# McMaster University

# Gene signature for predicting progression and prognosis of prostate cancer and adrenocortical carcinoma

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*Gene signature biomarker for diagnosing the progression and prognosis of prostate and adrenal carcinomas*

Image obtained from: https://unsplash.com/photos/biVuafyC8oI

## Tech ID

21-027

## Inventors

X. Lin

A. Kapoor

Y. Gu

D. Tang

## Patent Status

US provisional filed

## Stage of Research

Proof of principle data available.

## Contact

Amy Hector

Business Development Officer

905-525-9140 ext. 28642

hectoraj@mcmaster.ca

http://milo.mcmaster.ca

## Abstract

Prostate cancer (PC) is the top ranked male malignancy in the developed world [1]. Adrenocortical carcinoma (ACC) is an aggressive endocrine carcinoma with a 5-year survival rate of < 50% [2]. For both PC and ACC, surgery remains a main curative treatment; however, relapse and metastasis are common [3,4]. To optimize treatment benefits and reduce fatality, it is essential to know which cancers are at risk for metastasis and lethal disease. Therefore, a method to effectively diagnose patients with high risk of metastasis and lethal disease is needed.

Researchers at McMaster have developed a novel multigene signature panel that robustly predicts PC biochemical recurrence (BCR) as well as ACC prognosis and progression.

## Applications

- Clinical applications in assessing PC and ACC risk of metastasis, relapse and fatality
- It has potential to significantly improve BCR risk assessment alone or together with the currently available tools.

## Advantages

- Current methods for accurately diagnosing PC relapse risk and ACC rely on physical and clinical features, such as tumor grade and stage and others which lack molecular knowledge. Construction of this multigene panel was done through a systematic approach (i.e. not relying on clinical features), allowing for the assessment of ccRCC and ACC with a high level of precision, which is essential to optimize treatment regime for individual patients.

## References:

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