of tools, including mathematical and general systems methods.

Abstracting/Indexing

- * Science Citation Index Expanded (also known as SciSearch®)
- * ISI Alerting Services
- * Environment Abstracts
- * CSA Biochemistry Abstracts
- * CSA Microbiology Abstracts
- * CSA Neurosciences Abstracts
- * CSA Pollution Abstracts
- * CSA Aquatic Sciences and Fisheries Abstracts (ASFA)
- * Biological Abstracts
- * BIOSIS Preview
- * Zentralblatt MATH



OTHER RELATED TITLES

THE QUANTAL THEORY OF IMMUNITY

The Molecular Basis of Autoimmunity, Leukemia and Vaccines

by **Kendall A Smith** (Cornell University, USA)

This book explains in detail how the immune system, cells and molecules work for the first time. With this understanding as a basis, the pathogenesis of autoimmunity can now be understood as a mutational usurpation of the genes encoding molecules that participate in a sensitive feedback regulatory control of the immune reaction. By comparison, malignant transformation is understood as a mutational usurpation of the genes encoding the molecules that control the quantal decision to proliferate, so that normal ligand/receptor cell growth control is circumvented. This molecular understanding of the immune system is especially important for the design of successful vaccines, and also explains why vaccines fail.

Readership: Undergraduates, graduate students and academics in medicine (immunology, hematology, HIV/AIDS, oncology and infectious diseases) and life sciences (molecular biology).

200pp (approx.) **Winter 2009**
978-981-4271-75-2 **US\$78** **£59**

MOLECULAR DIAGNOSTICS

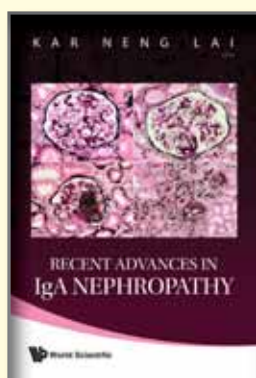
The Key Driver in Personalized Cancer Medicine

edited by **Jan T Jørgensen** (CMC Contrast, Denmark) & **Henrik Winther** (Dako, Denmark)

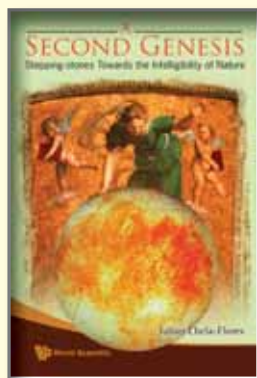
This unique book provides a thorough overview of developing molecular cancer diagnostic assays, which are the prerequisites for optimal solutions within personalized cancer medicine. The book takes the reader through definitions of the pharmacodiagnostic concept, historical perspectives of the early steps into molecular cancer diagnostics linked to therapy, the basis of different diagnostic molecular techniques, ongoing research, drug-diagnostic co-development, assay validation, clinical trial methodology, regulatory issues around pharmacodiagnostics and future aspects within personalized cancer medicine.

Readership: Oncologists, pathologists, academic cancer researchers and scientists and others working in the drug and diagnostic industries.

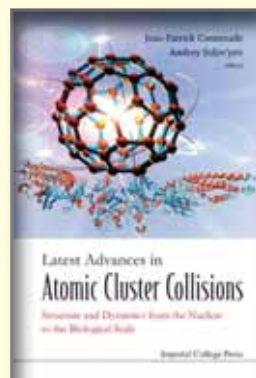
400pp (approx.) **Fall 2009**
978-981-4241-44-1 **US\$159** **£119**



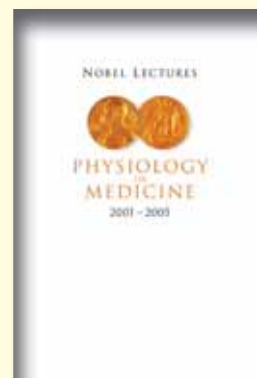
978-981-283-586-4



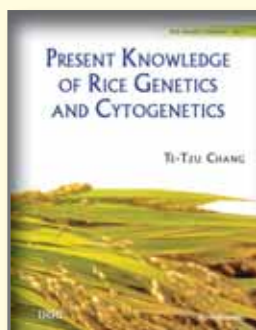
978-981-283-503-1



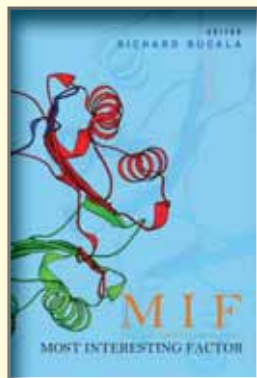
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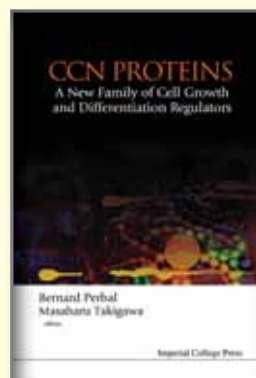
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 978-981-279-442-0 (pbk)



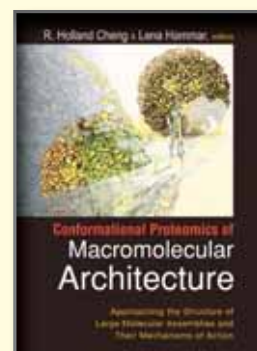
978-981-281-817-3 (pbk)



978-981-270-648-5



978-186-094-552-6



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