The AGT Cytogenetics Laboratory Manual

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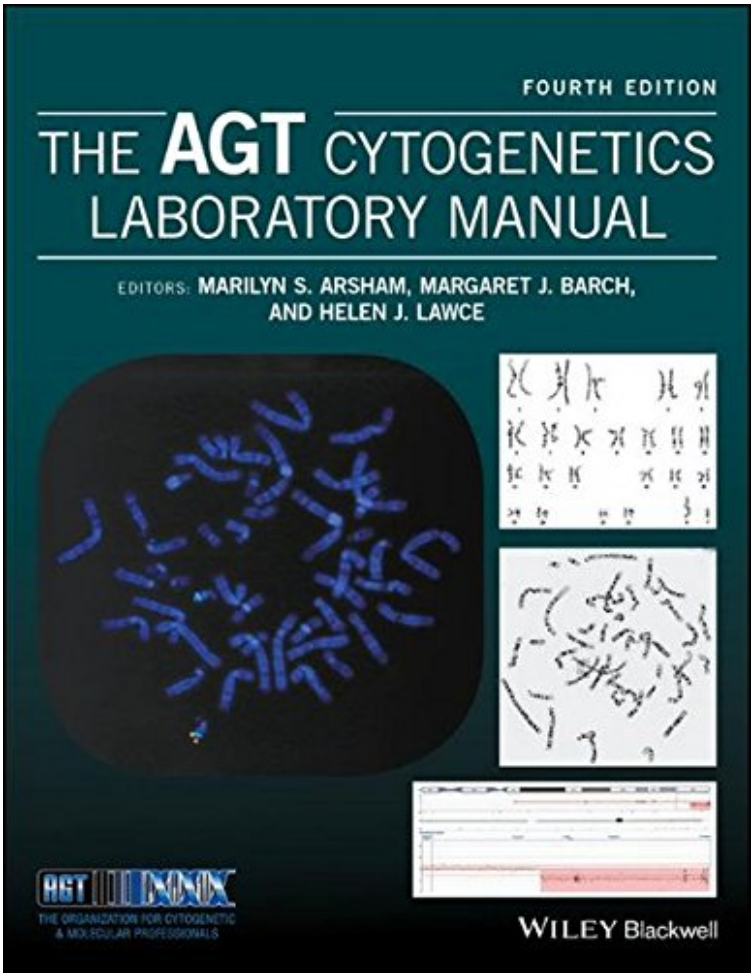

#236747 in Books Ingramcontent 2017-04-24Original language:EnglishPDF # 1 11.10 x 2.00 x 8.10l, .0 #File Name: 11190612291218 pagesThe Agt Cytogenetics Laboratory Manual | File size: 48.Mb

From Ingramcontent : The AGT Cytogenetics Laboratory Manual before purchasing it in order to gage whether or not it would be worth my time, and all praised The AGT Cytogenetics Laboratory Manual:

0 of 0 people found the following review helpful. Five StarsBy EricaThis booj is an outstanding reference for cytogenetic laboratories!

Cytogenetics is the study of chromosome morphology, structure, pathology, function, and behavior. The field has evolved to embrace molecular cytogenetic changes, now termed cytogenomics. Cytogeneticists utilize an assortment of procedures to investigate the full complement of chromosomes and/or a targeted region within a specific chromosome in metaphase or interphase. Tools include routine analysis of G-banded chromosomes, specialized stains that address specific chromosomal structures, and molecular probes, such as fluorescence in situ hybridization (FISH) and chromosome microarray analysis, which employ a variety of methods to highlight a region as small as a single,

specific genetic sequence under investigation. The AGT Cytogenetics Laboratory Manual, Fourth Edition offers a comprehensive description of the diagnostic tests offered by the clinical laboratory and explains the science behind them. One of the most valuable assets is its rich compilation of laboratory-tested protocols currently being used in leading laboratories, along with practical advice for nearly every area of interest to cytogeneticists. In addition to covering essential topics that have been the backbone of cytogenetics for over 60 years, such as the basic components of a cell, use of a microscope, human tissue processing for cytogenetic analysis (prenatal, constitutional, and neoplastic), laboratory safety, and the mechanisms behind chromosome rearrangement and aneuploidy, this edition introduces new and expanded chapters by experts in the field. Some of these new topics include a unique collection of chromosome heteromorphisms; clinical examples of genomic imprinting; an example-driven overview of chromosomal microarray; mathematics specifically geared for the cytogeneticist; usage of ISCNs cytogenetic language to describe chromosome changes; tips for laboratory management; examples of laboratory information systems; a collection of internet and library resources; and a special chapter on animal chromosomes for the research and zoo cytogeneticist. The range of topics is thus broad yet comprehensive, offering the student a resource that teaches the procedures performed in the cytogenetics laboratory environment, and the laboratory professional with a peer-reviewed reference that explores the basis of each of these procedures. This makes it a useful resource for researchers, clinicians, and lab professionals, as well as students in a university or medical school setting.

From the Back CoverCytogenetics is a segment of the evolving cytogenomic branch of genetics that explores the genetic makeup of a cell, in particular chromosomes both in metaphase and in interphase cycles, as well as at the molecular level. It utilizes an assortment of procedures to illuminate both the full complement of chromosomes and a targeted region within a specific chromosome. These investigative tools include routine analysis of G-banded chromosomes, specialized stains that address specific chromosomal structures, and molecular probes, such as fluorescence in situ hybridization and chromosome microarray analysis, which employ a variety of methods to highlight a region as small as a single, specific genetic sequence under investigation. The AGT Cytogenetics Laboratory Manual, Fourth Edition offers a comprehensive treatment of the diagnostic tests offered by this clinical laboratory environment and explains the scientific theories behind those procedures. One of the most valuable assets is its rich compilation of laboratory-tested protocols currently being used in leading laboratories, along with practical advice for nearly every area of interest to cytogeneticists. In addition to covering essential topics that have been the backbone of cytogenetics for over 60 years, such as the basic components of a cell, use of a microscope, human tissue processing for cytogenetic analysis (prenatal, constitutional, and neoplastic), laboratory safety, and the mechanisms behind chromosome rearrangement and aneuploidy, this edition introduces new and expanded chapters that reflect the intuitive experience of its authors. Some of these new topics include a unique collection of chromosome heteromorphisms; clinical examples of genomic imprinting; an example-driven overview of chromosomal microarray; mathematics specifically geared for the cytogeneticist; usage of ISCN's cytogenetic language; tips for laboratory management; examples of laboratory information systems; a collection of Internet and library resources; and a special chapter on animal chromosomes for the research and zoo cytogeneticist. The range of topics is thus broad yet comprehensive, offering the student with a resource that teaches the procedures performed in the cytogenetics laboratory environment, and the laboratory professional with a peer-reviewed reference that explores the multiple facets behind each of these procedures. Topic coverage is rich in detail, yet presented with the student in mind, making it a useful resource for researchers, clinicians, and laboratory professionals, as well as students in a university or medical school that offers introductory or laboratory-related courses exploring cytogenetics' role within medical genetics. s for the third edition: "A collection of protocols and explanations for cytogenetic techniques from the common to the peculiar." "An excellent book. Looking forward to an updated version."About the Author About the Editors Marilyn S. Arsham, (retired) Cytogenetic Technologist II, Western Connecticut Health Network, Danbury Hospital campus, Danbury, Connecticut, USA Margaret J. Barch, (formerly) Frank F Yen Cytogenetics Laboratory, Weisskopf Child Evaluation Center, University of Louisville, USA Helen J. Lawce, Clinical Cytogenetics, Oregon Health Science University Knight Diagnostics Laboratory, USA