

REPURPOSING DRUGS FOR CANCER THERAPY

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ABSTRACT

Cancer remains a second leading cause of death worldwide. The economic burden of cancer is increasing day by day due to the morbidity, recurrence, and poor prognosis of this disease. Over the last decades, there is an increasing need to discover and development effective and safe therapeutic agents for cancer. Traditionally, the development and approval of new drugs are long term and also costly. Therefore, this has encouraged scientists to repurposing of known drugs for the treatment of cancer. This strategy has been considered as a good way to offer safe, effective and cost-effective new anticancer drugs. Approximately, 300 non-cancer drugs have been shown to exhibit anticancer effect on different cancer cells, thus they are promising anticancer potential and, candidates for development. However, the appropriate and comprehensive research is required in order to define exact mechanism, dosage and toxicity potential of repurposed drugs. A broad range of therapeutic strategies should be used in order to assess the success of repurposed drugs in replacement of conventional cancer therapies or enhancement of chemotherapy.

Keywords: Cancer, Drug Repurposing, Therapy, Off-Target, Oncology