Special Issue

Targeting the Hedgehog Signaling Pathway in Cancer

Message from the Guest Editor

The Hedgehog signaling pathway is an evolutionarily conserved signaling pathway crucial for embryonic development and tissue patterning. It is mostly inactive in the differentiated tissues of adult organisms, except in the stem cell compartment. It regulates many cellular processes, such as proliferation, differentiation, epithelial-mesenchymal transition and stem cell maintenance.

Hedgehog signaling is frequently upregulated in various cancers, the mechanisms are complex and often depend on the tumor microenvironment and the tumorstroma communication. Regardless of the mechanism, activation of the Hedgehog pathway is associated with cancer cell proliferation, survival and metastasis, as well as drug resistance. Additional complexity in Hedgehog signal transduction is added by the non-canonical signal transduction, which can activate the pathway independently of the ligand binding/membrane components, and by the cross-talk with other signaling pathways.

This Special Issue focuses on the role of Hedgehog signaling in cancer, its cross-talk with other signaling pathways and its potential as a diagnostic, prognostic and therapeutic target.

Guest Editor

Dr. Maja Sabol

Laboratory for Hereditary Cancer, Division of Molecular Medicine, Ruder Boskovic Institute, Zagreb, Croatia

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Biomedicines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

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Biomedicines (ISSN 2227-9059) is an open access iournal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

Editor-in-Chief

Prof. Dr. Felipe Fregni

- Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
- 2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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