

Editorial

“Cancer: normal cells’ reply to a deadly fate”

The *Turkish Journal of Biology* aims to publish special issues that focus on research topics of common interest on a regular basis. To that end, the journal presents this very first special issue on cancer: “Cancer: normal cells’ reply to a deadly fate”. This issue not only communicates current knowledge for our understanding of the biological basis of cancer and new potential therapeutics for the disease but also argues how cells becoming cancerous can be an inherent defence mechanism for the cells when they are under genetic or environmental threat. The field of cancer biology has grown exponentially over the past 2 decades, from the original concepts of cancer as a dreadful disease with no cure in sight to the current-day knowledge of molecular carcinogenesis, identification of molecular targets that can be successfully utilised for the purpose of designing new therapeutic approaches, nanotechnology that can target the cancer cells while reducing or eliminating toxicity, and identification of novel approaches for preventing cancer.

Although cancer is a universal issue, it is nowhere near uniform as this term encompasses almost 200 different forms of the disease, each with its own substantial heterogeneity, origin, and aetiology. Given its high complexity, a complete assessment of cancer covering all these aspects is a nearly impossible task. However, every effort has been made to compile internationally contributed research, reviews, and unsolicited articles in this special issue.

In this collection of articles, review articles discuss the current developments in cancer research and how far we have come in terms of the prevention and curing of cancer. The reviews and invited articles provide details on diverse topics extending from the social and economic burden of cancer to molecular players and current paradigms in the therapy and prevention of the disease. The role of antiprogesterins as a possible new approach to breast cancer therapy and some of the mechanisms by which cells escape immunosurveillance, mediate immune suppression, and develop multidrug resistance are well described. Given their forefront roles in the regulation of cell signalling, the contribution of noncoding RNAs to tumorigenesis and the importance of cancer stem cells in oncology are also discussed in detail. Since prevention of cancer may be of significant importance in cancer control, the discovery and molecular mechanisms of new chemopreventive drugs are described. Thus, the research articles and reviews included in this special issue provide some novel findings on the critical components in cancer biology, prevention, and potential therapeutics.

We hope that the research presented here will be both informative and stimulating for the scientific community in general and for the interested audience of the *Turkish Journal of Biology*.



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