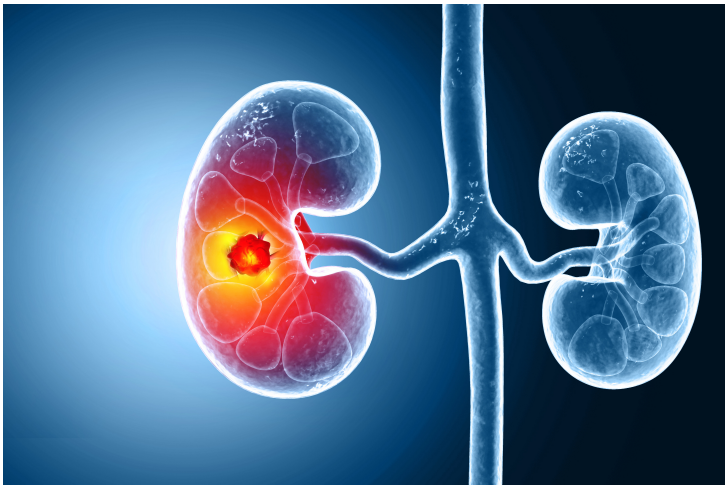
INNOVATION PARTNERSHIPS
UNIVERSITY OF MICHIGAN

Tissue-Based Biomarker for Kidney Cancer

TECHNOLOGY NUMBERS: 2022-046, 2022-045



Technology ID
2022-046

Category
Diagnostics
Life Sciences
Accelerate Blue Foundry - 2025/Life Sciences

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View online

Accelerate Blue Foundry - 2025 (Life Sciences)

OVERVIEW

These two advanced tissue-based biomarker tests help doctors identify which kidney cancer patients are at higher risk for their cancer returning or getting worse, by analyzing patterns in the tumor's genes. One test combines key gene signals to sort patients into risk groups, while the other uses a different genetic pattern to predict whether a patient's cancer might come back after surgery. Together, these tests provide doctors with powerful new information that can guide treatment choices and improve patient care.

DESCRIPTION

The first technology examines tumor samples using modern gene-sequencing methods to measure how likely they are to move and spread (cell change). By scoring patients based on this factor, doctors can group them into risk categories, which helps pinpoint which patients are most likely to have their cancer progress or lead to serious outcomes.

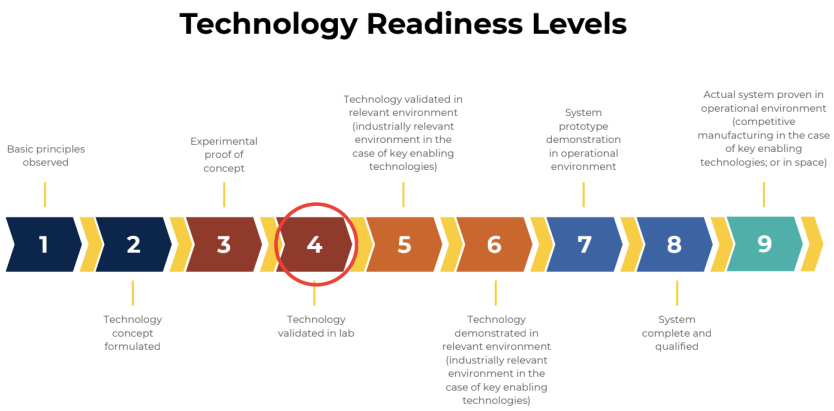
The second technology uses a similar approach—analyzing which genes are more or less active in the tumor—but it focuses on finding a unique gene pattern linked to whether the cancer comes back after the kidney has been removed. This signature, tested in further patient samples, gives doctors another tool to flag patients who might need more treatment after surgery.

Using both tests together or individually offers a simple way to gather detailed, personalized information about each patient's cancer risk at different stages of their care.

VALUE PROPOSITION

- Offers a more accurate and personalized way to sort kidney cancer patients by risk, so treatment can better match individual needs.
- Lets doctors know both who is at risk right after diagnosis and who might need extra attention after surgery, unlike existing methods.
- Can help target aggressive treatments and follow-up to those most likely to benefit, improving patient outcomes and making healthcare resources more efficient.

TECHNOLOGY READINESS LEVEL



INTELLECTUAL PROPERTY STATUS

Patent applications pending.

MARKET OPPORTUNITY

Kidney cancer, especially clear cell renal cell carcinoma, often comes back or gets worse even after surgery, so doctors and patients need improved ways to predict these risks. These tests can be especially useful in pathology labs, cancer clinics, and for drug companies looking to match treatments to the right patients or design better clinical trials. Because more doctors are now using genetic information to guide cancer care, and insurance is starting to cover these types of tests, the market for new, useful cancer risk tests like these is expected to keep growing.