

BIOGRAPHICAL SKETCH

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NAME Lisa Tannock		POSITION TITLE Chief, Division of Endocrinology and Molecular Medicine, VA Staff Physician	
eRA COMMONS USER NAME (credential, e.g., agency login) LISA.TANNOCK			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Toronto, Toronto, Canada	MD	06/1994	Medicine
University of Toronto, Toronto, Canada	Residency	06/1997	Internal Medicine
University of Washington, Seattle, WA	Fellowship	06/2000	Endocrinology

A. Personal Statement

I am a physician scientist with clinical activity and research efforts focused on metabolic syndrome, diabetes, dyslipidemia and cardiovascular complications. My overall time is divided as 70% research, 20% clinical, and 10% administration, and I hold a joint VA medical center appointment. My research is focused on investigating the role of proteoglycan mediated lipoprotein retention in the development of renal and cardiovascular complications seen in subjects with obesity, metabolic syndrome and diabetes. Current funded research focuses on understanding the roles played by angiotensin induced proteoglycans in mediating lipid retention in the development of atherosclerosis (RO1 HL82772) and the role of biglycan in mediating renal lipid retention in the development of diabetic nephropathy (VA merit review BX000622). My research involves basic biomedical studies, animal models, and clinical research. My research is done in collaborative environments with other faculty, and assisted by undergraduate students, graduate students, postdoctoral fellows, and clinical fellows, as well as experienced technical staff. A major goal is to provide state of the art hands-on training for the next generation of scientists; to this end, I am heavily engaged in interdisciplinary training programs including serving a key role in the University of Kentucky CCTS as a liaison between basic and clinical researchers.

B. Positions and Honors

2000-03 Acting Instructor, University of Washington, Division of Metabolism, Endocrinology & Nutrition, Seattle, WA
 2003-04 Acting Assistant Professor, University of Washington, Division of Metabolism, Endocrinology & Nutrition, Seattle, WA
 2004-09 Assistant Professor, University of Kentucky, Division of Endocrinology and Molecular Medicine, Lexington, KY
 2004-07 VA Staff Physician WOC, VA Medical Center, Lexington, KY
 2007- VA Staff Physician 5/8, VA Medical Center, Lexington KY; Chair R&D 2013-2014
 2007- Chief, Division of Endocrinology and Molecular Medicine, University of Kentucky
 2009- Associate Professor, University of Kentucky, Department of Internal Medicine
 2009- Associate Director, Barnstable Brown Kentucky Diabetes and Obesity Center

Honors and Awards

J.M. McConnell Entrance Award, McGill University (1988); Annie McIntosh Prize for Science, McGill University (1989); Faculty Scholar, McGill University (1988-90); Canada scholarship for Studies in Science and Technology, McGill University, Government of Canada (1988-90); Institute of Medical Science Summer Undergraduate Student Award, University of Toronto (1989); Robert and Annie MacDonell Trust Fund Summer Scholarship, University of Toronto (1991), Samuel Castrilli Award, Faculty of Medicine, University of Toronto (1992-3); Murray Muirhead Award for Best Resident, University of Toronto (1997); Endocrine Fellows Foundation Award (1999-00); Juvenile Diabetes Research Foundation Postdoctoral Fellowship (1999-00)
 2000-03 Clinical Nutrition Research Unit New Investigator Award (2000-03); R.H. Williams Travel Award, Department of Medicine, University of Washington (2000); Aventis Scholar, American Federation for Medical

Research, Western Section (2003); Aventis Scholar, American Federation for Medical Research, Western Section (2004); University of Kentucky Physician-Scientist Award (2004-07); Atorvastatin Research Award (2005-06)

Professional Memberships and Service

Member, American Diabetes Association (2000-); Fellow, American Heart Association (2000-); Member, American Federation for Medical Research (2003-); Member, Endocrine Society (2005-); Member, North American Vascular Biology Organization (2006-); National Councilor-at-large, American Federation for Medical Research (2008-2011); Associate Editor, Atherosclerosis (2008-); Editorial Board, Postgraduate Medicine (2008-); Lipoproteins, Lipid Metabolism and Nutrition Study Group, American Heart Association (2008-2012); Nephrology study section, Veterans Affairs (2009-); Ad-hoc member NHLBI Proteomic Centers (2009); study section member NIH PO1 Programs of Excellence in Glycosciences (2010); Chair Lipoprotein & Lipid Basic Science 3 committee, American Heart Institution (2013-2014); Chair, Lexington VA Research & Development committee (2013-2014).

C. Selected Peer-Reviewed Publications (from 43 publications)

1. **Tannock LR**, Little PJ, Wight TN, Chait A: Arterial smooth muscle cell proteoglycans synthesized in the presence of glucosamine demonstrate reduced LDL binding. *J Lipid Res* 43:149-157, 2002. PMID:11792734.
2. **Tannock LR**, Little PJ, Tsoi C, Barrett PHR, Wight TN, Chait A: Thiazolidinediones reduce the LDL binding affinity of non-human primate vascular cell proteoglycans. *Diabetologia*. 47:837-843, 2004. PMID:15071727.
3. Renard CB, Kramer F, Johansson F, Lamharzi N, **Tannock LR**, von Herrath MG, Chait A, Bornfeldt KE. Diabetes and diabetes-associated lipid abnormalities have distinct effects on initiation and progression of atherosclerotic lesions. *J Clin Invest*. 114:659-668, 2004. PMID:15343384 :PMC514580
4. **Tannock LR**, O'Brien KD, Knopp RH, Retzlaff B, Fish B, Wener MH, Kahn SE, Chait A: Cholesterol feeding increases CRP and SAA levels in lean, insulin sensitive subjects. *Circulation* 111:3058-3062, 2005. PMID:15939816.
5. **Tannock LR**, Kirk EA, King VL, LeBoeuf R, Wight TN, Chait A: Glucosamine Supplementation Accelerates Early but not Late Atherosclerosis in LDL Receptor Deficient Mice. *J Nutr* 136:2856-2861, 2006. PMID:17056813.
6. Reynolds LR, Kingsley FJ, Karounos DG, **Tannock LR**. Differential effects of rosiglitazone and insulin glargine on inflammatory markers, glycemic control and lipids in type 2 diabetes. *Diabetes Res Clin Pract*. 77:180-7, 2007. PMID:17239474.
7. Huang F, Thompson JC, Wilson PG, Aung HH, Rutledge JC, **Tannock LR**. Angiotensin II increases vascular proteoglycan content preceding and contributing to atherosclerosis development.. *J Lipid Res*, 49(3):521-530, 2008. PMID:18033753.
8. Wilson PG, Thompson JC, Webb NR, King VL, **Tannock LR**. SAA, but not CRP, Stimulates Vascular Proteoglycan Synthesis in a Pro-Atherogenic Manner. *Am J Pathol*, 173(6):1902-1910, 2008. PMC2626400
9. Little PJ, Drennon KD, **Tannock LR**. Glucosamine inhibits the synthesis of glycosaminoglycan chains on vascular smooth muscle cell proteoglycans by depletion of ATP. *Arch Physiol Biochem*. 114(2):120-126, 2008. PMID:18484279.
10. **Tannock LR**, King VL. Proteoglycan Mediated Lipoprotein Retention: a Mechanism of Diabetic Atherosclerosis. Invited Review, *Rev Endocr Metab Disord*. 9(4):289-300, 2008. PMID:18584330
11. Jahangiri A, De Beer MC, Noffsinger V, **Tannock LR**, Ramaiah C, Webb NR, van der Westhuyzen DR, De Beer FC. CETP expression and HDL remodeling during the acute phase response. *Arterioscler Thromb Vasc Biol*, 29(2):261-167, 2009. PMC2760005
12. King VL, Hatch N, de Beer MC, de Beer FC, **Tannock LR**. A Murine Model of Obesity with Accelerated Atherosclerosis. *Obesity*, 18(1):35-41, 2010. PMC2811527
13. Taneja D, Thompson JC, Wilson PG, Brandewie K, Schaefer L, Mitchell B, **Tannock LR**. Reversibility of renal injury with cholesterol lowering in hyperlipidemic diabetic mice. *J Lipid Res*, 51:1464-70, 2010. PMCID 3035509

14. Thompson JC, Wilson PG, Brandewie K, Taneja D, Schaefer L, Mitchell B, **Tannock LR**. Renal accumulation of biglycan and lipid retention accelerates diabetic nephropathy. *Am J Pathol*, 179:1179-87, 2011. PMC3157166
15. Dailey AM, Gibert JA, **Tannock LR**. Durability of glycemic control using U-500 insulin. *Diabetes Res Clin Pract* 2012 95:340-4, 2012. PMID:22088791: PMC3288429

D. Research Support

Ongoing Research Support

NIH/NHLBI 5R01 HL82772-05 Tannock (PI) 2/15/2007 - 1/31/2013*
(*no cost extension)

Angiotensin induced proteoglycans in atherosclerosis

The overall goal of this grant is to test the hypothesis that induction of biglycan content by angII plays a critical role in the initiation of atherosclerosis.

Role: Principal Investigator

VA BLR&D 1I01BX000622-04 Tannock (PI) 10/1/2009 - 9/30/2013

Mechanisms of renal lipid accumulation in diabetic nephropathy

The overall goal of this project is to test the hypothesis that renal lipid accumulation is mediated through interactions of lipoproteins with renal proteoglycans, especially biglycan.

Role: Principal Investigator

UL1TRR000117-02 Kern (PI) 7/1/2012 - 12/31/2013

The role of obesity, metabolic syndrome and diabetes on postprandial lipoprotein metabolism

Innovation Award – CCTS

The goal of this grant is to evaluate the effect of obesity, metabolic syndrome and diabetes on HDL function, SAA levels and distribution, and LPS absorption in post-prandial lipoprotein samples.

Role: Multi-PI (with King, Kern)

12PRE12060285 Thompson (PI) 7/1/2012 - 6/30/2014

Serum Amyloid A is pro-atherogenic

AHA- predoctoral fellowship award

The role of this grant is to provide salary support for graduate student Joel Thompson to conduct studies evaluating the atherogenicity of SAA

Role: Mentor

UL1TRR000117-02 Kern (PI) 6/1/2012 – 02/29/2016

NIH/NCATS \$3,353,186

Kentucky Center for Clinical and Translational Science

The Kentucky Center for Clinical and Translational Science (CCTS) provides infrastructure, services, and programs to support clinical and translational investigators, to foster collaborations between basic and clinical scientists to facilitate research translation, to train the clinical and translational workforce of the future, and to enhance community engagement pathways to confront chronic health issues in rural Appalachia.

Role: Co-Investigator

Completed Research Support (within the past 3 years)

NIH/NHLBI RO1 HL082772-03S1 Tannock (PI) 7/15/2009 6/30/2012*

(*no cost extension)

ARRA: Angiotensin induced proteoglycans in atherosclerosis

The purpose of this supplement is to accelerate the pace of ongoing studies as described in the parent application.

Role: Principal Investigator

Program Director/Principal Investigator (Last, First, Middle):

NIH/NHLBI RO1 HL096589

Tannock (PI)

09/01/2009

8/31/2012

Serum Amyloid A and vascular proteoglycans in atherosclerosis

The goal of this project is to test the hypothesis that elevated levels of the acute phase reactant Serum Amyloid A are pro-atherogenic.

Role: Principal Investigator