

## CURRICULUM VITAE

**NAME:** John S.D. Chan, Ph.D.  
**CITIZENSHIP:** Canadian  
**MARITAL STATUS:** Married  
**TELEPHONE:** (office) (514) 890-8000 extension 15080  
(lab) (514) 890-8000 extension 15596  
(FAX) (514) 412-7204  
(Email) john.chan@umontreal.ca

**CURRENT POSITION:** Professor, Dept. of Medicine and Physiology  
Faculty of Medicine  
University of Montreal  
and  
Chief, Lab. Molecular Nephrology & Endocrinology  
Research Center, CHUM-Hotel Dieu Hospital  
3850 Saint Urbain Street  
Montreal, Quebec  
Canada H2W 1T8

**ACADEMIC DEGREES:** B.Sc., Loyola College (Concordia University) (1972)  
M.Sc., University of Manitoba (1975)  
Supervisor: Henry G. Friesen, M.D.  
Ph.D., University of Manitoba (1979)  
Supervisor: Henry G. Friesen, M.D.

## 2. Publication and Abstracts during the last 5 years

75. Zhang, S-L., To, C., Chen, X., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: Essential role(s) of the intrarenal renin-angiotensin system in transforming growth factor- $\beta$ 1 gene expression and induction of hypertrophy in rat kidney proximal tubular cells in high glucose. *J Am Soc Nephrol* 13: 302-312, 2002
76. Zhang, S-L., Chen, X., Hsieh, T-J, Lecleric, M., Henley, N., Allidina, A., Hallé, J.P., Brunette, M-G., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: Hyperglycemia induces insulin resistance on angiotensinogen gene expression in diabetic rat kidney proximal tubular cells. *J Endocrinol* 172: 333-344, 2002
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78. Hsieh, T-J., Zhang, S-L., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: High glucose stimulates angiotensinogen gene expression via reactive oxygen species (ROS) generation in rat kidney proximal tubular cells. *Endocrinology* 143: 2975-2985, 2002
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81. Khreiss, T., Jozsef, L., Hossain, S., Chan, J.S.D., Potempa, L.A. and Filep, J.A.: Loss of pentameric symmetry of C-reactive protein is associated with delayed apoptosis of human neutrophils. *J Biol Chem* 277: 40775-40781, 2002
82. Raymond, M.A., Mollica, L., Vigneault, N., Desormeaux, A., Chan, J.S.D., Filep, J.A. and Hébert, M.J.: Blockade of the apoptotic machinery by cyclosporin A redirects cell death towards necrosis in arterial endothelial cells: regulation by reactive oxygen species and cathepsin D. *FASEB J* 17: 515-517, 2003
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84. Khreiss, T., Jozsef, L., Chan, J.S.D., Filep, J.G.: Activation of extracellular signal-related kinase couples platelet-activating factor-induced adhesion and delayed apoptosis of human neutrophils. *Cellular Signaling* 16:801-810, 2004

85. Guo, D-F, Tardif, V., Ghelima, K., Chan, J.S.D., Ingelfinger, J.R., Chen, X., Chenier, I.: A novel angiotensin II type 1 receptor-associated protein induces cellular hypertrophy in rat vascular smooth muscle and renal proximal tubular cells. *J Biol Chem* 279:21109-21120, 2004
86. Hsieh, T-J., Fustier, P., Wei, C-C, Zhang, S-L., Filep, J.G., Tang, S-S., Ingelfinger, J.R., Fantus, I.G., Hamet, P., Chan, J.S.D.: Reactive oxygen species blockade and insulin action on angiotensinogen gene expression in proximal tubular cells. *J Endocrinol* 183: 535-550, 2004
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93. Wei, C-C, Y-W., Zhang, S-L., Guo, D-F., Ingelfinger, J.R., Bomsztyk, K., Chan, J.S.D.: Heterogenous nuclear ribonucleoprotein K modulates angiotensinogen gene expression in kidney cells. *J Biol Chem* 281: 25344-25355, 2006

94. Brezniceanu, M-L., Liu, F., Zhang, S-L., Sachetelli, S., Guo, D-F., Filep, J.A., Ingelfinger, J.R., Chan, J.S.D.: Attenuation of renal angiotensinogen gene expression and apoptosis in diabetic transgenic mice overexpressing rat catalase in proximal tubular cells. *Kidney Int* 71 : 912-923, 2007, online March 7, 2007
95. Liu, F., Brezniceanu, M-L., Chénier I., Sachetelli, S., Zhang, S-L., Filep, J.A., Ingelfinger, J.R., Chan, J.S.D.: Enhanced tubular apoptosis in diabetic transgenic mice overexpressing angiotensinogen gene. *J Am Soc Nephrol*, Accepted, 2007
96. Brezniceanu, M-L, Liu, F, Chénier, I., Godin, N., Zhang, S-L., Filep, J.A., Ingelfinger, J.R., Chan, J.S.D.: Attenuation of interstitial fibrosis and tubular apoptosis in db/db transgenic mice overexpressing catalase in renal proximal tubular cells. *Diabetes*, acceptance pending, 2007.

## **b. COMMUNICATIONS**

118. Zhang, S-L., Hsieh, T-J., Chen, X., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: High glucose induces insulin resistance on angiotensinogen gene expression in rat kidney proximal tubular cells: Defect in Raf-1 activation. The Annual Meeting of the Canadian Society of Nephrology, Ottawa, Canada, March 16-18, 2002.
119. Hsieh, T-J., Zhang, S-L., Chen, X., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: High glucose stimulates angiotensinogen (ANG) gene expression in kidney proximal tubular cells via reactive oxygen species (ROS) generation and p38 mitogen activated protein kinase (p38 MAPK) activation. The Annual Meeting of the Canadian Society of Nephrology, Ottawa, Canada, March 16-18, 2002. (**Free Communication**)
120. Filep, J.G., Zouki, C., Whittal, R., Chan, J.S.D., Davidge, S.T. and Fernandez-Patron, C.: Matrix metalloproteinases regulate neutrophil adhesion to endothelial cells. *Experimental Biology* 2002, New Orleans, LA, April 20-24, 2002.
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124. Zhang, S-L., Hsieh, T-J., Chen, X., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: High glucose induces insulin resistance on angiotensinogen gene expression in rat kidney proximal tubular cells: Defect in Raf-1 activation. The Annual Meeting of the Endocrine Society of USA, San Francisco, CA, June 19-22, 2002.
125. Zhang, S-L., Filep, J.G., Tang, S-S., Ingelfinger, J.R., Hamet, P. and Chan, J.S.D.: High glucose induces insulin resistance on angiotensinogen gene expression in rat kidney proximal tubular cells: Defect in Raf-1 activation. The Annual Meeting of the Canadian Society of Diabetes, Vancouver, BC, Canada, Oct. 2-5, 2002.
126. Calvé, A., Chen, X., Zhang, S-L., Hébert, M-J., Filep, J.G., Whiteside, C.I., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: Stimulatory effect of high glucose on angiotensinogen gene expression and a 70 kiloDalton (kDa) insulin responsive element-binding protein (IRE-BP) expression is mediated via protein kinase C-alpha in rat immortalized renal proximal tubular cells. The 35<sup>th</sup> Annual Meeting of the American Society of Nephrology, Philadelphia, PA, USA, Oct. 30-Nov. 4, 2002.
127. Hsieh, T-J., Zhang, S-L., Filep, J.G., Fantus, I.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: High glucose stimulates angiotensinogen gene expression via reactive oxygen species generation, activation of hexosamine biosynthetic pathway and p38 mitogen-activated protein kinase (p38 MAPK) in rat immortalized renal proximal tubular cells (IRPTCs). The 35<sup>th</sup> Annual Meeting of the American Society of Nephrology, Philadelphia, PA, USA, Oct. 30-Nov. 4, 2002.
128. Hsieh, T-J., Fustier, P., Zhang, S-L., Hamet, P., Filep, J.G., Carrière, S., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: Blockade of renin-angiotensin system activation restores insulin sensitivity on angiotensinogen gene expression in rat immortalized renal proximal tubular cells (IRPTCs) in high glucose. The 35<sup>th</sup> Annual Meeting of the American Society of Nephrology, Philadelphia, PA, USA, Oct. 30-Nov. 4, 2002
129. Zhang, S-L., Hsieh, T-J., Chen, X., Hamet, P., Filep, J.G., Tang, S-S., Ingelfinger, J.R. and Chan, J.S.D.: High glucose induces insulin resistance on angiotensinogen gene expression in rat kidney proximal tubular cells: Defect in Ras and Raf-1 activation. The 35<sup>th</sup> Annual Meeting of the American Society of Nephrology, Philadelphia, PA, USA, Oct. 30-Nov. 4, 2002

130. Chan, J.S.D., Hsieh, T.J., Fustier, P., Zhang, S-L., Filep, J.A., Tang, S-S., Ingelfinger, J.R., I. George Fantus, Hamet, P.: High glucose stimulates angiotensinogen (ANG) gene expression and cell hypertrophy via activation of hexosamine biosynthetic pathway (HBP) in rat kidney proximal tubular cells. The World Congress of Nephrology, Berlin, Germany. June 8-12, 2003
131. Chan, J.S.D., Hsieh, T-J., Fustier, P., Zhang, S-L., Filep, J.A., Tang, S-S., Ingelfinger, J.R., Carrière, S., Pavel, H. :Intrarenal renin-angiotensin system (RAS) activation induces insulin resistance on angiotensinogen (ANG) gene expression in rat kidney proximal tubular cells in high glucose. The World Congress of Nephrology, Berlin, Germany. June 8-12, 2003
132. Tardif, V., Chan, J.S.D., Chenier, I., Guo, D-F.: Une nouvelle protéine associée an recepteur AT<sub>1</sub>, GLP, cause de l'hypertrophie chez les cellules di tubule proximal de rat. 45 reunion annuelle du Club de Recherches Cliniques du Québec, le 25-27 séptembre, 2003. Orford, Québec, Canada. (**Free Communication**)
133. Hsieh, T-J., Filep, J.G., Carrière, S., Tang, S-S., Ingelfinger, J.R. Hamet, P., Chan, J.S.D. : Antioxidants and inhibitors of hexosamine biosynthetic pathway (HBP) prevents high glucose induction of insulin resistance on inhibition of angiotensinogen (ANG) gene expression in rat immortalized renal proximal tubular cells (IRPTCs). Annual meeting of Canadian Diabetes Association, Ottawa, ON. Oct. 15-18, 2003
134. Fustier, P., Hsieh, T-J., Chiang, Y-H., Filep, J.G., Carrière, S., Tang, S-S., Ingelfinger, J.R., Hamet, P., Chan, J.S.D.: Blockade of renin-angiotensin system activation (RAS) and Protein Kinase C (PKC) restore the inhibitory action of insulin on angiotensinogen gene expression in rat immortalized renal proximal tubular cells in high glucose. Annual meeting of Canadian Diabetes Association, Ottawa, ON. Oct. 15-18, 2003
135. Tardif, V., Chan, J.S.D., Chenier, I., Guo, D-F.: A novel angiotensin II type 1 receptor associated protein, GLP causes rat proximal tubular cell hypertrophy. Annual meeting of Canadian Diabetes Association, Ottawa, ON. Oct. 15-18, 2003 (**Free Communication**)
136. Tardif, V., Chan, J.S.D., Chenier, I., Guo, D-F: Une nouvelle protéine associée au récepteur AT<sub>1</sub>, GLP, induce de l'hypertrophie chez les cellules du tubule proximal de rat. Le 3<sup>e</sup> Congress scientifiques, Société des Science Vasculaires du Québec, Montréal, Québec, Canada. Le 18-19 octobre, 2003.
137. Hsieh, T-J., Filep, J.G., Carrière, S., Tang, S-S., Ingelfinger, J.R. Hamet, P., Chan, J.S.D. : Antioxidants and inhibitors of hexosamine biosynthetic pathway (HBP) prevents high glucose induction of insulin resistance on inhibition of

angiotensinogen (ANG) gene expression in rat immortalized renal proximal tubular cells (IRPTCs). The 36<sup>th</sup> Annual Meeting of the American Society of Nephrology. San Diego, CA., USA.. Nov. 14-17, 2003

138. Chan, J.S.D., Hsieh, T-J., I. George Fantus, Tang, S-S., Ingelfinger, J.R., Carrière, S., Pavel, H. : Inhibitors of NADPH oxidase and renin-angiotensin system prevent reactive oxygen species (ROS) generation, glutamine :fructose-6-phosphate (GFAT) and angiotensinogen (ANG) gene expression in rat immortalized renal proximal tubular cells (IRPTCs) in high glucose. The 36<sup>th</sup> Annual Meeting of the American Society of Nephrology. San Diego, CA., USA.. Nov. 14-17, 2003
139. Desjardins, A., Hsieh, T-J., Sachetelli, S., Wei, C-C., Hébert, M-J., Guo, D-J., Filep, J.G., Ingelfinger, J.R., Chan, J.S.D.: Role(s) of superoxide dismutase-1 and -2 on angiotensinogen gene expression and induction of cellular hypertrophy in rat immortalized renal proximal tubular cells in high glucose. The Annual Meeting of the Canadian Society of Nephrology, Toronto, Canada, May 27-30, 2004. (**Free Communication**)
140. Wei, C-C., Guo, D-J., Zhang, S-L., Ingelfinger, J.R., Chan, J.S.D.: Molecular cloning of a novel nuclear protein that binds to insulin responsive element of rat angiotensinogen (ANG) gene promoter and modulates ANG mRNA expression in rat kidney proximal tubular cells. The Ann Meeting of the Can. Soc of Nephrology, Toronto, Canada, May 27-30, 2004. (**Free Communication**)
141. Brezniceanu M-L., Hsieh, T-J., Zhang, S-L., Guo, D-J., Hébert, M-J., Ingelfinger, J.R., Filep, J.G., Chan, J.S.D.: Transforming growth factor beta-1 induced angiotensinogen gene expression is mediated via reactive oxygen species generation and p53 tumor suppressor protein expression in rat kidney proximal tubular cells in high glucose. The Ann Meeting of the Can. Society of Nephrology, Toronto, Canada, May 27-30, 2004. (**Free Communication**)
142. Hsieh, T-J., Zhang, S-L., Fantus, I.G., Ingelfinger, J.R., Hamet, P., Chan, J.S.D.: Inhibitor of NADPH oxidase and renin-angiotensin system blockade prevent reactive oxygen species generation, glutamine:fructose-6-phosphate aminotransferase and angiotensinogen gene expression in rat immortalized renal proximal tubular cells in high glucose. The Annual Meeting of the Canadian Society of Nephrology, Toronto, Canada, May 27-30, 2004.
143. Sachetelli, S., Hsieh, T-J., Liu, Q., Zhang, S-L., Hébert, M-J., Filep, J.G., Ingelfinger, J.R., Chan, J.S.D.: Intrarenal angiotensinogen gene expression induced apoptosis in rat kidney proximal tubular cells is mediated via reactive oxygen species generation. The Annual Meeting of the Canadian Society of Nephrology, Toronto, Canada, May 27-30, 2004. (**Free Communication**)

144. Wei, C-C., Guo, D-F., Zhang, S-L., Ingelfinger, J.R., Chan, J.S.D.: Molecular cloning of a novel nuclear protein that binds to insulin responsive element of rat angiotensinogen (ANG) gene promoter and modulates ANG gene expression in rat kidney proximal tubular cells. The 37<sup>th</sup> Annual Meeting of the American Society of Nephrology. Saint Louis, MO., USA. Oct. 29-31, 2004. (**Free Communication**)
145. Chan, J.S.D., Desjardins, A., Hsieh, T-J., Sachetelli, S., Wei, C-C., Hébert, M-J., Guo, D-F., Filep, J.A., Ingelfinger, J.R.: Role(s) of superoxide dismutase-1 and -2 on angiotensinogen gene expression and induction of cellular hypertrophy in rat proximal tubular cells in high glucose milieu. The 37<sup>th</sup> Annual Meeting of the American Society of Nephrology. Saint Louis, MO., USA. Oct. 29-31, 2004.
146. Brezniceanu, M-L., Hsieh, T-J., Zhang, S-L., Guo, D-F., Hébert, M-J., Ingelfinger, J.R., Filep, J.A., Chan, J.S.D.: Angiotensinogen gene expression induced by transforming growth factor beta-1 is mediated via reactive oxygen species generation and p53 tumor suppressor protein expression in rat kidney proximal tubular cells. The 37<sup>th</sup> Annual Meeting of the American Society of Nephrology. Saint Louis, MO., USA. Oct. 29-31, 2004.
147. Hsieh, T-J., Chen, R., Ingelfinger, J.R., Whiteside, C.I., Fantus, I.G., Chan, J.S.D.: Osteopontin mRNA is differentially upregulated in diabetic rat renal proximal tubular cells revealed by DNA chip microarray: regulation by protein kinase C-beta 1 (PKC- $\beta$  1) and transforming growth factor-beta 1 (TGF- $\beta$ 1). The 37<sup>th</sup> Annual Meeting of the American Society of Nephrology. Saint Louis, MO., USA. Oct. 29-31, 2004.
148. Hsieh, T-J., Fustier, P., Liu, Q., Guo, D-F., Hamet, P., Chan, J.S.D.: Renin-angiotensin system gene expression in spontaneously diabetic BioBreeding rat renal proximal tubules. Annual meeting of Canadian Diabetes Association, Quebec City, QC. Oct. 28-30, 2004.
149. Sachetelli, S., Liu, Q., Hsieh, T-J., Zhang, S-L., Brezniceanu, M-L., Guo, D-F., Ingelfinger, J.R., Chan, J.S.D.: La surexpression du gène de l'angiotensinogène dans les reins cause de l'hypertension et la protéinurie chez un modèle de souris transgénique. The 13<sup>th</sup> annual meeting of Quebec Society of Hypertension (La Société québécoise d'hypertension artérielle (SQHA)), Quebec City, QC., Jan. 13-15, 2005. (**Free Communication**)
150. Wei, C-C., Chen, Y-W., Guo, D-F., Zhang, S-L., Ingelfinger, J.R., Chan, J.S.D.: A 65-kiloDalton (kDa) heterogeneous nuclear ribonucleoprotein K (hnRNP K) is the insulin responsive element-binding protein (IRE-BP) that binds to IRE of rat angiotensinogen (ANG) gene promoter: regulation by high glucose and insulin. The Annual Meeting of the Canadian Society of Nephrology, Calgary, Canada, May 25-29, 2005. (**Free Communication**)

151. Wei, C-C., Chen, Y-W., Zhang, S-L., Guo, D-F., Whiteside, C.I., Ingelfinger, J.R., Chan, J.S.D.: High glucose stimulates the expression and nuclear translocation of heterogeneous nuclear RNA-ribonucleoprotein that modulates angiotensinogen gene transcription via protein kinase C- $\beta$ 1 and - $\zeta$  isoforms in rat kidney proximal tubular cells. The Annual Meeting of the Canadian Society of Nephrology, Calgary, Canada, May 25-29, 2005.
152. Chan, J.S.D., Hsieh, T-J., Chen, R., Zhang, S-L., Liu, F., Brezniceanu, M-L., Whiteside, C. I., Fantus, I. G., Ingelfinger, J. R., Hamet, P.: UP-regulation of osteopontin gene expression in diabetic rat renal proximal tubular cells revealed by DNA microarray: regulation by intrarenal renin-angiotensin system (RAS), reactive oxygen species (ROS) and protein kinase C-beta 1 (PKC- $\beta$ 1). The Annual Meeting of the Canadian Society of Nephrology, Calgary, Canada, May 25-29, 2005.
153. Brezniceanu, M-L., Sachetelli, S., Zhang, S-L., Guo, D-F., Filep, J.G., Ingelfinger, J.R., Chan, J.S.D.: High glucose and attenuation of renal angiotensinogen and transforming growth hormone-beta 1 gene expression in kidney proximal tubules in transgenic mice overexpressing catalase. The Annual Meeting of the Canadian Society of Nephrology, Calgary, Canada, May 25-29, 2005. (**Free Communication**)
154. Sachetelli, S., Liu, Q., Zhang, S-L., Liu, F., Hsieh, T-J., Brezniceanu, M-L., Guo, D-F., Filep, J.G., Ingelfinger, J.R., Hamet, P., Chan, J.S.D.: RAS decrease blood pressure and proteinuria in transgenic mice overexpressing rat angiotensinogen gene in the kidney. The Annual Meeting of the Can. Society of Nephrology, Calgary, Canada, May 25-29, 2005. (**Free Communication**)
155. Chenier I., Ghelima, K., Chan, J.S.D., Chan, X.M., Guo, D-F.: Transgenic mice overexpression ARAP1 in the kidney increase blood pressure and induce kidney damage. The Annual Meeting of the Canadian Society of Nephrology, Calgary, Canada, May 25-29, 2005. (**Free Communication**)
156. Chan, J.S.D., Hsieh, T-J., Chen, R., Whiteside, C. I., Fantus, I. G., Ingelfinger, J. R., Hamet, P.: High glucose up-regulates osteopontin gene expression in diabetic rat renal proximal tubular cells revealed by DNA microarray . XLII Congress of the European Renal Association –European Dialysis and Transplant Association (ERA-EDTA), Istanbul, Turkey, June 4-7, 2005.
157. Chan, J.S.D., Sachetelli, S., Liu, Q., Filep, J.A., Ingelfinger, J. R., Hamet, P.: Renin-angiotensin blockade decreases blood pressure and proteinuria in transgenic mice overexpressing rat angiotensinogen gene in the kidney. XLII Congress of the European Renal Association –European Dialysis and Transplant Association (ERA-EDTA), Istanbul, Turkey, June 4-7, 2005.

158. Zhu, Y., Zhang, S-L., Whiteside, C.I., Fantus, I.G., Ingelfinger, J.R., Hamet, P., Chan, J.S.D.: Acetylsalicylic acid and insulin inhibit the stimulatory effect of high glucose on osteopontin gene expression in renal proximal tubular cells in vitro and in vivo. CDA/CSEM Professional Conference and Annual Meeting, Oct. 19-22, 2005. (**Free Communication**)
159. Brezniceanu, M-L., Sachetelli, S., Zhang, S-L., Guo, D-F., Filep, J.G., Ingelfinger, J.R., Chan, J.S.D.: Attenuation of renal angiotensinogen, transforming growth factor-beta 1 and apoptotic gene expression in diabetic transgenic mice overexpression catalase in kidney proximal tubules. The 38<sup>th</sup> Annual Meeting of the American Society of Nephrology. Philadelphia, PA, USA. Nov. 8-13, 2005. (**Free Communication**)
160. Wei, C-C., Chen, Y-W., Guo, D-F., Zhang, S-L., Ingelfinger, J.R., Bomsztyk, K., Chan, J.S.D.: Molecular cloning of a novel 70-kiloDalton (kDa) nuclear protein that binds to insulin responsive element (IRE) of rat angiotensinogen (ANG) gene promoter and modulates ANG gene expression in kidney proximal tubular cells. The 38<sup>th</sup> Annual Meeting of the American Society of Nephrology. Philadelphia, PA, USA. Nov. 8-13, 2005. (**Free Communication**)
161. Zhu, Y., Zhang, S-L., Whiteside, C.I., Fantus, I.G., Ingelfinger, J.R., Hamet, P., Chan, J.S.D.: Acetylsalicylic acid inhibits the stimulatory effect of high glucose and angiotensin II on osteopontin gene expression in renal proximal tubular cells in vitro and in vivo. The 38<sup>th</sup> Annual Meeting of the American Society of Nephrology. Philadelphia, PA, USA. Nov. 8-13, 2005.
162. Guo, D-F., Chenier, I., Ghelima K., Chan, J.S.D.: Development of hypertension and kidney hypertrophy in transgenic mice overexpressing Arap1 gene in kidney. American Heart Association, Nov. 13-16, 2005
163. Liu, F., Brezniceanu, M-L., Sachetelli, S., Zhang, S-L., Hébert, M-J., Filep J.G., Ingelfinger J.R., Chan, J.S.D.: Apoptosis in renal proximal tubular cells in diabetes: role(s) for intrarenal angiotensinogen gene. The Annual Meeting of the Canadian Society of Nephrology, Quebec City, QC, Canada, May 24-28, 2006. (**Free Communication**)
164. Brezniceanu, M-L., Liu, F., Zhang S-L., Guo, D-F., Filep J.G., Ingelfinger, J.R., Chan, J.S.D.: Attenuation of hypertension, renal injury and angiotensinogen gene expression in db/db mice overexpressing catalase in renal proximal tubular cells. The Annual Meeting of the Canadian Society of Nephrology, Quebec City, QC, Canada, May 24-28, 2006. (**Free Communication**)
165. Wei, C-C., Zhang, S-L., Guo, D-F., Bomsztyk K., Ingelfinger, J.R., Chan, J.S.D.: Heterogenous nuclear ribonucleoprotein F (hnRNP F) interacts with hnRNP K and binds to insulin-responsive element (IRE) of rat angiotensinogen (ANG) gene promoter to modulate ANG gene expression in kidney proximal

tubular cells. The Annual Meeting of the Canadian Society of Nephrology, Quebec City, QC, Canada, May 24-28, 2006.

166. Zhu, Y., Zhang, S-L., Whiteside, C.I., Fantus, I.G., Hamet, P., Chan, J.S.D.: CCAAT/Enhancer-binding protein-delta ( $\delta$ ) mediates the effect of high glucose on osteopontin gene expression in renal proximal tubular cells. The Annual Meeting of the Canadian Society of Nephrology, Quebec City, QC, Canada, May 24-28, 2006
167. Chan, J.S.D., Brezniceanu, M-L., Liu, F., Zhang S-L., Guo, D-F., Filep J.G., Ingelfinger, J.R.: Attenuation of hypertension, angiotensinogen (ANG) gene expression and renal injury in db/db mice overexpressing catalase in renal proximal tubular cells. The 21<sup>st</sup> Scientific Meeting of the International Society of Hypertension. Fukuoka, Japan. Oct. 15-19, 2006.
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169. Brezniceanu, M-L., Liu, F., Zhang S-L., Guo, D-F., Filep J.G., Ingelfinger, J.R., Chan, J.S.D.: Attenuation of hypertension, renal injury and angiotensinogen gene expression in db/db mice overexpressing catalase in renal proximal tubular cells. The 39<sup>th</sup> Annual Meeting of the American Society of Nephrology. San Diego, CA, USA, Nov. 14-19, 2006. (**Free Communication**)
170. Liu, F., Brezniceanu, M-L., Sachtelli, S., Zhang, S-L., Hébert, M-J., Filep J.G., Ingelfinger J.R., Chan, J.S.D.: Apoptosis in renal proximal tubular cells in diabetes: role(s) for intrarenal angiotensinogen gene. The 39<sup>th</sup> Annual Meeting of the American Society of Nephrology. San Diego, CA, USA, Nov. 14-19, 2006. (**Free Communication**)
171. Wei, C-C, Liu, F., Zhang, S-L., Ingelfinger, J.R., Chan, J.S.D.: Attenuation of renal proximal tubular cell hypertrophy in diabetic transgenic mice overexpressing heterogenous nuclear ribonucleoprotein F. The Annual Meeting of the Canadian Society of Nephrology. Halifax, NS, Canada. May 23-27, 2007. (**Free Communication**)
172. Liu, F., Wei, C-C., Zhang, S-L., Filep, J.A., Ingelfinger, J.R., Chan, J.S.D.: Intrarenal rennin-angiotensin system (RAS) activation induces apoptosis and tubular atrophy in glomerulo-tubular junctions independent of systemic hypertension. The Annual Meeting of the Canadian Society of Nephrology. Halifax, NS, Canada. May 23-27, 2007. (**Free Communication**)

### 3. 5 Representative articles on the Web

1. Chen X, Zhang S-L, Li P, Filep, JG, Tang S-S, Ingelfinger JR, Chan JSD: Characterization of a putative insulin-responsive element and its binding protein(s) in rat angiotensinogen gene promoter :regulation by glucose and insulin. **Endocrinology 142: 2577-2585, 2001.**
2. Zhang S-L, To C, Chen X, Filep JG, Tang S-S, Ingelfinger JR, Chan JSD: Essential role(s) of the intrarenal renin-angiotensin system in transforming growth factor- $\beta$ 1 gene expression and induction of hypertrophy in rat kidney proximal tubular cells in high glucose. **J Am Soc Nephrol 13:302-312, 2002**
3. Hsieh TJ, Fustier P, Zhang SL, Filep JG, Tang S-S, Ingelfinger JR, Hamet P, Chan JSD: High glucose stimulates angiotensinogen gene expression and cell hypertrophy via activation of hexosamine biosynthesis pathway in rat kidney proximal tubular cells. **Endocrinology 144: 4388-4349, 2003**
4. Wei, C-C, Y-W., Zhang, S-L., Guo, D-F., Ingelfinger, J.R., Bomszytyk, K., Chan, J.S.D.: Heterogenous nuclear ribonucleoprotein K modulates angiotensinogen gene expression in kidney cells. **J Biol Chem 281: 25344-25355, 2006**
5. Brezniceanu, M-L., Liu, F., Wei, C-C, Zhang, S-L., Sachelelli, S., Guo, D-F., Filep, J.A., Ingelfinger, J.R., Chan, J.S.D.: Catalase overexpression attenuates angiotensinogen expression and apoptosis in diabetic mice. **Kidney Int 71 :912-923, 2007**

#### 4. List of personnels in the laboratory

Post-doctoral Fellows: 1. Dr. Marie-Luis Brezniceanu; 2. Dr. Shyh-Jong Wu

Graduate students: 1. Mr. Chih-Chang Wei; 2. Mrs. Fang Liu.

Research Assitant: Mrs. Isabelle Chénier

#### 5. Other Informations

##### GRANTS Currently Held: (Basic research)

1. Reactive oxygen species, tubular apoptosis and atrophy in the diabetic kidney (01/07/2007-30/06/2012) (Role: PI)

Organization: Canadian Institutes of Health Research

2. Role(s) of intrarenal angiotensinogen (ANG) gene expression in diabetic nephropathy (01/07/2006-30/06/2008) (Rôle: PI)

Organization: Kidney Foundation of Canada

##### RESEARCH INTERESTS:

1. Role(s) of intrarenal renin-angiotensin system (RAS) and reactive oxygen species (ROS) in the development of nephropathy in type 1 and type 2 diabetic mouse models.
2. Obesity and RAS gene expression in various organs.

