
Summary of September – October 2006 professional activities**A. Paper in print/in press: (highlight = 1st draft writer)**

1. Dong F, Taylor MM, Samson WK, Ren J. Intermedin (Adrenomedullin-2) enhances cardiac contractile function via a protein kinase C and protein kinase A-dependent pathway in murine ventricular myocytes. *J. Appl. Physiol.* 101: 778-784, 2006 (September 2006).
2. Fang CX, Yang X, Sreejayan N, Ren J. Acetaldehyde promotes rapamycin-dependent activation of p70S6K and glucose uptake despite inhibition of Akt and mTOR in dopaminergic SH-SY5Y human neuroblastoma cells. *Exp. Neurol.* in press.
3. Jay MA, Ren J. Peroxisome proliferator-activated receptor (PPAR) in metabolic syndrome. *Curr Diabetes Rev.* in press (*Mollie is a third year Pharm. D student in our school).
4. Li Q, Wu S, Li SY, Lopez FL, Du M, Kajstura J, Anversa P, Ren J. Cardiac specific overexpression of insulin-like growth factor-1 (IGF-1) attenuates aging-associated cardiac diastolic contractile dysfunction and protein damage. *Am J Physiol: Heart Circ Physiol* in press.
5. Li Q, Ren J. Cardiac overexpression of metallothionein attenuates chronic alcohol intake-induced cardiomyocyte contractile dysfunction. *Cardiovasc. Toxicol.* in press.
6. Li Q, Ren J. Cardiac overexpression of metallothionein rescues chronic alcohol intake-induced cardiomyocyte dysfunction: Role of Akt, mammalian target of rapamycin and ribosomal p70s6 kinase. *Alcohol Alcoholism* in press.
7. Li SY, Sigmon VK, Babcock SA, Ren J. Advanced glycation endproducts induce ROS accumulation, apoptosis, MAP kinase activation and nuclear O-glcNAcylation in human cardiac myocytes. *Life Sci* acceptable.
8. Ren J. Influence of gender on oxidative stress, lipid peroxidation, protein damage and apoptosis in hearts and brains from spontaneously hypertensive rats. *Clin. Exp. Pharm. Physiol.* in press.
9. Ren J. Fixing the broken heart: problems and prospects in managing the cardiometabolic risk. *Advances in Gene, Molecular and Cell Therapy* in press (invited review).
10. Ren J, Li Q, Wu S, Li SY, Babcock SA. Cardiac overexpression of antioxidant catalase attenuates aging-induced cardiomyocyte relaxation dysfunction. *Mech. Aging Dev.* in press.

B. Paper submitted or in revision: (highlight = 1st draft writer)

11. Dong F, Ren J. Fildarestat improves cardiomyocyte contractile function in db/db diabetic obese mice through a histone deacetylase Sir2-dependent mechanism. *J. Mol Cell. Cardiol* in review.
12. Li Q, Ren J. Chronic alcohol consumption reduces activation of mammalian target of rapamycin (mTOR) and ribosomal p70S6 kinase in cerebral cortex. *Exp. Neurol.* in review.
13. Li L, Liu X, Ran J, Wang Y, Luo X, Wang T, Ren J, Aisha M, Abudurehman R, Xiawudong A, Zhang X, Mao X. Analysis of prevalence and risk factors of hypertension among Uygur adults in Tushala and Hetian, Xinjiang Uygur autonomous region. *Clin. Exp. Pharm. Physiol.* in review.
14. Li L, Ma X, Ran J, Sun X, Kang X, Zhang Y, Wang Y, Xu L, Ren J, Mao X. Association of the Pro12Ala variant in the peroxisome proliferator-activated receptor- γ 2 gene with type 2 diabetes mellitus in Uygurs, Kazaks and Hans in Xinjiang Uygur autonomous region. *Diabetologia* in review.
15. 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. IGF-1 Alleviates Diabetes-Induced Activation of

- Rho Kinase and p38 MAPK, Downregulation of Akt-Endothelial Nitric Oxide Synthase and Myocardial Contractile Dysfunction. *Eur. Heart J.* in review.
16. Ren J, Privratsky JR, Carlson EC, Dong F, Fang CX. Cardiac-specific overexpression of metallothionein prevents glutathione depletion-induced oxidative cardiomyopathy in murine heart: Role of ARC, FLIP and XIAP. *Hypertension* in revision.
 17. Zhang QJ, Li QX, Zhang HF, Zhang KR, Guo WY, Wang HC, Fan M, Zhou Z, Cheng HP, Ren J, Gao F. Aerobic exercise sensitizes myocardial contractile response to insulin - Role of Akt-dependent eNOS activation. *Circulation* in review.

Proposal submitted:

2 NIH R15 were submitted on October 25, 2006. Sreejayan: to study Cr(4-hydroxy isoleucine) [Cr(4-OH-Ile)₃]’s beneficial effects against diabetes and insulin resistance; Shen Y/Ren J to study of polymer degradation in gene delivery.

Meeting Abstract Submission and Presentations:

The following abstracts have been accepted by American Heart Annual Meeting in Chicago (November 2006):

18. Zhang QJ, Lia QX, Zhang HF, Zhang KR, Guo WY, Wang HC, Fan M, Zhou Z, Cheng HP, Ren J, Gao F. Aerobic exercise sensitizes myocardial contractile response to insulin - Role of Akt-dependent eNOS activation.
19. Fang CX, Dong F, Nunn FM, Ren J. Metallothionein prevents insulin resistance-induced Cardiac contractile dysfunction by promoting mitochondrial biogenesis through upregulation of peroxisome proliferator-activated receptor gamma coactivator-1 (PGC-1) alpha. (Oral presentation by CXF – paper is submitting to *Diabetes*).
20. Dr. Culver presented at Society for Neuroscience in Atlanta (October) and Dr. Ren spoke at Novartis Foundation Symposium in London (September).

Other business and miscellaneous:

- (1). Dave Bruch is the P1 President, and Jamie Hexem is the VP, way to go Culver lab.
- (2). MCLS graduate students completed their first rotation Leah Kyle, Sarah Ulusoylar, Liren Zhang. Thanks for all especially Catherine and Feng for mentoring them during their rotation work. The second rotation is under way with Leah and Sarah trading places and Liren is off to molecular biology department.
- (3). Dr. Sreejayan and his ADA research on diabetes were featured on UW official website and WyoWeb (photo of the day) last week.
- (4). C-CRAM journal club met every other Wednesday. The presenters were Jun Ren, Sreejayan and Feng Dong. Leah will speak next. Dr. Lu Cai from University of Louisville will be here at the end of this month. He is an expert in diabetes research. He will present one seminar at physiology club and one in pharmacy, stay tuned.
- (5). C-CRAM research award will be resumed by the end of this year – counting all professional activities including publication, meeting presentation and grantsmanship occurred in 2006.
- (6). The third annual NHL hockey pool completed its first month of race. Bonnie and Jun are currently tied for lead with 215 points each. The past winners include Feng, Delwar (gold medal), Feng, Dean Vandel (silver medal), Cindy and Xiaoping (bronze medal) in the last two years.
- (7). Welcome Caitlen Rode to join our team and we say farewell to Lindsay, thank you Lindsay.

Have a good thanksgiving – though it’s still early.