

Human genes and chromosomes houstonisd

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Genetic Engineering Mammalian Artificial Chromosomes Chromosome Structural Analysis Gene and Chromosome Analysis The Power of Bacterial Genetics Regulation of the Histidine Operon of Salmonella Typhimurium Cumulated Index Medicus Proceedings of the National Academy of Sciences of the United States of America Stadler Genetics Symposia Creating Targeted Mutations in Mouse Embryonic Stem Cells Using Yeast Artificial Chromosomes Use of Probes Specific for IS200 to Identify Salmonella Annual Review of Microbiology The Journal of General Microbiology Rearrangement of the Bacterial Chromosome Using Transposon Homology Isolation and Chromosomal Locus of the Gene Encoding the 37,000 Dalton Minor Sigma Factor of Bacillus Subtilis RNA Polymerase Symbiotic Nitrogen Fixation in Plants Bacterial Genomes Regulation of the DnaA Promoter in Escherichia Coli Microbial Iron Metabolism Genetics of Industrial Microorganisms Genetics of Industrial Microorganisms ICRF Handbook of Genome Analysis Genetics Abstracts Regulation of Secondary Metabolism in Actinomycetes Antibiotic-Producing Stetomyces Cambridge Scientific Biochemistry Abstracts Atti - Associazione Genetica Italiana Genetic Engineering for Nitrogen Fixation Pesticides Abstracts The Biology of Nitrogen Fixation The Contribution of Chromatin to Gene Regulation in the Immune System Microbiology Abstracts Environmental Mutagenesis Genomic Instability and Immortality in Cancer MTHFR Polymorphisms and Disease Abstracts of the Annual Meeting of the American Society for Microbiology Bacteriological Proceedings Thermophiles DNA : Replication and Recombination Ikaros

Genetic Engineering 2011-04-15

a common tool in both research and agriculture genetic engineering involves the direct manipulation of genes today s areas of medical research include genetic engineering to produce vaccines against disease pharmaceutical development and the treatment of disease in agriculture genetic engineering is used to modify crops and domestic animals to increase their yields aid in production and enhance nutritive aspects this important book covers new research and studies in genetic engineering in the areas of medicine and agriculture

Mammalian Artificial Chromosomes 2008-02-02

in 1996 we organized a workshop inter alia at the national research council in milan under the generous sponsorship of the european science foundation on that occasion a small group of investigators convened from many countries and presented early evidence of the possibility of assembling basic units of mammalian chromosomes into artificial constructs or indeed reducing the relevant components to more manageable dimensions and defining substitution progress in the following years has been slow but steady many scientists who took part in the workshop have since been engaged in active and productive research it goes to the credit of humana press to have realized the need for a book on artificial chromosomes that aims to provide better tools to all scientists committed to this field who are confronted with very difficult technical problems we have strived to cover in mammalian artificial chromosomes methods and protocols all relevant areas of artificial chromosome research from basic genetics to daring attempts to build new tools for genetic therapy we are of course grateful to the authors who have accepted the task of describing the technical steps and pitfalls that can be encountered in their research rarely has a very delicate methodology been presented with such meticulous care we have been helped in this enterprise by the excellent librarian of the lita institute in segrate italy ms claudia piergigli whom we thank warmly ms

Chromosome Structural Analysis 1999-05-20

the dna of eukaryotes is packaged into chromosomes each chromosome consisting of a very long molecule of dna and various proteins e.g. histones and the number of chromosomes being characteristic for the species concerned chromosome analysis can provide a great deal of information for many aspects of cellular genetics such as dna

replication protein dna interactions and genetic manipulation the book is structured in a methodical fashion the introductory chapters are centred around analysis of chromatin with chapters on the mapping of protein dna interactions in vivo using ligation mediated pcr and the mapping of chromatin associated proteins by formaldehyde cross linking the next chapters concentrate on the study of whole chromosome structure including fission yeast chromosome analysis using fish and chip isolation of vertebrate metaphase chromosomes and their analysis by fish the study of vertebrate chromosome progression through mitosis and the analysis of mammalian interphase chromosomes by immunofluorescence and fish there then follow chapters on fish in whole mount tissues and the analysis of the sub structure of mammalian nuclei in vitro the final two chapters deal with the experimental manipulation of chromosome structure including chromosome assembly in vitro using xenopus egg extracts and chromosome fragmentation in vertebrate cell lines this comprehensive and informative laboratory manual includes a diverse range of experimental models for the analysis of chromosomes such as vertebrates drosophila yeast and xenopus fully illustrated it focuses on modern techniques and approaches to the study of chromosome structure and will be invaluable to researchers and academic staff in genetics biomedical science and molecular biology

Gene and Chromosome Analysis 1993

covers lectures of the annual symposium which began in 1969

The Power of Bacterial Genetics 1992

contains abstracts of papers presented at meeting of the society for general microbiology

Regulation of the Histidine Operon of Salmonella Typhimurium 1980

genetical aspects and taxonomy quality of legume inoculants field experiments on nitrogen fixation by nodulated legumes legume nitrogen fixation and the environment nitrogen fixing symbioses in non leguminous plants

Cumulated Index Medicus 1982

a wide range of microbiologists molecular biologists and molecular evolutionary biologists will find this new volume of singular interest it summarizes the present knowledge about the structure and stability of microbial genomes and reviews the techniques used to analyze and fingerprint them maps of approximately thirty important microbes along with articles on the construction and relevant features of the maps are included the volume is not intended as a complete compendium of all information on microbial genomes but rather focuses on approaches methods and good examples of the analysis of small genomes

Proceedings of the National Academy of Sciences of the United States of America 1992

the timing of initiation of dna replication from oric in e coli is regulated by the concentration of the dnaa protein increases in the intracellular dnaa protein concentration over 1.5 fold normal levels causes asynchronous timing of initiation of dna replication the regulators of the dnaa operon must keep the dnaa concentration within tight limits yet be able to respond to rapidly changing environmental conditions here it is shown that fis and dnaa proteins interact in conjunction with other factors to regulate the expression of dnaa binding of dnaa to the dnaa box in the dnaa promoter region is destabilized by the binding of fis to its binding site in dnaap2 however dnaa94 containing only the c terminal 94 amino acids of the dnaa protein and retaining specific binding activity to the dnaa box of the dnaa promoter region is not destabilized by fis binding dnase i and copper phenanthroline cu op footprinting studies of dnaa and dnaa94 support the existence of a second weak dnaa box which abuts the dnase i and cu op footprints of fis in the dnaap2 promoter we determined that the gc rich region of the dnaap2 promoter is analogous to the discriminator sequence ds of rrna promoters in that the gc rich sequence mediates the repression caused by elevated levels of guanosine tetraphosphate ppppp during starvation conditions the alarmone ppppp is synthesized

overexpression of ppppp causes inhibition of dnaap2 promoter transcription which is alleviated when the gc rich ds is mutated to an at rich sequence we conclude that this site is responsible for mediating the stringent control of the dnaap2 promoter incorrect timing of initiation in the cell cycle results in asynchronous replication strains with a mutated ds dnaa box or fis binding site in the dnaa promoter region on the chromosome have increased levels of dnaa gene expression these mutants initiate dna replication synchronously in minimal m9 medium as shown by flow cytometric assays in rich medium the ds mutant showed very limited asynchrony whereas the other mutants replicated synchronously

Stadler Genetics Symposia 1981

microbial iron metabolism a comprehensive treatise provides a comprehensive treatment of microbial iron metabolism it aims to contribute to an increased understanding of the path of iron in microbial species and eventually in the plant and animal the book is organized into five parts part i describes some features of iron and its function in the microbial world these include a historical sketch of the recognition of the importance of iron in cellular physiology a description of certain physical properties of ferrous and ferric ions and a list of various known biocoordination derivatives grouped by ligand atom metabolism under iron limited conditions is also examined part ii presents studies on iron transport biosynthesis and storage in microorganisms part iii examines iron enzymes and proteins including ferredoxin rubredoxin nitrogenase and hydrogenase part iv deals with reactions of inorganic substrates part v presents a study on the role of bacterial iron metabolism in infection and immunity

Creating Targeted Mutations in Mouse Embryonic Stem Cells Using Yeast Artificial Chromosomes 1997

the combined power of genetic analysis and recombinant dna technology to analyse entire genomes has moved biomedical research into a new and revolutionary phase the complete sequencing and mapping of the human genome as well as the genomes of other model organisms will be the basis for our future understanding of human disease and will allow us to answer fundamental questions about development and evolution t the new icrf handbook of genome analysis is the essential guide to the enormous range of techniques available to the researcher for both the genetic and physical mapping of the genome as well as the sequencing and analysis of dna it is both a protocol manual and a comprehensive information resource written by international experts each chapter presents a state of the art review of a methodology methods are fully described and evaluated their advantages and disadvantages discussed and their suitability for different investigations considered step by step protocols including computer analyses are given for 123 essential experimental procedures troubleshooting sections discuss possible reasons for failure and offer remedies the primary focus is on human genetics and the benefits of an understanding of the genome for the diagnosis and treatment of human disease the book also considers the current state of progress in the analysis of genomes of many model organisms including plants a major part of the work provides detail on internet resources as well as basic data on human and other genomes including mapped disease genes and mouse knockouts covers not only the human genome in relation to cancers and other human diseases but also the genomes of all important model organisms contains 123 easy to follow protocols for essential experimental procedures reviews a vast range of other information resources including journals and the internet provides an invaluable listing of suppliers of laboratory materials has been written by international experts from their own practical experience is mandated by the imperial cancer research fund a leader in research in this field has a sturdy spiral binding within a hardback case for ease of use in the lab

Use of Probes Specific for IS200 to Identify Salmonella 1996

this book provides a comprehensive examination of biochemical and genetic regulatory phenomena as they relate to the activity of actinomycete secondary metabolic pathways and the functioning of secondary metabolites as endogenous effectors of cytodifferentiation approximately 50 illustrations accompany the text

Annual Review of Microbiology 1986

the bacteria volume ix antibiotic producing streptomyces explores how streptomyces including actinomycetes produce a variety of antibiotics such as aminocyclitols ansamycins macrolides and tetracyclines topics covered range from physiology and fermentation to genetic recombination and chromosome mapping in streptomyces biomodification of antibiotics by streptomyces and biosynthesis of tylosin and erythromycin the genome structure and evolution of streptomyces are also discussed this volume is comprised of 10 chapters and begins with a discussion on the taxonomy of streptomyces based on morphology physiological characteristics the composition of cell constituents such as cell walls and the presence of characteristic lipids sugars and quinones the discussion then turns to the intraspecific and interspecific recombination in streptomyces pathways of dna repair and mutagenesis in streptomyces fradiae strategies for isolation of improved streptomyces mutants for antibiotic production and derivation of dna cloning vectors from streptomyces phages the biology and use of streptomyces plasmids as cloning vectors are also described the final chapter is devoted to major structural classes of antibiotics produced by streptomyces including anthracyclines and other quinones β lactams macrolides nucleosides peptides polyenes polyether antibiotics and tetracyclines this book will be of value to microbiologists bacteriologists biochemists and biologists

The Journal of General Microbiology 1990-04

there is a time in scientific research when a number of developments coincide making it possible to progress with a tough and complicated problem it is believed that such a time has come in the area of biological nitrogen fixation a better understanding of photosynthesis cell hybridization plasmid and gene transfer between cells not necessarily genetically related have opened new avenues of research new developments in traditional genetics cell biology biochemistry including enzyme chemistry and plant physiology have brought about the feeling this is a most appropriate time to pull together the different approaches in a conference where the lines of research could be discussed and thus help to speed up developments in this area what makes biological nitrogen fixation especially important is the promise that a good understanding of the basic problem would help us to make organisms more amenable to fix nitrogen not only in symbiosis with legumes but also with other plant species and develop a wider variety of organisms with the ability to fix n it will also encourage a search for naturally occurring n₂ fixing organisms other than the traditional n₂ fixers some success has already been encountered in this area success in broadening the field of nitrogen fixing would help to increase food supply especially in developing countries which cannot afford to purchase synthetic nitrogen sources

Rearrangement of the Bacterial Chromosome Using Transposon Homology 1980

the nitrogen fixing organisms free living heterotrophic nitrogen fixing bacteria nitrogen fixing bacteria in the rhizosphere nitrogen fixation in the phyllosphere photosynthetic bacteria blue green algae associations with blue green algae root nodule symbioses with rhizobium root nodulesymbioses withactinomycete like organisms development of root nodule symbioses root nodule morphogenesis formation and function of bacteroids the endophytes of the root nodules in nonleguminous plants leghemoglobin environmental effects on nodulation and symbiotic nitrogen fixation putative nitrogen fixation in other symbioses the nitrogen fixing system the enzyme system genetics of n₂ fixing organisms

Isolation and Chromosomal Locus of the Gene Encoding the 37,000 Dalton Minor Sigma Factor of Bacillus Subtilis RNA Polymerase 1987

proceedings of the eighth annual pezcoller symposium held in trento italy june 17 19 1996

Symbiotic Nitrogen Fixation in Plants 1976-02-26

methylenetetrahydrofolate reductase mthfr is a critical enzyme in both folate and homocysteine metabolism it first achieved medical recognition in 1972 with the report of severe deficiency of mthfr in a patient with homocystinuria an inborn error of metabolism characterized by marked elevation of homocysteine in plasma and urine although the majority of cases of homocystinuria are due to a deficiency of the first enzyme in the transsulfuration pathway for homocysteine metabolism cystathionine β synthase cbs disruption of homocysteine remethylation to methionine can also result in homocystinuria with the identification of additional patients with severe mthfr deficiency the heterogeneity of this disorder became manifest this book covers many of the complex traits that have been reported to be influenced by the well characterized 677c t variant there is less information on the 1298a c variant but it is discussed where appropriate it is quite surprising and unique that a single variant should influence such a wide variety of clinical conditions

Bacterial Genomes 2012-12-06

abstracts of the annual meeting

Regulation of the DnaA Promoter in Escherichia Coli 1999

we might think of them as living on the very edge of existence referred to as extremophiles these microorganisms exhibit the most radical capacity for adaptation in those harsh environments that are just barely conducive to the existence of cellular life unlocking the mechanisms and understanding the evolutionary development that allows these simple organisms to thrive can teach us much about microbiology in extremis highly diverse these microorganisms are found nearly everywhere one example thermophiles are microorganisms that thrive at temperatures above the mesophilic range of 25 40 degrees c until recently due to their extreme environment the study of thermophiles was limited however with the advent of new tools particularly genetic analysis remarkable strides have been made thermophiles biology and technology at high temperatures presents a cogent summary of the progress made in studying these extremophiles discover how thermophiles demonstrate extremes that indicate a lack of evolutionary constraints much is being learned from the study of thermophiles especially our understanding of biology at the molecular level and the genetic mechanisms that permit adaptation included in this volume is a discussion of protective strategies of thermophiles including their thermostability which allow them to maintain functional proteins it also investigates whether hyperthermophiles employ protein phosphorylation dephosphorylation as a molecular regulatory mechanism and provides significant clues regarding the synthesis of protein by studying this extreme example its subtle yet exaggerated response mechanisms and its development over the course of many short lived generations we may begin to understand the mechanisms in diseases linked to improper protein folding and also begin to more fully understand the ingenious design of dna and all that such an understanding implies regarding the survival of human life in a rapidly changing environment

Microbial Iron Metabolism 2014-06-28

Genetics of Industrial Microorganisms 1973

Genetics of Industrial Microorganisms 1973

ICRF Handbook of Genome Analysis 2009-06-03

Genetics Abstracts 1999

Regulation of Secondary Metabolism in Actinomycetes 2020-10-28

Antibiotic-Producing Stetomyces 1986-03-28

Cambridge Scientific Biochemistry Abstracts 1992

Atti - Associazione Genetica Italiana 1992

Genetic Engineering for Nitrogen Fixation 2012-12-06

Pesticides Abstracts 1980

The Biology of Nitrogen Fixation 1974

The Contribution of Chromatin to Gene Regulation in the Immune System 2000

Microbiology Abstracts 1988

Environmental Mutagenesis 1987

Genomic Instability and Immortality in Cancer 2012-12-06

MTHFR Polymorphisms and Disease 2005-09-15

Abstracts of the Annual Meeting of the American Society for Microbiology 1978

Bacteriological Proceedings 1977

Thermophiles 2007-12-13

DNA : Replication and Recombination 1979

Ikaros 2005