

# Start spreading the news: Scientists find therapeutic target to stop cancer metastases

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Scientists have uncovered what could be a very important clue in answering one of the most perplexing questions about cancer: why does it spread to the liver more than any other organ? In a new research report published in the April 2010 issue of *Journal of Leukocyte Biology*, scientists from New York University describe experimental results suggesting that the immune system may be the reason.

"Our work may open a new field of experimental therapeutics as combating the eventual development of liver [metastases](#) by targeting immune suppressive cells in the livers in patients with early [cancer](#) can have great benefit," said George Miller, a scientist involved in the work from the Departments of Surgery and [Cell Biology](#) at the New York University School of Medicine.

Miller and colleagues reached this conclusion after conducting experiments in mice. In the experiments, the researchers used mice that spontaneously developed pancreatic cancer because of a mutation (Kras-mutation) in the [progenitor cells](#) of the pancreas, as well as mice with advanced colon cancers that spread to the abdomen. They then studied the expansion of immune suppressive cells in the liver from a very early stage in the cancer development to determine the immune phenotype, stimulus for recruitment, inhibitory effects and tumor-enabling function of these cells. Results suggest that combating immune suppressive cells in the liver early after [cancer development](#) may prevent the spread of cancer to this vital organ.

"This study could represent one of those 'a-ha' moments in science where one idea or experiment opens up entirely new ways of approaching and understanding a problem," said Luis Montaner, Editor-in-Chief of the *Journal of Leukocyte Biology*. "Physicians have known that the spread of cancer to the liver is far too common to occur by chance. Now we know that the immune system likely plays a role in facilitating this process. The next step, obviously, is to learn more so we can prevent it from happening."

**More information:** [doi:10.1189/jlb.0909607](https://doi.org/10.1189/jlb.0909607)

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