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Nota di contenuto	HISTOLOGICAL ANALYSIS OF ENDOCRINE DISRUPTIVE EFFECTS IN SMALL LABORATORY FISH; CONTENTS; Preface; Acknowledgments; Contributing Authors; 1 Introduction; References; 2 Fish Species of Interest; 2.1 Fathead Minnow (Pimephales promelas); 2.2 Medaka (Oryzias latipes); 2.3 Zebrafish (Danio rerio); 2.4 Other Fish Species; References; 3 Sexual Determination, Differentiation, and Gonadal Development; 3.1 Primordial Germ Cells in the Primordial (Primary) Gonad; 3.1.1 Differentiation and Number of PGCs; 3.1.2 Molecular Markers of PGCs; 3.2 Reproductive Strategies 3.3 Differentiation of the Primordial Gonad into Ovary or Testis3.4 Gonadal Duct Formation; 3.5 Endocrinology: Influence on Gonadogenesis; 3.6 Critical Period of Sexual Differentiation in Developing Fish; 3.7 Bi-Potentiality of Germ Cells in Adult Fish; References; 4 Female Gonad Anatomy and Morphology; 4.1

Gonadogenesis: Ovary; 4.1.1 Location and Gross Organization; 4.1.2 Anatomy of the Ovary; 4.2 Hypothalamic-Pituitary-Ovarian Axis; 4.3 Cellular Structure of the Ovary; 4.3.1 Germ Cells (Oogenesis); 4.3.2 Female Somatic Supportive Tissue; 4.3.2.1 Theca Cells; 4.3.2.2 Granulosa Cells
References5 Male Gonad Anatomy and Morphology; 5.1 Gonadogenesis: Testes; 5.1.1 Location and Gross Organization; 5.1.2 Anatomy of the Testes; 5.1.3 Germinal Epithelium; 5.1.4 Male Germ Cells (Spermatogenesis); 5.1.5 Male Somatic Supportive Tissue; 5.1.5.1 Sertoli Cells; 5.1.5.2 Leydig Cells; 5.1.5.3 Lobule Boundary Cells; 5.1.5.4 Sex Steroid Control of Spermatogenesis; References; 6 Endocrine-Disrupting Compounds; 6.1 Individual Effects; 6.1.1 Inhibition of Gametogenesis; 6.1.2 Necrosis and Apoptosis (Gamete and Stromal Cells); 6.1.3 Atretic Follicles
6.1.4 Sertoli Cell Hypertrophy and Hyperplasia6.1.5 Leydig Cell Hypertrophy and Hyperplasia; 6.1.6 Fibrosis; 6.1.7 Gonadal Duct Formation; 6.2 Effects Associated with Exposure to Specific Compounds or Compound Classes; Table 6.1 Overt Testicular Changes in Male Fish; Table 6.2 Testis-Ova in Male Fish; Table 6.3 Testicular Fibrosis in Male Fish; Table 6.4 Germ Cell Effects in Male Fish; Table 6.5 Somatic Cell Effects in Male Fish; Table 6.6 Testicular Inflammation and Macrophage Infiltration in Male Fish; Table 6.7 Overt Ovarian Changes in Female Fish
Table 6.8 Ovo-Testis in Female Fish Table 6.9 Ovarian Fibrosis in Female Fish; Table 6.10 Germ Cell Effects in Female Fish; Table 6.11 Germ Cell Atresia in Female Fish; Table 6.12 Ovarian Inflammation and Macrophage Infiltration in Female Fish; 6.2.1 Effects in Male Fish Associated with Exposure to Specific Compounds or Compound Classes; 6.2.1.1 Testis Architecture, Integrity, and Gross Appearance; 6.2.1.2 Testis-Ova; 6.2.1.3 Fibrosis; 6.2.1.4 Germ Cell Effects; 6.2.1.5 Somatic Cell Effects; 6.2.1.6 Testicular Cell Inflammation and Macrophage Infiltration
6.2.2 Effects in Female Fish Associated with Exposure to Specific Compounds or Compound Classes

Sommario/riassunto

Timely title assembling the combined knowledge of some of the leading authorities in the field of small fish reproduction - an important topic for risk assessment and registration of chemical, agricultural, and pharmaceutical compoundsProvides guidance on the microscopic structure of living tissue and evaluation of the reproductive glands of small laboratory fishIncludes state-of-the-art science along with sufficient anatomical and physiological background for understanding and interpreting test resultsHelps standardize the interpretation of results from aquatic bioassays a