Stem Cells An Insiders Guide

Stem Cells *Stem Cells: An Insider's Guide* The Stem Cell Hope **Cell Phones Cancer Stem Cells Sex, Science, and Stem Cells Welcome to the Microbiome** *Essentials of Stem Cell Biology* **One Renegade Cell Stem Cells An Insider's Perspective of Prostate Cancer** *Howtobuildadragonordietrying:asatiricallookatcutting-edgescience* **Mobilized How to Get a Specialty Training Post** The Science and Technology of Growing Young **An Insider's Plague Year** Nano Comes to Life *Dr. STEM CELL* **Lifespan Cell Phones** *Cellular Agriculture* **The Vital Question** *Better Health for You: An Insider's Big Picture Guide* The Cell An Insider's Guide to the Medical Specialties Essbase for Mere Mortals: An Insider's Guide *Biomedical Research: An Insider's Guide Red Roulette* Insiders versus Outsiders How Chinese Learn Mathematics **The Telomerase Revolution** The Harsh Realities of Alzheimer's Care: An Insider's View of How People with Dementia are Treated in Institutions **The Lives of a Cell The Heterogeneity of Cancer Metabolism Getting in** *Regenesis Why We Sleep* **The Disordered Cosmos** YouTube **The Frontlines of Peace**

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Mobilized Dec 15 2021 A Silicon Valley veteran outlines what is required for a company to succeed in the mobile era. Mobile has now become such an integral part of how we live that, for many people, losing a cell phone is like losing a limb. Everybody knows mobile is the future, and every business wants in, but what are the elements of mobile success? SC Moatti, a Silicon Valley veteran who was an executive with Facebook, Trulia, and Nokia, gives businesses and professionals simple ways to thrive in this modern day "gold rush." More than a book on technology, this is a book about human nature and what matters most to us. Moatti shows that because mobile products have become extensions of ourselves, we expect from them what we wish for ourselves: an attractive body, a meaningful life, and a growing repertoire of skills. She has created an all-encompassing formula that makes it easy for any business to develop a strategy for creating winning mobile products. Her Body Rule dictates that mobile products must appeal to our sense of beauty—but beauty in a mobile world is both similar to and different from what it means offline. The Spirit Rule says mobile products must help us address our deepest personal needs. And the Mind Rule explains that businesses that want to succeed in mobile need to continually analyze the user experience so they can improve every iteration of their products. Moatti includes case studies from mobile pioneers such as Facebook, Uber, Tinder, WhatsApp, and more. The market is full of how-to books for programming apps, but no works examine what is required for success in the mobile era. Until now. "Moatti gets what makes people fall in love with mobile. And now you get in on her formula. Business is too important to be left to luck. Ignore this book at your peril." —Jonathan Badeen, cofounder and senior vice president of Product, Tinder "This book is rare. It looks at mobile with an insider's knowledge and deep caring about human beings." —Chris Anderson, CEO, 3D Robotics, and New York Times bestselling author of The Long Tail "Moatti brings together art, science, real-world case studies, and practical advice to help your teams make sense of and succeed with mobile." —Kira Wampler, CMO, Lyft

Welcome to the Microbiome Jun 21 2022 Inspired by an exhibition at the American Museum of Natural History in New York, explores microbes and their implications for modern science and medicine.

How Chinese Learn Mathematics Jun 28 2020 The book has been written by an international group of very activeresearchers and scholars who have a passion for the study of Chinesemathematics education. It aims to provide readers with a comprehensiveand updated picture of the teaching and learning of mathematicsinvolving Chinese students from various perspectives, including theways in which Chinese students learn mathematics in classrooms, schools and homes, the influence of the cultural and socialenvironment on Chinese students" mathematics learning, and thestrengths and weaknesses of the ways in which Chinese learnmathematics

The Heterogeneity of Cancer Metabolism Feb 23 2020 This open access volume will introduce recent discoveries in cancer metabolism since the publication of the first edition in 2018, providing readers with an up-to-date understanding of developments in the field. Genetic alterations in cancer, in addition to being the fundamental drivers of tumorigenesis, can give rise to a variety of metabolic adaptations that allow cancer cells to survive and proliferate in diverse tumor microenvironments. This metabolic flexibility is different from normal cellular metabolic processes and leads to heterogeneity in cancer metabolism within the same cancer type or even within the same tumor. In this book, the authors delve into the complexity and diversity of cancer metabolism and highlight how understanding the heterogeneity of cancer metabolism is fundamental to the development of effective metabolism-based therapeutic strategies for cancer treatment. Deciphering how cancer cells utilize various nutrient resources will enable clinicians and researchers to pair specific chemotherapeutic agents with patients who are most likely to respond with positive outcomes, allowing for more cost-effective and personalized cancer treatment. This book has four major parts. Part one will cover the basic metabolism of cancer cells, followed by a discussion of the heterogeneity of cancer metabolism in part two. Part three addresses the relationship between cancer cells and cancer-associated fibroblasts, and the new part four will explore the metabolic interplay between cancer and other diseases. This new section makes the book unique from other texts currently available on the market. The second edition will be useful for cancer metabolism researchers, cancer biologists, epidemiologists, physicians, health care professionals in related disciplines, policymakers, marketing and economic strategists, among others. It may also be used in courses such as intro to cancer metabolism, cancer biology, and related biochemistry courses for undergraduate and graduate students.

Why We Sleep Nov 21 2019 "Sleep is one of the most important but least understood aspects of our life, wellness, and longevity ... An explosion of scientific discoveries in the last twenty years has shed new light on this fundamental aspect of our lives. Now ... neuroscientist and sleep expert Matthew Walker gives us a new understanding of the vital importance of sleep and dreaming"--Amazon.com.

YouTube Sep 19 2019 Explains how to view, upload, and share videos with friends and the Internet community using the YouTube website.

Cell Phones Sep 24 2022 Essential reading for the 100 million Americans currently using wireless phones, this thoroughly researched and documented cautionary work stands alongside of such classics as Silent Spring and The Coming Plague. With news reports proliferating of the possible connection between brain tumors and cell phone use, Dr. George Carlo was hired by the cell phone industry in 1993 to study the safety of its product. In 1999 funds for Dr. Carlo's research were not renewed, and the industry sought to discredit him. Undeterred, Carlo now brings his case to the public with a powerful assessment of the dangers posed by the microwave radiation from cell phone antennas—disruption of the functioning of pacemakers, penetration of the developing skulls of children, compromise to the blood-brain barrier, and, most startlingly, genetic damage that is a known diagnostic marker for cancer—as well as a presentation of safeguards that consumers can implement right now to protect their health. "….the authors raise serious questions about the integrity of the cell phone industry and the FDA."—San Francisco Chronicle "Extraordinarily informative...[a] captivating story…."—Publishers Weekly

The Frontlines of Peace Aug 19 2019 At turns surprising, funny, and gut-wrenching, this is the hopeful story of the ordinary yet extraordinary people who have figured out how to build lasting peace in their communities The word "peacebuilding" evokes a story we've all heard over and over: violence breaks out, foreign nations are scandalized, peacekeepers and million-dollar donors come rushing in, warring parties sign a peace agreement and, sadly, within months the situation is back to where it started--sometimes worse. But what strategies have worked to build lasting peace in conflict zones, particularly for ordinary citizens on the ground? And why should other ordinary citizens, thousands of miles away, care? In The Frontlines of Peace, Severine Autesserre, award-winning researcher and peacebuilder, examines the well-intentioned but inherently flawed peace industry. With examples drawn from across the globe, she reveals that peace can grow in the most unlikely circumstances. Contrary to what most politicians preach, building peace doesn't require billions in aid or massive international

interventions. Real, lasting peace requires giving power to local citizens. The Frontlines of Peace tells the stories of the ordinary yet extraordinary individuals and organizations that are confronting violence in their communities effectively. One thing is clear: successful examples of peacebuilding around the world, in countries at war or at peace, have involved innovative grassroots initiatives led by local people, at times supported by foreigners, often employing methods shunned by the international elite. By narrating success stories of this kind, Autesserre shows the radical changes we must take in our approach if we hope to build lasting peace around us--whether we live in Congo, the United States, or elsewhere.

Cell Phones May 08 2021 Questions the health effects of cell phone technology and whether the manufacturers of cell phones have conducted enough safety testing of their products.

Regenesis Dec 23 2019 “Bold and provocative… Regenesis tells of recent advances that may soon yield endless supplies of renewable energy, increased longevity and the return of long-extinct species.”—New Scientist In Regenesis, Harvard biologist George Church and science writer Ed Regis explore the possibilities—and perils—of the emerging field of synthetic biology. Synthetic biology, in which living organisms are selectively altered by modifying substantial portions of their genomes, allows for the creation of entirely new species of organisms. These technologies—far from the out-of-control nightmare depicted in science fiction—have the power to improve human and animal health, increase our intelligence, enhance our memory, and even extend our life span. A breathtaking look at the potential of this world-changing technology, Regenesis is nothing less than a guide to the future of life.

Cellular Agriculture Apr 07 2021 Cellular agriculture, also called lab-grown food, promises to provide alternative food options to current agriculture practices. Cellular agriculture is food grown in laboratories and bioreactors rather than on fields, relying on the cultivation of cells under controlled conditions, with minimal use of natural resources and lower greenhouse gas emission costs than in traditional practices. It gives us the prospect of consuming the same foods such as dairy ice cream or a burger. And it can further broaden the variety of textures, flavors, nutrition, and health-promoting aspects that food can deliver. Cellular Agriculture: Lab-Grown Foods gives an overview of the broad range of approaches to cellular agriculture, the current state of scale and regulations, and the results it brings about in terms of environmental footprint and consumer attitudes. Cellular Agriculture: Lab-Grown Foods was organized by Solar Foods, a food-tech company that develops a cell-based food protein produced from CO2 and electricity. A fruitful collaboration with VTT Technical Research Center of Finland Ltd allowed conceptualizing and streamlining of the written and visual content in the book.

An Insider's Perspective of Prostate Cancer Feb 17 2022 An Insider’s Perspective of Prostate Cancer: Understanding Effects, Management Options and Consequences provides scientifically based information on the management and treatment of prostate cancer. The text is designed to be neither prescriptive nor proscriptive, providing succinct, yet comprehensive details in ‘bite size chunks’ for ready assimilation and application. Sections cover recent approaches the prostate cancer landscape has made by providing background statistical and anatomical information that is followed by relevant genetic, immunological and background data. The book then proceeds to explain the mechanisms involved with cancer development and the spread and metastases that can occur in a minority of those diagnosed. In addition to acknowledging the importance of psychological effects of diagnosis and management interventions, the undervalued benefits of exercise are also emphasized, including information on holistic management. This comprehensive approach makes this a perfect reference for up-to-date information on all aspects of prostate cancer and its management. Provides succinct, yet comprehensive coverage on the management and treatment of prostate cancer and subsequent consequences for patients Reviews how prostate cancers change and how treatments can adapt Delivers guidance on how to assess information with ranking in terms of levels of evidence, thus enabling the evaluation of critical reports and claims made in relation to prostate cancer and other conditions

Better Health for You: An Insider's Big Picture Guide Feb 05 2021 A balanced overview, written by a health professional with forty-years-experience, ending with his community pharmacy winning a prestigious Customer Choice Award three years in a row. Find out why the author promotes a holistic (big picture) approach after a fantastic holistic medical doctor solved his problem when his orthodox doctor had no answers and the need to spread the word on better ways to look after your most valuable asset - your health. Denis believes there is a need for a greater focus on real cures and prevention of disease over just treating symptoms with medicines. The wide range of topics includes: Why it can be difficult to lose weight. How to ensure you are getting reliable health information. Ways to reduce your chances of dying early. Understanding what a healthy lifestyle means, including how to get the best from your food, health professionals and the treatment they provide. Act now - Do not wait until it is too late.

Essbase for Mere Mortals: An Insider's Guide Nov 02 2020

An Insider's Guide to the Medical Specialties Dec 03 2020 As medicine becomes more specialized, doctors working in general medicine and general practice can quickly lose touch with advances occurring in other fields. Never having heard of an investigation, or carrying dated misconceptions as to a prognosis can be frustrating at best, and dangerous at worst. The aim of this book is to strike a balance between refreshing old knowledge and updating the reader on significant advances that have occurred in a particular specialty, with this in mind each chapter is written by a trainee and a specialist in the relevant area. The content will be of interest to consultants and trainees in the medical specialties, general practitioners, and medical students. At times entertaining, irreverant and controversial, this is not a book to be left nestling in the pocket of a white coat or gathering dust on a shelf.

Nano Comes to Life Aug 11 2021 "Increasingly, scientists are gaining control over matter at the nanometer scale. Spearheaded by physical scientists operating at the interfaces of physics and biology (such as the author herself), advances in nanoscience and technology are transforming how we think about life and treat human health. This is due to a convergence of size. To do medicine, one must understand and be able to reach the nanoscale environment of healthy cells in tissues and organs, as well as other nano-sized building blocks that constitute a living organism, such as proteins and DNA. The ground-breaking advances being made at the frontiers of nanoscience and -technology, specifically in the areas of biology and medicine, are the subject of this short, popular-level book. Chapter 1 describes how nanotechnology and quantitative methods in biology are progressively being deployed to embrace life in all its multiscale, hierarchical intricacy and multiplicity. Chapters 2 through 4 review how bioinspired and biomimetic nanostructures and nanomachines are being created and integrated into strategies aimed at solving specific medical problems. In particular, Chapter 2 summarizes how scientists are seeking to build artificial nanostructures using both biological molecules and the organizational principles of biology. Chapter 3 gives an account of how nanotechnology is being used to develop drug-delivery strategies that specifically target cancer cells and tumors to improve the efficacy of current cancer chemotherapies. Chapter 4 reviews the science of one of the most potentially transformative scientific fields: tissue engineering. In a concluding chapter (Chapter 5), Contera reviews how nanotechnology, biology, and medicine will continue fusing with other sciences and technologies - incorporating more mathematical and computational modelling, as well as AI and robotics. Nanoscale devices will be used to learn biology; and biology will be used to inspire increasingly sophisticated "transmaterial" devices that mimic some of the characteristics of biology and incorporate new features that are not available in the biological world. The effects on human health and longevity will be profound. In a more personal epilogue, Contera describes the crossroads at which we find ourselves. Accessing our own biology evokes a mixture of possibility and dread. However, Contera maintains that we can create a positive transmaterial world for the benefit of humankind, and she describes ways in which scientists are proactively engaging with the public, politicians, industry, and entrepreneurs, as well as the media and the arts, to communicate the power and risks of new advances and to influence the ways in which new technologies will affect our future"--

Stem Cells Mar 18 2022 The main objective of this book is to present a thorough update on stem cell research and the potential therapeutic applications of stem cells. The text is structured following a path that starts from the molecular basics and the biological properties of pluripotent, embryonic or reprogrammed stem cells, and it compares the different degrees of stemness, while describing the adult stem populations residing in the various tissues and organs of the human body. Starting from basic research, the book discusses examples of regenerative medicine that translate the experimental findings into clinical applications of cell therapy. Finally, the book reviews how stem cells represent a model to understand not only the physiological mechanisms that control their fate, but also the pathological mechanisms involved in the aberrant biology of cancer stem cells. Each chapter has been conceived by distinguished researchers in the field who provide detailed and updated contributions that distill knowledge in a very readable text.

An Insider's Plague Year Sep 12 2021

Stem Cells Dec 27 2022 This exciting new book takes readers inside the world of stem cells guided by the author, Dr. Paul Knoepfler, who is an international expert in stem cells. Stem cells are catalyzing a revolution in medicine and may transform how we age. The author's goal is to give readers an insider's guide into the world of stem cells. The book answers the most common questions that people have about stem cells and stem cell treatments. What are stem cells? Why are some types controversial? Can stem cells help my family with a serious medical problem such as Alzheimer's or Autism? Are such treatments safe? Can stem cells make me stay young? These questions and many more equally important ones are answered in this book in a manner that the reader can enjoy

and understand. Stem Cells: An Insider's Guide also takes readers inside a stem cell lab with an exciting virtual tour. In addition, it provides a description of a day in the life of a prototypic stem cell to give readers an inside look at how they function and the key factors that influence them. In these ways, the author brings readers fully up to speed on the cutting-edge rapidly moving field of stem cells. The book is unique as it is written in an approachable, often humorous way that a general, educated audience can understand and appreciate. A number of issues related to stem cells that spark controversies are also discussed. The book also tackles the exciting, but fast moving areas of stem cell treatments including sports medicine, anti-aging and cosmetics that are capturing the public's imagination. Are these treatments ready for prime time? The book cuts through the hype and answers that essential question. It is also your guide to where the stem cell field will be in the near future and how it could change your life and our world.

One Renegade Cell Apr 19 2022 How cancers begin and spread, by the scientist responsible for the major recent research breakthroughs Cancer research has reached a major turning point. The amount of information gathered in the past twenty years about the origins of the disease is without equal in the history of biomedical research. In this book one of America's most eminent scientists explains to the general reader the step-by-step process by which cancers arise, and more importantly, how they spread. Robert Weinberg explains how normal genes control the conventional growth of the cell, how, in their mutated form, they enable cancers to arise, and why these genes have such life-and-death power over us. Drawing from information that simply was not available until recently, One Renegade Cell explains this insidious disease as no other book as ever been able to do.

Howtobuildadragonordietrying:asatiricallookatcutting-edgescience Jan 16 2022 What if you could have your own real dragon? While that might seem like just a fantasy, today cutting-edge science has brought us to the point where it might really be possible. This book looks into the possibilities of making living, fire-breathing dragons. The world has been fascinated with dragons for thousands of years. Fictional dragons still have a firm place in pop culture, such as Smaug from The Hobbit as well as the dragons in Game of Thrones and in the How to Train Your Dragon movies. This new book discusses using powerful technologies such as CRISPR gene editing, stem cells, and bioengineering to make real dragons. It also goes through what useful information we can learn from animals such as Pteranodons and amazing present-day creatures in our quest to build actual dragons. The book goes on to discuss the possibility of building other mythical creatures such as unicorns and mermaids. Overall, How to Build A Dragon is also meant as a satirical look at cutting-edge science, and it pokes fun at science hype. Anyone who is interested in dragons or cutting-edge science will enjoy this book! It is written in a humorous, approachable way making science fun and easy to understand, including for young adults.The author is well-known scientist Paul Knoepfler who is familiar to the public for his science, his blog The Niche, and his frequent contributions to lay stories on new science concepts such as stem cells and CRISPR. He also is known for his TED talk on designer babies with more than 1.3 million views, and his two books — . The co-author, his daughter Julie Knoepfler, is a high school student interested in science and writing. She has her own blog on literary and film analysis, and enjoys taking a humorous look at culture through writing.

Biomedical Research: An Insider’s Guide Oct 01 2020 This comprehensive yet concise book introduces people at all levels of training—undergraduate, graduate, and medical students, residents, fellows, and junior faculty—to the basic joys and challenges of biomedical research. By discussing many key research issues, would-be and early-stage academics will not only be better informed about the world of biomedical research, but will learn a basic set of instructions to help jumpstart their careers. Biomedical Research: An Insider’s Guide is divided into five sections. The first focuses on decision points regarding whether or not to enter research and if so what type: basic, clinical, or translational. The second section focuses on the practicalities of pursuing medical research, including institutional review boards and animal care committees as well general suggestions regarding idea generation and collaboration. The third section covers a core aspect of research: writing—detailing the evolution of both grants and papers. The fourth section addresses a range of issues, including conferencing to patents to working with industry to obtaining philanthropic support. The final section deals with all-important broader life issues from job choices to being a mentor to thoughts on how to keep the big picture front and center. An invaluable resource that offers insightful, practical advice, Biomedical Research: An Insider’s Guide reveals how biomedical research can be both challenging and truly rewarding.

Stem Cells: An Insider's Guide Nov 26 2022 Stem Cells: An Insider's Guide is an exciting new book that takes readers inside the world of stem cells guided by international stem cell expert, Dr. Paul Knoepfler. Stem cells are catalyzing a revolution in medicine. The book also tackles the exciting and hotly debated area of stem cell treatments that are capturing the public's imagination. In the future they may also transform how we age and reproduce. However, there are serious risks and ethical challenges, too. The author's goal with this insider's guide is to give readers the information needed to distinguish between the ubiquitous hype and legitimate hope found throughout the stem cell world. The book answers the most common questions that people have about stem cells. Can stem cells help my family with a serious medical problem such as Alzheimer's, Multiple Sclerosis, or Autism? Are such treatments safe? Can stem cells make me look younger or even literally stay physically young? These questions and many more are answered here.A number of ethical issues related to stem cells that spark debates are discussed, including risky treatments, cloning and embryonic stem cells. The author breaks new ground in a number of ways such as by suggesting reforms to the FDA, providing a new theory of aging based on stem cells, and including a revolutionary Stem Cell Patient Bill of Rights. More generally, the book is your guide to where the stem cell field will be in the near future as well as a thoughtful perspective on how stem cell therapies will ultimately change your life and our world.

Sex, Science, and Stem Cells Jul 22 2022

Dr. STEM CELL Jul 10 2021 The Cellular Regeneration Method is a groundbreaking combination of regenerative treatments to ELIMINATE knee, hip, shoulder, and spine pain NATURALLY in 30 days or less, without dangerous surgery or addictive medications. The Cellular Regeneration Method produces truly amazing results with patients who have been suffering for years with chronic pain in their joints and/or spine and living with limitations and who have not achieved lasting results by any other means. In this book, you will discover the 3 phases of healing using treatment from ethically derived stem cells. You will also find testimonials from real people and their real-life transformations from suffering to a life with restored happiness, joy, energy, and pain-free mobility.

Getting in Jan 24 2020 Whether you're premed, pregrad, preprofessional, undecided, or headed for the job market after graduation, undergrad research can help you define your career path and prepare for it. But research opportunities are highly competitive so where do you start and how do you find the perfect position? Getting In brings together the essential information you need with a no-nonsense approach that will save you time and frustration. Co-written by academic insiders, Getting is like having two mentors coach you through your search and keep you organized as you decide on which research positions to pursue, contact potential mentors, nail interviews, and ultimately choose a research experience.Getting In gives you the guidance you need including: * Creative search strategies * Mistakes to avoid during the search, application, and interview * How to approach a professor after lecture or during office hours * Email templates that get you noticed * Time-management strategies to maintain your academic/life balance * Tips to determine if you should accept or decline a research position * How to use your research experience to build habits for success in the lab, in college, and in lifeAdditional tips, tricks, and strategies for getting the most out your STEM undergrad research experience can be found at UndergradInTheLab.com at facebook.com/undergradinthelab and on Twitter at @youinthelab.D.G. Oppenheimer, Ph.D., is an associate professor of molecular and cellular biology at the University of Florida. P.H. Grey, B.A., is a molecular biology research scientist who started her research career as an undergraduate laboratory assistant. Together, they have over 46 years experience training, mentoring, and writing recommendation letters for undergrad researchers. They understand the challenges that students face when searching for a research experience and how to successfully navigate around them.

The Telomerase Revolution May 28 2020 Science is on the cusp of a revolutionary breakthrough. We now understand more about ageing - and how to prevent and reverse it - than ever before. In The Telomerase Revolution, Dr Michael Fossel, who has been at the cutting edge of ageing research for decades, describes how telomerase will soon be used as a powerful therapeutic tool, with the potential to intervene in age-related disease, dramatically extend life spans and even reverse human ageing. Telomerase-based treatments are already on offer, and have shown early promise, but much more potent treatments will become available over the next decade. This is the definitive work on the latest science of human ageing, covering both the theory and the clinical implications, taking readers to the forefront of one of the most remarkable advances in human medicine.

The Lives of a Cell Mar 26 2020 A physician and cancer researcher shares his personal observations on the uniformity, diversity, interdependence, and strange powers of the earth's life forms

Lifespan Jun 09 2021 A NEW YORK TIMES BESTSELLER “Brilliant and enthralling.”? —The Wall Street Journal A paradigm-shifting book from an acclaimed Harvard Medical School scientist and one of Time’s most influential people. It’s a seemingly undeniable truth that aging is inevitable. But what if everything we’ve been taught to believe about aging is wrong? What if we could choose our lifespan? In this groundbreaking book, Dr. David Sinclair, leading world authority on genetics and longevity, reveals a bold new theory for why we age. As he writes: “Aging is a disease, and that disease is treatable.” This eye-

opening and provocative work takes us to the frontlines of research that is pushing the boundaries on our perceived scientific limitations, revealing incredible breakthroughs—many from Dr. David Sinclair's own lab at Harvard—that demonstrate how we can slow down, or even reverse, aging. The key is activating newly discovered vitality genes, the descendants of an ancient genetic survival circuit that is both the cause of aging and the key to reversing it. Recent experiments in genetic reprogramming suggest that in the near future we may not just be able to feel younger, but actually become younger. Through a page-turning narrative, Dr. Sinclair invites you into the process of scientific discovery and reveals the emerging technologies and simple lifestyle changes—such as intermittent fasting, cold exposure, exercising with the right intensity, and eating less meat—that have been shown to help us live younger and healthier for longer. At once a roadmap for taking charge of our own health destiny and a bold new vision for the future of humankind, Lifespan will forever change the way we think about why we age and what we can do about it.

The Science and Technology of Growing Young Oct 13 2021 Wall Street Journal, USA Today, and Publishers Weekly bestseller The prospect of living to 200 years old isn't science fiction anymore. A leader in the emerging field of longevity offers his perspective on what cutting-edge breakthroughs are on the horizon, as well as the practical steps we can take now to live healthily to 100 and beyond. In The Science and Technology of Growing Young, industry investor and insider Sergey Young demystifies the longevity landscape, cutting through the hype and showing readers what they can do now to live better for longer, and offering a look into the exciting possibilities that await us. By viewing aging as a condition that can be cured, we can dramatically revolutionize the field of longevity and make it accessible for everyone. Join Sergey as he gathers insights from world-leading health entrepreneurs, scientists, doctors, and inventors, providing a comprehensive look into the future of longevity in two horizons: • The Near Horizon of Longevity identifies the technological developments that will allow us to live to 150—some of which are already in use—from AI-based diagnostics to gene editing and organ regeneration. • The Far Horizon of Longevity offers a tour of the future of age reversal, and the exciting technologies that will allow us to live healthily to 200, from Internet of Bodies to digital avatars to AI-brain integration. In a bonus chapter, Sergey also showcases 10 longevity choices that we already know and can easily implement to live to 100, distilling the science behind diet, exercise, sleep, mental health, and our environments into attainable habits and lifestyle hacks that anyone can adopt to vastly improve their lives and workplaces. Combining practical advice with an incredible overview of the brave new world to come, The Science and Technology of Growing Young redefines what it means to be human and to grow young.

Cancer Stem Cells Aug 23 2022 Because the concept and discoveries of cancer stem cells are relatively new, scientists and researchers need an introduction to this dynamic area. Cancer Stem Cells presents a consolidated account of the research done to date and recent progresses in the studies of cancer stem cells. Such a presentation facilitates a better understanding of and draws attention to stem cell and cancer biology - two fields that enhance, move, and evolve into each other continuously. It provides an informative study in designing approaches to apply stem cell principles to cancer biology while offering an overview of the challenges in developing combination stem and cancer biology targets for therapeutics. This book serves as a primer for new researchers in the field of cancer biology.

How to Get a Specialty Training Post Nov 14 2021 Each year, thousands of junior doctors apply for highly competitive training jobs in a variety of specialties. Obtaining a training job can be a difficult and stressful process, with some specialties attracting 40 applicants per post. This book helps doctors to improve their chances of getting that highly sought-after post. It is a wide-ranging, accessible guide to the application process, covering every step, from online application to the selection panel. It includes essential tips on career development, interview technique, and specialty-specific advice.

The Disordered Cosmos Oct 21 2019 From a star theoretical physicist, a journey into the world of particle physics and the cosmos—and a call for a more liberatory practice of science. Winner of the 2021 Los Angeles Times Book Prize in Science & Technology A Finalist for the 2022 PEN/E.O. Wilson Literary Science Writing Award A Smithsonian Magazine Best Science Book of 2021 A Symmetry Magazine Top 10 Physics Book of 2021 An Entropy Magazine Best Nonfiction Book of 2020-2021 A Publishers Weekly Best Nonfiction Book of the Year A Kirkus Reviews Best Nonfiction Book of 2021 A Booklist Top 10 Sci-Tech Book of the Year In The Disordered Cosmos, Dr. Chanda Prescod-Weinstein shares her love for physics, from the Standard Model of Particle Physics and what lies beyond it, to the physics of melanin in skin, to the latest theories of dark matter—along with a perspective informed by history, politics, and the wisdom of Star Trek. One of the leading physicists of her generation, Dr. Chanda Prescod-Weinstein is also one of fewer than one hundred Black American women to earn a PhD from a department of physics. Her vision of the cosmos is vibrant, buoyantly nontraditional, and grounded in Black and queer feminist lineages. Dr. Prescod-Weinstein urges us to recognize how science, like most fields, is rife with racism, misogyny, and other forms of oppression. She lays out a bold new approach to science and society, beginning with the belief that we all have a fundamental right to know and love the night sky. The Disordered Cosmos dreams into existence a world that allows everyone to experience and understand the wonders of the universe.

The Harsh Realities of Alzheimer's Care: An Insider's View of How People with Dementia are Treated in Institutions Apr 26 2020 A prominent geriatric psychiatrist details the good, the bad, and the ugly aspects of places where those with dementia are treated—from emergency rooms and psychiatric hospitals to assisted living facilities and nursing homes. • Vignettes and experiences from author's practice illustrate strategies that will improve quality of life for caregivers and their loved ones

Essentials of Stem Cell Biology May 20 2022 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

Red Roulette Aug 31 2020 "THE BOOK CHINA DOESN'T WANT YOU TO READ." —CNN? SELECTED AS A BEST BOOK OF THE YEAR by THE ECONOMIST and FINANCIAL TIMES This "powerful and disturbing" (Bill Browder, author of Red Notice) New York Times bestseller is narrated by a man who, with his wife, Whitney Duan, rose to the top levels of power and wealth—and then fell out of favor. Whitney had been disappeared four years before, but this book led to her dramatic reemergence. As Desmond Shum was growing up impoverished in China, he vowed his life would be different. Through hard work and sheer tenacity he earned an American college degree and returned to his native country to establish himself in business. There, he met his future wife, the highly intelligent and equally ambitious Whitney Duan who was determined to make her mark within China's male-dominated society. Whitney and Desmond formed an effective team and, aided by relationships they formed with top members of China's Communist Party, the so-called red aristocracy, he vaulted into China's billionaire class. Soon they were developing the massive air cargo facility at Beijing International Airport, and they followed that feat with the creation of one of Beijing's premier hotels. They were dazzlingly successful, traveling in private jets, funding multi-million-dollar buildings and endowments, and purchasing expensive homes, vehicles, and art. But in 2017, their fates diverged irrevocably when Desmond, while residing overseas with his son, learned that his now ex-wife Whitney had vanished along with three coworkers. This vivid, explosive memoir shows "how the Chinese government keeps business in line—and what happens when businesspeople overstep" (The New York Times) and is a "singular, highly readable insider account of the most secretive of global powers" (The Spectator).

The Vital Question Mar 06 2021 Why is life the way it is? Bacteria evolved into complex life just once in four billion years of life on earth-and all complex life shares many strange properties, from sex to ageing and death. If life evolved on other planets, would it be the same or completely different? In The Vital Question, Nick Lane radically reframes evolutionary history, putting forward a cogent solution to conundrums that have troubled scientists for decades. The answer, he argues, lies in energy: how all life on Earth lives off a voltage with the strength of a bolt of lightning. In unravelling these scientific enigmas, making sense of life's quirks, Lane's explanation provides a solution to life's vital questions: why are we as we are, and why are we here at all? This is ground-breaking science in an accessible form, in the tradition of Charles Darwin's The Origin of Species, Richard Dawkins' The Selfish Gene, and Jared Diamond's Guns, Germs and Steel.

The Stem Cell Hope Oct 25 2022 A landmark book by the senior science writer at Time magazine introduces us to a medical breakthrough that can save our

lives. Few people know much about stem cell research beyond the ethical questions raised by using embryos. But in the last decade, stem cell research has made huge advances toward eliminating some of our most intractable diseases. Now this sweeping and accessible book introduces us to this cutting-edge science that will revolutionize medicine and change the way we think about and treat disease. Alice Park takes us from stem cell's controversial beginnings to the recent electrifying promise of being able to create the versatile cells without using embryos at all. She shows us how stem cells give researchers an unprecedented ability to study disease while giving patients the promise of replacing diseased cells with healthy new ones. And she profiles the scientists and leaders-many with their own compelling stories-who have fueled the quest and will continue to shape the field in years to come.

The Cell Jan 04 2021 Your body has trillions of cells, and each one has the complexity and dynamism of a city. Your life, your thoughts, your diseases, and your health are all the function of cells. But what do you really know about what goes on inside you? The last time most people thought about cells in any detail was probably in high school or a college general biology class. But the field of cell biology has advanced incredibly rapidly in recent decades, and a great deal of what we may have learned in high school and college is no longer accurate or particularly relevant. The Cell: Inside the Microscopic World that Determines Our Health, Our Consciousness, and Our Future is a fascinating story of the incredible complexity and dynamism inside the cell and of the fantastic advancements in our understanding of this microscopic world. Dr. Joshua Z. Rappoport is at the forefront of this field, and he will take you on a journey to discover: A deeper understanding of how cells work and the basic nature of life on earth. Fascinating histories of some of the key discoveries from the seventeenth century to the last decade and provocative thoughts on the current state of academic research. The knowledge required to better understand the new developments that are announced almost weekly in science and health care, such as cancer, cellular therapies, and the potential promise of stem cells. The ability to make better decisions about health and to debunk the misinformation that comes in daily via media. Using the latest scientific research, The Cell illustrates the diversity of cell biology and what it all means for your everyday life.

Insiders versus Outsiders Jul 30 2020 What explains differences in the lobbying behaviour of interest groups? And what consequences do these differences have for the access that interest groups can gain to decision-makers and the influence that they can exert on policy outcomes? Building on an unprecedented amount of empirical evidence on lobbying in Europe, this book puts forward a distinction between lobbying insiders and lobbying outsiders. Lobbying insiders, most prominently business interests, try to establish direct contacts with decision-makers, enjoy good access to executive institutions, and manage to shape policy outcomes when mobilizing the public on an issue is difficult. Lobbying outsiders, in particular citizen groups such as consumer, environmental or health non-governmental organizations, put greater emphasis on mobilizing the public or changing public attitudes, find it easier to gain access to legislative decision-makers, and have the greatest impact on outcomes on issues that are amenable to an outside lobbying campaign. The book shows that a single argument, building on group type as the main variable, can explain variation across interest groups in their choice of strategy, their access to decision-makers, and the conditions under which they can exert influence. The existence of lobbying insiders and lobbying outsiders has important implications for both our understanding of political decision-making and the normative appraisal of contemporary democracy.