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[The Art and Politics of Science](#) - Harold Varmus 2010-05-24

A Nobel Prize-winning cancer biologist, leader of major scientific institutions, and scientific adviser to President Obama reflects on his remarkable career. A PhD candidate in English literature at Harvard University, Harold Varmus discovered he was drawn instead to medicine and eventually found himself at the forefront of cancer research at the University of California, San Francisco. In this "timely memoir of a remarkable career" (American Scientist), Varmus considers a life's work that thus far includes not only the groundbreaking research that won him a Nobel Prize but also six years as the director of the National Institutes of Health; his current position as the president of the Memorial Sloan-Kettering Cancer Center; and his important, continuing work as scientific adviser to President Obama. From this truly unique perspective, Varmus shares his experiences from the trenches of politicized battlegrounds ranging from budget fights to stem cell research, global health to science publishing.

Clone - Gina Kolata 2011-08-09

The birth of Dolly -- the world's first clone -- placed in our hands the secret of creation. Few discoveries have so altered our notion of what it means to be human, or presented such a Gordian knot of ethical, spiritual, and scientific questions. Noted science journalist Gina Kolata broke the news nationally in The New York Times and was the first reporter to speak with Dr. Ian Wilmut, the embryologist who cloned Dolly. Now Kolata reveals the story behind Dolly, interweaving the social and cultural tales of our fear and fascination with cloning, reaching back nearly a century, with the riveting scientific account of how a clone came to be and the mind-boggling questions Dolly presents for our future. Clone is a compelling blend of scientific suspense, dreams dashed, and frauds exposed, with provocative philosophical questions and an astute assessment of why Dolly's birth was only possible now. Like The Making of the Atomic Bomb, Lucy, and Chaos, this book gives us a window on history in the making, and an understanding of its profound effect on our lives.

Cloning Human Beings - United States. National Bioethics Advisory Commission 1997

[Animal Biotechnology](#) - National Research Council 2002-11-29

Genetic-based animal biotechnology has produced new food and pharmaceutical products and promises many more advances to benefit humankind. These exciting prospects are accompanied by considerable unease, however, about matters such as safety and ethics. This book identifies science-based and policy-related concerns about animal biotechnology—key issues that must be resolved before the new breakthroughs can reach their potential. The book includes a short history of the field and provides understandable definitions of terms like cloning. Looking at technologies on the near horizon, the authors discuss what we know and what we fear about their effects—the inadvertent release of dangerous microorganisms, the safety of products derived from biotechnology, the impact of genetically engineered animals on their environment. In addition to these concerns, the book explores animal welfare concerns, and our societal and institutional capacity to manage and regulate the technology and its products. This accessible volume will be important to everyone interested in the implications of the use of animal biotechnology.

[Dolly at Roslin](#) - Alan L. Archibald 2017

The Second Creation - Ian Wilmut 2001

"Fathers" of the famous cloned sheep explain their work at Edinburgh University-affiliated Roslin Institute and its controversial scientific and ethical ramifications.

[After Dolly](#) - Ian Wilmut 2007

An argument for the benefits of cloning, co-written by a scientist whose team was responsible for a famous cloned sheep, presents the reasons for his opposition to the cloning of humans and explains that cloning technology can be ethically applied to free families from serious hereditary diseases. Reprint.

[Cloning of Frogs, Mice, and Other Animals](#) - Robert Gilmore McKinnell 1985

The development of cloning and its application to further understanding of aging, cancer, and immunobiology are outlined with discussion of social, moral, and scientific questions related to the cloning of humans

The Mechanism of Mendelian Heredity - Thomas Hunt Morgan 1915

[Principles of Cloning](#) - Jose Cibelli 2013-09-24

Principles of Cloning, Second Edition is the fully revised edition of the authoritative book on the science of cloning. The book presents the basic biological mechanisms of how cloning works and progresses to discuss current and potential applications in basic biology, agriculture, biotechnology, and medicine. Beginning with the history and theory behind cloning, the book goes on to examine methods of micromanipulation, nuclear transfer, genetic modification, and pregnancy and neonatal care of cloned animals. The cloning of various species—including mice, sheep, cattle, and non-mammals—is considered as well. The Editors have been involved in a number of breakthroughs using cloning technique, including the first demonstration that cloning works in differentiated cells done by the Recipient of the 2012 Nobel Prize for Physiology or Medicine – Dr John Gurdon; the cloning of the first mammal from a somatic cell – Drs Keith Campbell and Ian Wilmut; the demonstration that cloning can reset the biological clock – Drs Michael West and Robert Lanza; the demonstration that a terminally differentiated cell can give rise to a whole new individual – Dr Rudolf Jaenisch and the cloning of the first transgenic bovine from a differentiated cell – Dr Jose Cibelli. The majority of the contributing authors are the principal investigators on each of the animal species cloned to date and are expertly qualified to present the state-of-the-art information in their respective areas. First and most comprehensive book on animal cloning, 100% revised Describes an in-depth analysis of current limitations of the technology and research areas to explore Offers cloning applications on basic biology, agriculture, biotechnology, and medicine

[Animal experiments in research](#) - Cindy Härcher 2010-03-31

Essay from the year 2010 in the subject English Language and Literature Studies - Other, grade: 1,7, University of Bayreuth, course: Essay writing II, language: English, abstract: The British Union for the Abolition of Vivisection (BUAV) estimates 100 million vertebrates are used for experiments around the world every year . This paper deals with the necessity of animal experiments in research and possible alternatives which could replace them completely. With focus on the history of animal experiments, as for instance the birth of Dolly the sheep which was the first cloned mammal from an adult cell, the areas in which the animal experiments are used, the transferability of the results from these tests to human and the question according to alternatives to animal testing, the paper shows if it is possible to dispense with

animal experiments. Information has been collected from technical literature, reports and internet articles. It is argued that animal experiments are necessary and current research has so far not been able to find alternatives which could replace them. However alternatives are described which reduce the number of animal experiments and avoid that animals suffer unnecessarily.

A Number - Caryl Churchill 2015-07-02

A fascinating meditation on human cloning, personal identity and the conflicting claims of nature and nurture. Bernard thought he was an only child. One day he learns the shocking truth: he is just one of a number of clones. Together, he and his father confront epic questions of identity, intimacy and belonging. A Number pushes the boundaries of science and ethics with an astonishing twist on the dynamics of the father/son relationship. It was originally produced at the Royal Court Theatre, London, winning the Evening Standard Award for Best Play. This edition was published alongside a revival by the Nuffield Theatre, Southampton, which subsequently transferred to the Young Vic, London, in 2015, and featured real-life father and son John and Lex Shrapnel.

Observing Bioethics - Renee C. Fox 2008-07-23

Observing Bioethics examines the history of bioethics as a discipline related not only to modern biology, medicine, and biotechnology, but also to the core values and beliefs of American society and its courts, legislatures, and media. The book is written from the perspective of two social scientists--a sociologist of medicine (Renee C. Fox) and a historian of medicine (Judith P. Swazey)--who have participated in bioethics since the emergence of this multidisciplinary field more than 30 years ago. Fox and Swazey draw on first-hand observations and experiences in a variety of American bioethical settings; face-to-face interviews with first- and second-generation figures in the genesis and early unfolding of bioethics; a detailed examination of the theatrical media coverage of what was considered to be a banner event in the annals of bioethics (the creation and birth of the cloned sheep, Dolly); case studies of how bioethics has internationally developed; and a large corpus of primary documents and secondary source materials. While recognizing the intellectual, moral, and sociological importance of American bioethics, Fox and Swazey are critical of its characteristics. Foremost among these are what they identify as the problems of thinking socially, culturally, and internationally in American bioethics; the 'tenuous interdisciplinarity' of the field; and the troubling extent to which the 'culture wars' have penetrated bioethics. This book will appeal to a wide range of doctors, scientists, and academics who are involved in the history and sociology of bioethics.

How to Clone a Mammoth - Beth Shapiro 2020-09-08

An insider's view on bringing extinct species back to life Could extinct species, like mammoths and passenger pigeons, be brought back to life? In How to Clone a Mammoth, Beth Shapiro, an evolutionary biologist and pioneer in ancient DNA research, addresses this intriguing question by walking readers through the astonishing and controversial process of de-extinction. From deciding which species should be restored to anticipating how revived populations might be overseen in the wild, Shapiro vividly explores the extraordinary cutting-edge science that is being used to resurrect the past. Considering de-extinction's practical benefits and ethical challenges, Shapiro argues that the overarching goal should be the revitalization and stabilization of contemporary ecosystems. Looking at the very real and compelling science behind an idea once seen as science fiction, How to Clone a Mammoth demonstrates how de-extinction will redefine conservation's future.

Seeds of Science - Mark Lynas 2018-04-05

'Mark Lynas is a saint' Sunday Times 'Fluent, persuasive and surely right.' Evening Standard Mark Lynas was one of the original GM field wreckers. Back in the 1990s - working undercover with his colleagues in the environmental movement - he would descend on trial sites of genetically modified crops at night and hack them to pieces. Two decades later, most people around the world - from New York to China - still think that 'GMO' foods are bad for their health or likely to damage the environment. But Mark has changed his mind. This book explains why. In 2013, in a world-famous recantation speech, Mark apologised for having destroyed GM crops. He spent the subsequent years touring Africa and Asia, and working with plant scientists who are using this technology to help smallholder farmers in developing countries cope better with pests, diseases and droughts. This book lifts the lid on the anti-GMO craze and shows how science was left by the wayside as a wave of public hysteria swept the world. Mark takes us back to the origins of the

technology and introduces the scientific pioneers who invented it. He explains what led him to question his earlier assumptions about GM food, and talks to both sides of this fractious debate to see what still motivates worldwide opposition today. In the process he asks - and answers - the killer question: how did we all get it so wrong on GMOs? 'An important contribution to an issue with enormous potential for benefiting humanity.' Stephen Pinker 'I warmly recommend it.' Philip Pullman

Concepts of Biology - Samantha Fowler 2018-01-07

Concepts of Biology is designed for the single-semester introduction to biology course for non-science majors, which for many students is their only college-level science course. As such, this course represents an important opportunity for students to develop the necessary knowledge, tools, and skills to make informed decisions as they continue with their lives. Rather than being mired down with facts and vocabulary, the typical non-science major student needs information presented in a way that is easy to read and understand. Even more importantly, the content should be meaningful. Students do much better when they understand why biology is relevant to their everyday lives. For these reasons, Concepts of Biology is grounded on an evolutionary basis and includes exciting features that highlight careers in the biological sciences and everyday applications of the concepts at hand. We also strive to show the interconnectedness of topics within this extremely broad discipline. In order to meet the needs of today's instructors and students, we maintain the overall organization and coverage found in most syllabi for this course. A strength of Concepts of Biology is that instructors can customize the book, adapting it to the approach that works best in their classroom. Concepts of Biology also includes an innovative art program that incorporates critical thinking and clicker questions to help students understand--and apply--key concepts.

Biology for AP® Courses - Julianne Zedalis 2017-10-16

Biology for AP® courses covers the scope and sequence requirements of a typical two-semester Advanced Placement® biology course. The text provides comprehensive coverage of foundational research and core biology concepts through an evolutionary lens. Biology for AP® Courses was designed to meet and exceed the requirements of the College Board's AP® Biology framework while allowing significant flexibility for instructors. Each section of the book includes an introduction based on the AP® curriculum and includes rich features that engage students in scientific practice and AP® test preparation; it also highlights careers and research opportunities in biological sciences.

An Introduction to Ethical, Safety and Intellectual Property Rights Issues in Biotechnology - Padma Nambisan 2017-06-21

An Introduction to Ethical, Safety and Intellectual Property Rights Issues in Biotechnology provides a comprehensive look at the biggest technologies that have revolutionized biology since the early 20th century, also discussing their impact on society. The book focuses on issues related to bioethics, biosafety and intellectual property rights, and is written in an easy-to-understand manner for graduate students and early career researchers interested in the opportunities and challenges associated with advances in biotechnology. Important topics covered include the Human Genome Project, human cloning, rDNA technology, the 3Rs and animal welfare, bioterrorism, human rights and genetic discrimination, good laboratory practices, good manufacturing practices, the protection of biological material and much more. Full of relevant case studies, practical examples, weblinks and resources for further reading, this book offers an essential and holistic look at the ways in which biotechnology has affected our global society. Provides a comprehensive look at the ethical, legal and social implications of biotechnology Discusses the global efforts made to resolve issues Incorporates numerous case studies to more clearly convey concepts and chart the development of guidelines and legislation regulating issues in biotechnology Takes a straightforward approach to highlight and discuss both the benefits and risks associated with the latest biotechnologies

The Cloning Debate - Lisa Firth 2007

Recent advances in science have provoked debate about where cloning will take us. This book considers the social and ethical considerations of cloning, including whether cloning humans is acceptable, whether people are willing eat cloned food and whether we should take advantage of medical therapies associated with cloning.

Safety of Genetically Engineered Foods - National Research Council 2004-07-08

Assists policymakers in evaluating the appropriate scientific methods for detecting unintended changes in food and assessing the potential for adverse health effects from genetically modified products. In this book, the committee recommended that greater scrutiny should be given to foods containing new compounds or unusual amounts of naturally occurring substances, regardless of the method used to create them. The book offers a framework to guide federal agencies in selecting the route of safety assessment. It identifies and recommends several pre- and post-market approaches to guide the assessment of unintended compositional changes that could result from genetically modified foods and research avenues to fill the knowledge gaps.

Who's Afraid of Human Cloning? - Gregory E. Pence 1998

Gregory Pence offers a candid look at the arguments for and against for and against human cloning, and comes to some startling conclusions.

The Cloning Sourcebook - Arlene Judith Klotzko 2003-09-25

Animal cloning has developed quickly since the birth of Dolly the sheep. Yet many of the first questions to be raised still need to be answered. What do Dolly and her fellow mouse, cow, pig, goat and monkey clones mean for science? And for society? Why do so many people respond so fearfully to cloning? What are the ethical issues raised by cloning animals, and in the future, humans? How are the makers of public policy coping with the stunning fact that an entire animal can be reconstructed from a single adult cell? And that humans might well be next? The Cloning Source Book addresses all of these questions in a way that is unique in the cloning literature, by grounding what is effectively an interdisciplinary conversation in solid science. In the first section of the book, the key scientists responsible for the early and crucial developments in cloning speak to us directly, and other scientists evaluate and comment on these developments. The second section explores the context of cloning and includes sociological, mythological, and historical perspectives on science, ethics, and policy. The authors also examine the media's treatment of the Dolly story and its aftermath, both in the United States and in Britain. The third section, on ethics, contains a broad range of papers written by some of the major commentators in the field. The fourth section addresses legal and policy issues. It features individual and collective contributions by those who have actually shaped public policy on reproductive cloning, therapeutic cloning, and similarly contentious bioethical issues in the United States, Britain, and the European Union. Animal cloning continues for agricultural and medicinal purposes, the latter in combination with transgenics. Human cloning for therapeutic purposes has recently been made legal in Britain. The goal is to produce an early embryo and then derive stem cells that are immunologically matched to the donor. Two human reproductive cloning projects have been announced, and there are almost certainly others about which we know nothing. Sooner or later a cloned human will be born. Many lessons can be learned from the cloning experience. Most importantly, there needs to be a public conversation about the permissible uses of new and morally murky technologies. Scientists, journalists, ethicists and policy makers all have roles to play, but cutting-edge science is everybody's business. The Cloning Sourcebook provides the tools required for us to participate in shaping our own futures.

[Animal Cloning](#) - Shiv Sanjeevi 2017-11

The creation of genetically identical organisms, referred to as cloning has propelled researchers to attempt to clone several organisms from microbes to plants to animals. The creation of "Dolly", the first cloned mammal, a sheep where an adult cell was used to produce an offspring instead of an embryo that develops into an organism ushered in a race to clone several other animals. The scope of animal cloning includes the production of genetically engineered organisms that have specific desired traits, the principles of molecular pharming where cloned animals produce therapeutics in their products, xenotransplantation, pharmacological testing, medical uses like study of diseases and potential cures, to name a few. Certain attempts are on to revive extinct animals. (Remember Jurassic Park?) This book covers principles and tools involved in animal cloning along with various animals that have been cloned and their potentials in biotechnology. The book shall also include various ethical issues associated with this field and summarize the work done in cloning. Threaders must note that these issues and regulations have been quoted verbatim so that the meaning conveyed does not change.

Embryonic Development and Induction - Hans Spemann 1962

The Debate Over Human Cloning - David Goodnough 2003-01-01

From Dolly the sheep to the cloning of a human embryo, provides an overview of the technology and history of cloning and presents arguments for and against human cloning.

The Ethics of Human Cloning - Leon Kass 1998

Today biological science is rising on a wall of worry. No other science has advanced more dramatically during the past several decades or yielded so many palpable improvements in human welfare. Yet, none except nuclear physics has aroused greater apprehensions among the general public and leaders in such diverse fields as religion, the humanities, and government. In this engaging book, Leon R. Kass, the noted teacher, scientist, humanist, and chairman of the President's Council on Bioethics, and James Q. Wilson, the preeminent political scientist to whom four United States presidents have turned for advice on crime, drug abuse, education, and other crises in American life, explore the ethics of human cloning, reproductive technology, and the teleology of human sexuality. Although in their lively dialogue both authors share a fundamental distrust of the notion of human cloning, they base their resistance on different views of the role of sexual reproduction and the role of the family. Professor Kass contends that in vitro fertilization and other assisted reproduction technologies that place the origin of human life in human hands have eroded the respect for the mystery of sexuality and human renewal. Professor Wilson, in contrast, asserts that whether a human life is created naturally or artificially is immaterial as long as the child is raised by loving parents in a two-parent family and is not harmed by the means of its conception. This accessible volume promises to inform the public policy debate over the permissible conduct of genetic research and the permissible uses of its discoveries.

Films from the Future - Andrew Maynard 2018-11-15

"Deftly shows how a seemingly frivolous film genre can guide us in shaping tomorrow's world." —Seth Shostak, senior astronomer, SETI Institute Artificial intelligence, gene manipulation, cloning, and interplanetary travel are all ideas that seemed like fairy tales but a few years ago. And now their possibilities are very much here. But are we ready to handle these advances? This book, by a physicist and expert on responsible technology development, reveals how science fiction movies can help us think about and prepare for the social consequences of technologies we don't yet have, but that are coming faster than we imagine. *Films from the Future* looks at twelve movies that take us on a journey through the worlds of biological and genetic manipulation, human enhancement, cyber technologies, and nanotechnology. Readers will gain a broader understanding of the complex relationship between science and society. The movies mix old and new, and the familiar and unfamiliar, to provide a unique, entertaining, and ultimately transformative take on the power of emerging technologies, and the responsibilities they come with.

Clones and Clones - Martha Craven Nussbaum 1998

Examines the ethical, political, psychological, and legal ramifications of the possibility of human cloning

Human Cloning and Human Dignity - President's Council on Bioethics (U.S.) 2002

The prospect of human cloning burst into the public consciousness in 1997, following the announcement of the successful cloning of Dolly the sheep. It has since captured much attention and generated great debate, both in the United States and around the world. Many are repelled by the idea of producing children who would be genetically virtually identical to preexisting individuals, and believe such a practice unethical. But some see in such cloning the possibility to do good for infertile couples and the broader society. Some want to outlaw it, and many nations have done so. Others believe the benefits outweigh the risks and the moral concerns, or they oppose legislative interference with science and technology in the name of freedom and progress. Complicating the national dialogue about human cloning is the isolation in 1998 of human embryonic stem cells, which many scientists believe to hold great promise for understanding and treating many chronic diseases and conditions. Some scientists also believe that stem cells derived from cloned human embryos, produced explicitly for such research, might prove to be uniquely useful for studying many genetic diseases and devising novel therapies. Public reaction to this prospect has been mixed, with some Americans supporting it in the hope of advancing biomedical research and helping the sick and the suffering, while others are concerned about the instrumentalization or abuse of nascent human life and the resulting danger of moral insensitivity and degradation.

Scientific and Medical Aspects of Human Reproductive Cloning - National Research Council 2002-06-17

Human reproductive cloning is an assisted reproductive technology that would be carried out with the goal of creating a newborn genetically identical to another human being. It is currently the subject of much debate around the world, involving a variety of ethical, religious, societal, scientific, and medical issues. *Scientific and Medical Aspects of Human Reproductive Cloning* considers the scientific and medical sides of this issue, plus ethical issues that pertain to human-subjects research. Based on experience with reproductive cloning in animals, the report concludes that human reproductive cloning would be dangerous for the woman, fetus, and newborn, and is likely to fail. The study panel did not address the issue of whether human reproductive cloning, even if it were found to be medically safe, would be "acceptable to individuals or society."

Dolly: 1st Cloned Sheep - Joeming Dunn 2011-09-01

Animals have been an influential part of science, technology, and travel throughout time. *Dolly: The 1st Cloned Sheep* introduces readers to the historical climate of the 1990s and the cloning debate, background on the different types of cloning and Dolly, a chronology of Dolly's life, and how her creation influenced history. Colorful graphic art, diagrams of DNA, fast facts, and a glossary will bring the historic mission to a younger audience. A great supplement to your history graphic novel collection.

The Birds of America - John James Audubon 1839

A Clone of Your Own? - Arlene Judith Klotzko 2006-01-16

Discusses the differences between therapeutic and reproductive cloning, the science and issues of stem cell research, and the legal and ethical sides of the debate.

The DNA Mystique - Dorothy Nelkin 2010-02-01

"The DNA Mystique is a wake-up call to all who would dismiss America's love affair with 'the gene' as a merely eccentric obsession." --In *These Times* "Nelkin and Lindee are to be warmly congratulated for opening up this intriguing field [of genetics in popular culture] to further study." --*Nature* *The DNA Mystique* suggests that the gene in popular culture draws on scientific ideas but is not constrained by the technical definition of the gene as a section of DNA that codes for a protein. In highlighting DNA as it appears in soap operas, comic books, advertising, and other expressions of mass culture, the authors propose that these domains provide critical insights into science itself. With a new introduction and conclusion, this edition will continue to be an engaging, accessible, and provocative text for the sociology, anthropology, and bioethics classroom, as well as stimulating reading for those generally interested in science and culture.

Cloning & Stem Cells - 2015-05-26

Cloning - Teresa Wimmer 2008-07

Presents the story of Dolly, the first mammal cloned from DNA, along with the biographical information on the scientists who created her, and sidebars chronicling historical events and key historical figures of the period.

Ending Aging - Aubrey de Grey 2007-09-04

MUST WE AGE? A long life in a healthy, vigorous, youthful body has always been one of humanity's greatest dreams. Recent progress in genetic manipulations and calorie-restricted diets in laboratory animals hold forth the promise that someday science will enable us to exert total control over our own biological aging. Nearly all scientists who study the biology of aging agree that we will someday be able to substantially slow down the aging process, extending our productive, youthful lives. Dr. Aubrey de Grey is perhaps the most bullish of all such researchers. As has been reported in media outlets ranging from *60 Minutes* to *The New York Times*, Dr. de Grey believes that the key biomedical technology required to eliminate aging-derived debilitation and death entirely—technology that would not only slow but periodically reverse age-related physiological decay, leaving us biologically young into an indefinite

future—is now within reach. In *Ending Aging*, Dr. de Grey and his research assistant Michael Rae describe the details of this biotechnology. They explain that the aging of the human body, just like the aging of man-made machines, results from an accumulation of various types of damage. As with man-made machines, this damage can periodically be repaired, leading to indefinite extension of the machine's fully functional lifetime, just as is routinely done with classic cars. We already know what types of damage accumulate in the human body, and we are moving rapidly toward the comprehensive development of technologies to remove that damage. By demystifying aging and its postponement for the nonspecialist reader, de Grey and Rae systematically dismantle the fatalist presumption that aging will forever defeat the efforts of medical science.

Contemporary Bioethics - Mohammed Ali Al-Bar 2015-05-27

This book discusses the common principles of morality and ethics derived from divinely endowed intuitive reason through the creation of al-fitr' a (nature) and human intellect (al-'aql). Biomedical topics are presented and ethical issues related to topics such as genetic testing, assisted reproduction and organ transplantation are discussed. Whereas these natural sources are God's special gifts to human beings, God's revelation as given to the prophets is the supernatural source of divine guidance through which human communities have been guided at all times through history. The second part of the book concentrates on the objectives of Islamic religious practice - the maqa' sid - which include: Preservation of Faith, Preservation of Life, Preservation of Mind (intellect and reason), Preservation of Progeny (al-nasl) and Preservation of Property. Lastly, the third part of the book discusses selected topical issues, including abortion, assisted reproduction devices, genetics, organ transplantation, brain death and end-of-life aspects. For each topic, the current medical evidence is followed by a detailed discussion of the ethical issues involved.

The Double Helix - James D. Watson 2011-08-16

The classic personal account of Watson and Crick's groundbreaking discovery of the structure of DNA, now with an introduction by Sylvia Nasar, author of *A Beautiful Mind*. By identifying the structure of DNA, the molecule of life, Francis Crick and James Watson revolutionized biochemistry and won themselves a Nobel Prize. At the time, Watson was only twenty-four, a young scientist hungry to make his mark. His uncompromisingly honest account of the heady days of their thrilling sprint against other world-class researchers to solve one of science's greatest mysteries gives a dazzlingly clear picture of a world of brilliant scientists with great gifts, very human ambitions, and bitter rivalries. With humility unspoiled by false modesty, Watson relates his and Crick's desperate efforts to beat Linus Pauling to the Holy Grail of life sciences, the identification of the basic building block of life. Never has a scientist been so truthful in capturing in words the flavor of his work.

Equine Reproduction - Angus O. McKinnon 2011-07-05

Now in a much-anticipated two-volume new edition, this gold-standard reference stands as the most comprehensive and authoritative text on equine reproduction. Serving theriogenologists, practitioners and breeders worldwide as a one-stop resource for the reproductive assessment and management of equine patients, *Equine Reproduction, Second Edition* provides detailed information on examination techniques, breeding procedures, pregnancy diagnosis and management, reproductive tract diseases and surgery, and foaling. A companion CD offers hundreds of images from the book in color. For the Second Edition, the stallion, mare and foal sections have been thoroughly updated and revised to include the latest information on every subject. New topics include discussion of nutritional and behavioral factors in the broodmare and stallion, parentage testing, fetal sexing and the health and management of older foals, weanlings and yearlings. Additionally, this outstanding Second Edition features a new section on assisted reproductive techniques, including detailed information on artificial insemination, in-vitro fertilization, embryo transfer and technology.