

Download Non-mendelian Genetics In Humans

Non-Mendelian genetics are basically any inheritance patterns that don't follow one or more laws of Mendelian genetics. Let's review those laws quickly: Mendel's First Law (Law of Segregation) – A parent who has two alleles for a gene can only pass on one allele or the other to each offspring. Non-Mendelian Traits. Examples of polygenic traits are hair color and height. Other traits, such as blood type, show codominance, where there is no dominant or recessive allele. In this case, both alleles are expressed completely, so an individual who has both alleles will show both phenotypes. Mendelian traits in humans concerns how, in Mendelian inheritance, a child receiving a dominant allele from either parent will have the dominant form of the phenotypic trait or characteristic. Only those that received the recessive allele from both parents, known as zygosity, will have the recessive phenotype. This book addresses the basic mechanisms for the transmission of genetic disorders in humans, and explores the evidence for a number of non-Mendelian genetic processes such as gonadal and somatic mosaicism, sex-linked inheritance, mitochondrial transmission, genomic imprinting, accelerated rates of mutation, and viral infection.