

# Technology Licensing Opportunity

Non-Confidential Summary

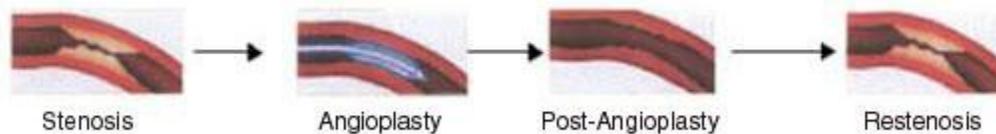


Industry  
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## IMMUNOLOGICAL TEST FOR RESTENOSIS ROI# 08-006

### **Opportunity:**

Researchers at the University of Saskatchewan have developed an immunological test for predicting and diagnosing restenosis in patients who undergo percutaneous coronary interventions (PCI), such as angioplasty and stent implantation.



### **Background:**

Advanced glycation endproducts (AGEs) are a class of molecules present in tissues and blood that act on the receptor for AGEs (RAGE). The interaction of AGEs and full-length RAGE results in increased expression of pro-inflammatory mediators and induction of oxidative stress. These substances are involved in the development of atherosclerosis, clot formation and plaque instability. The soluble form of RAGE, known as sRAGE, lacks a transmembrane domain and circulates in the blood. sRAGE acts as a decoy for RAGE ligands, competing with full-length RAGE. Therefore, sRAGE has protective role and prevents the development of atherosclerosis and restenosis.

### **Invention:**

In a human clinical trial, the researchers demonstrated that serum sRAGE levels are a highly predictive index for the development of restenosis following angioplasty and stent implantation. This is valuable information for determining an appropriate treatment plan and follow-up in coronary artery disease.

In one embodiment of the invention, a serum sample is obtained from a patient with acute coronary syndrome undergoing PCI; 2) a first portion of the sample is contacted with an sRAGE antibody; 3) a second portion of the sample is contacted with an AGE antibody; 4) the complexes formed are measured to determine an amount of sRAGE and/or AGE; and 5) the likelihood for the development of restenosis is determined.

Industry Liaison Office  
121 Research Drive, Suite 501  
Saskatoon, SK, S7N 1K2  
Tel: (306) 966-1465 | Fax: (306) 966-7806

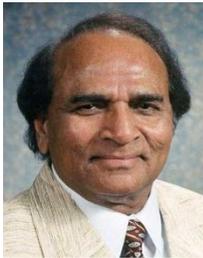
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## IMMUNOLOGICAL TEST FOR RESTENOSIS ROI# 08-006

### **Researcher profile:**



Kailash Prasad, M.D., Ph.D.  
Professor, Dept. of Physiology

Research interests:  
Oxyradicals in cardiovascular diseases and diabetes.  
Flaxseed and its components in cardiovascular disease  
& diabetes.

### **Patent Status:**

International Patent Application no. WO2010139063

### **Publication:**

McNair ED, Wells CR, Qureshi M, Basran R, Pearce C, Orvold J, Devilliers J, Prasad K. Soluble Receptors for Advanced Glycation End Products (sRAGE) as a Predictor of Restenosis Following Percutaneous Coronary Intervention. *Clin. Cardiol.* 33: 678-685 (2010).

### **Development Stage:**

Clinical

### **For more information, please contact:**

Neal Lemon, MBA, Ph.D.  
306-966-7340  
[neal.lemon@usask.ca](mailto:neal.lemon@usask.ca)

Industry Liaison Office  
121 Research Drive, Suite 501  
Saskatoon, SK, S7N 1K2  
Tel: (306) 966-1465 | Fax: (306) 966-7806