

Local Company Receives \$1M Grant from the National Institutes of Health to Fight Cause of Cervical Cancer

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KALAMAZOO, Mich. – NanoVir of Kalamazoo was recently awarded approximately \$1 million from the National Institutes of Health (NIH) to further its research on the treatment of human papillomavirus (HPV).

The funding came as a Small Business Technology Transfer Research (STTR) grant from the National Institutes of Allergy and Infectious Diseases (NIAID) of the National Institutes of Health (NIH). It will be paid to NanoVir over two years in the support of efforts to create drugs for treatment of human papillomavirus (HPV).

“This is quite an honor because competition for NIH grant funds is quite severe at the moment,” said NanoVir Cofounder, Chris Fisher. “The grant will allow us to pursue antiviral treatments for HPV18 while we continue to develop the potent compounds that we’ve identified for treatment of HPV16. Together, these viruses account for greater than 70% of cervical cancer worldwide, and are the principal causes of cervical dysplasia and positive Pap smears.”

The grant will fund the development of molecular strategies for fighting a major cause of cervical cancer: HPV18. HPV is the most prevalent sexually transmitted virus. Although best known for its role as the cause of cervical cancer, HPV is also the infectious agent that causes genital and other warts. Cervical cancer is the second leading cause of cancer deaths among women worldwide.

Current treatments for cervical dysplasia and other HPV-related disease are primitive and include, surgery, burning or treatment with toxic agents. NanoVir is pursuing antiviral drug treatments for the virus. HPV vaccines are now available which help to prevent HPV16 and HPV18, two of the leading causes of cervical cancer, but offer no hope for those already infected.

“The notice NIH has taken in NanoVir is further proof of the great things that are happening in the Kalamazoo Region’s life science industry,” said Southwest Michigan First Chief Executive Officer, Ron Kitchens. “Although there are methods available for preventing HPV, NanoVir is pioneering treatment for women who have already been infected and would otherwise have no hope for a cure. That’s innovation.”

"This grant is tremendous news for the Southwest Michigan life sciences corridor," said Congressman Fred Upton. "NanoVir and its state-of-the-art research is just one of the many success stories transforming our region. Right in our own back yard, research is underway that has the potential to transform the health sector, and in the case of NanoVir, the potential to help thousands of women across the nation from developing cervical cancer."

NanoVir is designing chemicals that bind to specific viral DNA sequences and thereby disrupt viral DNA maintenance in infected cells. The grant includes support for NanoVir’s chemistry research done under subcontract at the University of Missouri-St. Louis, and for its virology lab at the Southwest Michigan Innovation Center in Kalamazoo.

Dr. James Bashkin of the Department of Chemistry and Biochemistry at the University of Missouri-St. Louis and co-principal investigator on the grant indicates “We are very excited to be funded by NIH, and look forward to extending our success with HPV16 to HPV18. Results from the new study will help us understand if a single drug candidate can be used for most or all high-risk HPVs. It certainly seems possible that we will be able to treat all high-risk HPVs with one or two of our compounds. “

About NanoVir

NanoVir is a Kalamazoo-based company founded in 2003 that has biology testing facilities in Kalamazoo, and chemistry laboratories in St. Louis, MO.