Topical Collection

Understanding the Impact of Dopamine Receptors Diversity in the Central Nervous System

Message from the Collection Editors

The neurotransmitter dopamine interacts with five types of dopamine receptors (D1R–D5R) to regulate a great variety of functions in the brain. These dopamine receptors belong to the superfamily of G protein-coupled receptors and have been classified in two families (D1-like and D2-like) according to their pharmacological and biochemical properties. Dysfunction of dopamine neurotransmission and its receptors leads to several neurological disorders. Since the cloning of the dopamine receptors in the 1990s, numerous studies have been conducted to elucidate the specific function of each of them. In addition, research on dopamine receptors has also focused on their ability to form homo- and heteroreceptor complexes, which significantly increase the variety and complexity of the integrative mechanisms of dopamine signal. The aim of this Topical Collection is to compile research and review articles studying molecular biology, pharmacology, and function of dopamine receptors, especially those less studied, i.e., D3R, D4R, and D5R. Articles on other important aspects of dopamine homo- and heteroreceptor complexes relevant to both health and neurological disorders are also welcome.

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Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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