

1. Record Nr.	UNINA9910465133903321
Titolo	Knobil and Neill's physiology of reproduction // editors-in-chief, Tony M. Plant and Anthony J. Zeleznik, University of Pittsburgh, Pittsburgh, PA, USA ; associate editors, David F. Albertini, Kansas University Medical Center, Kansas City, KS, USA [and five others]
Pubbl/distr/stampa	Amsterdam : , : Elsevier, , [2015] ©2015
ISBN	0-12-397769-X 0-12-397175-6
Edizione	[Fourth edition.]
Descrizione fisica	1 online resource (10218 p.)
Disciplina	573.619
Soggetti	Reproduction Mammals - Physiology Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover image; Title page; Table of Contents; Copyright; Illustration Credits; Contributors; Introduction; Preface; Foreword by Roy O. Greep; Foreword by M. Susan Smith; Volume 1; Section I. Gametes, Fertilization and Embryogenesis; Chapter 1. Mammalian Meiosis; Introduction; Effects of Gonadal Hormones: Cellular and Molecular Mechanisms; Other Central Transmitters in the Metabolic Control of Reproduction; Conclusion; Conclusion; Conclusion; Chapter 2. The Mammalian Oocyte; Introduction; Components of Parental Care; Measures of Penile Function; Anatomy and Physiology of Sexual Sensory Systems Steroid Hormones of the PlacentaChapter 3. The Spermatozoon; Introduction; Evolutionary Significance of Mate Choice; Food Intake and Metabolism in Pregnancy; Fetal Programming and the Onset of Puberty; Milk Ejection; Chapter 4. Fertilization in Mammals; Introduction; Delayed Implantation (Mammalian Diapause); Imprinting Disorders; Sexual Differentiation in Different Contexts; Hypotheses Linking Hypothalamic T3 Content to Hypothalamic Neural Changes Driving Seasonal Breeding: A Pivotal Role for Tanycytes?; Milk Composition and

its Regulation; Addendum; Chapter 5. Gamete and Zygote Transport
IntroductionConsiderations for Understanding the Hormonal Regulation
of Maternal Care; Immunological Origins of Pregnancy Disorders; Brain
Areas Implicated in Control of Male Sexual Behavior; Chapter 6.
Preimplantation Embryo Development and Primordial Germ Cell Lineage
Specification; Introduction; Sensory Control of Maternal Care; Other
Epigenetic Mechanisms; Brain Control of Maternal Behaviors;
Regenerative Potential of Spermatogonial Stem Cells and Translation to
the Clinic; Chapter 7. Sex Determination and Differentiation;
Introduction; Hormones Most Significant for Paternal Behaviors
Effects of Systemically or Intracerebroventricularly Administered
DrugsSection II. Gonadal Steroids, Pituitary and Hypothalamus; Chapter
8. Human Steroid Biosynthesis; Introduction; General Concepts; The
Conversion of Cholesterol to Pregnenolone and Mitochondrial Steroid
Metabolism; Steroid Hydroxylation and the Microsomal P450 Enzymes;
HSDs, the Terminal Steps, and Peripheral Metabolism; Steroid
Sulfonation; Steroid Degradation and Excretion; Pathways; Comparison
with Other Species; Conclusion; Chapter 9. Gonadal Steroid Action;
Introduction; Transcriptional Actions of Gonadal Steroids
Nontranscriptional Effectors of Gonadal SteroidsSteroid Signaling via
Membrane Receptors; Coregulators and Gonadal Steroid Physiology;
Informatic Approaches and Transcriptional Regulation by Gonadal
Steroids; Conclusion; Chapter 10. Gonadotropes and Gonadotropin-
Releasing Hormone Signaling; Introduction; Areas of Emerging Interest;
Chapter 11. Physiology of the Adult Gonadotropin-Releasing Hormone
Neuronal Network; Introduction; Activation of Male Sexual Behavior by
Gonadal Hormones; Male Reproductive Aging; Regulation of the Adult
Prostate; Conclusion; Conclusion
Chapter 12. Hypothalamic Control of Prolactin Secretion, and the
Multiple Reproductive Functions of Prolactin

Sommario/riassunto

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
