

# "NOVEL APPROACH TO INHIBIT CANCER METASTASIS.

VCU #12-080

# **Applications**

- · Suppression of cancer metastasis
- Melanoma, pancreatic cancer

## **Advantages**

- Primary target for inhibiting metastasis upregulated in majority cancers
- Potential for small molecules development to suppress cancer metastasis
- Potential for protein delivery directly to cancer cells to inhibit metastasis

## **Inventors**

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#### Contact

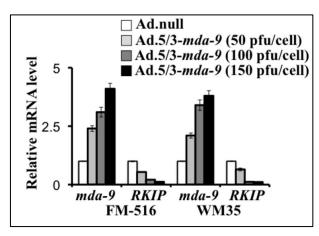
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### **Market Need**

Cancer metastasis is very unpredictable and hard to control. Many cancers, especially melanoma, can be easily treated and cured, but once the metastasis occurs and progresses, treatment becomes very challenging and often unsuccessful. There are limited numbers of metastatic melanoma inhibitors and unfortunately still over 50% of patient treated with these inhibitors experience disease progression within 6-7 months.

#### **Technology Summary**

Dr. Fisher and colleagues have described a novel inhibitor of human Melanoma Differentiation Associated gene-9 (MDA-9), which is a positive regulator of melanoma progression and metastasis. MDA-9, which is responsible for metastasis and is upregulated in majority of cancers, has been shown to be inhibited by Raf kinase inhibitor (RKIP). *In situ* tumor arrays and cell line analyses showed an inverse relationship between expression of MDA-9 and RKIP during melanoma progression (see figure). This discovery can potentially help to develop a family of small molecules that can be directly delivered to cancer cells and inhibit their metastasis. Dr. Fisher's studies have shown that RKIP can be used as a suppressor of



metastasis of not only melanoma, but also all other MDA-9 dependent metastatic cancers.

# **Technology Status**

*In vitro* and *in vivo* data available. For more detail please visit: <u>Cancer Res.</u> 2012 Dec 1;72(23):6217-26. doi: 10.1158/0008-5472.CAN-12-0402. Epub 2012 Oct 11.

Patent pending: U.S. and foreign rights available.

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