

Summary of January – February 2006 professional activities

- A. Paper in print/in press during January – February 2006: (highlight = 1st draft writer)**
1. Ceylan-Isik AF, LaCour KH, Ren J. Gender disparity of streptozotocin-induced intrinsic contractile dysfunction in murine ventricular myocytes: Role of chronic activation of Akt. *Clin Exp Pharm Physiol*. 33:102-108, 2006.
 2. Ceylan-Isik AF, Wu S, Li Q, Li SY, Ren J. High-dose benfotiamine rescues cardiomyocyte contractile dysfunction in streptozotocin-induced diabetes mellitus. *J. Appl Physiol*. 100:150-156, 2006.
 3. Ceylan-Isik AF, LaCour KH, Ren J. Sex difference in cardiomyocyte function in normal and metallothionein transgenic mice: the effect of diabetes mellitus. *J. Appl. Physiol*. in press.
 4. Dong F, Zhang X, Yang X, Yang H, Zhang Z, Culver B, Ren J. Impaired cardiac contractile function in ventricular myocytes from leptin deficient ob/ob obese mice. *J. Endocrinol* 188: 25-36, 2006.
 5. Dong F, Zhang X, Ren J. Leptin regulates cardiomyocyte contractile function through endothelin-1 receptor - NADPH Oxidase pathway. *Hypertension* 47: 222-229, 2006.
 6. Dong F, Fang CX, Yang XP, Zhang X, Ren J. Cardiac over-expression of catalase rescues insulin resistance-induced cardiac contractile dysfunction: Role of oxidative stress, protein carbonyl formation and insulin sensitivity. *Diabetologia* in press.
 7. Doser TA, Culver B, Ren J. COX-2 inhibitors and cardiovascular event: *deja vu du jour*. *Vascular Disease Prevention* in press.
 8. Fang CX, Doser TA, Yang X, Sreejayan N, Ren J. Metallothionein antagonizes aging-induced cardiac contractile dysfunction: Role of PTP1B, insulin receptor tyrosine phosphorylation and Akt. *Aging Cell* in press.
 9. Fang CX, Wu S, Ren J. Intracerebral hemorrhage elicits aberration in cardiomyocyte contractile function and intracellular Ca²⁺ transients. *Stroke* in press.
 10. Kim J, Li Q, Fang CX, Ren J. Paradoxical effects of ginkgolide B on cardiomyocyte contractile function under normal and high glucose environments. *Acta Pharmacologica Sinica* in press.
 11. Li SY, Yang X, Ceylan-Isik AF, Du M, Sreejayan N, Ren J. Cardiac contractile dysfunction in ob/ob obesity is accompanied with NADPH Oxidase Activation, oxidative modification of sarco(endo)plasmic reticulum Ca²⁺-ATPase and myosin heavy chain isozyme switch. *Diabetologia* in press.
 12. Li SY, Li Q, Shen J, Dong F, Sigmon VK, Liu Y, Ren J. Attenuation of acetaldehyde-induced cell injury by overexpression of aldehyde dehydrogenase-2 transgene in human cardiac myocytes: Role of MAP kinase signaling. *J. Mol. Cell. Cardiol*. 40: 283-294, 2006.
 13. Relling DP, Esberg LB, Fang CX, Johnson WT, Murphy EJ, Carlson EC, Saari JT, Ren J. High fat diet induced-juvenile obesity leads to cardiomyocyte dysfunction and upregulation of Foxo3a transcription factor independent of lipotoxicity and apoptosis. *J. Hypertension* 24:549-561, 2006.
 14. Wu S, Ren J. Benfotiamine alleviates diabetes-induced cerebral oxidative damage independent of advanced glycation end-product, tissue factor and TNF- α . *Neurosci Lett* 394:158-162, 2006.
 15. Wu S, Fang CX, Kim J, Ren J. Enhanced pulmonary inflammation following experimental intracerebral hemorrhage. *Exp. Neurol*. in press.
 16. Xu P, Van Kirk EA, Li SY, Murdoch WJ, Ren J, Hussain MD, Radosz M, Shen Y. Highly stable core-surface-crosslinked nanoparticles as cisplatin carriers for cancer chemotherapy. *Colloids and Surfaces B: Biointerfaces*, in press.

17. Yang X, Thomas DP, Zhang X, Culver BW, Alexander BM, Murdoch WJ, Rao MNA, Tulis DA, Ren J, Sreejayan N. Curcumin inhibits PDGF-stimulated vascular smooth muscle cell function and injury-induced neointima formation. *Arter. Thromb. Vasc. Biol.* 26: 85-90, 2006.
18. Yang X, Li SY, Dong F, Ren J, Sreejayan N. Insulin-sensitizing and cholesterol lowering effects of chromium (phenylalanine)₃. *J. Inorganic Biochem.* in press.
19. Zou XW, Wu S, Ren J. Systemic inflammatory response after cerebrovascular accident. *Cerebrovasc Dis Foreign Med Sci* in press.

Manuscript submitted in Jan – Feb 2006

20. Barceló-Coblijn G, Wold LE, Ren J, Murphy EJ. Prenatal ethanol exposure alters brain cholesterol content in adult rats. *Lipids* in review.
21. Relling DP, Esberg LB, Fang CX, Johnson WT, Murphy EJ, Carlson EC, Saari JT, Ren J. Dietary influence of high fat and marginal copper deficiency on cardiac contractile function in isolated ventricular myocytes. *J. Hypertension* in review.
22. Li SY, Babcock SA, Xu PS, Shen Y, Ren J. Advanced glycation endproducts (AGEs) is linked to cardiomyocyte contractile dysfunction in streptozotocin-induced diabetic mice. *Diabetes* in revision.
23. Ren J, Duan J, Thomas DP, Fang CX, Yang X, Sreejayan N, Zhang H-Y, Benoit JN, Sowers JR, Leri A, Kajstura J, Anversa P. Transgenic overexpression of insulin-like growth factor I prevents streptozotocin-induced mechanical dysfunction and upregulation of RhoA signaling in ventricular myocytes. *J. Mol. Cell. Cardiol.* in revision.
24. Wu S, Li Q, Li SY, Du M, Ren J. Cardiac overexpression of antioxidant catalase attenuates aging-induced cardiac diastolic dysfunction and protein damage: the proteomic identification. *Mech. Ageing Develop.* in review.
25. Xu P, Li SY, Li Q, Ren J, Radosz M, Shen Y. An artificial virion from pH-controlled hierarchical self-assembly for gene delivery. *J Am Chem Soc* in review.
26. Xu P, Li SY, Li Q, Ren J, Radosz M, Shen Y. Biodegradable cationic polyester as an efficient carrier for gene delivery to neonatal cardiomyocytes. *Biomacromolecules* in review.

Meeting presentation and abstract submitted in Jan – Feb 2006 – Shiyun Li, Catherine Li and Jun Ren submitted 4 abstracts to the World Congress of Pharmacology (July 2006, Beijing, China). Abstract accepted by EB2006 in Washington DC - Argpyrimidine: A Novel Biological Antioxidant by Xiaoping Yang, E. Kurt Dolence, Jun Ren, Kamalakannan Palanichamy, Nair Sreejayan (presenter).

Proposal submitted: Shiyun Li: one to American Heart Association BGIA and one to NIH R15, ~ \$280K; Xiaoping Yang: one to American Heart Association BGIA and one to NIH R15, ~ \$280K; Sreejayan: one to American Heart BGIA, one NIH R15 and one NASA, ~ \$350K; Jun Ren, one American Heart GIA, one American Diabetes, two NIH R01 and one UWyo FGIA, ~\$1.8 million.

CRAM & Laboratory issues:

- (1). Congratulations to Feng Dong for the 2nd CRAM Research Award. An award certificate and a check were given to Feng in honor of this award. Next one will be awarded on 7/2006.
- (2). Welcome new member Lindsay Hueckstaedt, who sent in an EPSCoR application this month entitled "Effect of advanced glycation endproducts (AGE) on diabetes-induced cardiac dysfunction".
- (3). Upcoming abstract deadlines, American Heart Association Annual Meeting, Chicago (November 06). Abstract submission deadline is late May 2006.
- (4). Visiting seminar speaker – Dr. Amy Davidoff from University of New England, (Jun Ren's postdoctoral advisor between 1994-1996), March 9 (Zoo/Phys) – "Diabetic cardiomyopathy: Link between insulin resistance and ventricular dysfunction"; March 10 (Pharmacy) – "Cardiac dysfunction with insulin resistance: A female advantage?". Please make a note for these.