"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

Paul Fisher, M.Ph., Ph.D.
Swadesh Das, Ph. D.

Contact

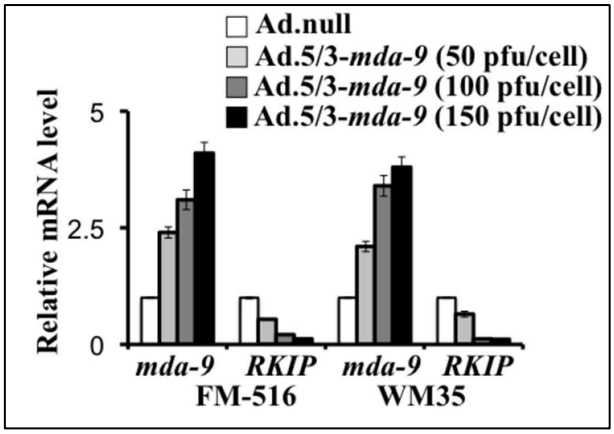
Magdalena K. Morgan, Ph.D.
Licensing Associate
mkmorgan@vcu.edu
Direct 804-827-6095

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: Cancer Res. 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.