USF Available Technologies

Technology Transfer Office

New Combination Therapy for Treatment of Acute Myeloid Leukemia

Researchers at the University of South Florida have developed a new combination therapy for the treatment of acute myeloid leukemia (AML).

Currently, few agents are able to effectively treat AML. Recent research has shown that approximately 25% of AML cells express an activated form of the protein FLT3 (p-FLT3), a tyrosine kinase on the cell surface, which is an indicator of a poor prognosis.

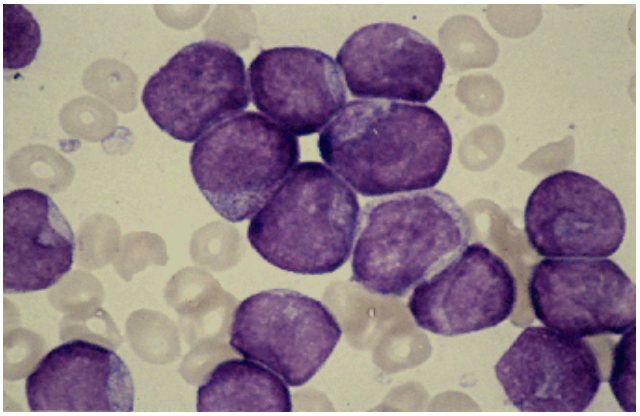
Agents have been developed to inhibit p-FLT3, but the clinical benefits of this agent when used alone are not as great as when used in combination with other anti-cancer agents.

Our scientists have developed a new combination therapy for treatment of AML using an inhibitor of p-FLT3 and a histone deacetylase (HDAC) inhibitor. HDAC inhibitors have been shown to induce apoptosis in cancer cells when used in combination with other anti-cancer agents. *In vitro* studies show that this new regimen induces a larger number of cells to undergo apoptosis than either agent alone. The development of a new effective therapy for the treatment of AML is imperative. This new combination therapy has the potential to become that treatment.

ADVANTAGES:

- **Combination therapy induces apoptosis of more cells than either agent alone**
- **Treatment targets populations of difficult-to-treat AML cells**

New Combination Therapy Enhances Effects of Anti-Cancer Agents



Acute Myeloid Leukemia (AML). AML cells are targeted by HDAC inhibitors for use in combination therapy to increase sensitivity to anti-cancer treatments.

Tech ID # 03B062

Patent #: 7,732,476 / 8,242,101

University of South Florida | Technology Transfer Office
813.974.0994 (office) | 813.974.8490 (fax)
patents@research.usf.edu
http://www.usf.edu/research-innovation/pl/