Special Issue

Growth Factors and Receptor Tyrosine Kinases in Development, Regeneration, and Tumorigenesis: 2nd Edition

Message from the Guest Editor

Members of the family of receptor tyrosine kinases (RTKs) have been shown to have important functions in embryonal development, wound healing, and tissue homeostasis. Their extracellular ligand-binding parts are composed of different combinations of domains. Many, maybe all, RTKs are activated by dimerization or oligomerization, induced by ligand binding. This results in the auto-phosphorylation of certain tyrosine residues in the intracellular parts of the receptors, creating docking sites for SH2-domain-containing molecules, as well as in the tyrosine phosphorylation of specific downstream signaling molecules. The activated signaling pathways leads to the stimulation of cell growth, survival, and migration. Over-activity, by mutation, amplification, or overexpression, of RTKs are common in tumorigenesis, and more than half of the known RTKs have been implicated as drivers of various tumors. Tyrosine kinase inhibitors have therefore been developed and are used clinically, with beneficial effects in the treatment of tumors.
This Special Issue will highlight recent developments in the normal function of RTKs and their role in disease, as well as their structural properties.

Guest Editor

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Message from the Editor-in-Chief

Cancers is an international online journal addressing both clinical and basic science issues related to cancer research. The journal is publishing in Open Access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

Editor-in-Chief

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