

Special Issue on
Role of Inflammatory Signaling in Colorectal Cancer

CALL FOR PAPERS

Molecular pathobiology of CRC compromises proinflammatory conditions to promote the tumor malignant progression, invasion, and metastasis. Inflammation involves interaction between various immune cells, inflammatory cells, chemokines, cytokines, and proinflammatory mediators, such as cyclooxygenase and lipoxigenase pathways, which may lead to signaling towards tumor cell proliferation, growth, and invasion. It has been found that the lipopolysaccharide, a potent endotoxin, is responsible for triggering a pattern of the mucosal inflammatory responses. The engagement by the LPS of gastric mucosal Toll-like receptor 4 (TLR4) leads to initiation of signal transduction events. TLRs generally recruit signaling adapters to initiate a proinflammatory signaling cascade culminating in the activation of several transcription factor families. The connection between inflammation and tumorigenesis is well-established and in the last decade it has received a great deal of supporting evidence from genetic, pharmacological, and epidemiological data. It will be an interesting feature of study about the role of miRNAs in CRC.

Recently, the discovery of microRNAs (miRNAs) have revolutionized molecular cancer biology and emerged to have a great potential as future noninvasive cancer diagnostic, prognostic, and predictive biomarkers. MiRNAs are highly conserved family of small (17-22 nucleotides), endogenous, noncoding, single-stranded RNA molecules that negatively regulate the gene expression by binding to complementary sequences in the 3'-untranslated region (3'-UTR) of target messenger RNA (mRNA). They play important regulatory functions in several biological processes such as proliferation, differentiation, apoptosis, development, angiogenesis, and metabolism. Moreover, numerous miRNAs have been shown to act as oncogenes or tumor suppressor genes depending on the target mRNA and also they play a key role in pathogenesis of colorectal cancer (CRC).

We cordially invite and encourage authors to submit the original research articles as well as the review articles that will help in understanding the role of inflammatory signaling in field of colon cancer biology.

Potential topics include but are not limited to the following:

- ▶ Role of miRNAs in development of colorectal cancer
- ▶ Factors implicated in triggering mucosal inflammatory responses
- ▶ Role of TLRs signaling in the activation of transcription factors
- ▶ Recent advances in basic and translational research to understand the contribution of inflammatory signaling pathways to CRC
- ▶ Regulation of miRNAs in inflammation associated colorectal cancer: a mechanistic approach
- ▶ Role on the regulation of the molecular mediators targeting miRNAs and pathways that link inflammation to colon cancer

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/iji/risc/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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