TECH OFFER

Non-Invasive Early Diagnosis Kit For Prostate Cancer

KEY INFORMATION

TECHNOLOGY CATEGORY:
Healthcare - Diagnostics

TECHNOLOGY READINESS LEVEL (TRL): TRL7
COUNTRY: HONG KONG
ID NUMBER: TO174594

OVERVIEW

Prostate cancer is one of the most common cancers in men around the world but it is treatable if detected in its early stages. According to Hong Kong Cancer Registry statistics, prostate cancer is the third most common cancer in men and the fifth most fatal cancer.

According to a newsletter “MedicalNewsToday”, approximately 50 percent of all men over the age of 50 years have prostatic intraepithelial neoplasia (PIN). Low-grade PIN is not a cause for concern but high-grade PIN is considered pre-cancerous, and it requires further investigation. Nowadays, the clinical practice is to check serum prostate specific antigen (PSA) blood levels but the accuracy is quite low.

The technology is a newly developed prostate cancer diagnosis kit that complements the PSA test. It can be used as an additional urine test for patients with PSA test levels within 4-10 ng/ml, which greatly enhance accuracy from 27% to approximately 90%. It is a next-generation diagnostic method for prostate cancer in its early stages and is as simple to use as a pregnancy test strip.

This provides a much clearer result for clinicians and patients to decide on further treatment. The new technology has the potential to address the current medical challenge of poor prostate cancer screening outcomes.

The technology provider is seeking collaborations and potential licensing opportunities with partners interested to leverage on this prostate cancer diagnostic technology.

TECHNOLOGY FEATURES & SPECIFICATIONS

Typical diagnostic methods such as CT and MRI are invasive in nature and require tissue samples for analysis, affecting the normal functions of organs and causing different side effects. On the contrary, prostate cancer screening is an attempt to detect unsuspected cancers in their very early stage by a simple mean. It may be used to gear up for more specific follow-up diagnostic tests, and, if required, cancer treatments.

The technology provider has developed a cheap and accurate screening test that can minimize the large medical costs brought by those expensive and tedious diagnostic tests for confirmation, which, regrettably, usually return with a negative result. The technology features high sensitivity and accuracy, fast detection, non-invasiveness, ease of use and cost-effectiveness.

POTENTIAL APPLICATIONS

From results obtained by the technology provider, urinary spermine had demonstrated an exceptionally good diagnostic performance to distinguish the prostate cancer patients from non-cancerous cases, with results in accordance with the clinical standard of transrectal ultrasound prostatic biopsy results.

The technology can be described as the next-generation medical imaging reagents for prostate cancer detection that can even be used at home.

UNIQUE VALUE PROPOSITION

It serves as a complementary test to serum prostate specific antigen (PSA) test to substantiate current diagnosis of prostate cancer.