



Technology

Use of serum macrophage migration inhibitory factor in diagnosing prostate cancer

Inventor

Katherine Siegler, Ph.D.
Bay Pines VA Medical Center
Bay Pines, FL

Key Features

- More sensitive and reliable test for prostate cancer
- Non-invasive
- Can be used either alone or in conjunction with current diagnostic tests
- Can also be used as a prognostic indicator of patients receiving therapy

Stage of Development

Reduced to practice with MIF serum assays developed

Keywords

Diagnostic

- Oncology
- Prostate Cancer
- Serum Levels
- PSA

Patent Status

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Contact

Ken Levin, Ph.D.
Technology Transfer Program
Department of Veterans Affairs
Office of Research &
Development (12TT)
810 Vermont Avenue, NW
Washington, DC 20420
Phone: 202-461-1713
Fax: 202-254-0460
E-mail: Ken.levin@va.gov

Diagnosis and Monitoring of Prostate Cancer Patients by Measurement of Serum Macrophage Migration Inhibitory Factor (VA Reference No. 03-044)

Novel method of diagnosing and monitoring patients with prostate cancer through the use of serum macrophage migration inhibitory factor levels

Technology

The Department of Veterans Affairs has developed a method of diagnosis and monitoring of prostate cancer patients by determining the serum levels of macrophage migration inhibitory factor.

Description

Macrophage migration inhibitory factor (MIF), a cytokine that modulates cell growth, has been shown to alter expression in metastatic prostate cancer when compared to normal tissue. Based on results from a retrospective clinical study, the VA has identified a correlation between MIF serum concentrations and prostate cancer. To determine the serum MIF concentrations, the VA has developed an enzyme-linked immunosorbent assay. In addition, a polymerase chain reaction-based assay was used to study the association between MIF expression and prostate cancer.

Competitive Advantage

The MIF serum test can be used alone or in conjunction with the commonly used PSA test. When used in conjunction with the PSA test, patients at risk for prostate cancer would have elevated levels of both PSA and MIF; patients already diagnosed with prostate cancer with continued elevated levels of MIF in the blood are likely to have more aggressive disease and would benefit from aggressive treatment.

This invention:

- Is expected to be more sensitive and reliable than current methods
- Is a non-invasive test that does not require prostate biopsies
- Can be used as a prognostic indicator of the progression of prostate cancer chemotherapy

Status

The Department of Veterans Affairs is looking for a partner for further development and commercialization of this technology through a license and the VA inventors are available to collaborate with interested companies through a Cooperative Research and Development Agreement (CRADA).

