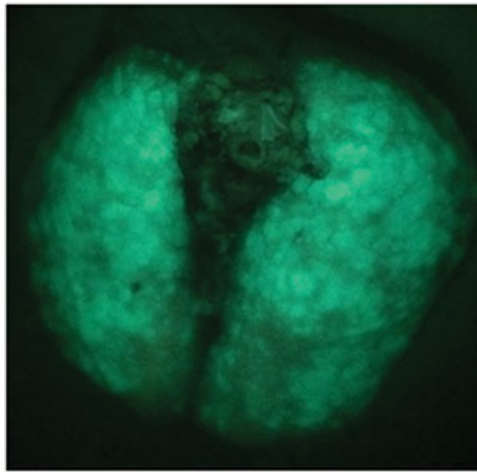
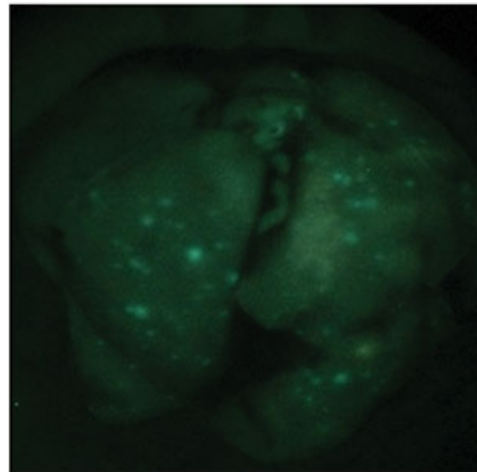


Researchers target protein to stop spread of aggressive tumours

April 10 2015, by Heather Amos



Control antibody



Podo antibody

A side-by-side comparison of lung metastases showing the control antibody on the left and the podocalyxin antibody on the right.

Researchers developed the podocalyxin antibody and found that it slowed tumour growth and spread.

Inhibiting a specific protein associated with aggressive, hard-to-treat tumours slows down their ability to spread to other sites in the [body](#), a team of UBC researchers has discovered.

In a study recently published in *Breast Cancer Research*, researchers describe how inhibiting podocalyxin, a protein marker found in many highly aggressive tumours, dramatically slowed the growth and metastasis of these tumours in mice. In collaboration with the Centre for Drug Research and Development, they also developed an antibody that targets podocalyxin, and found that it slows [tumour growth](#) and spread.

"It really, really knocks down the invasiveness of the cells and their ability to migrate and spread to other sites in the body, which is the hard thing to treat in metastatic cancer," explains Dr. Kelly McNagny of UBC's Biomedical Research Centre.

Podocalyxin is associated with about five percent of breast cancers, the majority of [ovarian cancers](#), and subsets of colon, renal and bladder cancers. Earlier studies by the same group of researchers and others have shown that its presence in tumours correlates with disease progression and poor survival.

"In most cases, if you have this particular marker on your primary tumour, you're much more likely to have a poor disease outcome later," says McNagny. "Our data suggest that expression of this protein enhances the ability of a subset of [tumour cells](#) to spread to other sites in the body, and this new antibody inhibits that process."

This latest discovery offers additional hope for those suffering from metastatic disease. McNagny's team plans to do further testing of their results, including toxicology studies on the antibody they developed.

Provided by University of British Columbia

Citation: Researchers target protein to stop spread of aggressive tumours (2015, April 10) retrieved 19 April 2024 from

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