

## Targeted Cancer Therapy: A Hopeful Cure for Future

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### Summary

Cancer is a multi-factorial disease that is spreading very fast in today's world. Informative activities and preventive efforts have been increased in recent years. Conventional therapies are used for patients to reach an acceptable level of success and patients can continue their lives but there are some side effects and most of the times the normal cells encounter damages by these therapies and also probability of recurrence always exist. So, the presence of a definitive therapy is needed to cure patients without these problems after therapy. Cancer cells need to use specific molecules in their cellular networks to continue their lives. Therefore, by elucidation of these molecules and targeting them purposefully a therapeutic strategy can be developed that is called targeted cancer therapy.

**Keywords:** Targeted cancer therapy, Multi-factorial disease, Specific molecules, Signaling network

### Dear Editor...

There is no doubt that cancer is a global issue that is growing very fast in the world. This terrible disease causing millions of death every year, arises from fundamental perturbations in cellular signaling network that oblige cells to transform and finally establish a tumor. The cells can migrate to other sites of the body and constitute new encampments for attacking to other parts of the body that is called metastatic situation. In this stage it can be called cancer (Gupta and Massagué, 2006).

Cancer is a multi-factorial disease originating from several factors which also depends very much on life style. So, it is important to have a healthy life style to prevent this disease. (Belpomme et al., 2007; Jin et al., 2014). Nowadays, informative activities and preventive efforts have been increased but most of the time there is no way except therapy to rescue patients (World Health Organization, 2007).

Several molecules are changed during cancerous process and enormous studies have been performed to elucidate the crucial roles of these molecules in this process (Mishan et al., 2015).

Conventional therapies such as radiotherapy and chemotherapy have not offered successful and definitive results by producing side effects in cancer patients (Subramanian et al., 2015).

It is important to investigate for new therapies that could cure patients without side effects and recurrence.

In recent years, new treatments have been introduced for this purpose and among them, targeted cancer therapy have attracted many attractions. Three strategies have been introduced for targeted cancer therapy including antagonizing of specific molecules, targeted siRNA delivery and therapeutic monoclonal antibodies. By means of this therapy, molecules that are essential in cancerous process and also cancer cell viability are targeted and destroyed. Based on this theory, clinical trials have been performed with some promise but have not been used yet in clinic (Mishan et al., 2016).

So, it must be investigated how these methods could be used in clinic and how to establish targeted cancer therapy. By answering to these questions many hopes will be created in society towards absolute eradication of this terrible disease

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