Inheritance How Our Genes Change Our Lives And Our Lives Change Our Genes

With the advent of CRISPR gene-editing technology, designer babies have become a reality. Françoise Baylis insists that scientists alone cannot decide the terms of this new era in human evolution. Members of the public, with diverse interests and perspectives, must have a role in determining our future as a species.

"The ideas in his book will help you see the world in a new way." -Bill Clinton "Mark Penn has a keen mind and a fascinating sense of what makes America tick, and you see it on every page of Microtrends." -Bill Gates In 1982, readers discovered Megatrends. In 2000, The Tipping Point entered the lexicon. Now, in Microtrends, one of the most respected and sought-after analysts in the world articulates a new way of understanding how we live. Mark Penn, the man who identified "Soccer Moms" as a crucial constituency in President Clinton's 1996 reelection campaign, is known for his ability to detect relatively small patterns of behavior in our culture-microtrends that are wielding great influence on business, politics, and our personal lives. Only one percent of the public, or three million people, is enough to launch a business or social movement. Relying on some of the best data available, Penn identifies more than 70 microtrends in religion, leisure, politics, and family life that are changing the way we live. Among them: People are retiring but continuing to work. Teens are turning to knitting. Geeks are becoming the most sociable people around. Women are driving technology. Dads are older than ever and spending more time with their kids than in the past. You have to look at and interpret data to know what's going on, and that conventional wisdom is almost always wrong and outdated. The nation is no longer a melting pot. We are a collection of communities with many individual tastes and lifestyles. Those who recognize these emerging groups will prosper. Penn shows readers how to identify the microtrends that can transform a business enterprise, tip an election, spark a movement, or change your life. In today's world, small groups can have the biggest impact.

Epigenetics can potentially revolutionize our understanding of the structure and behavior of biological life on Earth. It explains why mapping an organism's genetic code is not enough to determine how it develops or acts and shows how nurture combines with nature to engineer biological diversity. Surveying the twenty-year history of the field while also highlighting its latest findings and innovations, this volume provides a readily understandable introduction to the foundations of epigenetics. Nessa Carey, a leading epigenetics researcher, connects the field's arguments to such diverse phenomena as how ants and queen bees control their colonies; why tortoiseshell cats are always female; why some plants need cold weather before they can flower; and how our bodies age and develop disease. Reaching beyond biology, epigenetics now informs work on drug addiction, the long-term effects of famine, and the physical and psychological consequences of childhood trauma. Carey concludes with a discussion of the future directions for this research and its ability to improve human health and well-being.

Much in the news, inherited disease and genetic testing are complex and confusing issues that leave most asking: "So, what can I do with this promising information?" A powerfully helpful and authoritative guide, Your Genetic Destiny has the answers. From what tests to have taken, what the results mean, and when further genetic counseling is in order; from what foods to avoid to which medications to take and what other medical options are available, world-renowned geneticist Aubrey Milunsky demonstrates how knowledge of our genetic makeup can save our lives. Covering heart disease, hypertension, cancer, diabetes, mental illness, Alzheimer's disease, obesity, longevity, and infertility, Your Genetic Destiny is the most comprehensive, compassionate, and informed guide available for all concerned about the risks of inherited disease.

Epigenetic Mechanisms of Gene Regulation

Altered Inheritance

On the Genetic Superiority of Women

Why We Look, Smell, Taste, Feel, and Act the Way We Do

A Family on the Front Lines of the Battle Against Alzheimer's Disease

Take Control of Your Genetic Inheritance

From the best-selling author of Survival of the Sickest comes this presentation of strange and fascinating discoveries about the human mating game, from the structure and function of human sex organs to the peculiar biology of sexual attraction, in an account that also examines contraception, pregnancy, sexuality, and sterility. 100,000 first printing. Original.

The #1 NEW YORK TIMES Bestseller The basis for the PBS Ken Burns Documentary The Gene: An Intimate History Now includes an excerpt from Siddhartha Mukherjee's new book Song of the Cell! From the Pulitzer Prize–winning author of The Emperor of All Maladies—a fascinating history of the gene and "a magisterial account of how human minds have laboriously, ingeniously picked apart what makes us tick" (Elle). "Sid Mukherjee has the uncanny ability to bring together science, history, and the future in a way that is understandable and riveting, guiding us through both time and the mystery of life itself." —Ken Burns "Dr. Siddhartha Mukherjee dazzled readers with his Pulitzer Prize–winning The Emperor of All Maladies in 2010. That achievement was evidently just a warm-up for his virtuoso performance in The Gene: An Intimate History, in which he braids science, history, and memoir into an epic with all the range and biblical thunder of Paradise Lost" (The New York Times). In this biography Mukherjee brings to life the quest to understand human heredity and its surprising influence on our lives, personalities, identities, fates, and choices. "Mukherjee expresses abstract intellectual ideas through emotional stories…[and] swaddles his medical rigor with rhapsodic tenderness, surprising vulnerability, and occasional flashes of pure poetry" (The Washington Post). Throughout, the story of Mukherjee's own family—with its tragic and bewildering history of mental illness—reminds us of the questions that hang over our ability to translate the science of genetics from the laboratory to the real world. In riveting and dramatic prose, he describes the centuries of research and experimentation—from Aristotle and Pythagoras to Mendel and Darwin, from Boveri and Morgan to Crick, Watson and Franklin, all the way through the revolutionary twenty-first century innovators who mapped the human genome. "A fascinating and often sobering history of how humans came to understand the roles of genes in making us who we are—and what our manipulation of those genes might mean for our future" (Milwaukee Journal-Sentinel), The Gene is the revelatory and magisterial history of a scientific idea coming to life, the most crucial science of our time, intimately explained by a master. "The Gene is a book we all should read" (USA TODAY).

2019 PEN/E.O. Wilson Literary Science Writing Award Finalist "Science book of the year"—The Guardian One of New York Times 100 Notable Books for 2018 One of Publishers Weekly's Top Ten Books of 2018 One of Kirkus's Best Books of 2018 One of Mental Floss's Best Books of 2018 One of Science Friday's Best Science Books of 2018 "Extraordinary"—New York Times Book Review "Magisterial"—The Atlantic "Engrossing"—Wired "Leading contender as the most outstanding nonfiction work of the year"—Minneapolis Star-Tribune Celebrated New York Times columnist and science writer Carl Zimmer presents a profoundly original perspective on what we pass along from generation to generation. Charles Darwin played a crucial part in turning heredity into a scientific question, and yet he failed spectacularly to answer it. The birth of genetics in the early 1900s seemed to do precisely that. Gradually, people translated their old notions about heredity into a language of genes. As the technology for studying genes became cheaper, millions of people ordered genetic tests to link themselves to missing parents, to distant ancestors, to ethnic identities... But, Zimmer writes, "Each of us carries an amalgam of fragments of DNA, stitched together from some of our many ancestors. Each piece has its own ancestry, traveling a different path back through human history. A particular fragment may sometimes be cause for worry, but most of our DNA influences who we are—our appearance, our height, our penchants—in inconceivably subtle ways." Heredity isn't just about genes that pass from parent to child. Heredity continues within our own bodies, as a single cell gives rise to trillions of cells that make up our bodies. We say we inherit genes from our ancestors—using a word that once referred to kingdoms and estates—but we inherit other things that matter as much or more to our lives, from microbes to technologies we use to make life more comfortable. We need a new definition of what heredity is and, through Carl Zimmer's lucid exposition and storytelling, this resounding tour de force delivers it. Weaving historical and current scientific research, his own experience with his two daughters, and the kind of original reporting expected of one of the world's best science journalists, Zimmer ultimately unpacks urgent bioethical quandaries arising from new biomedical technologies, but also long-standing presumptions about who we really are and what we can pass on to future generations.

This book examines the toxicological and health implications of environmental epigenetics and provides knowledge through an interdisciplinary approach. Included in this volume are chapters outlining various environmental risk factors such as phthalates and dietary components, life states such as pregnancy and ageing, hormonal and metabolic considerations and specific disease risks such as cancer cardiovascular diseases and other non-communicable diseases. Environmental Epigenetics imparts integrative knowledge of the science of epigenetics and the issues raised in environmental epidemiology. This book is intended to serve both as a reference compendium on environmental epigenetics for scientists in academia, industry and laboratories and as a textbook for graduate level environmental health courses. Environmental Epigenetics imparts integrative knowledge of the science of epigenetics and the issues raised in environmental epidemiology. This book is intended to serve both as a reference compendium on environmental epigenetics for scientists in academia, industry and laboratories and as a textbook for graduate level environmental health courses.

A New Understanding of Inheritance and Evolution

Change Your Genes, Change Your Life

Know Your Genes, Secure Your Health, Save Your Life

Evolution and Genetics

The Better Half

How Environment Shapes Our Genes

Dirty Russian

Heritable human genome editing - making changes to the genetic material of eggs, sperm, or any cells that lead to their development, including the cells of early embryos, and establishing a pregnancy - raises not only scientific and medical considerations but also a host of ethical, moral, and societal issues. Human embryos whose genomes have been edited should not be used to create a pregnancy until it is established that precise genomic changes can be made reliably and without introducing undesired changes - criteria that have not yet been met, says Heritable Human Genome Editing. From an international commission of the U.S. National Academy of Medicine, U.S. National Academy of Sciences, and the U.K.'s Royal Society, the report considers potential benefits, harms, and uncertainties associated with genome editing technologies and defines a translational pathway from rigorous preclinical research to initial clinical uses, should a country decide to permit such uses. The report specifies stringent preclinical and clinical requirements for establishing safety and efficacy, and for undertaking long-term monitoring of outcomes. Extensive national and international dialogue is needed before any country decides whether to permit clinical use of this technology, according to the report, which identifies essential elements of national and international scientific governance and oversight.

A personal memoir from the family that inspired the film Extraordinary Measures, starring Brendan Fraser, Harrison Ford, and Keri Russell - a father's story of his determination to save the lives of his two youngest children born with a rare genetic disorder and finding hope, strength, and joy despite extraordinary challenges. When John and Aileen Crowley learned that their two youngest children had a rare and little understood genetic disorder, they didn't hope for miracles: they made them happen. In 1998, 15-month old Megan and 4-month old Patrick were diagnosed with Pompe disease, a rare and fatal neuromuscular disorder that affects only a few thousand children worldwide, usually leaving them with little to no muscle function, enlarged hearts, and severe difficulty breathing. John Crowley was absolutely determined to find a treatment to save his children's lives. At the age of 31, he walked away from the corporate world to help co-found a start-up biotech company, focused exclusively on developing a treatment for Pompe. A truly uplifting and inspiring book that captures this remarkable family's everyday life, this is a memoir about life and love; about coping with adversity; and, most importantly, about what it means to never, never quit.

A color-illustrated encyclopedia of evolution and genetics containing short definitions to approximately four hundred terms, cross-referenced to more than forty thematic spreads. Also includes knowledge maps and a time line.

Discusses epigenetics--the study of genetic changes through environmental factors--and explains some genetic questions left unanswered by current theories, including psychological differences in identical twins.

Environmental Epigenetics

How Modern Biology Is Rewriting Our Understanding of Genetics, Disease, and Inheritance

The DNA Restart

Evolution in Four Dimensions, revised edition

The Molecules of Inheritance

Inheritance

The Contested Science of Maternal-Fetal Effects

A pioneering proposal for a pluralistic extension of evolutionary theory, now updated to reflect the most recent research. This new edition of the widely read Evolution in Four Dimensions has been revised to reflect the spate of new discoveries in biology since the book was first published in 2005, offering corrections, an updated bibliography, and a substantial new chapter. Eva Jablonka and Marion Lamb's pioneering argument proposes that there is more to heredity than genes. They describe four "dimensions" in heredity—four inheritance systems that play a role in evolution: genetic, epigenetic (or non-DNA cellular transmission of traits), behavioral, and symbolic (transmission through language and other forms of symbolic communication). These systems, they argue, can all provide variations on which natural selection can act. Jablonka and Lamb present a richer, more complex view of evolution than that offered by the gene-based Modern Synthesis, arguing that induced and acquired changes also play a role. Their lucid and accessible text is accompanied by artist-physician Anna Zeligowski's lively drawings, which humorously and effectively illustrate the authors' points. Each chapter ends with a dialogue in which the authors refine their arguments against the vigorous skepticism of the fictional "I.M." (for Ipcha Mistabra—Aramaic for "the opposite conjecture"). The extensive new chapter, presented engagingly as a dialogue with I.M., updates the information on each of the four dimensions—with special attention to the epigenetic, where there has been an explosion of new research. Praise for the first edition "With courage and verve, and in a style accessible to general readers, Jablonka and Lamb lay out some of the exciting new pathways of Darwinian evolution that have been uncovered by contemporary research." —Evelyn Fox Keller, MIT, author of Making Sense of Life: Explaining Biological Development with Models, Metaphors, and Machines "In their beautifully written and impressively argued new book, Jablonka and Lamb show that the evidence from more than fifty years of molecular, behavioral and linguistic studies forces us to reevaluate our inherited understanding of evolution." —Oren Harman, The New Republic "It is not only an enjoyable read, replete with ideas and facts of interest but it does the most valuable thing a book can do—it makes you think and reexamine your premises and long-held conclusions." —Adam Wilkins, BioEssays

A groundbreaking book that will transform how we understand ourselves and our families by revealing that everything we thought we knew about genetics is wrong. Your experiences, no matter how seemingly inconsequential - from bullies to crushes to what you eat for dinner - have all left an indelible mark within you. And more importantly, within your genes. Inheritance is a guidebook for change. No longer do we have to settle for what we've been given. We can write our own story. We're taught that we don't have much of a choice in the matter of what we get or what we give, because our genetic legacy was fixed when our parents conceived us. But that's all wrong. Our genes are constantly on the move, some are turning on while others are turning off, all in response to what you're doing, what you're seeing, and what you're feeling. And all of those things can be changed, which means we can change. Genetically.

Program discusses the Human Genome Project, the science behind it, and the ethical, legal and social issues raised by the project.

It has been recognized for almost 200 years that certain families seem to inherit cancer. It is only in the past decade, however, that molecular genetics and epidemiology have combined to define the role of inheritance in cancer more clearly, and to identify some of the genes involved. The causative genes can be tracked through cancer-prone families via genetic linkage and positional cloning. Several of the genes discovered have subsequently been proved to play critical roles in normal growth and development. There are also implications for the families themselves in terms of genetic testing with its attendant dilemmas, if it is not clear that useful action will result. The chapters in The Genetics of Cancer illustrate what has already been achieved and take a critical look at the future directions of this research and its potential clinical applications.

Unlock Your Personal Genetic Code to Eat for Your Genes, Lose Weight, and Reverse Aging

A Graphic Guide

Extended Heredity

CRISPR and the Ethics of Human Genome Editing

Principles of Evolutionary Medicine

Molecular Biology of the Cell

Exploring the Issues Raised by Genetic Research

Fundamental Genetics is a concise, non-traditional textbook that explains major topics of modern genetics in 42 mini-chapters. It is designed as a textbook for an introductory general genetics course and is also a useful reference or refresher on basic genetics for professionals and students in health sciences and biological sciences. It is organized for ease of learning, beginning with molecular structures and progressing through molecular processes to population genetics and evolution. Students will find the short, focused chapters approachable and more easily digested than the long, more complex chapters of traditional genetics textbooks. Each chapter focuses on one topic, so that teachers and students can readily tailor the book to their needs by choosing a subset of chapters. Th book is extensively illustrated throughout with clear and uncluttered diagrams that are simple enough to be reproduced by students. This unique textbook provides a compact alternative for introductory genetics courses.

You Are About To Develop A Comprehensive Understanding Of The Concept Of Epigenetics, Its Place In Modern Day Medicine, And Health Optimization And Why It Is Literally Changing How We Approach The Treatment Of Various Health Problems! Modern research has now confirmed that the behavior of your genes doesn't always depend on their DNA sequence, but also on factors referred to epigenetics, and that changes in these factors can play a critical role in disease, life structures, behavior and all aspects of life And that's not all; research also shows that therapies based on these factors have proven effective in reversing some conditions, boosting the immune system, optimizing psychology and human adaptation. Epigenetics have thus taken the center stage in understand human biology at a deeper level, life, and evolution. But what are epigenetics, and how to they work? How does the environment affect them, and how is this "remembered" in the body? How does epigenetic therapy work? What does it treat? Isn't it risky? What is the relationship between epigenetics and the human psychology? How can we benefit from the discovery and understanding of epigenetics? If you have these and other related questions, this 2 in 1 book is for you so keep reading. Here is a bit of what you'll learn fro this 2 in 1 book: • What epigenetics are, why they're important and how they work • How epigenetics relate with our experiences • How cells divide, and how genes control the growth and division of cells • The difference between the DNA, gene and chromosomes •The existing evidence of epigenetic changes, including in transgenerational epigenetic inheritance • The ins and outs of epigenetics mechanisms • The types of epigenetic therapies available today, including their risks, benefits and research on them • The effect of epigenetic control in transcriptional regulation in pluripotency and early differentiation, DNA methylation and Demethylation, nucleosome remodeling and chromatin looping • How epigenetics work at the molecular level and the effect of DNA damage in epigenetic change • The functions of epigenetics, and how they boost mindfulness training, healthy eating and exercise • How epigenetic therapy and modifications affects diabetic retinopathy, emotional disorders, cardiac dysfunction, cancer and schizophrenia, mesothelioma and many more • How epigenetic modifications are used in understanding plant and animal evolution • How epigenetic mechanisms are used in understanding human adaptation, boosting memory formation, growth and reinforcing infant neurobehavior. • The role of epigenetic mechanisms in maternal care • The role of environmental chemicals in epigenetics • How epigenetics are involved in neurodegenerative diseases, drug formation, human development, the development of Hox genes and many more. • The role of environmental exposures in pathophysiology of IPF • Modulation of epigenetic marks by environmental exposures • How epigenetic regulation affects the immune system …And so much more! Whether you are a beginner or an intermediate in epigenetics, you will find this book educative, as you learn the A-Z of factors that are quickly changing our understanding of the structure of life. Don't wait…. Scroll up and click Buy Now with 1-Click or Buy Now to get started!

"From Homer to the Bible, and Aristotle to Descartes, expert and common knowledge held that a pregnant woman's emotions and experiences could "imprint" on the fetus, leading to features such as birthmarks, deformities, and distinctive personality traits. Beginning with the advent of modern genetics at the turn of the twentieth century, however, biomedical scientists dismissed any notion that a mother-except in cases of extreme deprivation or injury-could alter her offspring's traits. Consensus asserted that the fetus was walled off from a woman's body by the placenta and that a child's fate was set by a combination of its genes and post-birth upbringing. Over the last fifty years, this consensus was dismantled. Today, research on the intrauterine environment and its effects on th fetus is emerging as a robust program of study in medicine, public health, psychology, evolutionary biology, and genomics. Some researchers claim that these maternal effects represent a biologically important but non-genetic form of inheritance, potentially refracting the mother's experiences and exposures across generations of descendants. Tracing a genealogy of ideas about heredity and maternal-fetal effects, The Maternal Imprint offers a critical analysis of conceptual and ethical issues provoked by the striking rise of epigenetics and fetal origins science in postgenomic biology today"--

Evolutionary science is critical to an understanding of integrated human biology and is increasingly recognised as a core discipline by medical and public health professionals. Advances in the field of genomics, epigenetics, developmental biology, and epidemiology have led to the growing realisation that incorporating evolutionary thinking is essential for medicine to achieve its full potential. This revised and updated second edition of the first comprehensive textbook of evolutionary medicine explains the principles of evolutionary biology from a medical perspective and focuses on how medicine and public health might utilise evolutionary thinking. It is written to be accessible to a broad range of readers, whether or not they have had formal exposure to evolutionary science. The general structure of the second edition remains unchanged, with the initial six chapters providing a summary of the evolutionary theory relevant to understanding human health and disease, using examples specifically relevant to medicine. The second part of the boo describes the application of evolutionary principles to understanding particular aspects of human medicine: in addition to updated chapters on reproduction, metabolism, and behaviour, there is an expanded chapter on our coexistence with micro-organisms and an entirely new chapter on cancer. The two parts are bridged by a chapter that details pathways by which evolutionary processes affect disease risk and symptoms, and how hypotheses in evolutionary medicine can be tested. The final two chapters of the volume are considerably expanded; they illustrate the application of evolutionary biology to medicine and public health, and consider the ethical and societal issues of an evolutionary perspective. A number of new clinical examples and historical illustrations are included. This second edition of a novel and popular textbook provides an updated resource for doctors and other health professionals, medical students and biomedical scientists, as well as anthropologists interested in human health, to gain a better understanding of the evolutionary processes underlying human health and disease.

Fundamental Genetics

A Cancer in the Family

Genes, Race and Human History

Epigenetics Explained. How Modern Biology is Changing the Concepts of Genetics and Inheritance. How the environment can affect our genes.
Heritable Human Genome Editing
The Innate Mind
Epigenetics

An Instant NEW YORK TIMES BESTSELLER A LOS ANGELES TIMES, BOSTON GLOBE, WALL STREET JOURNAL, and NATIONAL INDIE BESTSELLER A BEST BOOK OF THE YEAR according to Elle, Real Simple, and Kirkus Reviews "Memoir gold: a profound and exquisitely rendered exploration of identity and the true meaning of family." —People Magazine "Beautifully written and deeply moving—it brought me to tears more than once."—Ruth Franklin, The New York Times Book Review From the acclaimed, best-selling memoirist, novelist—"a writer of rare talent" (Cheryl Strayed)— and host of the hit podcast Family Secrets, comes a memoir about the staggering family secret uncovered by a genealogy test: an exploration of the urgent ethical questions surrounding fertility treatments and DNA testing, and a profound inquiry of paternity, identity, and love. What makes us who we are? What combination of memory, history, biology, experience, and that ineffable thing called the soul defines us? In the spring of 2016, through a genealogy website to which she had whimsically submitted her DNA for analysis, Dani Shapiro received the stunning news that her father was not her biological father. She woke up one morning and her entire history--the life she had lived--crumbled beneath her. Inheritance is a book about secrets--secrets within families, kept out of shame or self-protectiveness; secrets we keep from one another in the name of love. It is the story of a woman's urgent quest to unlock the story of her own identity, a story that has been scrupulously hidden from her for more than fifty years, years she had spent writing brilliantly, and compulsively, on themes of identity and family history. It is a book about the extraordinary moment we live in--a moment in which science and technology have outpaced not only medical ethics but also the capacities of the human heart to contend with the consequences of what we discover.

There is much more to heredity than genes For much of the twentieth century it was assumed that genes alone mediate the transmission of biological information across generations and provide the raw material for natural selection. Yet, it's now clear that genes are not the only basis of heredity. In Extended Heredity, evolutionary biologists Russell Bonduriansky and Troy Day explore the latest research showing that what happens during our lifetimes—and even our parents' and grandparents' lifetimes—can influence the features of our descendants. Based on this evidence, Bonduriansky and Day develop an extended concept of heredity that upends ideas about how traits can and cannot be transmitted across generations, opening the door to a new understanding of inheritance, evolution, and even human health.

Drawing on startling new evidence from the mapping of the genome, an explosive new account of the genetic basis of race and its role in the human story Fewer ideas have been more toxic or harmful than the idea of the biological reality of race, and with it the idea that humans of different races are biologically different from one another. For this understandable reason, the idea has been banished from polite academic conversation. Arguing that race is more than just a social construct can get a scholar run out of town, or at least off campus, on a rail. Human evolution, the consensus view insists, ended in prehistory. Inconveniently, as Nicholas Wade argues in A Troublesome Inheritance, the consensus view cannot be right. And in fact, we know that populations have changed in the past few thousand years—to be lactose tolerant, for example, and to survive at high altitudes. Race is not a bright-line distinction; by definition it means that the more human populations are kept apart, the more they evolve their own distinct traits under the selective pressure known as Darwinian evolution. For many thousands of years, most human populations stayed where they were and grew distinct, not just in outward appearance but in deeper senses as well. Wade, the longtime journalist covering genetic advances for The New York Times, draws widely on the work of scientists who have made crucial breakthroughs in establishing the reality of recent human evolution. The most provocative claims in this book involve the genetic basis of human social habits. What we might call middle-class social traits—thrift, docility, nonviolence—have been slowly but surely inculcated genetically within agrarian societies, Wade argues. These "values" obviously had a strong cultural component, but Wade points to evidence that agrarian societies evolved away from hunter-gatherer societies in some crucial respects. Also controversial are his findings regarding the genetic basis of traits we associate with intelligence, such as literacy and numeracy, in certain ethnic populations, including the Chinese and Ashkenazi Jews. Wade believes deeply in the fundamental equality of all human peoples. He also believes that science is best served by pursuing the truth without fear, and if his mission to arrive at a coherent summa of what the new genetic science does and does not tell us about race and human history leads straight into a minefield, then so be it. This will not be the last word on the subject, but it will begin a powerful and overdue conversation.

Award-winning physician and New York Times bestselling author Sharon Moalem, MD, PhD, reveals how genetic breakthroughs are completely transforming our understanding of both the world and our lives. INHERITANCE Conventional wisdom dictates that our genetic destiny is fixed at conception. But Dr. Moalem's groundbreaking book shows us that the human genome is far more fluid and fascinating than your ninth grade biology teacher ever imagined. By bringing us to the bedside of his unique and complex patients, he masterfully demonstrates what rare genetic conditions can teach us all about our own health and well-being. In the brave new world we're rapidly rocketing into, genetic knowledge has become absolutely crucial. INHERITANCE provides an indispensable roadmap for this journey by teaching you: -Why you may have recovered from the psychological trauma caused by childhood bullying-but your genes may remain scarred for life. -How fructose is the sugar that makes fruits sweet-but if you have certain genes, consuming it can buy you a one-way trip to the coroner's office. -Why ingesting common painkillers is like dosing yourself repeatedly with morphine-if you have a certain set of genes. -How insurance companies legally use your genetic data to predict the risk of disability for you and your children-and how that impacts the coverage decisions they make for your family. -How to have the single most important conversation with your doctor-one that can save your life. And finally: -Why people with rare genetic conditions hold the keys to medical problems affecting millions. In this trailblazing book, Dr. Moalem employs his wide-ranging and entertaining interdisciplinary approach to science and medicine-- explaining how art, history, superheroes, sex workers, and sports stars all help us understand the impact of our lives on our genes, and our genes on our lives. INHERITANCE will profoundly alter how you view your genes, your health--and your life.

How Our Genes Change Our Lives--and Our Lives Change Our Genes
Identically Different
How Our Genes Change Our Lives, and Our Lives Change Our Genes
Understanding Genetics
Chasing Miracles
Why We Can Change Our Genes
Your Genetic Destiny

Epigenetics is the most exciting field in biology today, developing our understanding of how and why we inherit certain traits, develop diseases and age, and evolve as a species. This non-fiction comic book introduces us to genetics, cell biology and the fascinating science of epigenetics, which is rapidly filling in the gaps in our knowledge, allowing us to make huge advances in medicine. We'll look at what identical twins can teach us about the epigenetic effects of our environment and experiences, why certain genes are 'switched on' or off at various stages of embryonic development, and how scientists have reversed the specialization of cells to clone frogs from a single gut cell. In Introducing Epigenetics, Cath Ennis and Oliver Pugh pull apart the double helix, examining how the epigenetic building blocks and messengers that interpret and edit our genes help to make us, well, us.

Invites readers to change their perceptions about illness in order to understand disease as an essential component of the evolutionary process, citing the role of such malaises as diabetes, STDs, and the Avian Bird Flu in protecting the survival of the human race. (Health & Fitness)

A Kirkus Best Book of 2016 Oncologist and cancer gene hunter Theo Ross delivers the first authoritative, go-to for people facing a genetic predisposition for cancer There are 13 million people with cancer in the United States, and it's estimated that about 1.3 million of these cases are hereditary. Yet despite advanced training in cancer genetics and years of practicing medicine, Dr. Theo Ross was never certain whether the history of cancers in her family was simple bad luck or a sign that they were carriers of a cancer-causing genetic mutation. Then she was diagnosed with melanoma, and for someone with a dark complexion, melanoma made no sense. It turned out there was a genetic factor at work. Using her own family's story, the latest science of cancer genetics, and her experience as a practicing physician, Ross shows readers how to spot the patterns of inherited cancer, how to get tested for cancer-causing genes, and what to do if you have one. With a foreword by Siddartha Mukherjee, prize winning author of The Emperor of All Maladies, this will be the first authoritative, go-to for people facing inherited cancer, this book empowers readers to face their genetic heritage without fear and to make decisions that will keep them and their families healthy.

A Guardian Book of the Week Longlisted for the PEN / E. O. Wilson Literary Science Writing Award An award-winning physician and scientist makes the game-changing case that genetic females are stronger than males at every stage of life Here are some facts: Women live longer than men. They have stronger immune systems. They're better at fighting cancer and surviving famine, and even see the world in a wider variety of colors. They are simply stronger than men at every stage of life. Why is this? And why are we taught the opposite? To find out, Dr. Sharon Moalem drew on his own medical experiences - treating premature babies in the neonatal intensive care unit; recruiting the elderly for neurogenetic studies; tending to HIV-positive orphans in Thailand - and tried to understand why in every instance men were consistently less likely to thrive. The answer, he discovered, lies in our genetics: two X chromosomes offer a powerful survival advantage. With clear, captivating prose that weaves together eye-opening research, case studies, diverse examples ranging from the behavior of honeybees to American pioneers, as well as experiences from his personal life and his own patients, Moalem explains why genetic females triumph over males when it comes to resiliency, intellect, stamina, immunity and much more. He also calls for a reconsideration of our male-centric, one-size-fits-all view of medical studies and even how we prescribe medications - a view that still sees women through the lens of men. Revolutionary and yet utterly convincing, The Better Half will make you see humanity and the survival of our species anew.

Microtrends
The Powers, Perversions, and Potential of Heredity
An Intimate History
Introducing Epigenetics
A Troublesome Inheritance
The Epigenetics Revolution
She Has Her Mother's Laugh

The DNA Restart turns traditional dietary advice on its head with groundbreaking research that demonstrates that we all require different diets based on our genes. In The DNA Restart, Sharon Moalem, MD, PhD, provides a revolutionary step-by-step guide to the diet and lifestyle perfect for your individual genetic makeup. A physician, scientist, neurogeneticist, and New York Times bestselling author, Dr. Moalem has spent the last two decades researching and formulating how to reset your own genetic code using five essential pillars: eat for your genes; reverse aging; eat umami; drink oolong tea; and slow living. The DNA Restart plan utilizes decades of in-depth scientific research into genetics, epigenetics, nutrition, and longevity to explain the pivotal role genes play in the journey to ideal weight and health status. Dr. Moalem's unique 28-day plan shows how to upgrade sleep, harness sensory awareness, and use exercise to reset your DNA; how to determine the right amounts of protein, carbs, and fats you need for your individual genetic make-up; and how to incorporate umami-rich recipes and oolong tea into your diet to genetically thrive. Delicious recipes with mix-and-match meal plans, inspiring testimonials, and genetic self-tests round out this paradigm shifting diet book.

GET D!RTY Next time you're traveling or just chattin' in Russia with your friends, drop the textbook formality and bust out with expressions they never teach you in school, including: • Cool slang • Funny insults • Explicit sex terms • Raw swear words Dirty Russian teaches the casual expressions heard every day on the streets of Russia: What's up? kak de-LA? I really gotta piss. mnye O-chen NA-do pos-SAT. Damn, you fine! blin, nu ti i shi-KAR-nii! Let's have an orgy. da-VAI u-STRO-im OR-gi-yu. This is crappy vodka. d-ta VOD-ka khre-NO-va-ya. Let's go get hammered. poi-DYOM bukh-NYOM. I'm gonna own you, bitch! ya te-BYA VI-ye-blyu!

Our biology is no longer destiny. Our genes respond to everything we do, according to the revolutionary new science of epigenetics. In other words, our inherited DNA doesn't rigidly determine our health and disease prospects as the previous generation of geneticists believed. Especially in the last ten years, scientists have confirmed that the vast majority of our genes are actually fluid and dynamic. An endless supply of new studies prove that our health is an expression of how we live our lives—that what we eat and think and how we handle daily stress, plus the toxicity of our immediate environment—creates an internal biochemistry that can actually turn genes on or off. Managing these biochemical effects on our genome is the new key to radiant wellness and healthy longevity. Now gaining broad credibility among scientists, the study of epigenetics is at the forefront of modern medicine. According to the author, the real upshot of the epigenetic revolution is that it opens the door to what futurists call personalized medicine. For the first time in a trade book, Dr. Pelletier explains in layperson's language the genetic biomarkers that will become the standard reference for measuring which specific lifestyle changes are required to optimize a given individual's health. In the very near future, each person's state-of-the-art genetic and epigenetic profile—matched with other precise indicators such as assays of the gut microbiome—will guide their daily health practices. This short but profound book by a world-renowned pioneer in integrative medicine introduces readers to this exciting new field, and reveals the steps that each of us can take today to change our genetic expression and thereby optimize our health for a lifetime.

The purpose of this manual is to provide an educational genetics resource for individuals, families, and health professionals in the New York - Mid-Atlantic region and increase awareness of specialty care in genetics. The manual begins with a basic introduction to genetics concepts, followed by a description of the different types and applications of genetic tests. It also provides information about diagnosis of genetic disease, family history, newborn screening, and genetic counseling. Resources are included to assist in patient care, patient and professional education, and identification of specialty genetics services within the New York - Mid-Atlantic region. At the end of each section, a list of references is provided for additional information. Appendices can be copied for reference and offered to patients. These take-home resources are critical to helping both providers and patients understand some of the basic concepts and applications of genetics and genomics.

The Genetics of Cancer
The Gene
The Crowley Family Journey of Strength, Hope, and Joy (Large Print 16pt)
The Small Forces Behind Tomorrow's Big Changes
How Sex Works
Survival of the Sickest LP
Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life

Vol. 3: Concerned with the fundamental architecture of the mind, this text addresses questions about the existence & extent of human innate abilities, how these inate abilities affect the development of the mature mind, & which of them is shared with other species.

This gripping story of the doctors at the forefront of Alzheimer's research and the courageous North Dakota family whose rare genetic code is helping to understand our most feared diseases is "excellent, accessible...A science text that reads like a mystery and treats its subjects with hu sympathy" (Library Journal, starred review). Every sixty-nine seconds, someone is diagnosed with Alzheimer's disease. Of the top ten killers, it is the only disease for which there is no cure or treatment. For most people, there is nothing that they can do to fight back. But one family is do they can. The DeMoe family has the most devastating form of the disease that there is: early onset Alzheimer's, an inherited genetic mutation that causes the disease in one hundred percent of cases, and has a fifty percent chance of being passed onto the next generation. Of the six De children whose father had it, five have inherited the gene; the sixth, daughter Karla, has inherited responsibility for all of them. But rather than give up in the face of such news, the DeMoes have agreed to spend their precious, abbreviated years as part of a worldwide study that could utt change the landscape of Alzheimer's research and offers the brightest hope for future treatments—and possibly a cure. Drawing from several years of in-depth research with this charming and upbeat family, journalist Niki Kapsambelis tells the story of Alzheimer's through the humanizin these ordinary people made extraordinary by both their terrible circumstances and their bravery. "A compelling narrative…and an educational and emotional chronicle" (Kirkus Reviews, starred review), their tale is intertwined with the dramatic narrative history of the disease, the cutting-e research that brings us ever closer to a possible cure, and the accounts of the extraordinary doctors spearheading these groundbreaking studies. From the oil fields of North Dakota to the jungles of Colombia, this inspiring race against time redefines courage in the face of this most perv mysterious disease.

Many inheritable changes in gene function are not explained by changes in the DNA sequence. Such epigenetic mechanisms are known to influence gene function in most complex organisms and include effects such as transposon function, chromosome imprinting, yeast mating type sw and telomeric silencing. In recent years, epigenetic effects have become a major focus of research activity. This monograph, edited by three well-known biologists from different specialties, is the first to review and synthesize what is known about these effects across all species, particula molecular perspective, and will be of interest to everyone in the fields of molecular biology and genetics.

Biosocial Surveys analyzes the latest research on the increasing number of multipurpose household surveys that collect biological data along with the more familiar interviewerâ€"respondent information. This book serves as a follow-up to the 2003 volume, Cells and Surveys: Should Bio Measures Be Included in Social Science Research? and asks these questions: What have the social sciences, especially demography, learned from those efforts and the greater interdisciplinary communication that has resulted from them? Which biological or genetic information has pr useful to researchers? How can better models be developed to help integrate biological and social science information in ways that can broaden scientific understanding? This volume contains a collection of 17 papers by distinguished experts in demography, biology, economics, epider survey methodology. It is an invaluable sourcebook for social and behavioral science researchers who are working with biosocial data.

Your Genes, Your Choices
The Maternal Imprint
A Memoir of Genealogy, Paternity, and Love
Biosocial Surveys
A New York, Mid-Atlantic Guide for Patients and Health Professionals
The Inheritance
Creating Optimal Health with the New Science of Epigenetics

In this book, a geneticist who studies identical twins "treats the view that genes are destiny with skepticism" (The New York Times). How much are the things you choose to do every day determined by your genes and how much is your own free will? Drawing on his own cutting-edge research of identical twins, leading geneticist Tim Spector shows us how the same upbringing, the same environment, and even the same exact genes can lead to very different outcomes. Thought-provoking, entertaining, and enlightening, Identically Different helps us understand the science behind what makes each of us unique and so quintessentially human.

InheritanceHow Our Genes Change Our Lives--and Our Lives Change Our GenesGrand Central Publishing
Everyday Slang from