Retrovirus Encyclopedia Article

Retrovirus

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

Retrovirus Encyclopedia Article.....1

Contents.....2

Retrovirus.....3

Retrovirus

A retrovirus is defined as any of a group of viruses that, unlike most other viruses and all cellular organisms, carry their genetic blueprint in the form of ribonucleic acid (RNA). Retroviruses are responsible for certain cancers and virus infections of animals and cause at least one type of human cancer. They have also been identified as the cause of acquired immune deficiency syndrome (AIDS) in humans, and they have been linked to one form of human hepatitis.

Retroviruses are so named because, by means of a special enzyme called reverse transcriptase, they use RNA to synthesize deoxyribonucleic acid (DNA). This establishes a reversal of the usual cellular process of transcription of DNA into RNA. The action of reverse transcriptase makes it possible for genetic material from a retrovirus to become permanently incorporated into the DNA of an infected cell.

The retrovirus HIV, the causal agent of AIDS, invades the target cell and infiltrates its DNA. The viral DNA is transcribed, or encoded, along with the cell's DNA into RNA, which then directs the production of proteins. The host cell doesn't recognize the viral DNA as invasive and the infection is permanent. The host continues to replicate the viral DNA and the disease spreads without impediment.