This fully updated new edition of a successful and popular practical guide is an indispensable account of modern in-vitro fertilization practice. Initial chapters cover theoretical aspects of gametogenesis and embryo development at the cellular and molecular level, while the latter half of the book describes the requisites for a successful IVF laboratory and the basic technologies in ART. Advanced techniques, including pre-implantation genetic diagnosis, vitrification and stem-cell technology, are comprehensively covered, providing up-to-date analyses of these groundbreaking technologies. This edition includes: 

- New practical techniques, including preservation of fertility for cancer patients, stem-cell biology/technology, vitrification and in-vitro maturation
- A 'refresher' study review of fundamental principles of cell and molecular biology
- The latest information available from animal and human research in reproductive biology

Packed with a wealth of practical and scientific detail, this is a must for all IVF practitioners.

"In a span of just a couple of decades, human reproduction has been revolutionized by the widespread use of assisted reproduction. Many couples and individuals who previously could not achieve pregnancy and live birth are now able to fulfill their wish of a family. In addition, it is possible to postpone and plan the time for reproduction through improved cryopreservation techniques for gametes and embryos. Today, assisted reproduction techniques are established all over the world, having led to more than 8 million children born, with an estimated 10 million embryos cryopreserved. It is important to remember that the success of these - now more or less standard - procedures, have been accomplished by the dedicated work of a large number of scientists, embryologists and clinicians. However, despite considerable experimental and clinical research, we still only have a partial understanding of what constitutes a "true" embryo environment. In vivo the oocyte travels from the ovary to the uterus through a landscape of changing physiological
conditions. Much effort has been made to mimic this varying environment in the in vitro culture but we still do not know whether in the end the embryos should be in utero for a better environment or maintained in vitro for a better selection. Special focus of research has been directed towards composition of the culture media, handling of the gametes and embryos, and to the design of specialized incubators to create stable and controlled conditions regarding pH, temperature and osmolarity—

The Practical Manual of In Vitro Fertilization: Advanced Methods and Novel Devices is a unique, accessible title that provides a complete review of the most well-established and current diagnostic and treatment techniques comprising in vitro fertilization. Throughout the chapters, a uniform structure is employed, including a brief abstract, a keyword glossary, a step-by-step protocol of the laboratory procedures, several pages of expert commentary, key issues of clinical concern, and a list of references. The result is a readily accessible, high quality reference guide for reproductive endocrinologists, urologists, embryologists, biologists and research scientists. The Manual also offers an excellent description of novel procedures that will likely be employed in the near future. An indispensable resource for physicians and basic scientists, the Practical Manual of In Vitro Fertilization: Advanced Methods and Novel Devices is an invaluable reference and addition to the literature.

Manual of Assisted Reproductive Technologies and Clinical Embryology aims to discuss the relevance of science of reproductive biology in modern-day Assisted Reproductive Technologies and their practical applications. The readers can learn and master the large number of sophisticated techniques which form the backbone of the fascinating and growing field of human assisted reproduction. The subject is vast and has been covered over 83 chapters. All the chapters are dealt by the experts of concerned fields. Principles and protocols pertaining to laboratory maintenance, culture media, cryofreezing of gametes, embryos, and genital tissues have been dealt with at length. This book is an invaluable reference book for the clinicians, reproductive biologists and embryologists.

The second edition of this three-volume set brings practitioners and trainees fully up to date with the latest advances in Assisted Reproductive Technology (ART). Volume One begins with an introduction to infertility, describing physiology, endocrinology and infertility in both men and women. The following sections provide in depth discussion on ART, from ovulation induction, intrauterine insemination, and ART techniques, to third party reproduction, complications, outcomes and future clinical applications. The second volume is dedicated to laboratory aspects of In Vitro Fertilisation (IVF) andrology, and ethical and legal issues, whilst Volume Three is an atlas of human embryology. This practical manual is an invaluable reference for clinicians specialising in infertility management and includes more than 1300 full colour photographs, diagrams and tables to enhance understanding. Key points Fully revised, second edition of three-volume set presenting latest advances in ART Each volume dedicated to specific topic – Infertility, IVF & Andrology, and Atlas of Embryology Includes more than 1300 clinical photographs, diagrams and tables Previous edition (9789350907368) published in 2013

Textbook of Assisted Reproductive Technologies is a truly comprehensive manual for the whole team at the IVF clinic. Information is presented in a highly visual manner, allowing both methods and protocols to be consulted easily. The text provides clinical and scientific teams with the A to Zs of setting up an embryology laboratory, gives research fellows insight into technical developments, and supplies seasoned professionals with a review of the latest techniques and advances. New to the Third Edition: fully revised and expanded chapters, with new information on: single embryo transfer artificial gametes pharmacogenetics

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This book is a complete guide to setting up an IVF laboratory. Beginning with an introduction to the history and the basics, the following chapters take clinicians through the full set up and management process, from air quality control and cryopreservation facilities, to morphological embryo assessment, sperm processing and selection techniques, to document management systems. A separate chapter provides an update on semen analysis based on World Health Organisation (WHO) standards and interpretation of results. Written by an extensive author and editor team from the UK, Europe and the USA, this practical manual is invaluable for embryologists and IVF specialists planning to set up and manage an IVF laboratory successfully. Key points

Practical guide to setting up and managing an IVF laboratory
Provides step by step process
Includes chapter on semen analysis based on WHO standards and interpretation of results
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Provides practical guidance for the optimal organization and management of an IVF laboratory for successful embryo culture.

The new edition of this infertility manual has been fully revised to provide clinicians with the latest advances in the diagnosis and management of infertility. Divided into seven sections, the book provides step by step guidance on each stage of the process, from initial examination and identifying the causes of infertility in both females and males, to ovarian stimulation and assisted reproduction techniques. The final section is dedicated to laboratory management covering topics such as follicular fluid screening and oocyte assessment, culture systems, and cryopreservation. The fourth edition includes new chapters on molecular mechanisms such as endometrial receptivity, and implantation; and current trends such as the embryoscope and assisted hatching. The comprehensive text is further enhanced by case studies, clinical photographs, diagrams, flowcharts and tables. Key points Fully revised, new edition providing latest advances in diagnosis and management of infertility Fourth edition features new chapters on molecular mechanisms and current trends Highly illustrated with clinical images, flowcharts and tables Previous edition (9788184486179) published in 2009

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Comprehensive guide to Assisted Reproductive Technologies (ART) and embryology with step by step descriptions of different types of ART. Includes DVD.
This concise, truncated version of Nagy, Varghese and Agarwal's Practical Manual of In Vitro Fertilization is comprised of select practical chapters for a portable, affordable and up-to-date resource. Building and Managing an IVF Laboratory covers a variety of topics, including: - Setting up and running an IVF laboratory - IVF laboratory equipment and culture systems - Organization of the IVF unit - Licensing and regulation in the ART laboratory - Quality control and troubleshooting Practical for both clinicians and researchers alike, Building and Managing an IVF Laboratory brings together all of the need-to-know information about these important topics in reproductive medicine.

This multi-authored volume presents a detailed review of the evaluation and management of the infertile couple. Covering male and female infertility, medical and surgical strategies for improving reproductive success, techniques of assisted reproductive technology, and future possibilities in this fast-moving field, this extensive text is essential.

Already established as a classic comprehensive reference for the whole team at the IVF clinic, this new edition has been extensively revised, with the addition of several important new contributions on laboratory (including advanced sperm selection techniques for ICSI, human embryo biopsy procedures, oocyte activation, managing an oocyte bank, artificial gametes, and epigenetics) as well as on clinical topics (including GnRH agonist triggering, segmentation of IVF treatment, uterus transplantation, and risk and safety management). As previously, methods, protocols, and techniques of choice are presented by eminent contributors internationally.

This major book - known as 'The Bourn Hall Textbook' - evolved from teaching courses held at this prestigious Clinic - one of the birthplaces of IVF and clinical reproductive medicine. The content is comprehensive: covering assessment of the infertile couple and both laboratory and clinical aspects of assisted reproductive technologies. The emphasis throughout is on the practical management of patients undergoing assisted conception treatment. The third edition is a complete update of the field including expanded sections on newer technologies such as GIFT and ICSI. The book is authored largely by current or previous members of the Bourne Hall staff, with additional material from leading international authorities. The Bourn Hall Procedures, Protocols and Information Sheets - previously published as an Appendix - are now included on CD-ROM for ease of adaptation for local use.

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A concise, comprehensive, practical guide to the modern-day approach to the diagnosis and treatment of infertility.

Our knowledge of reproductive medicine has expanded rapidly since the birth of Louise Brown, the first baby to be conceived by in vitro fertilization, which was performed by Professors Patrick Steptoe and Bob Edwards in Oldham, England, in 1978. Hardly a year goes by without the development of a new or a modification of an existing method of assisted reproduction. Within a relatively short period, in vitro fertilization has been introduced into the treatment of
female infertility. Intracytoplasmic sperm injection has also created new opportunities for the treatment of male infertility. The first edition of this book was published in 1996. In the second edition most of the chapters have been updated and additional interest is focused on intracytoplasmic sperm injection (ICSI) in view of the risk of malformations in newborns. This manual addresses the techniques of assisted reproduction that are available today. Competent authors from various centers present, in a concise way, their tried-and-tested procedures, so that the latter can be readily implemented. Due to different legal regulations, the scope of assisted reproduction is much more limited in Germany than in many other countries. For example, whereas only three embryos may be created and transferred in Germany, such restrictions do not exist in several other European countries and the United States. Furthermore, heterologous fertilization, oocyte donation, and surrogate motherhood are banned in Germany.

Updated and expanded, Textbook of Assisted Reproductive Techniques, Second Edition, Laboratory and Clinical Perspectives provides an authoritative manual for the entire IVF team. There are many books on IVF procedure, but none have combined the laboratory and clinical aspects to cover the subject so comprehensively. The book brings together leading medical and scientific experts to describe, in a clear and concise manner, the hows, whys, and reasoning behind ART. The laboratory procedures section provides step-by-step how-tos for setting up the ART laboratory, covering everything that has to do with surroundings, equipment, conditions, quality control, and accreditation for the laboratory. The clinical techniques section discusses patient care from investigation to management to complications. New chapters cover: stem cells, genetic analysis, the role of the nurse, stress and outcomes, management of hydrosalpinx, prognostic assessment of ovarian reserve, quality management, setting up a national registry, health economic aspects, fertility preservation strategies, vitrification of oocytes, and more. One of the things that makes this book so special is its contributors, all of whom are world leaders in the field and experts in their specific topic. The information is presented in a highly visual manner, making methods and protocols easy to find and understand. The book gives research fellows insight into technical developments, provides clinical and scientific teams with the A to Zs of setting up an embryology laboratory, and supplies seasoned professionals with a review of the newest techniques and advances.

For around half of the couples who have trouble conceiving the cause of infertility is sperm-related. Intracytoplasmic sperm injection (ICSI) is the most common and successful treatment for male infertility. Here, the pioneers for the technique, along with authorities in the field, describe the underlying science of ICSI and other micromanipulation techniques. Practical advice for performing the techniques is covered in depth, including sperm selection, laser-assisted ICSI, and the use of piezo in ICSI. Examining the safety of ICSI in animal models as well as the impact of ICSI on the health and well-being of the children conceived through the procedure is discussed. This manual is an essential resource for clinical embryologists and laboratory personnel wishing to refine or develop techniques and improve outcomes.

The second edition of this three-volume set brings practitioners and trainees fully up to date with the latest advances in Assisted Reproductive Technology (ART). Volume One begins with an introduction to infertility, describing physiology, endocrinology and infertility in both men and women. The following sections provide in depth discussion on ART, from ovulation induction, intrauterine insemination, and ART techniques, to third party reproduction, complications, outcomes and future clinical applications. The second volume is dedicated to laboratory aspects of In Vitro Fertilisation (IVF) andrology, and ethical and legal issues, whilst Volume Three is an atlas of human embryology. This practical manual is an invaluable reference for clinicians specialising in infertility management and includes more than 1300 full colour photographs, diagrams and tables to enhance understanding. Key points


Textbook of Assisted Reproductive Technologies is a truly comprehensive manual for the whole team at the IVF clinic. Information is presented in a highly
visual manner, allowing both methods and protocols to be consulted easily. The third edition of this best-selling textbook has been revised throughout and includes new chapters on single embryo transfer, artificial gametes and pharmacogenomics.

A truly comprehensive manual for the whole team at the IVF clinic.

Focusing on modern sperm function testing, this guide is essential in selecting sperm that will produce viable and healthy embryos.

“The field of male infertility has witnessed major clinical advancements in recent years, and perhaps the most important of these was the development of testicular sperm retrieval procedures that allowed men with azoospermia to father their biological children. Epididymal sperm retrieval procedures were first performed in the 1980s for men with obstructive azoospermia. The realization that men with nonobstructive azoospermia may indeed have focal areas of testicular sperm production together with the documented fertilizing ability of testicular spermatozoa allowed the development of testicular sperm retrieval procedures in the 1990s. Subsequently, testicular sperm retrieval underwent further refinement with the introduction of microsurgery, which improved the sperm retrieval rate and at the same time reduced the potential adverse impact of surgery on testicular parenchyma. Extensive research has been conducted in attempts to study the predictors of positive sperm retrieval, hoping to increase the outcome of surgical sperm retrieval procedures. This manual presents recent advancements in the surgical management of azoospermia patients. It is divided into three parts: Part I serves as an introduction presenting important anatomic and physiologic aspects of the reproductive tract and demonstrating the ideal methods for evaluating candidates of sperm retrieval. Part II elaborates on the surgical techniques of sperm retrieval in a variety of clinical scenarios. Moreover, it investigates the predictors of successful sperm retrieval and explores methods for enhancing sperm retrieval outcomes. Finally, Part III focuses on the laboratory handling of retrieved sperm and sperm cryopreservation, and explores future directions aimed at optimizing embryologists’ work in the lab. We are confident that our book will be a useful guide for reproductive surgeons, IVF specialists, embryologists, and other healthcare workers practicing reproductive medicine. In addition, it will be a valuable resource for students and researchers wishing to learn more about this subject. We are greatly thankful to large number of experts who worked hard to contribute the latest, well written, and well researched articles; this book would not be possible without their active support. We wish to express our deep gratitude to the superb organizational and management skills of Camille Lee-Own, publishing assistant at Cambridge University Press, and the overall support and supervision of this project by Nick Dunton, publisher at Cambridge University Press. This book is dedicated to our parents, families, mentors, and patients.”

In the last decades, major advances have been made in assisted reproductive technologies (ART) and the public demand for these procedures has increased globally. All ART clinics, from those just starting out to the well established, must employ the latest equipment and implement the best practices, while ensuring that their resources are effectively engaged to optimize patient outcomes. This is a tenet of the fiduciary role of physicians and it is increasingly recognized as a quantifiable goal regulated by formal certifications and accreditations. Quality management protocols such as those proposed by the International Organization for Standardization (ISO) are being rapidly adopted as standards of measure. Quality Management in ART Clinics: A Practical Guide provides easily adoptable ways to implement and improve formalized quality management systems. Essential to any clinic to achieve best practices and maintenance of formal regulatory certifications, this book brings together the know-how of experienced opinion leaders operating in key areas worldwide. The book offers an overview of primary regulations in the ART field, with attention to quality management demands, and links specific requirements to practical steps for implementation. Filled with process and procedure examples, flow diagrams and administrative form templates, this book is the first of its kind, gathering the necessary elements for optimizing practice, management, and quality assurance.
Part of a new series on reproductive medicine, this book is a complete guide to andrology and embryology. Divided into 38 chapters, the text begins with in depth discussion on male infertility covering sperm function tests, screening, sperm selection for ART, sperm banking, and various causes of male infertility. The second part of the book examines assisted reproductive techniques in male infertility, frozen embryo transfer, oocyte and embryo cryopreservation, third party reproduction, and more. The book presents the latest advances in the field and each chapter includes key points and references for further reading. Clinical photographs, diagrams and tables further enhance the comprehensive text. Other titles in the series include: Practical Guide in Infertility, Practical Guide in Reproductive Surgery and Practical Guide in Assisted Reproductive Technology. Key points: Comprehensive guide to andrology and embryology Part of new series on reproductive medicine Covers numerous ART procedures for male infertility Chapters include key points and detailed references for further reading

Obtaining good quality sperm for in-vitro fertilization, ICSI, or for cryopreservation can be a major problem if a man suffers from medical conditions that preclude normal collection. Major advances in sperm retrieval and preparation techniques have been witnessed in recent years, allowing a better understanding of the contribution of the sperm to a couple's fertility. This Manual is a complete guide to sperm retrieval methods performed for men with azoospermia. Covering all the basic and advanced steps for implementation of these procedures, the Manual includes descriptions of the underlying science along with detailed, practical advice on methods, including tips for optimizing outcomes and trouble-shooting, using an evidence-based approach. This will be an invaluable resource for andrologists, urologists, embryologists, male fertility specialists, gynecologists, and other healthcare workers practising reproductive medicine. It is particularly valuable for reproductive laboratory personnel wishing to refine or develop technique and improve outcomes, and for IVF Quality Managers.

Established as a definitive reference for the IVF clinic, the fifth edition has been extensively revised, with the addition of several important new contributions on laboratory topics, including advanced sperm selection techniques for ICSI, human embryo biopsy procedures, oocyte activation, managing an oocyte bank, artificial gametes, and epigenetics. As previously, methods, protocols, and techniques of choice are presented by IVF pioneers and eminent international experts.

The 2002-2003 CAMPCLS is an essential resource for survey preparation and self-assessment. Your all-in-one source for accreditation information for Standards Intent statements Examples of evidence of performance Examples of implementation Scoring questions Scoring caps Decision rules The 2002-2003 CAMPCLS has been expanded with new information that will help make the accreditation process more straightforward. Updated appendices, with new information for retention times, assisted reproductive technology, in-vitro fertilization, and cardiopulmonary perfusion testing. New examples of implementation reflecting the latest changes in the laboratory field will give you practical strategies, activities, and processes to help you meet the standards. Important revisions to quality control and environment of care standards. The 2002-2003 CAMPCLS also contains additional valuable information you've come to expect: Accreditation participation requirements Accreditation policies and procedures Performance reports with new accreditation decision categories Sentinel events and patient safety The 2002-2003 CAMPCLS offers the most comprehensive, state-of-the-art standards in the laboratory field, written in language that all staff will find easy to understand. Standards, intent statements, examples of implementation, examples of evidence of performance, scoring, and aggregation rules are organized logically so it's easy to follow the requirements and how to meet them. Space is available for you to take notes as you conduct ongoing performance improvement activities and prepare for survey.

Intrauterine insemination and ovulation induction is effective first-line treatment for infertility in many straightforward cases and is preferred by many clinicians because they are less invasive than in-vitro fertilization and its variants. This is a comprehensive account of how to set up and run a successful...
IUI program. The book addresses the practical aspects of treatments that will produce optimum results in terms of pregnancy outcome and safety, as well as the pharmacological and physiological reasons for their use. Chapters on how to prevent complications of ovulation induction such as multiple births and ovarian hyperstimulation syndrome are included, as well as how to diagnose infertility in both sexes. Laboratory procedures for sperm preparation are described in detail. Worldwide resources for obtaining donor sperm and legal issues that surround the management of patients are included. This manual is of interest to reproductive medicine specialists, general practitioners and general obstetrician gynecologists.

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Textbook of Assisted Reproductive Techniques has become a classic comprehensive reference for the whole team at the IVF clinic. The fourth edition comes more conveniently as a set of two separate volumes, one for laboratory aspects and the other for clinical applications. The text has been extensively revised, with the addition of several important new contributions on laboratory aspects including developing techniques such as PICSI, IMSI, and time-lapse imaging. The second volume focuses on clinical applications and includes new chapters on lifestyle factors, tailored ovarian stimulation, frozen-thawed embryo transfer, viral disease, and religious perspectives. As before, methods, protocols, and techniques of choice are presented by eminent international experts. The two volume set includes: Volume One - Laboratory Perspectives Volume Two - Clinical Perspectives