

1. Record Nr.	UNINA9911004715503321
Titolo	Extrapolation of radiation-induced cancer risks from nonhuman experimental systems to humans [[electronic resource]]
Pubbl/distr/stampa	Bethesda, MD, : National Council on Radiation Protection and Measurements, c2005
ISBN	1-4294-7996-5 1-60119-213-4
Descrizione fisica	1 online resource (280 p.)
Collana	NCRP report ; ; no. 150
Disciplina	616.99/4071
Soggetti	Radiation carcinogenesis Radiation - Toxicology Animal models in research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Recommendations of the National Council on Radiation Protection and Measurements." "Issued November 18, 2005."
Nota di bibliografia	Includes bibliographical references (p. 194-241) and index.
Nota di contenuto	""Cover""; ""Preface""; ""Contents""; ""1. Executive Summary and Recommendations""; ""1.1 Why Is Extrapolation Still Required?""; ""1.2 Summary of Findings""; ""1.2.1 Historical Aspects""; ""1.2.2 Neoplastic Disease""; ""1.2.3 Somatic Genetic Damage at Molecular and Cellular Levels""; ""1.2.4 Extrapolation Models and Methods""; ""1.3 Conclusions""; ""1.4 Recommendations""; ""2. Introduction""; ""3. History of Extrapolation: Nonhuman Experimental Systems to Humans""; ""3.1 Introduction""; ""3.2 Lessons Learned from Genetic Risks""; ""3.2.1 Methods of Estimation"" ""3.2.2 Discussion of Methods of Estimating Genetic Risk""""3.2.3 Role of Genetics in the Estimation of Somatic Risks""; ""3.3 Somatic Risks""; ""4. Tissue and Organ Differences Among Species with Emphasis on the Cells of Origin of Cancers""; ""4.1 Introduction""; ""4.2 Hematopoietic System""; ""4.2.1 Introduction: Leukemias and Lymphomas""; ""4.2.2 Comparison of Radiation-Induced Leukemias Among Species""; ""4.2.3 Pathology and Dose-Response Relationships""; ""4.2.4 Comparison of Hematopoietic Systems""; ""4.2.5 Target Cells"" ""4.2.6 Comparison of Cytogenetic Processes: Common or Species-

Specific Patterns"""; "4.2.7 Leukemogenesis Resulting from Gene Rearrangements"; "4.2.8 Secondary Cytogenetic Lesions Associated with Leukemia Promotion and Progression"; "4.2.9 Hematopoietic Cell Origins of the Putative *critical* Genic Lesions and the Nature of Induced Genic Dysfunctions"; "4.2.10 Cooperating Oncogenes in Lymphoid Neoplasias"; "4.2.11 Cooperating Oncogenes in Myeloid Neoplasias"; "4.2.12 Hematopoietic Microenvironment"; "4.2.13 Summary"; "4.3 Lung"; "4.3.1 Introduction"; "4.3.2 Adenocarcinoma"; "4.3.3 Squamous-Cell Carcinoma"; "4.3.4 Small-Cell Lung Carcinoma"; "4.3.5 Large-Cell Carcinoma"; "4.3.6 Summary"; "4.4 Breast"; "4.4.1 Histogenesis of Mammary Glands and Mammary Cancer"; "4.4.2 Hormones and Mammary Carcinogenesis"; "4.4.3 Cellular Origins of Mammary Cancer"; "4.4.4 Summary"; "4.5 Thyroid"; "4.5.1 General Background"; "4.5.2 Histogenesis of the Thyroid Gland and Thyroid Cancer"; "4.5.3 Thyroid Function and its Control"; "4.5.4 Cellular Economy of the Thyroid Gland and the Origin of Cancer"; "4.5.5 Summary"; "4.6 Skin"; "4.6.1 Introduction"; "4.6.2 Epidermal Cancers"; "4.6.3 Melanoma"; "4.6.4 Tumors of the Dermis"; "4.6.5 Mechanisms of Epidermal Carcinogenesis"; "4.6.6 Importance of Interactions"; "4.6.7 Summary"; "4.7 Gastrointestinal Tract"; "4.7.1 Introduction"; "4.7.2 Stomach"; "4.7.3 Small Intestine"; "4.7.4 Colorectal Tumors"; "4.7.5 Summary"; "4.8 Bone"; "4.8.1 Humans"; "4.8.2 Mice"; "4.8.3 Rats"; "4.8.4 Dogs"; "4.8.5 Summary"; "5. Radiation Effects at the Molecular and Cellular Levels"; "5.1 Introduction"; "5.2 Effects of Ionizing Radiations at the Molecular Level"
