

A molecular subtype of bladder cancer resembles breast cancer

17 March 2016

Bladder cancer is the fourth most common cancer among men in the United States. While low-grade tumors have a very favorable prognosis, muscle-invasive and metastatic tumors have poorer survival rates.

In this month's issue of *JCI Insight*, William Kim, Benjamin Vincent, and a research team from the University of North Carolina characterized a new subtype of muscle-invasive [bladder cancer](#) that shares molecular signatures with some forms of breast cancer. A subset of triple-negative breast cancers express low levels of the tight junction protein claudin. The UNC researchers now document that claudin-low tumors represent a specific subtype of bladder cancer as well.

Using data from the The Cancer Genome Atlas (TCGA) urothelial bladder carcinoma data set, they found that claudin-low tumors express high levels of immune-related genes, but also show a strong signature of immunosuppression. These findings suggest that claudin-low bladder cancers may be particularly responsive to immunotherapy-based treatments that derepress the immune system.

Future studies will be needed to clinically test immune checkpoint inhibitors in this population.

Provided by Journal of Clinical Investigation

APA citation: A molecular subtype of bladder cancer resembles breast cancer (2016, March 17) retrieved 2 December 2022 from <https://medicalxpress.com/news/2016-03-molecular-subtype-bladder-cancer-resembles.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.