UNIVERSITY OF OTTAWA HEART INSTITUTE INSTITUT DE CARDIOLOGIE DE L'UNIVERSITÉ D'OTTAWA

Emerging Pathways in Cardiovascular Disease

The Ottawa Heart

Research Conference



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Dr. Huff is a scientist and director of the Vascular Biology Research Group at Robarts Research Institute and professor in the Departments of Medicine and Biochemistry at the University of Western Ontario (UWO). He received a PhD in biochemistry from UWO and completed postdoctoral training

as a Medical Research Council fellow in cardiovascular metabolism at the Baker Medical Research Institute in Melbourne, Australia.

Dr. Huff's research is focused on the relationship between lipoprotein metabolism and atherosclerosis. His laboratory discovered that macrophage and smooth muscle cell foam cell formation, critical events in atherosclerosis, can be inhibited through activation of nuclear, hormone receptors. Dr. Huff is an expert in the kinetic analysis of lipoprotein metabolism and has elucidated the mechanism of action of cholesterol-lowering drugs, including statins, inhibitors of cholesterol absorption, cholesterol esterification (acyl-coenzyme A: cholesterol acyltransferase [ACAT]) and the apical sodium bile acid cotransporter. His laboratory discovered that the bioactive flavonoids naringenin and nobiletin inhibit the assembly and secretion of hepatic lipoproteins by activation of insulin signal transduction pathways. These flavonoids prevent metabolic dysregulation, obesity and atherosclerosis in mouse models of the metabolic syndrome, providing insights into potential therapeutic targets for treatment of lipid disorders associated with the metabolic syndrome.

Dr. Huff receives peer-reviewed funding from the Canadian Institutes of Health Research and the Heart and Stroke Foundation of Canada. He has published over 130 peerreviewed papers, and his research has been recognized by over 50 invited presentations in the past five years. He has received awards recognizing his research, including the 2011 ATVB Distinguished Achievement Award, the Robert Levy Award from ATVB in 2008, the UWO Faculty Scholar Award (2008) and the Senior Research Award from the Canadian Lipoprotein Conference (2010). His trainees have received seven national research awards over the past five years. Dr. Huff is the past co-chair of Arteriosclerosis, Thrombosis and Vascular Biology Council Scientific Sessions for 2010 and 2011.