



## Biomarker for Predicting Coronary Heart Disease Risk in Patients with Adult Type 2 Diabetes

*Novel prognostic and/or diagnostic method that could help prevent myocardial infarction*

### Technology

Novel biomarker for identifying patients at risk of coronary heart disease

### Inventor

Mark Zimering, M.D., Ph.D.  
VA New Jersey Healthcare System

### Key Features

- Simple and cost-effective
- Non-invasive
- Demonstrated in a large cohort
- Commercial product would compete in a significant market estimated at nearly \$3 billion

### Stage of Development

Reduced to practice

### Patent Status

Patent application filed

### Key Words

- Medical Diagnostic
- Prognostic and/or diagnostic test for coronary heart disease
  - Diabetes
  - Biomarker
  - Fibroblast Growth Factor

### Contact

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

### Technology

The Department of Veterans Affairs' has identified a novel biomarker, plasma basic fibroblast growth factor (bFGF) that could identify adult type 2 diabetes patients at risk for coronary heart disease.

### Description

This technology has been reduced to practice with a biomarker for coronary heart disease (CHD). The novel risk marker shows that increased levels of plasma bFGF is an indicator for CHD morbidity and mortality in older adults with advanced type 2 diabetes.

### Competitive Advantages

In-vitro measurement of plasma basic fibroblast growth factor could lead to a simple and cost-effective blood test to identify a subgroup of diabetic patients at risk for suffering a cardiac event. Early identification of these patients could lead to interventions proven to prevent coronary artery disease. Due to the limitations of the current available tests, there is a distinct need in the market for a prognostic and/or diagnostic test that could potentially prevent coronary heart disease and sudden death in type 2 diabetes patients.

This invention:

- Shows greater efficiency over current methods used to identify those at risk for CHD.
- Is a low cost alternative to current diagnostic tools.
- Assay is reproducible.
- Has been demonstrated in a trial involving 1800 adult subjects.

### Status

The Department of Veterans Affairs is looking for a commercial partner to 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).