"NOVEL ONCOGENE FOR LIVER CANCER" VCU #10-26

Applications

- Treatment of hepatocellular carcinoma
- Potential to complement surgery
- Diagnostic/Prognostic

Advantages

- Targeted therapy for HCC
- Early diagnosis of HC
- Novel target in cancer research

Inventors

Devanand Sarkar, Ph.D.
Paul B. Fisher, Ph.D.

Contact

T. Allen Morris, Ph.D., MBA
Associate Director
amorris5@vcu.edu
Direct 804-827-2211

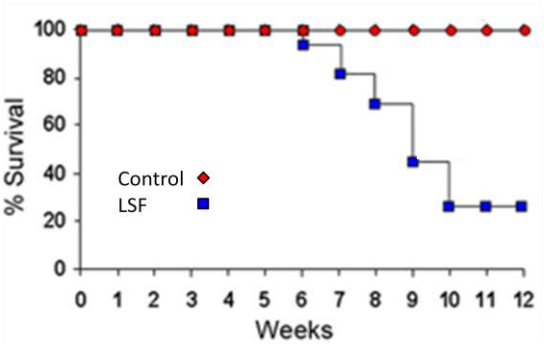
Market Need

Liver cancer is the fifth most common cancer in the world, with hepatocellular carcinoma (HCC) accounting for most. The only treatment available is surgery. However, less than 20% of HCC can be removed completely by surgery. Moreover, most patients are not diagnosed until their cancer is advanced. As a result, the median survival following diagnosis is only 6 to 20 months.

Technology Summary

Researchers at VCU have shown that Late SV40 Factor (LSF) plays an important role in the pathogenesis of hepatocellular carcinoma (HCC). Not only was LSF overexpression observed in over 90% of HCC patients, but its expression level correlated with the stage and grade of HCC. Moreover, LSF inhibitors were able to reverse the aggressive properties of liver cancer cells. LSF plays a critical role in HCC by modulating genes that regulate invasion, angiogenesis, chemoresistance and senescence.

Thus, LSF represents a novel target for HCC therapy. In addition, measurement of LSF expression might be used as a prognostic marker for HCC.



Overexpression of LSF (blue) decreases survival rate when compared to control mice (red)

Technology Status

U.S. patent pending: 13/636,815

For more information please see journal article: Yoo *et al.* PNAS 2010;107 (18): 8357-62

This technology is available for licensing to industry for further development and commercialization.