Serotonin Encyclopedia Article

Serotonin

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

Serotonin Encyclopedia Article.....1

Contents.....2

Serotonin.....3

Serotonin

Chemically named 5-hydroxy-tryptamine, this MONOAMINE transmitter is a widely distributed substance particularly prevalent in the gut, blood, platelets, and pineal gland, as well as in nine major sets of brain neurons (nerve cells). In the 1950s, chemical similarity between serotonin and the chemical HALLUCINOGEN LYSERGIC ACID DIETHYLAMIDE (LSD) focused attention on this NEUROTRANSMITTER in mental illness, a link strengthened by experimental studies in animals and humans. Neurons containing serotonin, a typical monoamine, project widely throughout the brain and spinal cord, and a large number of well-characterized serotonin-receptor subtypes mediate both direct and indirect regulation of ion channels that exist in the membranes of neurons. By regulating these channels, these serotonin RECEPTORS influence the concentration within the neuron of such ions as K^+ (potassium) and Ca^{++} (calcium) and thereby the activity of the cell.

See Also

Brain Structures and Drugs; Dopamine; Neurotransmission; Reward Pathways and Drugs; Serotonin-Uptake Inhibitors in Treatment of Substance Abuse)

Bibliography

COOPER, J. R., BLOOM, F. E., & ROTH, R. H. (1991). *The biochemical basis of neuropharmacology*, 6th ed. New York: Oxford University Press.