Genome Project Encyclopedia Article

Genome Project

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

Contents

Genome Project Encyclopedia Article.....1

Contents.....2

Genome Project.....3

Genome Project

The project with the goal of sequencing the human genome, which is the collection of all human genes. In the 1990s, a scientific commitment was made to identify all the genes in human chromosomes, and some other organelles such as mitochondrion. This involved international cooperation and a very significant effort by many laboratories. Genes are made of DNA, which is composed of sequences of four different nucleotides, with perhaps as many as three billion nucleotides total in the genome. The genome project's goal is to determine all the nucleotides and their sequence, and then make this information available through the Internet. A gene is a functional segment of this DNA sequence that produces a product, an mRNA, which in turn guides the formation of a protein. Estimates of the number of genes in humans vary widely, with the averages falling in the range of 70,000 to perhaps 120,000. It is believed that identifying the genome sequence is the first step necessary for producing dramatic advances in biology and medicine. In addition to the human genome project, there are similar on-going projects attempting to sequence the genomes of other organisms as well.