

**1. SUMMARY OF THE PROFESSIONAL ACTIVITIES (January – February 2005)****Paper accepted or published in Jan – Feb 2005 (IF = impact factor) - member from our CV Res Lab**

1. Ceylan-Isik AF, Ren J. Gender difference in cardiac excitation-contraction coupling: Role of estrogen. *Cardiology* 1:1-7, 2005.
2. Dong F, Esberg LB, Roughead ZK, Ren J, Saari JT. Dietary copper deficiency enhances cardiac sensitivity to insulin-like growth factor-I. *Am J Physiol: Heart Circ Physiol* in press (IF = 3.66).
3. Gupta A, Aberle II NS, Ren J, Sharma AC. Bigendothelin-1 modulates ventricular myocyte contractile function via a p38-MAPK-dependent mechanism in sepsis. *J. Mol. Cell. Cardiol.* in press (IF = 5.00).
4. Li SY, Du M, Dolence EK, Fang CX, Mayer GE, Ceylan-Isik AF, LaCour KH, Yang X, Wilbert CJ, Sreejayan N, Ren J. Aging induces cardiac diastolic dysfunction, oxidative stress, accumulation of advanced glycation endproducts and protein modification. *Aging Cell* in press (IF = 2.12).
5. Li SY, Golden KL, Jiang Y, Wang GJ, Privratsky JR, Zhang X, Eason AR, Culver B, Ren J. Inhibition of Sarco(endo)plasmic Reticulum Ca<sup>2+</sup>-ATPase Differentially Regulates Contractile Function in Cardiac Myocytes From Normotensive and Spontaneously Hypertensive Rats: Role of Ca<sup>2+</sup> Regulatory Proteins. *Cell Biochem Biophys.* 42:1-12, 2005 (IF = 3.19).
6. Ren J, Fang CX. Small guanine nucleotide-binding protein Rho and myocardial function (invited review). *Acta Pharmacologica Sinica* 26:279-285, 2005. (IF = 0.90)
7. Yang X, Palanichamy K, Ontko AC, Rao MNA, Fang CX, Ren J, Sreejayan N. A newly synthetic chromium complex - chromium (phenylalanine)<sub>3</sub> improves insulin responsiveness and reduces whole body glucose tolerance. *FEBS letters*, 579: 1458-1464, 2005. (IF = 3.61)
8. Yang X, Sreejayan N, Ren J. Views from within and beyond: narratives of cardiac contractile dysfunction under senescence, *Endocrine*, in press (IF = 1.61)
9. Zhang X, Dong F, Ren J, Driscoll MJ, Culver B. High dietary fat induces NADPH oxidase-associated oxidative stress and inflammation in rat cerebral cortex. *Exp. Neurol.* 191:318-25, 2005 (IF = 3.68).

**Manuscript submitted in January – February 2005**

- Dong F, Ford SP, Fang CX, Nijland MJ, Nathanielsz PW, Ren J. Intrauterine nutrition deficiency during early to mid gestation up-regulates cardiac insulin-like growth factor (IGF) receptors associated with ventricular hypertrophy in fetal sheep. *Endocrine* in review.
- Dong F, Fang CX, Zhang X, Ren BH, Lopez FL, Ren J. Cardiac over-expression of catalase ablates insulin resistance-induced cardiac contractile dysfunction independent of insulin receptor signaling. *Cell Biochem Biophys* in review.
- Fang CX, Dong F, Ren BH, Epstein PN, Ren J. Metallothionein alleviates insulin resistance-induced cardiac contractile dysfunction: Role of Akt phosphorylation, PTB1B and PPAR $\gamma$ . *Diabetologia* (minor revision required).
- Li SY\*, Fang CX\*, Aberle NS II\*, Ren BH, Ceylan-Isik AF, Ren J. Inhibition of PI-3 kinase/Akt/mTOR but not calcineurin signaling reverses insulin-like growth factor I-induced protection against glucose toxicity in cardiomyocyte contractile function. *J. Endocrinol.* in review (\*equal first authorship).
- Xu H, Duan J, Dai S, Wu Y, Sun R, Ren J. Reactive oxygen species mediate oxidized LDL-induced endothelin-1 gene expression via extracellular signal-regulated kinase (ERK) pathway in vascular endothelial cells. *J. Biol. Chem.* in review.

**Meeting abstract submitted in January – February 2005**

Dong F, Fang CX, Ren BH, Ren J. Cardiac over-expression of catalase ablates insulin resistance-induced cardiac contractile dysfunction independent of insulin receptor signaling. To 12th WORLD CONGRESS ON HEART DISEASE.

**Proposal submitted:**

1. PI: Xiaochun Zhang, "Dietary Grape Powder supplement and Alzheimer's Disease" California Table Grape Commission, 7/1/2005 through 6/30/2006, \$25,000.
2. Dave Bruch, "Effects of Benzyl-N-Methylthylamine and Methamphetamine on Reactive Nitrogen Stress and Neurotoxicity in Rats" Wyoming EPSCoR Undergraduate Research Fellowships for Summer 2005
3. Jihye Kim, "Role of Herb Medicines Ginkgo Biloba Extract on Diabetic Heart Damage" EPSCoR Undergraduate Research Fellowships for Summer 2005.
4. CRAM center grant, PI & project leaders: Jun Ren, Shiyan Li & Sreejayan, "Treatment of Diabetes and Vascular Injury with Natural Products", NIH/NCAM, \$950,000, 3-year.

**2. LABORATORY ISSUES:** Please pay extra attention to your lab habit (**broken glasses in trash can & antibody left on counter overnight**). Please help to cut down the experimental cost by sharing supplies and reuse antibodies if possible. Our lab supply cost has gone beyond the credit limit in each of the recent 3 months. Welcome **Sara Babcock** to join the team to work with Shiyan on diabetes. Sara has three abstracts to her credit and is a student member of Am Physiological Society.