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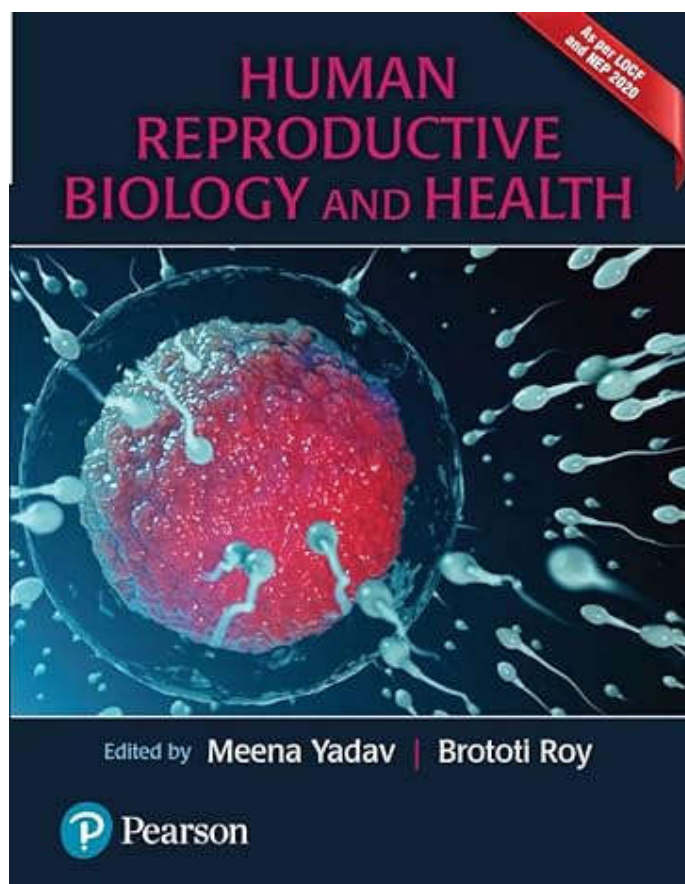
Book Review

Human Reproductive Biology and Health

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Meena Yadav & Brototi Roy (Eds.). (2023). *Human reproductive biology and health*. Pearson India Education Services Pvt. Ltd. ISBN 978-93-560-6632-8

“Human Reproductive Biology and Health” offers one an educational expedition, curated by Dr. Meena Yadav and Dr. Brototi Roy. If anyone would ask me about the most common yet most astonishing event in nature, I’d say it’s life arising from life. And that’s what this book tells us about, the intricacies of the human reproductive system. It takes us from the fundamental stages of sex determination and differentiation to the complexities of the human reproductive system. This book includes 25 comprehensively, well-written chapters thoroughly covering crucial aspects such as hormonal regulation, anatomy, and physiological events, including puberty and menopause. It also talks about the causes of infertility, its solutions, contraceptive methods, and reproductive health. The authors of each of these

chapters are esteemed educators in the field of reproductive biology, who brought their expertise to create a valuable resource for students and professionals providing an insightful understanding of the biological system.

The early chapters highlight the crucial roles of genes like *WT1*, *NR5A1*, and *SRY* in guiding sexual differentiation. How these genes act as regulators, guiding events that determine the fate of bipotential gonad, deciding one's biological path as a male or a female is thoroughly analysed. Further, the book elaborates on plausible disturbances in this process and associated Disorders of Sexual Development (DSD).

As we go deep into the book it highlights the fundamental role played by hormones and how endocrine glands act as hormone factories, producing chemical messengers that influence specific target cells by binding to dedicated receptors. This process is carefully regulated via feedback inhibition and feedforward activation, mechanisms that are central to hormone actions. The book also goes into detail about the neuroendocrine control of reproduction, revealing the complex regulatory mechanisms that govern the gonadal function through neurohormones produced by the hypothalamus *i.e.*, gonadotropin-releasing hormone (GnRH), and anterior pituitary *i.e.*, follicle-stimulating hormone (FSH) and luteinizing hormone (LH). These gonadotropins play a crucial role in the balanced functioning of both male and female reproductive processes, creating the balance required for successful reproduction and overall reproductive health.

The subsequent chapters provide the reader with detailed information concerning the origin and processes of steroid hormone production. It outlines the important conversion of cholesterol into pregnenolone, required for the production of sex steroid hormones. Further, the male and female reproductive systems are explained in great detail from the anatomy to the function of each component.

Moreover, the book explains the critical phases of reproduction, including fertilisation, implantation, embryonic development, and parturition. The chapters elaborate on the interplay of the hormones and the physiological changes that define these stages, providing an understanding of the human reproductive system. Starting from the fusion of haploid gametes (sperm and egg) to the formation of diploid zygote during fertilisation, to the processes of implantation and subsequent developmental phases to parturition. The book comprehensively outlines the marvels of human life's from its inception to its birth.

As we unfold the chapters ahead, vital aspects of reproductive health which include contraception, infertility, assisted reproduction technologies, reproductive tract infections, and reproductive cancers are well put out for our understanding. Contraception methods, from barrier to hormonal and surgical approaches, aim to prevent pregnancy effectively. Infertility which may result from various factors in both males and females is explored, and treatments ranging from medical interventions to assisted reproductive technologies (ART) are described in the book. Additionally, the book addresses reproductive tract diseases, emphasizing on the need and importance of awareness, regular check-ups, and timely treatment for maintaining reproductive health.

One critical aspect discussed in the book is the societal and cultural context of human reproduction. The book emphasises on the socially constructed nature of knowledge, challenging traditional binary perceptions of gender. It boldly underscores that scientific understanding is merely one of the several facets, advocating for a more inclusive and informed approach. It highlights that, categories such as 'normal', 'abnormal', and 'disorder' are not absolute truths but are socially determined and may vary across diverse societies.

In conclusion, “Human Reproductive Biology and Health” stands as an invaluable and indispensable resource. The book bridges gaps, offering essential and up-to-date knowledge to its readers. It covers the complexities of human reproduction including the wide arena of genes, hormones, anatomy, and societal perceptions. Beyond providing mere information, this book instills a sense of responsibility, urging us to strive for a just society through informed knowledge. It compels its reader to embrace a broader perspective, one that goes ahead of boundaries and biases, fostering a world with understanding and compassion.

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