

**1. SUMMARY OF THE PROFESSIONAL ACTIVITIES (January – May, 2004)**

**Paper in print 2004 from UW (Jan – May, 2004): (plus seven papers on work done at UND).**

1. Li SY, Gomelski M, Duan J, Zhang Z, Gomelski L, Zhang X, Epstein PN, Ren J. Overexpression of aldehyde dehydrogenase-2 transgene attenuates acetaldehyde-induced apoptosis in human umbilical vein endothelial cells: Role of ERK and p38 MAP kinase. *J. Biol. Chem.* 279:11244-11252, 2004.
2. Ren J. Leptin and hyperleptinemia – from friend to foe for cardiovascular function. *J. Endocrinol.* 181: 1-10, 2004.

**Paper accepted 2004 from UW: (plus six accepted manuscript on work done at UND).**

3. Ceylan-Isik AF, Ren J. Gender difference in cardiac excitation-contraction coupling: Role of estrogen. *Int. J. Cardiol.* in press (accepted May 2004).
4. Dong F, Zhang X, Li SY, Zhang Z, Ren Q, Culver B, Ren J. Involvement of NADPH oxidase and JNK in homocysteine-induced oxidative stress and apoptosis in human umbilical vein endothelial cells. *Cardiovasc. Toxicol.* in press (accepted May 2004).
5. Duan J, Esberg LB, Dai S, Aberle NS II, Ren J. Comparison cardiac contractile and intracellular  $Ca^{2+}$  transient response between estrogen and phytoestrogen  $\alpha$ -Zearalanol in rat ventricular myocytes. *Endocrine* in press (accepted April 2004).
6. Esberg LB, Zhang X, Scott GI, Culver B, Ren J. Impact of gender on basal and insulin-like growth factor I (IGF-1)-regulated nitric oxide synthase activity in adult rat ventricular myocytes. *Comp. Biochem. Physiol.* in press (accepted March 2004).
7. Li SY, Liu Y, Sigmon VK, McCort A, Ren J. High fat diet enhances advanced glycation endproduct (AGE) and apoptosis: Role of nuclear O-GlcNAc modification and p38 MAP kinase activation. *Diabetes Obese. Metab.* in press (accepted April 2004).
8. Li SY, Golden KL, Jiang Y, Graham C, Wang GJ, Privratsky JR, Zhang X, Eason AR, Culver B, Ren J. Inhibition of sarco(endo)plasmic reticulum  $Ca^{2+}$ -ATPase (SERCA) differentially regulates contractile function in cardiac myocytes from normotensive and spontaneously hypertensive rats: role of  $Ca^{2+}$  regulatory proteins. *Cell. Biochem. Biophys.* in press (5/2004).
9. Zhang X, Li SY, Brown RA, Ren J. Ethanol and acetaldehyde in alcoholic cardiomyopathy – from bad to ugly en route to oxidative stress. *Alcohol.* in press (accepted February 2004).

**Proposal funded:** Ren J: UW faculty-grant-in-aid: \$7500. Zhang X: CHS grant-in-aid: \$5000; Yang X: CHS grant-in-aid: \$4200; Li SY: CHS travel award \$420 (No extramural application has been funded).

**Proposal (extramural) submitted (Jan – May, 2004):**

1. PI: Li SY: AHA Pacific Mountain Affiliate: Role of advanced glycation end products (AGEs) in diabetic cardiomyopathy: Role oxidative modification of  $Ca^{2+}$  regulatory proteins. \$110,000, 3-year project.
2. PI: Li SY: as Res. Asst. Prof. NIH R15: Role of AGEs in diabetic cardiomyopathy. \$140,500, 3-yr project.
3. PI: Ren J: NIH R01: Diabetic cardiomyopathy: IGF-1 and oxidative stress, \$833,104, 4-yr project.
4. PI: Ren J: NIH R01: Dietary magnesium deficiency and alcoholic heart damage. \$425,000, 3-yr proj.

**Meeting presentations:**

Li SY: Experimental Biology 04 at DC (2 posters), April 2004; Ren J: International Society for Heart Research at Cancun, Mexico, May 2004 (1 poster); Karissa, Cindy, Feng: UW Graduate Forum, March 2004; Cindy, Asli, Shiyun and Feng: UW CHS Research Day, May 2004.

**2. LABORATORY ISSUES, NOTE & OTHER BUSINESS:**

1. Welcome three new members to join our team – Shan Wu, Ph.D., Catherine Li, Ph.D., & Chris Wilbert.
2. Our next general laboratory meeting is scheduled in the second week of June. Get your things ready.
3. Feng is going to win the 2004 NHL hockey pool (Cindy & Bruce too on top three for cash). Great pick.
4. Dr. QQ Sun is going to join our institute in July/August. We can count on him for patch-clamp study.
5. Please keep a good habit in the lab. Several absolutely wrong manners - (a). Scale power and sliding door left on or open; (b). Bovine serum album (BSA) left on the counter at room temperature; (c). Dirty scoop (weigh spoon) found in the box of clean ones. These mistakes have to be corrected.
6. Summer is here and we need to re-emphasize the safety rules - no open-toe shoes, no food & drink in work area. We also need to stress that English is the ONLY official language in our laboratory.
7. Sree is going to work with Cindy on Western tomorrow (Wednesday). Please arrange time to learn from Sree. There are a lot of tricks we need to learn from Sree to improve our results and cut down budget.