Special Issue

The Planarian Model in Pharmacology, Toxicology, and Neuroscience

Message from the Guest Editor

The main biological claim to fame of freshwater planarians and related flatworms is the fact that some species display an uncanny capacity for regeneration, including the complete (and correct) regeneration of their relatively complex nervous system. Planarians have been used to test a variety of chemical compounds since at least the 18th century. However, arguably the systematic study of the pharmacology of planarians began in the 1970s with the studies of Drs. G. Palladini. A. Carolei, G. Venturini, and their colleagues at the University of Rome, Italy, in the context of the dopaminergic and cholinergic systems and eventually, on the effects of the abused drug, cocaine, in this organism. Since then, the planarian pharmacology field has blossomed, alongside the use of planarians in scientific fields like toxicology and neurobiology, establishing planarians as mainstream animal models beyond regenerative and developmental biology. In this Special Issue, we are pleased to present a sample of cutting-edge research showcasing the application of the planarian model in pharmacology, toxicology, and neuroscience.

Guest Editor

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in Biomolecules so far. We would be delighted to welcome you as one of our authors.

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