Diagnosing and treating aggressive prostate cancer

Technology #cu14071

Over 200,000 American men are diagnosed with prostate cancer each year. In rare cases, the disease can be particularly aggressive. However, determining with certainty which patients will develop aggressive cancer remains a challenge. Effectively treating aggressive forms of the disease is also difficult. This technology enables highly specific diagnosis and treatment of aggressive prostate cancer. It is a method for genetically screening patients in order to determine who will develop aggressive prostate cancer, as well as a method for treating these patients.

Genetic test to specifically identify prostate cancer patients who will develop an aggressive form of the disease

This technology achieves the difficult task of specifically diagnosing those prostate cancer patients who will later develop an aggressive form of the disease and also provides an effective means of treatment. The technology uses a panel of five genes, which serve as highly accurate biomarkers for both indolent and aggressive prostate cancers, in order to identify at an early stage those patients in need of treatment. These genes may also serve as therapeutic targets to treat aggressive forms of the disease. With this technology, oncologists can avoid over-treating cancers that will not become metastatic, while also properly treating aggressive variants early. In vivo tests demonstrate that this technology far outperforms identification and targeting methods for aggressive prostate cancer that appear elsewhere in the literature.

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Applications:

- Diagnostic for patients with prostate cancer
- Targeted therapies for aggressive prostate cancer
- Guide prostate cancer treatment options
- Use in combination with other determinants, such as risk factors and Gleason score to increase diagnosis accuracy
Advantages:

- More robust, higher confidence biomarkers than any other panel reported in the literature
- Allows for feasible immunostaining assay

Patent Information:

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Related Publications:


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