Researchers at the University of South Florida have developed an effective combinatorial therapy to overcome drug resistance in pancreatic cancer cells.

Pancreatic cancer is the fourth leading cause of cancer related deaths in the United States. This type of cancer is often detected at a very late stage when the disease is more aggressive and metastasized. This corresponds to poorer prognoses and higher mortality rates. Furthermore, when pancreatic cancer is detected at later stages, the cancer cells are more likely to exhibit resistance to chemo and radiation therapies, therefore limiting the effectiveness of potential treatment options. This highlights the need for a more effective therapy to prevent pancreatic cancer progression and metastasis.

USF researchers have developed a novel combinatorial therapy to overcome drug resistance in pancreatic cancer. Combinatorial therapies have been shown to effectively prevent pancreatic cancer cell growth and metastasis characteristics. According to the studies conducted, combinatorial treatments with both Fendiline and Tivantinib demonstrated a significant reduction in cancer cell migration, an enhancement in programmed cell death, and a reduction in the expression of cancerous characteristics when compared to cells treated with the drugs individually. This combinatorial treatment demonstrated that when used together, the drugs exhibited enhanced cancer cell cytotoxicity. These results suggest that combinatorial therapy may be a viable option for effective management of pancreatic cancer.

ADVANTAGES:
- More effective than single drug therapies
- Enhanced cytotoxicity
- Mitotic arrest in pancreatic cancer cells
- Treats drug resistant pancreatic cancer

A Novel Pancreatic Cancer Treatment Option Utilizing Fendiline and Tivantinib to Overcome Drug Resistance

Fendiline and Tivantinib Combinatorial Therapy Exhibited Apoptosis and Increased Cell Death in Pancreatic Cancer Cells

Tech ID # 16A022