

Candidate Gene

A candidate gene is any DNA sequence (gene) in a chromosome considered likely to cause a disease. The gene may be a candidate because it is located in a particular chromosome region involved in the disease, or its protein product is suspected to be the cause of the disease. Candidate genes have been used to identify genetic risk factors for complex disorders such as alcoholism.

These studies, called the candidate gene approach, test the effects of variants of a candidate gene in members of an affected family, or in unrelated cases and controls. The candidate gene approach is useful for quickly determining the association of a genetic variant with a disorder. However, this approach is limited by how much is known about the biology of the disease being investigated.