

**A. Research Papers in Press/in Print (September-December 2008 -alphabetically by 1st author):**

1. **Allen, DL and Du M.** Comparative functional analysis of the cow and mouse myostatin genes reveals novel regulatory elements in their upstream promoter regions. *Comparative Biochemistry and Physiology* (in press).
2. **Ceylan-Isik AF, Ren J.** Fixing the broken heart: problems and prospects in managing the cardiometabolic risk. *Advances in Gene, Molecular and Cell Therapy* (invited review).
3. **Ceylan-Isik AF, Fliethman RM, Wold LE, Ren J.** Herbal and Traditional Chinese Medicine for the Treatment of Cardiovascular Complications in Diabetes Melitus. *Curr Diab Rev.* **4**: 320-328, 2008.
4. **Dong F, Ren J.** Adiponectin improves cardiomyocyte contractile function in db/db diabetic obese mice. *Obesity* (in press).
5. **Dong F, Kandadi MR, Ren J, Sreejayan N.** Chromium (D-phenylalanine)<sub>3</sub> Supplementation Improves Glucose Disposal, Insulin Signaling and Glut-4 Membrane Translocation in a Dietary Mouse Model of Insulin Resistance, *J. Nutr.* **138**:1846-1851, 2008.
6. **Fang CX, Dong F, Thomas DP, Ma H, He L, Ren J.** Hypertrophic cardiomyopathy in high fat diet-induced obesity: Role of suppression of Forkhead transcription factor and atrophy gene transcription. *Am. J. Physiol. Heart Circ. Physiol.* **295**:H1206-H1215, 2008.
7. **Guo R, Zhong L, Ren J.** Overexpression of aldehyde dehydrogenase-2 (ALDH2) attenuates chronic alcohol exposure-hepatic injury and apoptosis. *Clin. Exp. Pharm. Physiol* (in press).
8. **Li D, Chen H, Wang Z, Wang J, Shang J, Zheng Q and Li J.** Isoliquiritigenin induces monocytic differentiation of HL-60 cells. *Free Rad Biol Med* (in press)
9. **Li LL, Liu XY, Ran JX, Wang Y, Luo X, Wang T, Ren J, Aisha M, Abudurehman R, Xiawudong A, Zhang XC, Mao XM.** Analysis of prevalence and risk factors of hypertension among Uygur adults in Tushala and Hetian of Xinjiang Uygur autonomous region. *Cardiovasc. Toxicol.* (in press).
10. **Li Q, Ceylan-Isik AF, Li J, Ren J.** Deficiency of Insulin-Like Growth Factor 1 Reduces Sensitivity to Aging-Associated Cardiomyocyte Dysfunction. *Rejuvenation Research* **11**:725-733, 2008.
11. **Lu QL, Xie Zj, Zhang HW, Ren J.** Evaluation of the appropriate diagnostic threshold of waist circumference for cardiometabolic syndrome in Chinese Uygur adults. *J. Cardiometab. Syndrome* (in press).
12. **Ma H, Li SY, Xu PS, Babcock SA, Dolence EK, Brownlee M, Li J, Ren J.** Advanced glycation endproduct (AGE) accumulation and AGE receptor (RAGE) upregulation contribute to the onset of diabetic cardiomyopathy. *J. Cell. Mol. Med.* (in press).
13. **Ren J, Ma H.** Impaired cardiac function in leptin deficient mice. *Curr. Hypertension Report.* **10**:448-453, 2009.
14. **Ren J, Zhu BH, Relling DP, Esberg LB, Ceylan-Isik AF.** High fat diet-induced obesity leads to resistance to leptin-induced cardiomyocyte contractile response. *Obesity* **16**:2417-2423, 2008.
15. **Ren J, Davidoff AJ, Ingwall JS.** Creatine kinase inhibitor iodoacetamide antagonizes high extracellular calcium-stimulated cardiac contractile function in cardiomyocytes. *Clin. Exp. Pharm. Physiol* (in press).
16. **Ren J, Wold LE.** Mechanisms of alcoholic heart disease. *Therapeutic Advances in Cardiovascular Disease* (in press).
17. **Sreejayan N, Yang X, Palanichamy K, Dolence D, Ren J.** Antioxidant properties of argpyrimidine. *Eur. J. Pharmacol.* **593**:30-35, 2008.
18. **Sreejayan N, Dolence J, Liu Y, Ren J.** Inhibitory effect of dehydrozingerone on vascular smooth muscle cell function. *J Cardiovasc Pharmacol* (in press).
19. **Sun JB, Duan JH, Dai SL, Ren J, Guo L, Jiang W, Li Y.** Preparation and anti-tumor efficiency evaluation of doxorubicin-loaded bacterial magnetosomes, the magnetic nanoparticles as drug carriers isolated from *Magnetospirillum Gryphiswaldense*. *J. Nanosci. Nanotech* **101**:1313-1320, 2008.
20. **Tao YC, Ma XM, Xie Z, Ran X, Wang Y, Luo X, Hu M, Gen W, Zhang M, Wang T, Ren J, Li LL.** The prevalence of type 2 diabetes and hypertension in Uygur and Kazak populations. *Cardiovasc. Toxicol.* **8**:155-159, 2008.
21. **Zhao P, Xiao X, Kim A, Leite MF, Xu J, Zhu X, Ren J, Li J.** c-Jun inhibits thapsigargin-induced ER stress through up-regulation of DSCR1/Adapt78. *Exp Biol Med* **233**:1289-1300, 2008.

22. **Zhao P, Su G, Xiao XY, Hao E, Zhu XL, Ren J.** Chinese medicinal herb Radix Astragali suppresses cardiac contractile dysfunction and inflammation in a rat model of autoimmune myocarditis. *Toxicol. Lett.* **182**:29-35, 2008.
23. **Zhao P, Sharma AC, Ren J.** Pathogenesis and therapy of autoimmunity-induced dilated cardiomyopathy: Focus on cardiac excitation contraction coupling. *Frontier Biosci* (in press).
24. **Zhao P, Wang J, Ma H, Xiao Y, Wang Z, He L, Tong C, Dolence K, Nair S, Ren J, Li J.** A newly synthetic chromium complex –chromium (D-Phenylalanine)<sub>3</sub>, activates AMP-activated protein kinase and stimulates glucose transport. *Biochem Pharm* (in press).

#### **B. Abstracts and Presentations (September-December 2008 -alphabetically by 1st author):**

1. **Li J, Kim AS, Cheng H, Hu X, Miller EJ, Wu X, Xiao L, Young LH.** AMPK mediates the cardioprotective effect of urocortin. *Circulation* 118 (supplement): S433, 2008
2. **Li Q, Thomas D. Paul and Ren J.** Intramyocardial Delivery of Mesenchymal Stem Cell Ameliorates the Function of Cardiomyocytes from Area at Risk after Myocardial Infarction. AAPS annual meeting 2009, Nov. 16-20. Atlanta.
3. **Turdi S, Yan X, Ren J.** High-Fat-Diet induced cardiomyocyte dysfunction in AMPK-deficient mice. *Circulation* 118 (supplement) S376, 2008.
4. **Wang J, Ma H, Zhang H, Zhao P, Ren J, Ford SP, Nathanielsz PW, Li J.** Impairment of JNK-IRS-1 signaling cascades in maternal and fetal heart tissue during overnourished obese sheep pregnancy. 56<sup>th</sup> Annual Scientific Meeting of Society for Gynecologic Investigation, 2009 March 19-21, Glasgow, Scotland (Oral presentation).
5. **Zhao P, Wang J, He L, Ma H, Li J, Zhu X, Ren J, Li J.** Toll-like receptor 4-deficiency improves ischemic cardiomyocytes contractile dysfunction via augmentation of AMPK activation. *Circulation* 118 (supplement) S277, 2008.

#### **C. Manuscripts and Abstracts Submitted in September-December 2008:**

##### Manuscripts:

1. **Dong F, Hua Y, Zhao P, Ren J, Du M, Sreejayan, N.** Chromium supplement inhibits skeletal muscle atrophy in hindlimb suspended mice. *J Nutr. Biochem.* (in review).
2. **Dong F, Zhao P, Ren J.** Leptin-restored cardiomyocyte contractile function in obesity Is obliterated by increased age. *Aging Cell* (in review).
3. **Fan X, Ford SP, Nijland MJ, Nathanielsz PW, Ren J.** Influence of gestational overfeeding on cardiac geometry and hypertrophic protein markers in fetal sheep. *Cardiovasc. Toxicol.* (in review).
4. **Guo KK, Ceylan-Isik AF, Carlson EC, Liao SJ, Cai L, Chen AF, Ren J.** Metallothionein attenuates GTP cyclohydrolase I inhibition-induced cardiac contractile and morphological abnormality: Role of eNOS uncoupling and oxidative stress. *Hypertension* (in review).
5. **Hua Y, Kandadi MR, Ren J, Nair S.** Ursodeoxycholic acid attenuates LDL-uptake in macrophages under insulin resistant conditions. *Atherosclerosis.* (in review).
6. **Liu Y, Dolence J, Ren J, Rao MNA, Sreejayan, N.** Inhibitory effect of dehydrozingerone on vascular smooth muscle cell function. *J. Cardiovas. Pharmacol.* (in review).
7. **Ma H, Li J, Ren J.** Aldehyde dehydrogenase 2 overexpression prevents ethanol-induced cardiac depression by inhibiting protein phosphatases. *J. Am College Cardio.* (under revision).
8. **Turdi S, Schamber RM, Chew, HG, Jr., Culver B, Ren J.** Acute methamphetamine exposure inhibits cardiac contractile function. *Toxicol. Lett.* (in review).
9. **Turdi S, Guo R, Wolf EM, Zhang X, Culver B, Ren J.** Depressed Cardiomyocyte Contractile Function in an Experimental Model of Alzheimer's disease. *Neurobiol. Aging* (submitted).
10. **Zhao P, Dong F, Turdi S, Xiao XY, Su G, Zhu XL, Ren J.** Cardiac-specific overexpression of insulin-like growth factor 1 (IGF-1) rescues lipopolysaccharide-induced cardiac dysfunction and activation of stress signaling in murine cardiomyocytes. *Shock* (under revise).
11. **Zhao P, Wang J, He L, Ma H, Li J, Zhu X, Dolence EK, Ren J, Li J.** Reduced ischemic cardiomyocyte contractile dysfunction, apoptosis and injury in TLR4-deficient mice. *Circulation Research* (under review).

#### D. Pending Grants:

1. **Ren J.** NIH/NCRR: Wyoming IDeA Network of Biomedical Research Excellence (INBRE). (PI). \$16,705,815.
2. **Roth D, Nunez N, Ren J.** NIH/NCRR: University of Wyoming Science Education Partnership Award (SEPA) Program. Co-PI, \$3,000,000.
3. **Li J.** ITHS pilot small grant: Macrophage Migration Inhibitory Factor in the Heart. (PI). \$10,000.

#### E. Welcome New Members of C-CRAM:



Mita

- Welcome Dr. Mita Das with Julia Anastasia Fox join UW C-CRAM to enhance the research activity.
- Also we are happy to have TWO Professors, Drs. Linlin Li and Xiaoyu Zhang, from China join our group to perform their research projects and enjoy the excellent facility of University of Wyoming.



Xiaoyu



Julia



Linlin

#### F. Seminars Presented:

- **Ren J:** “*Cardiometabolic syndrome and cardiac dysfunction*”, College of Pharmacy, The Second Military Medical University, Shanghai, September 2008.
- **Ren J:** “*Cardiometabolic syndrome and new drug discovery*”, The Fourth Military Medical University, Xi’an, September 2008.
- **Ren J:** “*Cardiac dysfunction in diabetes and Obesity: Pathogenesis and Protection*”, Institute of Basic Science, The Fourth Military Medical University, Xi’an, October 2008.
- **Ren J:** “*Animal models used in cardiometabolic syndrome focusing on diabetes and obesity*”, Department of Physiology, The Fourth Military Medical University, Xi’an, October, 2008.
- **Ren J:** “*Pathogenesis and therapeutic intervention of cardiomyopathy in*”



*diabetes and obesity*”, Beijing University School of Medicine, Beijing, December, 2008.

- **Ren J:** “*Cardiac dysfunction in diabetes and obesity*”, Peking Union Medical College, Beijing, December, 2008.
- **Ren J:** “*Views From Within and Beyond: Narratives of Heart Dysfunction Under Senescence*”, Department of Geriatrics, Xijing Hospital, Xi’an, December 2008.
- **Ren J:** “*Obesity and cardiac health*”, School of Aerospace Physiology, The Fourth Military Medical University, Xi’an, December 2008.
- **Li J:** “*MKP-1 and AMPK: Targets for Inflammatory and Ischemic Heart Disease*” 9/12/08 The Keynote speaker of UW INBRE retreat, Yellowstone, WY
- **Li J:** “*AMP-activated Protein Kinase: A Novel Target for Protection against Ischemic Injury*” 10/23/08 University of Arkansas Medical School, Little Rock, AR
- **Li J:** “*The Cardioprotective Effect of AMPK on Ischemic Injury*” 12/3/08 University at Buffalo, Buffalo, NY

#### **G. Other Research Activities of C-CRAM:**

- Drs. Jun Ren and Ji Li were recently accepted as a Fellow of American Heart Association (FAHA), which is an honor title, recognized the contributions to American Heart Association (AHA).
- Dr. Jun Ren becomes the Editor-in –Chief for Medjaden Biomedical Service beginning 1/12009.
- Dr. Ji Li will continue serving as a peer-review committee member for AHA Cardiology I section during 2009 cycle.
- Dr. Ji Li was accepted as a Senior Editor for Medjaden Biomedical Service from 10/1/2008.
- Dr. Lawrence Young from Yale University School of Medicine visited University of Wyoming upon the invitation of Wyoming INBRE Director, Dr. Jun Ren, and Dean of School of Pharmacy, John Vandel. Dr. Young gave TWO wonderful talks entitled “AMPK in the heart” and “The silent epidemic of cardiovascular disease in Type 2 diabetes”, respectively, which was supported by Wyoming INBRE and SoP Otis M. Hoy Endowment.

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