

### "A NOVEL ANTI-TUMOR GENE" VCU #08-74

## **Applications**

- Treatment of a broad range of cancers where interferon expression is suppressed
- Increases effectiveness of interferon treatments for cancer
- Gene therapy
- Diagnostic

# **Advantages**

- Potential to treat broad range of cancers
- Over-expression of SARI does not adversely affect normal cells

#### **Inventors**

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#### Contact

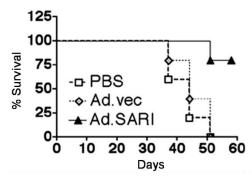
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#### **Market Need**

Interferon (IFN) has potent anti-tumor effects. It has been used to treat a number of solid tumors and hematological malignancies, including melanoma, renal cell carcinoma, Kaposi's sarcoma and malignant glioma. Methods aimed at increasing the effectiveness of these biologics are needed.

### **Technology Summary**

This is a novel gene (designated SARI) that mediates IFN-induced growth inhibition of cancer cells. SARI expression is suppressed in a large number of cancers, and its suppression is required for continued proliferation of these cells. *In vitro* and *in vivo* studies have shown that over-expressing the SARI gene has profound anti-growth and anti-survival effects on cancer cells and tumors, but not normal cells. They have developed methods and gene therapy vectors for over-expressing the SARI gene products for use as anti-cancer agents. Induced production of the SARI gene product in cancer cells could be used to increase the effectiveness of IFN treatments or used alone as a gene therapy. Thus, this is a novel gene for therapeutic applications in cancer.



Survival of mice with subcutaneous xenografts treated with PBS, adenosine virus vector or adenosine virus vector coding SARI

# **Technology Status**

U.S. Patent pending: 13/130,745:

For more information please see journal article: Su Z et al. PNAS 2008;105:20906-20911 & Dash et al. Oncogene 2010; 59: 4412-23

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