

Method for Early Detection of Cancers

Researchers at the University of South Florida have developed a method for the early detection of both prostate & colorectal cancer based on protein expression.

Colorectal adenocarcinoma (CRC) is one of the most common cancers, accounting for approximately 15% of all cancer-related deaths in the US. Prostate cancer is one of the most common cancers in men, and the second leading cause of cancer related death among men in the US. The precursor to prostate cancer is called high grade prostatic intraepithelial neoplasia (PIN), which is a premalignant lesion that forms in the prostate. PIN has been reported to be a risk factor for detection of prostate cancer. A method of detecting PIN as well as CRC cancer cells would greatly enhance the diagnosis of prostate and rectal cancer, and it would contribute to the earlier detection of these deadly diseases.

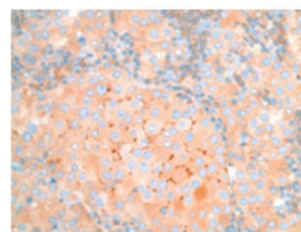
USF researchers have demonstrated that a certain protein, designated Bif-1, is expressed in lower amounts in CRC cells. This means that determining the absence of this protein in a sample may indicate the presence of cancer. Using this discovery, the researchers created a method for detecting cancer in patients by testing the levels of Bif-1 in the patient. Furthermore, they created a method of determining the risk of relapse using the same discovery of the Bif-1 protein's link to cancer. This discovery may also be translated to determining the effectiveness of a cancer treatment. This would be done by measuring the increase of Bif-1 as a marker for cancer regression during treatment. Bif-1 levels were also correlated to the presence of PIN. Thus this discovery may also be used in the early detection of prostate cancer.

ADVANTAGES:

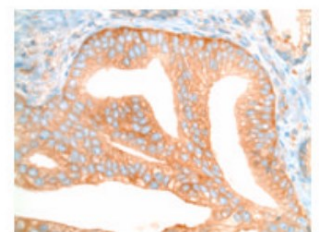
- Enables early cancer detection
- Improves treatment and survivability
- Detect both colorectal & prostate cancers
- Determine treatment effectiveness

Discovery of Bif-1 Protein's Link to Both Colorectal and Prostate Cancer

Carcinoma



PIN



Immune Staining Shows Strong Presence of Bif-1 in PIN

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