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### Stem Cell Now

Whether we realize it or not, we carry in our mouths the legacy of our evolution. Our teeth are like living fossils that can be studied and compared to those of our ancestors to teach us how we became human. In *Evolution's Bite*, noted paleoanthropologist Peter Ungar brings together for the first time cutting-edge advances in understanding human evolution with new approaches to uncovering dietary clues from fossil teeth. The result is a remarkable investigation into the ways that teeth—their shape, chemistry, and wear—reveal how we came to be. Traveling the four corners of the globe and combining scientific breakthroughs with vivid narrative, *Evolution's Bite* presents a unique dental perspective on our astonishing human development.

### How to Grow a Human

This text features lively, clear writing and exceptional illustrations, making it the ideal textbook for a first course in both cell and molecular biology. Thoroughly revised and updated, the Fifth Edition maintains its focus on the latest cell biology research. For the first time ever, *Essential Cell Biology* will come with access to Smartwork5, Norton's innovative online homework platform, creating a more complete learning experience.

### Handbook of Stem Cells

The cell is the basic building block of life. In its 3.5 billion years on the planet, it has proven to be a powerhouse, spreading

life first throughout the seas, then across land, developing the rich and complex diversity of life that populates the planet today. With *The Cell: A Visual Tour of the Building Block of Life*, Jack Challoner treats readers to a visually stunning tour of these remarkable molecular machines. Most of the living things we're familiar with—the plants in our gardens, the animals we eat—are composed of billions or trillions of cells. Most multicellular organisms consist of many different types of cells, each highly specialized to play a particular role—from building bones or producing the pigment in flower petals to fighting disease or sensing environmental cues. But the great majority of living things on our planet exist as single cell. These cellular singletons are every bit as successful and diverse as multicellular organisms, and our very existence relies on them. The book is an authoritative yet accessible account of what goes on inside every living cell—from building proteins and producing energy to making identical copies of themselves—and the importance of these chemical reactions both on the familiar everyday scale and on the global scale. Along the way, Challoner sheds light on many of the most intriguing questions guiding current scientific research: What special properties make stem cells so promising in the treatment of injury and disease? How and when did single-celled organisms first come together to form multicellular ones? And how might scientists soon be prepared to build on the basic principles of cell biology to build similar living cells from scratch.

## **Vanishing Fish**

An enthusiastic, witty, and informative introduction to the world of insects and why we—and the planet we inhabit—could not survive without them. Insects comprise roughly half of the animal kingdom. They live everywhere—deep inside caves, 18,000 feet high in the Himalayas, inside computers, in Yellowstone's hot springs, and in the ears and nostrils of much larger creatures. There are insects that have ears on their knees, eyes on their penises, and tongues under their feet. Most of us think life would be better without bugs. In fact, life would be impossible without them. Most of us know that we would not have honey without honeybees, but without the pinhead-sized chocolate midge, cocoa flowers would not pollinate. No cocoa, no chocolate. The ink that was used to write the Declaration of Independence was derived from galls on oak trees, which are induced by a small wasp. The fruit fly was essential to medical and biological research experiments that resulted in six Nobel prizes. Blowfly larva can clean difficult wounds; flour beetle larva can digest plastic; several species of insects have been essential to the development of antibiotics. Insects turn dead plants and animals into soil. They pollinate flowers, including crops that we depend on. They provide food for other animals, such as birds and bats. They control organisms that are harmful to humans. Life as we know it depends on these small creatures. With ecologist Anne Sverdrup-Thygeson as our capable, entertaining guide into the insect world, we'll learn that there is more variety among insects than we can even imagine and the more you learn about insects, the more fascinating they become. *Buzz, Sting, Bite* is an essential introduction to the little creatures that make the world go round.

## **The Cell**

Few animals elicit such a profound combination of horror, fear, and disgust as the bedbug. Uninvited, bedbugs invade our most private spaces (our beds), take away our blood, and afterwards, impudently mark their territory (our sheets). In this book, Klaus Reinhardt investigates the natural and human history of these vampiric insects, examining how ordinary people, travelers, writers, and scientists have experienced bedbugs; how we have coped with them; and what we have done to combat them. From fossils to classical Greek plays to the beds of medieval travelers, history is a rash of bedbugs. So ubiquitous and so loathed are these contentious creatures, the first recorded use of the insect moniker “bug” refers to them, a word that now means any sort of glitch or invader—from computer errors to snooping devices. Lifting the covers on this pestilential history, Reinhardt shows how bedbugs were not only the center of bitter fights among scientists, but also how the bugs’ dangerous aspects were foregrounded, and how bedbugs’ peculiar mating habits fueled public revulsion. Richly illustrated, full of the latest bedbug research, and sure to make you itch, *Bedbug* closes with a plea for sanguine tolerance—something humans and bedbugs will need alike as worldwide infestation rates soar.

## **Evolution's Bite**

New discoveries in the field of stem cells increasingly dominate the news and scientific literature revealing an avalanche of new knowledge and research tools that are producing therapies for cancer, heart disease, diabetes, and a wide variety of other diseases that afflict humanity. The *Handbook of Stem Cells* integrates this exciting area of life science, combining in two volumes the requisites for a general understanding of adult and embryonic stem cells. Organized in two volumes entitled *Pluripotent Stem Cells and Cell Biology* and *Adult and Fetal Stem Cells*, this work contains contributions from the world’s experts in stem cell research to provide a description of the tools, methods, and experimental protocols needed to study and characterize stem cells and progenitor populations as well as the latest information of what is known about each specific organ system. Provides comprehensive coverage on this highly topical subject. Contains contributions by the foremost authorities and premiere names in the field of stem cell research. Companion website - <http://booksite.elsevier.com/9780123859426/> - contains over 250 color figures in presentation format

## **Buzz, Sting, Bite**

This special volume of the *Journal of Elasticity* represents the first in a new program dedicated to the occasional publication of collections of invited, reviewed papers of topical interest. The purpose of this program is to spotlight the developments and applications in the mechanics of materials within specific areas that can enhance growth and provide insight for the advancement of the field as well as promote fundamental understanding and basic discovery. *Soft Tissue Mechanics* is an area of biomechanics that draws heavily upon fundamental ideas and material models from nonlinear elasticity and viscoelasticity. A major goal of this research is to understand those mechanics properties of heart, artery, collagen and

skeletal muscle tissue that can be used for the diagnosis of health problems and the improvement of human life. This volume illustrates how experiment, modeling and computation is currently employed in this emerging field. May 2001  
ROGER FOSDICK Editor-in-Chief Journal of Elasticity 61: ix-xii, 2000. ix Preface There are two primary areas for the application of elasticity in the biomechanics of tissues: hard tissue mechanics (e.g., bone, teeth, horns, etc.) and soft tissue mechanics (e.g., skin, tendons, arteries, etc.). The distinguishing feature between these tissue types is the amount of physiological “normal” deformation they experience. While “hard” tissues only experience small deformations, soft tissues typically experience large deformations. From a biomechanics viewpoint soft tissues fall within the realm of finite elasticity.

## **The Digital Cell**

### **Lives of a Cell**

Electroreception has become one of the most revealing areas in the study of the neural basis of behavior, and neurobiologists recognize it as a model sensory system for experimental study. Through studies of electroreception, researchers have gained extensive knowledge about a complete sensory system, from molecular biology to computation, communication, and behavior. The book *Electroreception* will examine the behavior, structure, and function of the electrosensory systems of fish and other vertebrates. As a comprehensive volume on the subject, the book will serve as both an introduction to the study of electroreception and a reference and review volume for researchers in related fields.

### **Just Mercy**

#1 NEW YORK TIMES BESTSELLER • NOW A MAJOR MOTION PICTURE STARRING MICHAEL B. JORDAN AND JAMIE FOXX • A powerful true story about the potential for mercy to redeem us, and a clarion call to fix our broken system of justice—from one of the most brilliant and influential lawyers of our time. “[Bryan Stevenson’s] dedication to fighting for justice and equality has inspired me and many others and made a lasting impact on our country.”—John Legend NAMED ONE OF THE MOST INFLUENTIAL BOOKS OF THE DECADE BY CNN • Named One of the Best Books of the Year by The New York Times • The Washington Post • The Boston Globe • The Seattle Times • Esquire • Time Bryan Stevenson was a young lawyer when he founded the Equal Justice Initiative, a legal practice dedicated to defending those most desperate and in need: the poor, the wrongly condemned, and women and children trapped in the farthest reaches of our criminal justice system. One of his first cases was that of Walter McMillian, a young man who was sentenced to die for a notorious murder he insisted he didn’t commit. The case drew Bryan into a tangle of conspiracy, political machination, and legal brinkmanship—and transformed his understanding of mercy and justice forever. *Just Mercy* is at once an unforgettable account of an idealistic, gifted young

lawyer's coming of age, a moving window into the lives of those he has defended, and an inspiring argument for compassion in the pursuit of true justice. Winner of the Carnegie Medal for Excellence in Nonfiction • Winner of the NAACP Image Award for Nonfiction • Winner of a Books for a Better Life Award • Finalist for the Los Angeles Times Book Prize • Finalist for the Kirkus Reviews Prize • An American Library Association Notable Book "Every bit as moving as *To Kill a Mockingbird*, and in some ways more so . . . a searing indictment of American criminal justice and a stirring testament to the salvation that fighting for the vulnerable sometimes yields."—David Cole, *The New York Review of Books* "Searing, moving . . . Bryan Stevenson may, indeed, be America's Mandela."—Nicholas Kristof, *The New York Times* "You don't have to read too long to start cheering for this man. . . . The message of this book . . . is that evil can be overcome, a difference can be made. Just Mercy will make you upset and it will make you hopeful."—Ted Conover, *The New York Times Book Review* "Inspiring . . . a work of style, substance and clarity . . . Stevenson is not only a great lawyer, he's also a gifted writer and storyteller."—*The Washington Post* "As deeply moving, poignant and powerful a book as has been, and maybe ever can be, written about the death penalty."—*The Financial Times* "Brilliant."—*The Philadelphia Inquirer*

## **A Field Guide for Science Writers**

A thoughtful, accessible look at the rapidly growing issue of invasive plants, animals, and microbes around the globe with a focus on the scientific issues and ecological, health, and other challenges. From an award-winning adventure and science journalist comes an eye-opening exploration of a burgeoning environmental phenomenon and the science coalescing around it. Leslie Anthony leads readers on adventures physical and philosophical as he explores how and why invasive species are hijacking ecosystems around the globe. Weaving science, travel, history, and humor with diverse examples to chart and describe the phases of species invasion and human response, Anthony introduces field researchers and managers who seek to understand the biological, social, and economic aspects of this complex issue, and whose work collectively suggests the emergence of a global shadow economy centered on invasives. With tales of pythons in the Everglades, Asian carp and lamprey in the Great Lakes, Japanese knotweed seemingly everywhere, and the invasive organisms we don't see—pathogens and microbes such as the Zika virus—this book rivets attention on a new ecological reality.

## **The Number Sense**

*Environmental Nutrition: Connecting Health and Nutrition with Environmentally Sustainable Diets* explores the connection between diet, environmental sustainability and human health. Current food systems are a major contributor to our most pressing health and environmental issues, including climate change, water scarcity, food insecurity and chronic diseases. This book not only seeks to increase our understanding of the interrelatedness of these major global issues, but also aids in the creation of new solutions. Sections discuss the diet, the health and environment trilemma, food systems and their

trends, environmental nutrition as an all-encompassing discipline, and the environmental nutrition model. Demonstrates how the food system, the environment and human health are inter-related Explores how dietary patterns impact food production and agriculture choices Identifies the imbalance between current food production relative to demand Addresses how the current food system negatively impacts the environment Provides practical solutions to how diets can be both healthy and sustainable

## **Zebra Stripes**

The Cell Cycle: Principles of Control provides an engaging insight into the process of cell division, bringing to the student a much-needed synthesis of a subject entering a period of unprecedented growth as an understanding of the molecular mechanisms underlying cell division are revealed.

## **Psychology and Climate Change**

"Our understanding of how the human brain performs mathematical calculations is far from complete. In *The Number Sense*, Stanislas Dehaene offers readers an enlightening exploration of the mathematical mind. Using research showing that human infants have a rudimentary number sense, Dehaene suggests that this sense is as basic as our perception of color, and that it is wired into the brain. But how then did we leap from this basic number ability to trigonometry, calculus, and beyond? Dehaene shows that it was the invention of symbolic systems of numerals that started us on the climb to higher mathematics. Tracing the history of numbers, we learn that in early times, people indicated numbers by pointing to part of their bodies, and how Roman numerals were replaced by modern numbers. On the way, we also discover many fascinating facts: for example, because Chinese names for numbers are short, Chinese people can remember up to nine or ten digits at a time, while English-speaking people can only remember seven. A fascinating look at the crossroads where numbers and neurons intersect, *The Number Sense* offers an intriguing tour of how the structure of the brain shapes our mathematical abilities, and how math can open up a window on the human mind"--Provided by publisher.

## **Cardiovascular Soft Tissue Mechanics**

This volume is a self-contained companion piece to *Studying Vibrational Communication*, published in 2014 within the same series. The field has expanded considerably since then, and has even acquired a name of its own: biotremology. In this context, the book reports on new concepts in this fascinating discipline, and features chapters on state-of-the-art methods for studying behavior tied to substrate-borne vibrations, as well as an entire section on applied biotremology. Also included are a historical contribution by pioneers in the field and several chapters reviewing the advances that have been made

regarding specific animal taxa. Other new topics covered are vibrational communication in vertebrates, multimodal communication, and biotremology in the classroom, as well as in art and music. Given its scope, the book will appeal to all those interested in communication and vibrational behavior, but also to those seeking to learn about an ancient mode of communication.

## **Electroreception**

The opportunity that tissue engineering provides for medicine is extraordinary. In the United States alone, over half-a-trillion dollars are spent each year to care for patients who suffer from tissue loss or dysfunction. Although numerous books and reviews have been written on tissue engineering, none has been as comprehensive in its defining of the field. Principles of Tissue Engineering combines in one volume the prerequisites for a general understanding of tissue growth and development, the tools and theoretical information needed to design tissues and organs, as well as a presentation of applications of tissue engineering to diseases affecting specific organ systems. The first edition of the book, published in 1997, is the definite reference in the field. Since that time, however, the discipline has grown tremendously, and few experts would have been able to predict the explosion in our knowledge of gene expression, cell growth and differentiation, the variety of stem cells, new polymers and materials that are now available, or even the successful introduction of the first tissue-engineered products into the marketplace. There was a need for a new edition, and this need has been met with a product that defines and captures the sense of excitement, understanding and anticipation that has followed from the evolution of this fascinating and important field. Key Features \* Provides vast, detailed analysis of research on all of the major systems of the human body, e.g., skin, muscle, cardiovascular, hematopoietic, and nerves \* Essential to anyone working in the field \* Educates and directs both the novice and advanced researcher \* Provides vast, detailed analysis of research with all of the major systems of the human body, e.g. skin, muscle, cardiovascular, hematopoietic, and nerves \* Has new chapters written by leaders in the latest areas of research, such as fetal tissue engineering and the universal cell \* Considered the definitive reference in the field \* List of contributors reads like a "who's who" of tissue engineering, and includes Robert Langer, Joseph Vacanti, Charles Vacanti, Robert Nerem, A. Hari Reddi, Gail Naughton, George Whitesides, Doug Lauffenburger, and Eugene Bell, among others

## **T. S. Eliot, Anti-Semitism, and Literary Form**

An award-winning book that challenges the current wisdom of how cells work in a visionary, provocative, and accessible way reads like a detective story. This highly praised book emphasises the role of cell water and the gel-like nature of the cell, building on these features to explore the mechanisms of communication, transport, contraction, division, and other essential cell functions. Lucidly written for the non-expert, the book is profound enough for biologists, chemists, physicists

and engineers to devour.

## **Space, Time and Memory in the Hippocampal Formation**

A leading neuroscientist offers a history of the evolution of the brain from unicellular organisms to the complexity of animals and human beings today. Renowned neuroscientist Joseph LeDoux digs into the natural history of life on earth to provide a new perspective on the similarities between us and our ancestors in deep time. This page-turning survey of the whole of terrestrial evolution sheds new light on how nervous systems evolved in animals, how the brain developed, and what it means to be human. In *The Deep History of Ourselves*, LeDoux argues that the key to understanding human behavior lies in viewing evolution through the prism of the first living organisms. By tracking the chain of the evolutionary timeline he shows how even the earliest single-cell organisms had to solve the same problems we and our cells have to solve each day. Along the way, LeDoux explores our place in nature, how the evolution of nervous systems enhanced the ability of organisms to survive and thrive, and how the emergence of what we humans understand as consciousness made our greatest and most horrendous achievements as a species possible.

## **Principles of Tissue Engineering**

## **Current Protocols in Cell Biology**

*Stem Cell Epigenetics, Volume 16*, examines how epigenetics are involved in stem cell differentiation, how a stem cell rapidly transitions into a molecularly distinct cell type, and how this process may be reversed or managed via epigenetic reprogramming. Topics discussed include chromatin in pluripotency, epigenetic regulation of reprogramming, stem cells and DNA methylation, histone modifications in stem cells and differentiation, higher-order chromatin conformation in pluripotent cells, epigenetics and disease modeling, organoids from pluripotent cells, transcriptional regulation in stem cells and differentiation, non-coding RNAs in pluripotency and early differentiation, and diseases caused by epigenetic alterations in stem cells. Additionally, the potential implementation of stem cell epigenetics in drug discovery, regenerative medicine, and disease treatment is discussed in detail, helping researchers and physicians bring this exciting and fast evolving field to the clinic. Provides genetic researchers, students and physicians with evidence indicating the epigenetic mechanisms involved in stem cell differentiation. Highlights the specific characteristics of the epigenetic modifications and misregulations that may result in disease pathogenesis. Examines the potential application of stem cell epigenetics towards developing therapeutic interventions for disease and advancing regenerative medicine. Features chapter contributions by leading international experts.

## **The Neuroscience of Emotion**

In this fascinating book, New Yorker business columnist James Surowiecki explores a deceptively simple idea: Large groups of people are smarter than an elite few, no matter how brilliant—better at solving problems, fostering innovation, coming to wise decisions, even predicting the future. With boundless erudition and in delightfully clear prose, Surowiecki ranges across fields as diverse as popular culture, psychology, ant biology, behavioral economics, artificial intelligence, military history, and politics to show how this simple idea offers important lessons for how we live our lives, select our leaders, run our companies, and think about our world.

## **Bedbug**

In this New York Times bestseller and longlist nominee for the National Book Award, “our greatest living chronicler of the natural world” (The New York Times), David Quammen explains how recent discoveries in molecular biology affect our understanding of evolution and life’s history. In the mid-1970s, scientists began using DNA sequences to reexamine the history of all life. Perhaps the most startling discovery to come out of this new field—the study of life’s diversity and relatedness at the molecular level—is horizontal gene transfer (HGT), or the movement of genes across species lines. It turns out that HGT has been widespread and important; we now know that roughly eight percent of the human genome arrived sideways by viral infection—a type of HGT. In *The Tangled Tree*, “the grandest tale in biology....David Quammen presents the science—and the scientists involved—with patience, candor, and flair” (Nature). We learn about the major players, such as Carl Woese, the most important little-known biologist of the twentieth century; Lynn Margulis, the notorious maverick whose wild ideas about “mosaic” creatures proved to be true; and Tsutomu Wantanabe, who discovered that the scourge of antibiotic-resistant bacteria is a direct result of horizontal gene transfer, bringing the deep study of genome histories to bear on a global crisis in public health. “David Quammen proves to be an immensely well-informed guide to a complex story” (The Wall Street Journal). In *The Tangled Tree*, he explains how molecular studies of evolution have brought startling recognitions about the tangled tree of life—including where we humans fit upon it. Thanks to new technologies, we now have the ability to alter even our genetic composition—through sideways insertions, as nature has long been doing. “*The Tangled Tree* is a source of wonder....Quammen has written a deep and daring intellectual adventure” (The Boston Globe).

## **Essentials of Stem Cell Biology**

This is the book that the leftist elites don't want you to read -- Donald Trump, Jr., exposes all the tricks that the left uses to smear conservatives and push them out of the public square, from online "shadow banning" to rampant "political

correctness." In *Triggered*, Donald Trump, Jr. will expose all the tricks that the left uses to smear conservatives and push them out of the public square, from online "shadow banning" to fake accusations of "hate speech." No topic is spared from political correctness. This is the book that the leftist elites don't want you to read! Trump, Jr. will write about the importance of fighting back and standing up for what you believe in. From his childhood summers in Communist Czechoslovakia that began his political thought process, to working on construction sites with his father, to the major achievements of President Trump's administration, Donald Trump, Jr. spares no details and delivers a book that focuses on success and perseverance, and proves offense is the best defense.

## **The Cell Cycle**

The true story of a bond that developed between author Lisa Tensin-Dolma, and Charlie – a traumatised, one-eyed, Romanian dog who lived the first 18 months of his life in the wild, never socialising with humans. Charting Charlie's progress and setbacks, it explains how Lisa worked with Charlie to help him overcome his extreme fearfulness.

## **Triggered**

THE STEM CELL IS SET TO DOMINATE POPULAR AWARENESS OF SCIENCE LIKE THE ATOM BOMB DID A GENERATION AGO. No area of science holds such immediate promise for treating disease and improving human lives as stem cell research. But no area of science also causes such fundamental ethical concern and such ferocious political conflict.

## **Molecular Cell Biology**

This guide offers practical tips on science writing - from investigative reporting to pitching ideas to magazine editors. Some of the best known science writers in the US share their hard earned knowledge on how they do their job.

## **Environmental Nutrition**

Two summers ago, scientists removed a tiny piece of flesh from Philip Ball's arm and turned it into a rudimentary "mini-brain." The skin cells, removed from his body, did not die but were instead transformed into nerve cells that independently arranged themselves into a dense network and communicated with each other, exchanging the raw signals of thought. This was life—but whose? In his most mind-bending book yet, Ball makes that disconcerting question the focus of a tour through what scientists can now do in cell biology and tissue culture. He shows how these technologies could lead to tailor-made replacement organs for when ours fail, to new medical advances for repairing damage and assisting conception, and to new

ways of “growing a human.” For example, it might prove possible to turn skin cells not into neurons but into eggs and sperm, or even to turn oneself into the constituent cells of embryos. Such methods would also create new options for gene editing, with all the attendant moral dilemmas. Ball argues that such advances can therefore never be about “just the science,” because they come already surrounded by a host of social narratives, preconceptions, and prejudices. But beyond even that, these developments raise questions about identity and self, birth and death, and force us to ask how mutable the human body really is—and what forms it might take in years to come.

## **Charlie**

First developed as an accessible abridgement of the successful Handbook of Stem Cells, Essentials of Stem Cell Biology serves the needs of the evolving population of scientists, researchers, practitioners and students that are embracing the latest advances in stem cells. Representing the combined effort of seven editors and more than 200 scholars and scientists whose pioneering work has defined our understanding of stem cells, this book combines the prerequisites for a general understanding of adult and embryonic stem cells with a presentation by the world's experts of the latest research information about specific organ systems. From basic biology/mechanisms, early development, ectoderm, mesoderm, endoderm, methods to application of stem cells to specific human diseases, regulation and ethics, and patient perspectives, no topic in the field of stem cells is left uncovered. Selected for inclusion in Doody's Core Titles 2013, an essential collection development tool for health sciences libraries Contributions by Nobel Laureates and leading international investigators Includes two entirely new chapters devoted exclusively to induced pluripotent stem (iPS) cells written by the scientists who made the breakthrough Edited by a world-renowned author and researcher to present a complete story of stem cells in research, in application, and as the subject of political debate Presented in full color with glossary, highlighted terms, and bibliographic entries replacing references

## **How We Remember**

Psychology and Climate Change: Human Perceptions, Impacts, and Responses organizes and summarizes recent psychological research that relates to the issue of climate change. The book covers topics such as how people perceive and respond to climate change, how people understand and communicate about the issue, how it impacts individuals and communities, particularly vulnerable communities, and how individuals and communities can best prepare for and mitigate negative climate change impacts. It addresses the topic at multiple scales, from individuals to close social networks and communities. Further, it considers the role of social diversity in shaping vulnerability and reactions to climate change. Psychology and Climate Change describes the implications of psychological processes such as perceptions and motivations (e.g., risk perception, motivated cognition, denial), emotional responses, group identities, mental health and well-being,

sense of place, and behavior (mitigation and adaptation). The book strives to engage diverse stakeholders, from multiple disciplines in addition to psychology, and at every level of decision making - individual, community, national, and international, to understand the ways in which human capabilities and tendencies can and should shape policy and action to address the urgent and very real issue of climate change. Examines the role of knowledge, norms, experience, and social context in climate change awareness and action Considers the role of identity threat, identity-based motivation, and belonging Presents a conceptual framework for classifying individual and household behavior Develops a model to explain environmentally sustainable behavior Draws on what we know about participation in collective action Describes ways to improve the effectiveness of climate change communication efforts Discusses the difference between acute climate change events and slowly-emerging changes on our mental health Addresses psychological stress and injury related to global climate change from an intersectional justice perspective Promotes individual and community resilience

## **Stem Cell Epigenetics**

Reprint of the ed. published by Viking Press, New York.

## **Molecular Biology of the Cell**

"Cell biology is becoming an increasingly quantitative field, as technical advances mean researchers now routinely capture vast amounts of data. This handbook is an essential guide to the computational approaches, image processing and analysis techniques, and basic programming skills that are now part of the skill set of anyone working in the field"--

## **The Deep History of Ourselves**

"Daniel Pauly is a friend whose work has inspired me for years." —Ted Danson, actor, ocean activist, and co-author of Oceana "This wonderfully personal and accessible book by the world's greatest living fisheries biologist summarizes and expands on the causes of collapse and the essential actions that will be required to rebuild fish stocks for future generations." —Dr. Jeremy Jackson, ocean scientist and author of Breakpoint The world's fisheries are in crisis. Their catches are declining, and the stocks of key species, such as cod and bluefin tuna, are but a small fraction of their previous abundance, while others have been overfished almost to extinction. The oceans are depleted and the commercial fishing industry increasingly depends on subsidies to remain afloat. In these essays, award-winning biologist Dr. Daniel Pauly offers a thought-provoking look at the state of today's global fisheries—and a radical way to turn it around. Starting with the rapid expansion that followed World War II, he traces the arc of the fishing industry's ensuing demise, offering insights into how and why it has failed. With clear, convincing prose, Dr. Pauly draws on decades of research to provide an up-to-date

assessment of ocean health and an analysis of the issues that have contributed to the current crisis, including globalization, massive underreporting of catch, and the phenomenon of “shifting baselines,” in which, over time, important knowledge is lost about the state of the natural world. Finally, *Vanishing Fish* provides practical recommendations for a way forward—a vision of a vibrant future where small-scale fisheries can supply the majority of the world’s fish. Published in Partnership with the David Suzuki Institute

## **Encyclopedia of Supramolecular Chemistry**

A new framework for the neuroscientific study of emotions in humans and animals *The Neuroscience of Emotion* presents a new framework for the neuroscientific study of emotion across species. Written by Ralph Adolphs and David J. Anderson, two leading authorities on the study of emotion, this accessible and original book recasts the discipline and demonstrates that in order to understand emotion, we need to examine its biological roots in humans and animals. Only through a comparative approach that encompasses work at the molecular, cellular, systems, and cognitive levels will we be able to comprehend what emotions do, how they evolved, how the brain shapes their development, and even how we might engineer them into robots in the future. Showing that emotions are ubiquitous across species and implemented in specific brain circuits, Adolphs and Anderson offer a broad foundation for thinking about emotions as evolved, functionally defined biological states. The authors discuss the techniques and findings from modern neuroscientific investigations of emotion and conclude with a survey of theories and future research directions. Featuring color illustrations throughout, *The Neuroscience of Emotion* synthesizes the latest in neuroscientific work to provide deeper insights into how emotions function in all of us.

## **The Wisdom of Crowds**

The discovery of new cell types, such as grid and time cells, in the hippocampus has been accompanied by major anatomical and theoretical insights in the recent years. This book provides comprehensive, up-to-date information about the hippocampal formation and especially the neural basis of episodic memory, spatial location (the formation of the cognitive map) and temporal representation. The first part of the book describes the information flow from pre-hippocampal areas into the hippocampus, the second part discusses the different types of hippocampal processing and finally, the third part depicts the influence that the hippocampal processing has on other brain structures that are perhaps more closely tied to explicit cognitive or behavioral output. This book is intended for neuroscientists, especially for those who are involved in research on the hippocampus, as well as for behavioral scientists and neurologists.

## **Cells, Gels and the Engines of Life**

During evolution there have been several major changes in the way genetic information is organized and transmitted from one generation to the next. These transitions include the origin of life itself, the first eukaryotic cells, reproduction by sexual means, the appearance of multicellular plants and animals, the emergence of cooperation and of animal societies. This is the first book to discuss all these major transitions and their implications for our understanding of evolution. Clearly written and illustrated with many original diagrams, this book will be welcomed by students and researchers in the fields of evolutionary biology, ecology, and genetics.

## **The Aliens Among Us**

Covers the fundamentals of supramolecular chemistry; supramolecular advancements and methods in the areas of chemistry, biochemistry, biology, environmental and materials science and engineering, physics, computer science, and applied mathematics.

## **The Major Transitions in Evolution**

Why do zebras have stripes? Popular explanations range from camouflage to confusion of predators, social facilitation, and even temperature regulation. It is a challenge to test these proposals on large animals living in the wild, but using a combination of careful observations, simple field experiments, comparative information, and logic, Caro concludes that black-and-white stripes are an adaptation to thwart biting fly attack.

## **Essential Cell Biology**

Episodic memory proves essential for daily function, allowing us to remember where we parked the car, what time we walked the dog, or what a friend said earlier. In *How We Remember*, Michael Hasselmo draws on recent developments in neuroscience to present a new model describing the brain mechanisms for encoding and remembering such events as spatiotemporal trajectories. He reviews physiological breakthroughs on the regions implicated in episodic memory, including the discovery of grid cells, the cellular mechanisms of persistent spiking and resonant frequency, and the topographic coding of space and time. These discoveries inspire a theory for understanding the encoding and retrieval of episodic memory not just as discrete snapshots but as a dynamic replay of spatiotemporal trajectories, allowing us to "retrace our steps" to recover a memory. In the main text of the book, he presents the model in narrative form, accessible to scholars and advanced undergraduates in many fields. In the appendix, he presents the material in a more quantitative style, providing mathematical descriptions appropriate for advanced undergraduates and graduate students in neuroscience or engineering.

## **The Tangled Tree**

Julius's critically acclaimed study (looking both at the detail of Eliot's deployment of anti-Semitic discourse and at the role it played in his greater literary undertaking) has provoked a reassessment of Eliot's work among poets, scholars, critics and readers, which will invigorate debate for some time to come.

## **Biotremology: Studying Vibrational Behavior**

With its acclaimed author team, cutting-edge content, emphasis on medical relevance, and coverage based on landmark experiments, "Molecular Cell Biology" has justly earned an impeccable reputation as an authoritative and exciting text. The new Sixth Edition features two new coauthors, expanded coverage of immunology and development, and new media tools for students and instructors.

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