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BREAKTHROUGHS IN BIOSCIENCE DETAILS HISTORY OF ANTIDEPRESSANTS

Bethesda, MD – The Federation of American Societies for Experimental Biology (FASEB) is pleased to announce the release of the publication “Science, Serotonin, and Sadness: The Biology of Antidepressants,” the latest article in the *Breakthroughs in Bioscience* series. This article describes how fundamental understanding of brain chemistry and the underlying causes of depression have resulted in successful treatments for this crippling disease, including selective serotonin reuptake inhibitors or SSRIs.

The history of neuropharmacology mirrors the evolution of the understanding that mental disorders are diseases of the brain not, as believe in earlier centuries, a problem caused by the influence of the moon’s lunar cycles or black bile. Advances in treatment for depression are the result of research discoveries in many fields of science. The first drugs that appeared to improve the symptoms of severe depression were found by chance observation of their anti-depressive abilities when used for patients with very different diseases. Discoveries made by NIH scientist and Nobel Laureate Julius Axelrod in the early 1960s showed that neurotransmitters undergo “reuptake” into the same nerve cell which released them. This breakthrough led to an understanding of how to design a drug that focused on just one neurotransmitter. Eli Lilly’s Bryan Molloy, David Wong, and Ray Fuller joined forces in the lab and developed a drug that was selective for the neurotransmitter serotonin, which had been linked by others to depression. Their efforts resulted in the announcement in 1974 of the development of fluoxetine, or Prozac, the first SSRI. “Science, Serotonin, and Sadness” puts together all the pieces in this complex picture of clinical observation, basic biological research, and sophisticated drug design.

The *Breakthroughs in Bioscience* series is a collection of illustrated articles, published by FASEB, that explain recent developments in basic biomedical research and how they are important to society. To obtain a free copy of these publications, visit the *Breakthroughs in Bioscience* Web site (<http://opa.faseb.org/pages/Publications/breakthroughs.htm>) or contact FASEB’s Office of Public Affairs at (301) 634-7650.

FASEB is composed of 21 societies with more than 80,000 members, making it the largest coalition of biomedical research associations in the United States. FASEB’s mission is to enhance the ability of biomedical and life scientists to improve—through their research—the health, well-being and productivity of all people. FASEB serves the interests of these scientists in those areas related to public policy, facilitates coalition activities among Member Societies and disseminates information on biological research through scientific conferences and publications.