

New Green Tea-Derived Compounds and Method of Synthesis for Anti-Cancer Therapy

Researchers at the University of South Florida have developed a group of compounds derived from tea extracts and a method of synthesis for these compounds for use as anti-cancer therapy. These compounds act as proteasome inhibitors, inducing cancer cells to undergo cell death.

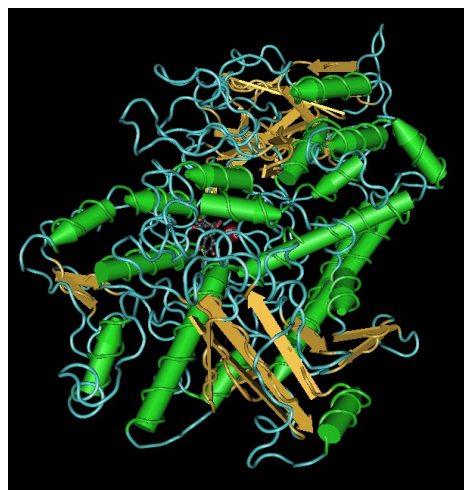
About 38.5% of people will be diagnosed with cancer during their lifetime. Cancer is the result of the over-proliferation of cells and the inability of cells to undergo normal cell death. The process regulating cell death is tightly monitored by multiple proteins and checkpoints. In some cancers, such as prostate cancer, research has shown increased activity of proteasomes (enzymes that break down target proteins) and specific degradation of several proteins that usually suppress tumor growth. This pro-survival activity allows the tumor cell to continue to grow and reproduce.

Green tea has been extensively studied for its many therapeutic properties. University of South Florida investigators have shown that the new green tea-derived agents that have been developed can induce growth arrest and cell death in human cancer cells. The wide variety of tumor types that can be targeted by these agents, from prostate cancer to breast cancer to leukemia, suggests that these compounds would be ideal agents for continued development as anti-cancer therapy.

ADVANTAGES:

- Safely and effectively destroy cancer cells without harming healthy cells
- Applicable to the treatment of various cancers

Novel Anti-Cancer Agents to Target a Wide Variety of Tumor Types



EGCG - One of the Compounds Extracted from Green Tea

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