

Transcription Factors: From Oncogenesis to Druggable Targets of Natural Products

Guest Editor: Siddavaram Nagini**Aims & Scope:**

Transcription factors are vital components of complex signalling networks that regulate a plethora of diverse cellular processes including cell division, differentiation, migration, cell death, and homeostasis. The human transcription factor repertoire of over 1600 proteins act individually or as an ensemble to recognize specific DNA sequences and regulate gene expression. Aberrant expression of transcription factors contributes to dysregulated signalling and acquisition of hallmark capabilities of cancer. There is mounting evidence to indicate that transcription factors such as NF- κ B, β -catenin, c-Myc, AP-1, Nrf2, HIF-1 α , and STAT-3 are potential druggable targets of natural products. This thematic issue will focus on the role of transcription factors in oncogenesis and as potential molecular targets for intervention by natural products. Review articles will provide mechanistic insights on phytochemicals and analogues targeting transcription factors by innovative approaches that could impact cancer therapeutics as well as the challenges and limitations.

Keywords: Cancer, Drug targets, Natural products, Transcription factors.

Subtopics:

The subtopics to be covered within this issue include:

- Mechanisms of altered transcription factor activity in cancer and modulation by natural products.
- Impact of transcription factor targeting by natural products on oncogenic signalling and cancer hallmarks.
- Innovative approaches to target transcription factor activity in malignant tumours by natural products.
- Structure-activity relationship in transcription factor targeting by natural products and their analogues.
- Challenges and opportunities in developing drugs from natural products that target transcription factors.

Schedule:

- ✧ Manuscript submission deadline: 1 June 2021
- ✧ Peer Review Due: 28 June 2021
- ✧ Revision Due: 21 July 2021
- ✧ Announcement of acceptance by the Guest Editors: 1 August 2021
- ✧ Final manuscripts due: 15 August 2021

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