



Antitumor Modulator for Enhancement of Chemotherapeutic Agents in Cancer Therapy

Learn more!

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Discovery

- Pharmaceutical compositions that include a chemotherapeutic agent provided at an optimal or sub-optimal dose and an antitumor modulator that is a copper-binding agent (e.g., NSC109268) and derivatives of a copper-binding agent
- Antitumor modulators that can alter the sensitivity of cells to certain DNA damaging agents, such as chemotherapeutic agents, when given concomitantly with the agent
- Preclinical research studies in mice have demonstrated increased tumor growth inhibition when compared to controls

Features

- Compositions can include a broad range of chemotherapeutic agents including alkylating agents, methanesulphonate esters, platinum complexes, and bioreductive alkylators
- Compositions can be used for a number of cancers including but not limited to carcinoma, leukemia, melanoma, colon cancer, breast cancer, lung cancer, and prostate cancer

Benefits

- Potential to enhance the anti-tumor effect of a chemotherapeutic agent while maintaining a reduced side-effect profile
- Potential to “reverse” or mitigate chemotherapeutic agent resistance by increasing cellular sensitivity to the chemotherapeutic agent

Opportunities

- Cancer affects more than 10 million people worldwide each year and this number is expected to increase by 2.4 percent annually reaching 14 million people each year by 2020
- The global market for cancer therapies is estimated at over \$50 billion and is expected to increase to over \$110 billion by 2013
- Chemotherapy segment is estimated at over \$14 billion and is expected to grow at an annual rate of 11 percent to reach \$24 billion by 2013