CONTENTS

1. Oral Ovulogens **1**
Mohan S Kamath, Korula George
- Oral Drugs for Ovulation Induction *2*
- Key Summary Points *7*

2. Physiology and Pharmacology of Different Gonadotropins **11**
Reena Gupta, Manish Banker
- Physiology *11*
- History of Gonadotropins *13*
- Gonadotropin Structure *13*
- Different Gonadotropin Preparations *16*
- Role of Luteinizing Hormone/Human Menopausal Gonadotropin *22*

3. Stimulation Protocols for Intrauterine Insemination **27**
Kalyani Shrimali, Ritu Hinduja
- Oral Agents for Ovarian Stimulation *27*
- Ovulation Trigger *33*

4. Protocols for the Normoresponders **36**
Sulbha Arora, Ashvini Deshmukh
- Objectives of Stimulation Protocols in In Vitro Fertilization Cycles *36*
- Stimulation Protocols *37*
- Optimizing Ovarian Stimulation *41*
- Starting Dose of FSH/hMG *43*
- Regimens of Gonadotropin Use *45*
- Type of Gonadotropin Used *46*
- Monitoring IVF Cycles *46*
- Short Protocol/Antagonist Protocol/Minimal Stimulation Protocol *47*
- Dose Adjustment *48*

5. Protocols for Poor Responders **53**
Ritu Hinduja, Kalyani Shrimali
- Maximal Gonadotropin Dosage *54*
- GnRH Analogs *54*
- Birth Control Pill Priming *55*
- GnRH Antagonist *55*
- Corifollitropin Alfa *56*
- GnRH Antagonist/Letrozole Protocols *56*
- Alternative Approaches *56*
- Addition of Estradiol in the Luteal Phase *56*
- Addition of Recombinant Luteinizing Hormone *57*
- Addition of Growth Hormone *57*
- Addition of Androgens *57*
- Addition of Aspirin *58*
- Natural Cycles In Vitro Fertilization *58*

6. The High Responder: Optimizing the Stimulation without Complications **64**
Javier Martínez-Salazar Romero, Israel Ortega Sanchez, Juan Antonio García-Velasco
- Definition and Identification of High Responders *65*
- Consequences and Risks of High Responders *66*
- Stimulation Protocol in High Responders *69*
- GnRH Analogs, Oocyte Maturation and its Consequences *70*

7. Ovulation Trigger **77**
Carlos Dosouto Capel, Haahr T, Peter Humaidan
- Natural Ovulatory Cycle *78*
- Triggering Agents *79*
- Ovulation Trigger in Ovulation Induction Cycles for Intrauterine Insemination or Programmed Intercourse *80*
- Ovulation Trigger in IVF/ICSI Cycles *80*
- Safety and Efficacy of Triggering Agents (hCG and GnRHA) *83*
- Luteal Phase after Ovulation Trigger *84*
- Segmentation (Freeze All Policy) *86*

8. Luteal Phase Support: ART and Non-ART Cycles **93**
Barbara Lawrenz, Human M Fatemi
- Steroid Production of the Ovary in Natural and Stimulated Cycles *94*
- Luteal Phase Support in Assisted Reproductive Techniques *97*
- Ways of Progesterone Administration *98*

9. Role of Luteinizing Hormone in Controlled Ovarian Stimulation **107**
Carlo Alviggi, Alessandro Conforti, Giuseppe De Placido, Sandro C Esteves
- Structure and Function of Luteinizing Hormone *107*
- Gonadotropin Preparations Containing Luteinizing Hormone Activity *112*
- Luteinizing Hormone Supplementation in Clinical Practice *113*

10. Adjuvant Treatments in Low Ovarian Response **127**
Alfredo Guillén
- Follicular Androgenization *127*
- Growth Hormone *134*

11. Freeze-all in Assisted Reproductive Technology **139**
Natalia Basile, Juan Antonio García-Velasco
- Factors in Assisted Reproductive Technology Contributing to the Freeze-All Policy *139*
- Evidence in Favor of Freeze-All *143*

12. Ideal Protocol for Egg Donors **153**
Pilar Alamá Faubel, Diana Collado Muñoz
- Ovarian Stimulation Drugs For Egg Donor Program *154*

13. Protocols for Thaw Embryo Transfer **161**
Krithika Devi J
- Natural Cycle Frozen Embryo Transfer *161*
- Modified Natural Cycle Frozen Embryo Transfer *163*
- Stimulated Cycle Frozen Embryo Transfer *164*
- Hormone Replacement Frozen Embryo Transfer Cycle *164*
- Hormone Replacement Cycle with GnRH Agonist *166*
- Role of Progesterone Assay in Hormone Replacement Frozen Embryo Transfer Cycles *167*
- Optimal Endometrial Thickness/Endometrial Pattern *167*
- Extended Estrogen Support *168*
- Is Assessment of Functionality Important? *168*
- Monitoring the Frozen Embryo Transfer Cycle *169*
- When to Stop Progesterones? *169*

14. Ovarian Stimulation Protocols In Fertility Preservation **173**
Puneet R Arora
- Cancer and Fertility *173*
- Options of Fertility Preservation in Cancer Patients *173*
- Effect of Cancer on Ovarian Stimulation *174*
- Ovarian Stimulation Protocols in Cancer Patients *174*

15. Complications of Ovarian Stimulation: Prevention and Management **181**
Julia K Bosdou, Stratis Kolibianakis
- Ovarian Hyperstimulation Syndrome *181*
- Adnexal Torsion *201*
- Thromboembolic Complications *202*

Index 209