

A Handbook of the Mosquitoes of North America: Their Anatomy and Biology; how They Can be Studied and how Identified; how They Carry Disease and how They Can be Controlled. Robert Matheson. 1944. Comstock Publishing Company, Incorporated, 1944

Another example of how culture influences our genes is the relationship between yam farming and malaria resistance. Throughout much of Africa, people are in constant battle with malaria. According to the CDC, in 2010 there were some 219 million cases of malaria reported worldwide, and 660,000 were fatal. As the Polynesians settled the islands of the Pacific, they endured long voyages across the open ocean, and faced the stresses of cold and starvation. Those conditions may have encouraged "thrifty metabolism", which allows people to build up fat deposits more quickly when food is available. The difficulty is identifying how and if one is influencing the other. "This is the great challenge for the field of gene-culture co-evolution, and it is a formidable challenge," Laland writes. James Watson and Francis Crick figured out how a code could be captured in the structure of DNA molecules, opening the door to an understanding of how DNA carries the blueprints for proteins. They proposed that DNA is made of two nucleotide chains running in opposite directions and held together by hydrogen bonds between the nitrogenous bases. On August 24, 1989, scientists announced their discovery of the first known cause of a genetic disease: They found a tiny deletion from a gene on Chromosome 7 that resulted in the deadly genetic disease cystic fibrosis. This identification of a genetic defect, and the realization that this defect causes a disease, opened the floodgates of genetic research. Below you can find many of the arguments being made for and against the use of animals in the laboratory, some you are probably already aware of and some you may not have thought about; what do you think? Are animal models useful? Yes. Researchers working with animals carry out their experiments with extreme care to eliminate or minimize suffering. Whenever possible painkillers and anaesthetics are used to manage pain, in the same way it is when an animal visits a vet. Eventually, it should be optional to use animals in drug testing. More funding should be put into developing alternatives to experiments using animals. Just because we undertake animal testing now doesn't mean we shouldn't challenge how scientific research is done in the future. Mosquito-borne diseases or mosquito-borne illnesses are diseases caused by bacteria, viruses or parasites transmitted by mosquitoes. Nearly 700 million people get a mosquito-borne illness each year resulting in over one million deaths.[1]. Some species of mosquito can carry the filariasis worm, a parasite that causes a disfiguring condition (often referred to as elephantiasis) characterized by a great swelling of several parts of the body; worldwide, around 40 million people are living with a filariasis disability. Mosquitoes carrying such arboviruses stay healthy because their immune systems recognizes the virions as foreign particles and "chop off" the virus' genetic coding, rendering it inert. PET scans can indicate how patients are responding to chemotherapy. Name at least three reasons to study anatomy and physiology. An understanding of anatomy and physiology is essential for any career in the health professions. It can also help you make choices that promote your health, respond appropriately to signs of illness, make sense of health-related news, and help you in your roles as a parent, spouse, partner, friend, colleague, and caregiver. For whom would an appreciation of the structural characteristics of the human heart come more easily: an alien who lands on Earth, abducts a human