

1. Record Nr.	UNINA9910145420503321
Autore	Maroni Gustavo
Titolo	Molecular and genetic analysis of human traits [[electronic resource] /] / Gustavo Maroni
Pubbl/distr/stampa	Malden, MA, : Blackwell Science, c2001
ISBN	1-281-32161-3 9786611321611 0-470-76007-9 0-470-75980-1
Descrizione fisica	1 online resource (296 p.)
Disciplina	599.935
Soggetti	Human genetics Medical genetics 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	Contents; PREFACE; CHAPTER 1 The Inheritance of Simple Mendelian Traits in Humans; DETECTING MENDELIAN INHERITANCE IN HUMANS; Test-Crosses and Pure Lines versus Pedigrees and Inferred Genotypes; Box 1.1 Early observations of Mendelian inheritance in humans; PATTERNS OF INHERITANCE AND EXAMPLES; Autosomal Dominant Traits; Autosomal Recessive Traits; X-Linked Recessive Traits; THE USE OF PEDIGREES TO PREDICT THE RESULTS OF MATINGS; Probability of Individual Genotypes; Probability of Group Outcomes; GATHERING DATA TO TEST THE MODE OF INHERITANCE OF A TRAIT Pooling Data from Many Families and Ascertainment ErrorsAscertainment errors in studies of dominant traits; Ascertainment errors in studies of recessive traits; INHERITANCE OF MULTIPLE TRAITS: INDEPENDENT ASSORTMENT AND LINKAGE; Determination of Linkage from Human Pedigrees; Genetic Recombination and LOD Scores; Informative and Noninformative Matings; Neutral Polymorphisms, Marker Loci, and Genetic Maps; Box 1.2 Internet sites; The use of protein products to define marker loci; The use of directly detected DNA differences as marker lod

EXAMPLE 1.1 Linkage of the Huntington's disease gene to an RFLP
 CONCLUSION; EXERCISES; REFERENCES; CHAPTER 2 Hereditary Traits That Do Not Show a Simple Mendelian Pattern; SINGLE-GENE TRAITS LACKING A SIMPLE MENDELIAN PATTERN; Variable Expressivity and Incomplete Penetrance; Complementation; Phenocopies and Pleiotropy; QUANTITATIVE TRAITS; Multiple Alleles; Polygenic Inheritance; Major and Minor Genes; COMPLEX TRAITS; Epidemiological Analysis of Complex Traits; Liability; Family Clustering; Identical Twins; LOCALIZATION OF GENES RESPONSIBLE FOR COMPLEX AND QUANTITATIVE TRAITS
 Linkage Analysis of Complex Traits Affected Pedigree Member (APM) or Allele-Sharing Methods; Example 2.1. Familial psoriasis; Example 2.2. Familial breast cancer; Analysis of quantitative trait loci by allele-sharing methods; Example 2.3. Insulin-dependent diabetes mellitus; Example 2.4. Male homosexuality; Allelic Association; Example 2.5. Dyslexia; Candidate Gene; Example 2.6. Nonsyndromal autosomal recessive deafness; Example 2.7. Neuroticism and genes for serotonin metabolism; CONCLUSION: NATURE VERSUS NURTURE; EXERCISES; REFERENCES; CHAPTER 3 Genome Organization I
 UNEXPRESSED DNA, REPETITIVE AND UNIQUE SEQUENCES Clustered, Highly Repetitive Sequences; The main families of highly repetitive sequences; Example 3.1. The a family of highly repetitive DNA; Small-Cluster, Intermediately Repeated DNA; Minisatellite DNA; Microsatellite DNA; Dispersed, Intermediately Repeated Sequences; Viral retrotransposons; Nonviral retrotransposons: Alu, L1, and processed pseudogenes; Unique Sequence DNA; EXPRESSED DNA, GENES AND GENE FAMILIES; The Organization of RNA Polymerase I Genes: Introns and Exons; Box 3.1. Internet sites; Example 3.2. Collagen Example 3.3. Cystic fibrosis

Sommario/riassunto

Molecular and Genetic Analysis of Human Traits will address the science student human genetics market. Although incorporating two basic themes: how do we establish that a trait is hereditary, and how is the human genome organized, it will also address relevant clinical examples and key related ethical issues. New attractive features have been added, including a chapter project, and end of chapter exercises which rely on real data. Each chapter includes end of chapter exercises, and references. In-text examples and internet references are cited.
 Most figures
