

Textbook Of Human Reproductive Genetics

Different genetic diagnostic and treatment options are used worldwide to improve routine IVF procedures for the benefit of patients. This handbook updates the new genetic diagnostic technologies that have been translated to practice aiming to improve outcomes in the clinic and have a healthy baby at home. Chapters cover the use of genetic technologies in a personalized manner to unravel the possible genetic risks for the couple wishing to conceive, in terms of sperm, the embryo, the endometrium, miscarriage, and finally the fetus.

Human Reproductive Genetics: Emerging Technologies and Clinical Applications presents a great reference for clinicians and researchers in reproductive medicine. Part I includes a brief background of genetics and epigenetics, probability of disease, and the different techniques that are being used today for analysis and genetic counseling. Part II focuses on the analysis of the embryo, current controversies and future concepts. Part III comprises different clinical scenarios that clinicians frequently face in practice. The increasing amount of genetic tests available and the growing information that patients handle makes this section a relevant part of the fertility treatment discussion. Finally, Part IV concludes with the psychological aspects of genetic counseling and the role of counselor and bioethics in human reproduction. Provides an essential reference for clinicians involved in reproductive medicine Builds foundational knowledge on new genetic tests coming into the clinical scenario for physicians involved with patients Assembles critically evaluated chapters that cover basic concepts of genetics and epigenetics and the techniques involved, including preimplantation genetic testing, controversies, and more

This book is aimed at analyzing the foundations of medical ethics by considering different moral theories and their implications for judgments in clinical practice and policy-making. It provides a review of the major types of ethical theory that can be applied to medical and bioethical issues concerning reproductive genetics. In response to the debate on the most adequate ethical doctrine to guide biomedical decisions, this book formulates views that capture the best elements in each, bearing in mind their differences and taking into account the specific character of medicine. No historically influential position in ethics is by itself adequate to be applied to reproductive decisions. Thus, this book attempts to offer a pluralistic approach to biomedical research and medical practice. One usually claims that there are some basic principles (non-maleficence, beneficence, confidentiality, autonomy, and justice) which constitute the foundations of bioethics and medical ethics. Yet these principles conflict with each other and one needs some criteria to solve these conflicts and to specify the scope of application of these principles. Exploring miscellaneous ethical approaches as introduced to biomedicine, particularly to reproductive genetics, the book shall elucidate their different assumptions concerning human nature and the relations between healthcare providers, recipients, and other affected parties (e.g. progeny, relatives, other patients, society). The book attempts to answer the question of whether the tension between these ethical doctrines generates conflict in the field of biomedicine or if these competing approaches could in some way complement each other. In this respect, lecturers and researchers in bioethics would be interested in this reading this book.

Groundbreaking, comprehensive, and developed by a panel of leading international experts in the field, Textbook of Assisted Reproduction provides a multidisciplinary overview of the diagnosis and management of infertility, which affects 15% of all couples around the world. The book aims to cover all aspects of assisted reproduction. Particular attention is given to topics such as the assessment of infertile couples; assisted reproductive techniques (ARTs) including ovulation induction, intra uterine insemination (IUI), in vitro fertilization (IVF) and intracytoplasmic sperm injection (clinical and laboratory aspects); reproductive genetics; and obstetric and perinatal outcomes.

Reproductive Technologies in Animals

Human Genetics and Genomics

Implications for Health and Social Policy

Perinatal and Reproductive Genetics

Genetic Testing, Health Care, and Disability

Does Sex Matter?

The Fourth Edition of Knobil & Neill continues to serve as a reference aid for research, to provide the historical context to current research, and most importantly as an aid for graduate teaching on a broad range of topics in human and comparative reproduction. In the decade since the publication of the last edition, the study of reproductive physiology has undergone monumental changes. Chief among these advances are in the areas of stem cell development, signaling pathways, the role of inflammation in the regulatory processes in the various tissues, and the integration of new animal models which have led to a greater understanding of human disease. The new edition synthesizes all of this new information at the molecular, cellular, and organismal levels of organization and present modern physiology a more understandable and comparative context. The Fourth Edition has been extensively revised, reflecting new fundamental advancements in this rapidly advancing field. Provides a common language for researchers across the fields of physiology, endocrinology, and biology to discuss their understanding of reproduction. Saves academic researchers time in quickly accessing the very latest details on reproductive physiology, as opposed to searching through thousands of journal articles.

A comprehensive guide for trainee embryologists and medical students in the specialized techniques and technology of assisted reproduction.

This textbook presents essential information about human embryology in an accessible form. In addition to covering the specifics of human embryology, the text also provides practical information on human

health issues and the latest advances in human reproductive technology. Starting with the biological basics of cell anatomy and fertilization, the author moves through the development of specific organs and systems, before addressing the social issues associated with embryology. Each chapter includes specific objectives, general background, study questions, and questions to inspire critical thinking. Human Life Before Birth also contains two appendices and a full glossary of terms covered in the text. Clinicians and researchers in this field will find this volume indispensable.

Encyclopedia of Reproduction, Second Edition comprehensively reviews biology and abnormalities, also covering the most common diseases in humans, such as prostate and breast cancer, as well as normal developmental biology, including embryogenesis, gestation, birth and puberty. Each article provides a comprehensive overview of the selected topic to inform a broad spectrum of readers, from advanced undergraduate students, to research professionals. Chapters also explore the latest advances in cloning, stem cells, endocrinology, clinical reproductive medicine and genomics. As reproductive health is a fundamental component of an individual's overall health status and a central determinant of quality of life, this book provides the most extensive and authoritative reference within the field. Provides a one-stop shop for information on reproduction that is not available elsewhere Includes extensive coverage of the full range of topics, from basic, to clinical considerations, including evolutionary advances in molecular, cellular, developmental and clinical sciences Includes multimedia and interactive teaching tools, such as downloadable PowerPoint slides, video content and interactive elements, such as the Virtual Microscope

Handbook of Gestational Surrogacy

Assessing Genetic Risks

Sexual and Reproductive Health

Encyclopedia of Reproduction

Cytogenomics

Scientific and Medical Aspects of Human Reproductive Cloning

Cytogenomics demonstrates that chromosomes are crucial in understanding the human genome and that new high-throughput approaches are central to advancing cytogenetics in the 21st century. After an introduction to (molecular) cytogenetics, being the basic of all cytogenomic research, this book highlights the strengths and newfound advantages of cytogenomic research methods and technologies, enabling researchers to jump-start their own projects and more effectively gather and interpret chromosomal data. Methods discussed include banding and molecular cytogenetics, molecular combing, molecular karyotyping, next-generation sequencing, epigenetic study approaches, optical mapping/karyomapping, and CRISPR-cas9 applications for cytogenomics. The book's second half demonstrates recent applications of cytogenomic techniques, such as characterizing 3D chromosome structure across different tissue types and insights into multilayer organization of chromosomes, role of repetitive elements and noncoding RNAs in human genome, studies in topologically associated domains, interchromosomal interactions, and chromoanagenesis. This book is an important reference source for researchers, students, basic and translational scientists, and clinicians in the areas of human genetics, genomics, reproductive medicine, gynecology, obstetrics, internal medicine, oncology, bioinformatics, medical genetics, and prenatal testing, as well as genetic counselors, clinical laboratory geneticists, bioethicists, and fertility specialists. Offers applied approaches empowering a new generation of cytogenomic research using a balanced combination of classical and advanced technologies Provides a framework for interpreting chromosome structure and how this affects the functioning of the genome in health and disease Features chapter contributions from international leaders in the field

This acclaimed text has been fully revised and updated, now incorporating issues including aging of the reproductive system, and updates on the chapters on conception and Gamete Transport and Fertilization, and Pregnancy. Human Reproductive Biology, Third Edition emphasizes the biological and biomedical aspects of human reproduction, explains advances in reproductive science and discusses the choices and concerns of today. Generously illustrated in full color, the text provides current information about human reproductive anatomy and physiology. The ideal book for courses on human reproductive biology - includes chapter introductions, sidebars on related topics of interest, chapter summaries and suggestions for further reading. All material competely updated with the latest research results, methods, and topics now organized to facilitate logical presentation of topics New chapters on Reproductive Senescence, Conception: Gamete Transport, Fertilization, Pregnancy: Maternal Aspects and Pregnancy: Fetal Development Full color illustrations

This book presents the findings of the RCOG Study Group findings on genetics underlying reproductive function.

Since the birth of the first successful IVF baby over twenty years ago, the field of assisted reproduction has grown exponentially. Preimplantation genetic diagnosis, gamete and embryo freezing, and embryo cloning are only a few examples of reproductive biotechnologies that have stimulated a worldwide debate. Biotechnology of Human Reproduction presents an up-to-date basis for this debate. The book supplies a complete overview of how new biotechnologies benefit human reproductive medicine, from the viewpoints of both basic research and clinical application. The

book explores the most relevant issues in the field, including reproductive genetics, biology, pharmacology, endocrinology, surgery, and assisted reproduction technology. In each chapter, scientists and clinicians give insight into a particular aspect of human reproduction. The science and technology in this field has expanded beyond all expectations, and will only continue to grow. The wealth of information available and the continuing growth in this field creates a continuing need for up-to-date knowledge. Biotechnology of Human Reproduction provides an expert and comprehensive overview of the field as it is understood and practiced today, and in the future.

Between Utility, Principles, and Virtues

International Clinical Practice and Policy Issues

Textbook of Assisted Reproduction

Towards Reproductive Certainty: Fertility and Genetics Beyond 1999: The Plenary Proceedings of the 11th World Congress

Emery and Rimoin's Principles and Practice of Medical Genetics and Genomics

Knobil and Neill's Physiology of Reproduction

The new edition of this canonical text on male reproductive medicine will cement the book's market-leading position. Practitioners across many specialties - including urologists, gynecologists, reproductive endocrinologists, medical endocrinologists and many in internal medicine and family practice - will see men with suboptimal fertility and reproductive problems. The book provides an excellent source of timely, well-considered information for those training in this young and rapidly evolving field. While several recent books provide targeted 'cookbooks' for those in a male reproductive laboratory, or quick reference for practising generalists, the modern, comprehensive reference providing both a background for male reproductive medicine as well as clinical practice information based on that foundation has been lacking until now. The book has been extensively revised with a particular focus on modern molecular medicine. Appropriate therapeutic interventions are highlighted throughout.

Discusses the role of quality assessments in social policy, raised by prenatal testing for disability. Raising hopes for disease treatment and prevention, but also the specter of discrimination and "designer genes," genetic testing is potentially one of the most socially explosive developments of our time. This book presents a current assessment of this rapidly evolving field, offering principles for actions and research and recommendations on key issues in genetic testing and screening. Advantages of early genetic knowledge are balanced with issues associated with such knowledge: availability of treatment, privacy and discrimination, personal decisionmaking, public health objectives, cost, and more. Among the important issues covered: Quality control in genetic testing. Appropriate roles for public agencies, private health practitioners, and laboratories. Value-neutral education and counseling for persons considering testing. Use of test results in insurance, employment, and other settings. This volume brings together two areas of health that are among the foci of current development efforts, as articulated by the Millennium Development Goals (MDGs), namely sexual and reproductive health (MDG 5: improve maternal health, target 2: achieve, by 2015, universal access to reproductive health); and Gender (MDG 3: promote gender equality and empower women). Few, if any, published books have dealt in a comprehensive way with public health aspects of these two strongly interrelated areas of health. Most published volumes devoted to sexual and reproductive health have a strong clinical focus, whereas books on gender tend to concentrate primarily on the socio-cultural and anthropological aspects of the subject. * Focuses on the relationship between sexual and reproductive behaviors and the resulting impact on populations and societies as a group * Provides a science-based approach to identifying appropriate response plans, adaptations, and mitigation steps for related behaviors *Explores the financial and societal impact of behavioral choices *Includes new preface specifically for this audience

Infertility in the Male

Human Reproductive Biology

Perinatal Genetics

Chromosome Abnormalities and Genetic Counseling

Emerging Technologies and Clinical Applications

A Textbook of Clinical Embryology

Physiology of Human Reproduction provides students with a concise and accessible overview of more than 200 vital concepts, from the basic physiology of the male and the nonpregnant female, to fertilization, embryonic and fetal growth, labor, lactation, and more. Presented in a readable style, key terms are highlighted throughout the main text to enable students to quickly find a concept and read the appropriate information. Whether reading the book from cover to cover, or using a focused approach to learn about specific concepts, readers will find this textbook to be an invaluable tool for increasing their understanding of human reproduction. An essential companion for standard Anatomy and Physiology courses, this student-friendly textbook: Covers physiology of the male, the physiology of the nonpregnant female, pregnancy and lactation, and age-related changes such as menopause Discusses pregnancy, birth control, and the reproductive system in childhood, adolescence, and puberty Describes the anatomy, physiology, and phases of the human sexual response Explains genetic conditions and disorders including androgen insensitivity syndrome and Kallman's syndrome Physiology of

Human Reproduction is a must-have learning guide for students in the medical and life sciences, including medicine, nursing, biology, physiology, and biomedicine, as well as those in courses covering human reproduction and pregnancy.

Infertility affects more than one in ten couples worldwide and is related to highly heterogeneous pathologies sometimes only discernible in the germ line. Its complex etiology often, but not always, includes genetic factors besides anatomical defects, immunological interference, and environmental aspects. Nearly 30% of infertility cases are probably caused only by genetic defects. Thereby experimental animal knockout models convincingly show that infertility can be caused by single or multiple gene defects. Translating those basic research findings into clinical studies is challenging, leaving genetic causes for the vast majority of infertility patients unexplained. Nevertheless, a large number of candidate genes have been revealed by sophisticated molecular methods. This book provides a comprehensive overview on the subject of infertility written by the leading authorities in this field. It covers topics including basic biological, cytological, and molecular studies, as well as common and uncommon syndromes. It is a must-read for human geneticists, endocrinologists, epidemiologists, zoologists, and counsellors in human genetics, infertility, and assisted reproduction.

This book brings together genetics, reproductive biology and medicine for an integrative view of the emerging specialism of reproductive genetics.

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 "or would not be" acceptable to individuals or society.

Human Embryos and Preimplantation Genetic Technologies

Handbook of New Genetic Diagnostic Technologies in Reproductive Medicine

Physiology of Human Reproduction

Ethical, Social, and Public Policy Aspects

11th World Congress on In Vitro Fertilisation and Human Reproductive Genetics, 9-14th May 1999 Sydney, Australia

Human Reproductive and Prenatal Genetics

Within twenty, maybe forty, years most people in developed countries will stop having sex for the purpose of reproduction. Instead, prospective parents will be told as much as they wish to know about the genetic makeup of dozens of embryos, and they will pick one or two for implantation, gestation, and birth. And it will be safe, lawful, and free. In this work of prophetic scholarship, Henry T. Greely explains the revolutionary biological technologies that make this future a seeming inevitability and sets out the deep ethical and legal challenges humanity faces as a result. "Readers looking for a more in-depth analysis of human genome modifications and reproductive technologies and their legal and ethical implications should strongly consider picking up Greely's *The End of Sex and the Future of Human Reproduction*...[It has] the potential to empower readers to make informed decisions about the implementation of advancements in genetics technologies." —Dov Greenbaum, *Science* "[Greely] provides an extraordinarily sophisticated analysis of the practical, political, legal, and ethical implications of the new world of human reproduction. His book is a model of highly informed, rigorous, thought-provoking speculation about an immensely important topic." —Glenn C. Altschuler, *Psychology Today*

Human Population Genetics and Genomics provides researchers/students with knowledge on population genetics and relevant statistical approaches to help them become more effective users of modern genetic, genomic and statistical tools. In-depth chapters offer thorough discussions of systems of mating, genetic drift, gene flow and subdivided populations, human population history, genotype and phenotype, detecting selection, units and targets of natural selection, adaptation to temporally and spatially variable environments, selection in age-structured populations, and genomics and society. As human genetics and genomics research often employs tools and approaches derived from population genetics, this book helps users understand the basic principles of these tools. In addition, studies often employ statistical approaches and analysis, so an understanding of basic statistical theory is also needed. Comprehensively explains the use of population genetics and genomics in medical applications and research Discusses the relevance of population genetics and genomics to major social issues, including race and the dangers of modern eugenics proposals Provides an overview of how population genetics and genomics helps us understand where we came from as a species and how we evolved into who we are now

Get a quick, expert overview of the fast-changing field of perinatal genetics with this concise, practical resource. Drs. Mary Norton, Jeffrey A. Kuller, Lorraine Dugoff, and George Saade fully cover the clinically relevant topics that are key to providers who care for pregnant women and couples contemplating pregnancy. It's an ideal resource for Ob/Gyn physicians, maternal-fetal medicine specialists, and clinical geneticists, as well as midwives, nurse practitioners, and other obstetric providers. Provides a comprehensive review of basic principles of medical genetics and genetic counseling, molecular genetics, cytogenetics, prenatal screening options, chromosomal microarray analysis, whole exome sequencing, prenatal ultrasound, diagnostic testing, and more. Contains a chapter on fetal treatment of genetic disorders. Consolidates today's available information and experience in this important area into one convenient resource.

Genetics and Evolution of Infectious Diseases, Second Edition, discusses the constantly evolving field of infectious diseases and their continued impact on the health of populations, especially in resource-limited areas of the world. Students in public health, biomedical professionals, clinicians, public health practitioners, and decisions-makers will find valuable information in this book that is relevant to the control and prevention of neglected and emerging worldwide diseases that are a major cause of global morbidity, disability, and mortality. Although substantial gains have been made in public health interventions for the treatment, prevention, and control of infectious diseases during the last century, in recent decades the world has witnessed a worldwide human immunodeficiency virus (HIV) pandemic, increasing antimicrobial resistance, and the emergence of many new bacterial, fungal, parasitic, and viral pathogens. The economic, social, and political burden of infectious diseases is most evident in developing countries which must confront the dual burden of death and disability due

to infectious and chronic illnesses. Takes an integrated approach to infectious diseases Includes contributions from leading authorities Provides the latest developments in the field of infectious disease

Quality of Life and Human Difference

A Public Health Perspective

Genetics of Human Infertility

Human Life Before Birth

Ancestral DNA, Human Origins, and Migrations

Reproductive Genetics

Preimplantation Genetic Diagnosis (PGD) is the detection and screening of genetic abnormality in gametes prior to fertilisation and embryos fertilised in vitro prior to implantation. This exciting new text provides an introduction and overview of the principles of PGD. An exciting fusion of prenatal diagnosis (PD) with in vitro fertilisation (IVF), this book will appeal to both the prenatal diagnosis community, of clinical geneticists and foetal medicine specialists within obstetrics and gynaecology, and the IVF community within reproductive medicine. It is also an essential introduction to PD, clinical genetics and IVF for non-specialists. A concise introduction to the field of PGD Detailed explanations of the techniques and procedures used The law and ethical implications of PGD Future uses of PGD

Ancestral DNA, Human Origins, and Migrations describes the genesis of humans in Africa and the subsequent story of how our species migrated to every corner of the globe. Different phases of this journey are presented in an integrative format with information from a number of disciplines, including population genetics, evolution, anthropology, archaeology, climatology, linguistics, art, music, folklore and history. This unique approach weaves a story that has synergistic impact in the clarity and level of understanding that will appeal to those researching, studying, and interested in population genetics, evolutionary biology, human migrations, and the beginnings of our species. Integrates research and information from the fields of genetics, evolution, anthropology, archaeology, climatology, linguistics, art, music, folklore and history, among others Presents the content in an entertaining and synergistic style to facilitate a deep understanding of human population genetics Informs on the origins and recent evolution of our species in an approachable manner

Finally meeting the need for a laboratory manual on human genetics, this practical guide is the perfect companion title to all major standard textbooks on the subject. The authors all have a high-level research background and are actively involved in teaching and counseling. Based on a standard curriculum in human genetics, each chapter equals one practical unit of the course and topics range from basics in human inheritance to genetics in major disease clusters and from bioinformatics and personalized medicine to genetic counseling.

Advances in cytogenetics continue to crop up in wonderful ways, and we know exponentially more about chromosomes now than mere decades ago. Likewise, the necessary skills in offering genetic counseling continue to evolve. This new edition of Chromosome Abnormalities in Genetic Counseling offers a practical, up-to-date guide for the genetic counselor to marshal cytogenetic data and analysis clearly and effectively to families.

The Ethics of Reproductive Genetics

WHO Classification of Tumours of Female Reproductive Organs

The Cloning Sourcebook

A Practical Guide

Improving Patient Success Rates and Infant Health

Human Population Genetics and Genomics

Human Reproductive and Prenatal Genetics presents the latest material from a detailed molecular, cellular and translational perspective. Considering its timeliness and potential international impact, this all-inclusive and authoritative work is ideal for researchers, students, and clinicians worldwide. Currently, there are no comprehensive books covering the field of human reproductive and prenatal genetics. As such, this book aims to be among the largest and most useful references available. Features chapter contributions from leading international scientists and clinicians Provides in-depth coverage of key topics in human reproductive and prenatal genetics, including genetic controls, fertilization and implantation, in vitro culture of the human embryo for the study of post-implantation development, and more Identifies how researchers and clinicians can implement the latest genetic, epigenetic, and -omics based approaches Wide-ranging and inclusive, this text provides an invaluable review of an expansive selection of topics in human evolution, variation and adaptability for professionals and students in biological anthropology, evolutionary biology, medical sciences and psychology. The chapters are organized around four broad themes, with sections devoted to phenotypic and genetic variation within and between human populations, reproductive physiology and behavior, growth and development, and human health from evolutionary and ecological perspectives. An introductory section provides readers with the historical, theoretical and methodological foundations needed to understand the more complex ideas presented later. Two hundred discussion questions provide starting points for class debate and assignments to test student understanding.

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.

It's obvious why only men develop prostate cancer and why only women get ovarian cancer. But it is not obvious why women are more likely to recover language ability after a stroke than men or why women are more apt to develop autoimmune diseases such as lupus. Sex differences in health throughout the lifespan have been documented. Exploring the Biological Contributions to Human Health begins to snap the pieces of the puzzle into place so that this knowledge can be used to improve health for both sexes. From behavior and cognition to metabolism and response to chemicals and infectious organisms, this book explores the health impact of sex (being male or female, according to reproductive organs and chromosomes) and gender (one's sense of self as male or female in society). Exploring the Biological Contributions to Human Health discusses basic biochemical differences in the cells of males and females and health variability between the sexes from conception throughout life. The book identifies key research needs and opportunities and addresses barriers to research. Exploring the Biological Contributions to Human Health will be important to health policy makers, basic, applied, and clinical researchers, educators, providers, and journalists-while being very accessible to interested lay readers.

Human Reproductive Genetics

Biotechnology of Human Reproduction

Human Genetics: The Basics

Notes for Students

Human Evolutionary Biology

Textbook of Human Reproductive Genetics

This is a forward-looking clinical reference of definitive authority on today's headline controversies surrounding in vitro fertilization (IVF) and reproductive genetics. Written by leading experts from medicine, education, psychology, ethics, counseling, and other disciplines studying fertility and genetics, the book contains nearly 70 chapters in seven sections. The introductory section deals with biology, business, morality and society in IVF and reproductive genetics; other sections focus on IVF outcomes, personal ethics and business, biology of the egg, sperm and embryo, implantation, IVF and society, and such 21st century topics as space travel and human reproduction, the disappearing male, and the future of motherhood. Includes bibliographic references and index. Reproductive Technologies in Animals provides the most updated and comprehensive knowledge on the various aspects and applications of reproductive technologies in production animals as well as companion, wild, exotic, and laboratory animals and birds. The text synthesizes historical information and recent discoveries, while dealing with economical and geographical issues related to the implementation of the same technologies. It also presents the effects of reproductive technology implementation on animal welfare and the possible threat of pathogen transmission. Reproductive Technologies in Animals is an important resource for academics, researchers, professionals in public and private animal business, and students at the undergraduate and graduate levels, as it gives a full and detailed first-hand analysis of all species subjected to the use of reproductive technologies. Provides research from a team of scientists and researchers whose expertise spans all aspects of animal reproductive technologies. Addresses the use of reproductive technologies in a wide range of animal species. Offers a complete description and historical background for each species described. Discusses successes and failure as well as future challenges in reproductive technologies. Emery and Rimoin's Principles and Practice of Medical Genetics and Genomics: Perinatal and Reproductive Genetics, Seventh Edition includes the latest information on seminal topics such as prenatal diagnosis, genome and exome sequencing, public health genetics, genetic counseling, and management and treatment strategies in this growing field. The book is ideal for medical

students, residents, physicians and researchers involved in the care of patients with genetic conditions. This comprehensive, yet practical resource emphasizes theory and research fundamentals related to applications of medical genetics across the full spectrum of inherited disorders and applications to medicine more broadly. Chapters from leading international researchers and clinicians focus on topics ranging from single gene testing to whole genome sequencing, whole exome sequencing, gene therapy, genome editing approaches, FDA regulations on genomic testing and therapeutics, and ethical aspects of employing genomic technologies. Fully revised and up-to-date, this new edition introduces genetic researchers, students and healthcare professionals to genomic technologies, testing and therapeutic applications Examines key topics and developing methods within genomic testing and therapeutics, including single gene testing, whole genome and whole exome sequencing, gene therapy and genome editing, variant Interpretation and classification, and ethical aspects of applying genomic technologies Includes color images that support the identification, concept illustration, and method of processing Features contributions by leading international researchers and practitioners of medical genetics Provides a robust companion website that offers further teaching tools and links to outside resources and articles to stay up-to-date on the latest developments in the field

Human Embryos and Preimplantation Genetic Technologies: Ethical, Social, and Public Policy Aspects presents the first holistic analysis of PGD and PGS as it is practiced and regulated worldwide. In addition to scientific and technical aspects, the book provides perspectives on the ethical, legal, religious, policy and social implications of global assisted reproduction technologies, including in Africa, Asia, Europe, North and South America, and Australia. Chapters cover history, ethics, feminism, family dynamics, psychological and interpersonal factors, the current state of PGD and PGS in 20 different sovereign nations and religious communities, and provide an analysis of public policy concerns and future directions. Provides an in-depth discussion of PGD and PGS as practiced and regulated worldwide Offers an accessible resource for researchers, medical professionals, patients, regulators and policymakers seeking expert opinions on PGS and PGD Contains chapters contributed by international clinicians, researchers and thought leaders in the field of assisted reproductive technology

The End of Sex and the Future of Human Reproduction

Preimplantation Genetic Diagnosis

Genetics and Evolution of Infectious Diseases

Exploring the Biological Contributions to Human Health

Human genetics has blossomed from an obscure branch of biological science and occasional explanation for exceedingly rare disorders to a field all of its own that affects everyone. Human Genetics: The Basics introduces the key questions and issues in this emerging field, including: The common ancestry of all humanity The role of genes in sickness and health Debates over the use of genetic technology Written in an engaging, narrative manner, this concise introduction is an ideal starting point for anyone who wants to know more about genes, DNA, and the genetic ties that bind us all.

There is an increasing demand for gestational surrogacy in current reproductive medicine practice. Infertile couples often engage overseas surrogates, which increases the risk for legal and ethical complications. This book provides clinical guidance on the provision of gestational surrogacy on a worldwide basis, with brief summaries of the legal position within countries where it is offered. This volume provides a comprehensive overview of surrogacy for clinicians, counsellors, attorneys, legislators and anyone interested in reproductive health policy by filling an immediate niche as a resource for those interested in third-party reproductive treatments.

WHO Classification of Tumours of Female Reproductive Organs is the sixth volume in the 4th Edition of the WHO series on histological and genetic typing of human tumours. This authoritative, concise reference book provides an international standard for oncologists and pathologists and will serve as an indispensable guide for use in the design of studies monitoring response to therapy and clinical outcome. Diagnostic criteria, pathological features, and associated genetic alterations are described in a strictly disease-oriented manner. Sections on all recognized neoplasms and their variants include new ICD-O codes, epidemiology, clinical features, macroscopy, pathology, genetics, and prognosis and predictive factors. The book, prepared by 91 authors from 19 countries, contains more than 400 colour images and tables, and more than 2100 references