# Urinary test for early stage pancreatic cancer

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## Diagnostics

### Problem

**Pancreatic ductal adenocarcinoma (PDAC) is a lethal cancer with a 5-year survival rate of approximately 12.2%. Due to non-specific symptoms, PDAC is often diagnosed at advanced, non-resectable stages, resulting in dismal prognostic outcomes. Current diagnostic methods, such as invasive tissue biopsies or expensive imaging techniques, are not feasible for widespread screening, especially in at-risk populations. Additionally, the existing tumour biomarker CA19-9 lacks the necessary specificity and sensitivity for early detection, often leading to the misdiagnosis of benign conditions. There is a critical need for minimally invasive, cost-effective, and highly accurate diagnostic tools for early PDAC detection.**

### Solution

We introduce a novel biomarker panel capable of determining the risk of PDAC in individuals with high specificity and sensitivity. This breakthrough method utilises a non-invasive urine test to measure levels of three key metabolites. By comparing metabolite levels from a subject's urine sample to a reference dataset, we can accurately determine the likelihood of PDAC presence.

The envisionment of the product is as a point-of-care test that can provide a cost-effective solution.

This innovative approach offers several advantages:

- Non-Invasive Testing: Simple urine sample collection, enhancing patient comfort and compliance.
- Early Detection: Identifies PDAC at a resectable stage, substantially improving survival rates.
- Targeted Screening: Particularly beneficial for monitoring at-risk groups such as those with a family history of pancreatic cancer or new-onset diabetes.
- Clinical Application: Serves as a diagnostic aid for patients with symptoms suggestive of PDAC, complementing existing assessment methods.
- High Diagnostic Accuracy: Proven effectiveness in independent validation cohorts, distinguishing PDAC from other pancreatic conditions.

The potential applications of this biomarker panel extend to early detection screening programs and clinical diagnostics, providing a new frontier in the fight against pancreatic cancer. We are committed to further validating this panel through international collaborations and prospective specimen collections. Our goal is to offer a reliable, accessible, and cost-effective solution to improve PDAC outcomes.

### Intellectual Property Status

This technology is the subject of an Australian provisional patent application.

### Inventors

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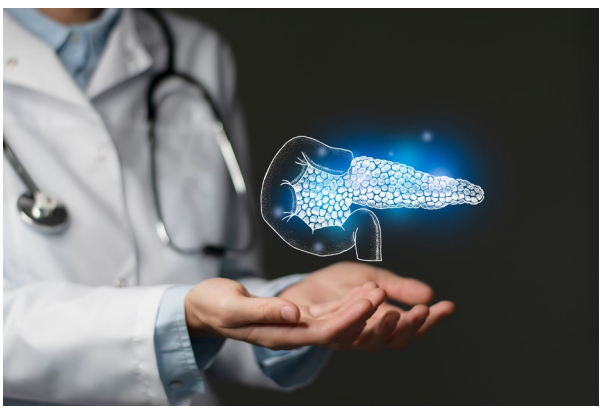

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