Peter Zahradka, Endocrinol Metab Synd 2014, 3:2
http://dx.doi.org/10.4172/2161-1017.S1.005

OMICS Group Conferences
Accelerating Scientific Discovery

2nd International Conference on
Endocrinology
October 20-22, 2014 DoubleTree by Hilton Hotel Chicago-North Shore, USA

# Consumption of non-soy legumes improves vascular function by altering the mechanical properties of arteries

**Peter Zahradka**
University of Manitoba, Canada

Death due to cardiovascular disease is predominantly a result of atherosclerosis, a condition where lesions form on the artery wall and restrict blood flow. A major outcome of atherosclerosis is an increase in vessel stiffness due to arterial remodeling. While atherosclerosis normally develops with age, accelerated progression of this condition occurs in diabetes, chronic kidney disease and rheumatoid arthritis. However, while some medications can treat the symptoms of atherosclerosis, no pharmaceutical intervention is currently capable of stopping arterial remodeling. However, scientific evidence suggesting certain phytochemicals present in legumes may be capable of lessening arterial stiffness led us to examine whether consumption of legumes could be used to treat atherosclerotic diseases. A human study that evaluated the effect of eating ½ cup per day of non-soy legumes (beans, peas, chickpeas, lentils) over an 8 week period on vascular function in persons with peripheral artery disease (PAD), a manifestation of atherosclerosis in which blood flow to the legs is reduced was therefore conducted. This study revealed that eating non-soy legumes could improve the ankle-brachial index, the primary diagnostic tool used to identify PAD, and increase blood flow to the legs. In a subsequent animal study designed to investigate mechanism of action, lentils were found to reverse arterial remodeling. Our results are the first to show that eating a specific food can reverse the main cause of atherosclerotic disease, and that the amount of food required obtaining this benefit can be reasonably incorporated into our regular diet.

## Biography

Peter Zahradka completed his PhD at the University of Western Ontario (London, Ontario) and subsequently did postdoctoral studies at Stanford University and the University of Guelph (Guelph, Ontario). He is currently Chair of the Division of Endocrinology and Metabolic Disease, Department of Physiology at the University of Manitoba. He is also a Principal Investigator with the Canadian Centre for Agri-Food Research in Health and Medicine, which he led for 7 years. He has published more than 100 papers and has been granted 4 patents. He also serves as assistant editor for the Canadian Journal of Physiology and Pharmacology.

PZahradka@sbrc.ca