

## Applications

- Hepatocellular carcinoma therapeutic
- Can expand to other cancers such as:
  - Melanoma
  - Malignant glioma
  - Breast cancer

## Advantages

- Directly targets AEG-1
- Contributes to apoptosis while inhibiting proliferation
- Low toxicity

## Inventors

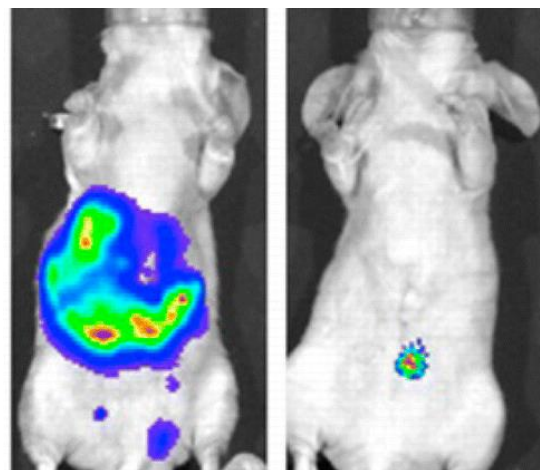
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## Technology Summary

Hepatocellular carcinoma (HCC) is the fourth most common cancer in the world and the third leading cause of cancer deaths worldwide. Currently, there is little evidence leading towards an effective treatment for HCC. Researchers at VCU and the University of Iowa have collaborated to produce a novel nanoparticle therapeutic that targets AEG-1. AEG-1 helps in the progression and development of HCC and inhibits retinoic acid-induced gene expression and cell death. This novel therapeutic directly targets AEG-1 and results in cancer cell apoptosis while inhibiting proliferation. Based on preliminary results, this nanoparticle has demonstrated to be non-toxic in an immunodeficient mouse model with increased cancer cell necrosis. The figure to the right shows results from preliminary studies testing the nanoparticle in a mouse model. The left image is a depiction of the control, whereas the right image depicts the effect of administering the above described therapeutic. AEG-1 levels in the treated mouse showed a marked decrease with increased necrosis and inhibition of cancer cells.



## Technology Status

Additional information about this technology has been published and a selection can be found at the following link:  
<http://pubs.acs.org/doi/abs/10.1021/acs.bioconjchem.5b00254>

Patent pending: U.S. and foreign rights available

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