

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

1. **Ceylan-Isik AF, Fliethman RM, Ren J.** Herbal and traditional Chinese medicine for treatment of cardiovascular complications in diabetes mellitus. *Curr. Diab Rev.* (in press).
2. **Li LL, Ma XL, Ran XJ, Sun XF, Xu LM, Ren J, Mao XM.** Genetic polymorphism of peroxisome proliferator-activated receptor- $\gamma$ 2 pro12Ala on ethnic susceptibility to diabetes in Uygurs, Kazaks and Hans subjects. *Clin. Exp. Pharm. Physiol* **35**:187-91, 2008.
3. **Li SY, Ren J.** Cardiac overexpression of alcohol dehydrogenase exacerbates chronic ethanol ingestion-induced myocardial dysfunction and hypertrophy: Role of insulin signaling and ER stress. *J. Mol. Cell. Cardiol.* (in press). (Featured article with a special commentary by JMCC).
4. **Miller EJ\*, Li J\*, Leng L, McDonald C, Atsumi T, Bucala R and Young LH.** (\*equal contribution) Macrophage migration inhibitory factor stimulates AMP-activated protein kinase. *Nature* **451**:578-582, 2008.
5. **Ren J, Wang YJ.** One world, one mission – 2007 American Heart Scientific Session. *New Drug Invest. Tribune* **44**: 7-8, 2008.
6. **Sreejayan N, Dong F, Kandadi MR, Yang X, Ren J.** Chromium Improves Glucose Intolerance, Insulin Resistance and Hepatic ER Stress in Obese Mice. *Obesity* (in press).
7. **Turdi S, Xu P, Li Q, Shen Y, Kerram P, Ren J.** Amidization of doxorubicin alleviates doxorubicin-induced contractile dysfunction and decreased survival in murine cardiomyocytes. *Toxicol. Lett.* (acceptable).
8. **Underwood KR, Means WJ, Du M.** Caspase 3 is not active in postmortem beef and lamb sternomandibularis muscle. *J. Animal Sci.* (accepted)
9. **Underwood KR, Means WJ, Zhu MJ, Ford SP, Hess BW, Du M.** AMP-activated protein kinase is negatively associated with intramuscular fat content in longissimus dorsi muscle of beef cattle. *Meat Science.* (accepted).
10. **Xu PS, Li SY, Li Q, Van Kirk EA, Ren J, Zhang Z, Radosz M, Murdoch WJ, Shen Y.** Virion-mimicking nanocapsules from pH-controlled hierarchical self-assembly for gene delivery. *Angew Chem. Int. Edit.* **47**: 1260-1264, 2008.

**B. Abstracts and Presentations (January-February 2008 -alphabetically by 1st author):**

1. **Li J, Kim AS, Cheng H, Hu X, Miller EJ, Wu X, Sherwin RS, Xiao L, Young LH.** AMP-activated Protein Kinase Mediates the Cardioprotective Effects of Urocortin via Augment Glucose Transport during Myocardial Ischemia. 68<sup>th</sup> American Diabetes Association (ADA) Scientific Session, June 10-14, San Francisco.
2. **Li J, Haynes NA, Geringer M, Wen L, Young LH, Li J.** Toll-like receptor 4-deficiency limits ischemic injury via up-regulation of AMPK and down-regulation of p38 MAPK. 68<sup>th</sup> American Diabetes Association (ADA) Scientific Session, June 10-14, San Francisco.
3. **Zhao P, Xiao X, Kim AS, Leite MF, Xu J, Zhu X, Ren J, Li J.** c-Jun inhibits ER-stress through up-regulation of down syndrome critical region 1 (DSCR1)/Adapt78. 68<sup>th</sup> American Diabetes Association (ADA) Scientific Session, June 10-14, San Francisco.
4. **Zhao P, Xiao Y, Nair S, Ren J and Li J.** A Newly synthetic chromium complex –chromium (D-phenylalanine)<sub>3</sub> stimulates glucose transport via activation of AMP-activated protein kinase. 68<sup>th</sup> American Diabetes Association (ADA) Scientific Session, June 10-14, San Francisco.

**C. Manuscripts and Abstracts Submitted in January-February 2008:**Manuscripts:

1. **Dong F, Ren J.** Adiponectin improves cardiomyocyte contractile function in db/db diabetic obese mice: Role of c-Jun and insulin receptor substrate-1. *J. Hypertens* (in review).
2. **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, *Journal of Nutrition* (submitted).
3. **Dong F, Zhao P, Ren J, Du M, Sreejayan, N.** Novel Chromium Complex Inhibits Skeletal Muscle Atrophy and Whole Body Glucose Intolerance Associated with Hindlimb Suspension. *American Journal of Physiology.*

(Regulatory Integrative and Comparative Physiology) (submitted).

4. **Li Q, Ceylan-Isik AF, Li J and Ren J.** Deficiency of insulin-like growth factor 1 (IGF-1) reduces sensitivity to aging-associated cardiomyocyte dysfunction. *Rejuvenation Res* (submitted)
5. **Li SY, Babcock SA, Ren J.** Aldehyde dehydrogenase-2 ameliorates chronic alcohol ingestion-induced insulin insensitivity and endoplasmic reticulum stress. *J Biol Chem* (under revision).
6. **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* (in review).
7. **Sreejayan N, Dolence J, Liu Y, Ren J.** Effect of Dehydrozingerone on Vascular Smooth Muscle Cell Function. *Journal of Vascular Pharmacology* (submitted).
8. **Sreejayan N, Yang X, Palanichamy K, Dolence D, Ren J.** Antioxidant Properties of Argpyrimidine. *European Journal of Pharmacology* (submitted).
9. **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 Uyghur and Kazak populations. *Diabetes Obese Metab* (in review).
10. **Xu H, Duan J, Dai S, Wu Y, Sun R, Ren J.** Phytoestrogen  $\alpha$ -Zearalanol attenuates oxLDL-induced ET-1 gene expression and secretion in human umbilical vein endothelial cells: Role of AP-1 and extracellular signal-regulated kinase pathways. *Atherosclerosis* (in review).
11. **Zhao P, Xiao X, Kim AS, Leite MF, Xu J, Zhu X, Ren J, Li J.** c-Jun inhibits ER-stress through up-regulation of down syndrome critical region 1 (DSCR1)/Adapt78. *Mol Pharm* (in review).

#### Abstracts:

1. **Dong F, Kandadi M, 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. CHS Grand Rounds, Laramie, WY April 4, 2008
2. **Fan JX, Ford SP, Ren J.** Influence of gestational overfeeding on cardiac geometry and hypertrophic proteins in fetal sheep. CHS Grand Rounds, Laramie, WY April 4, 2008
3. **Guo R, Ren J.** Overexpression of aldehyde dehydrogenase-2 (ALDH2) attenuates chronic alcohol exposure-hepatic injury and apoptosis. CHS Grand Rounds, Laramie, WY April 4, 2008
4. **Hua Y, Kandadi MR, Ren J, Sreejayan, N.** Ursodeoxycholic Acid Attenuates LDL-uptake in Macrophages. CHS Grand Rounds, Laramie, WY April 4, 2008
5. **Kandadi MR, Hua Y, Ren J, Sreejayan N.** Novel chromium phenylalanine complex improves whole body glucose disposal and insulin signaling in high fat diet-induced insulin resistance. CHS Grand Rounds, Laramie, WY April 4, 2008
6. **Li J, Zhao P, Haynes NA, Geringer M, Wen L, Young LH, Li J.** Cardiac toll-like receptor 4-deficiency limits ischemic injury via up-regulation of AMPK and down-regulation of p38 MAPK. CHS Grand Rounds, Laramie, WY April 4, 2008
7. **Li Q, Thomas DP, Ren J.** Direct cardiac transplantation of mesenchymal stem cell ameliorates the function of cardiomyocytes from area at risk after myocardial infarction. CHS Grand Rounds, Laramie, WY April 4, 2008
8. **Ma H, Ren J.** Influence of mitochondrial aldehyde dehydrogenase (ALDH<sub>2</sub>) on ethanol-elicited cardiac depression: role of mitochondria. CHS Grand Rounds, Laramie, WY April 4, 2008
9. **Ma H\*, Wang J\*, Zhao P, Li Q, Gao X, Ren J, Li J.** (\*equal contribution) A novel cardiac AMPK activator: Oleanolic acid from Chinese herb medicine. CHS Grand Rounds, Laramie, WY April 4, 2008
10. **Sreejayan, N, Dong F, Zhao P, Ren J, Du, M.** Novel chromium complex inhibits skeletal muscle atrophy and whole body glucose intolerance associated with hindlimb suspension. CHS Grand Rounds, Laramie, WY April 4, 2008
11. **Turdi S, Schamber R, Chew B, Culver B, Ren J.** Acute exposure of methamphetamine impairs myocardial contractile function. CHS Grand Rounds, Laramie, WY April 4, 2008
12. **Turdi S, Leedy G, Ren J.** Influence of postpartum stress on cardiomyocyte contractile function and intracellular Ca<sup>2+</sup> homeostasis. CHS Grand Rounds, Laramie, WY April 4, 2008

13. **Xiao Y, Zhao P, Screejayan N, Ren J, Li J.** A newly synthetic chromium complex–chromium (D-phenylalanine)<sub>3</sub> stimulates glucose transport via activation of AMP-activated protein kinase. CHS Grand Rounds, Laramie, WY April 4, 2008
14. **Zhao P, Dong F, Turdi S, Ren J.** Cardiac-specific overexpression of IGF-1 attenuates LPS-induced cardiac diastolic contractile dysfunction in murine cardiomyocytes. CHS Grand Rounds, Laramie, WY April 4, 2008

### Awarded Grant

**Meghan Driscoll**, WWAMI medical student, was awarded a grant to conduct research entitled "*The effects of omega-3 fatty acids and saturated fats on the accumulation of  $\beta$ -amyloid in an Alzheimer's disease mouse model*" in **Dr. Culver's** Lab. Meghan received a \$4500 stipend through the MSRP (Medical Student Research Training Program) from the University of Washington Medical Center to conduct research in Dr. Culver's lab this summer.

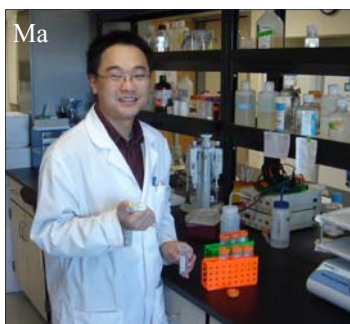
### Pending Grants in 2008

1. **Li J:** NIH 1R03AG-028163: Alterations in heart stress signaling during ischemia with aging. (PI), \$143,000 (4/1/08-3/30/10), pending.
2. **Li J:** International Collaboration with Yunnan Spirin Biotech. Co. Ltd. The protective effects of natural products extracted from Chinese herb medicine on ischemic injury in the brain. (PI), \$70,000 (7/1/08-6/30/09), pending.

### Proposals Submitted in January-February 2008

1. **Li J:** American Heart Association National Program: Aging-associated alterations in heart stress signaling during ischemia/reperfusion. (PI), \$298,000 (7/1/08-6/30/12), pending.
2. **Li J:** American Heart Association Pacific Mountain Affiliate: Alterations in AMP-activated protein kinase signaling pathway during ischemia with aging. (PI), \$132,000 (7/1/08-6/30/10), pending.
3. **Ren J:** American Heart Association Pacific Mountain Affiliate: Role of endothelin-1 and oxidative stress in hypothermia-induced cardiac contractile dysfunction. (PI), \$198,000 (7/1/08-6/30/11), pending.
4. **Ren J:** American Diabetes Association: eNOS uncoupling in diabetic cardiomyopathy: mechanisms, consequences and therapeutics. (PI), \$300,000 (7/1/2008-6/30/2011), pending.
5. **Ren J.** Wyoming Space Grant Consortium Faculty Grant: Cardiac deconditioning in microgravity (PI), \$19,400, pending.

### Welcome New Members of C-CRAM:



**Dr. Heng Ma and Ms. Janet X. Fan** joined Dr. Ren's Lab of C-CRAM from the 4<sup>th</sup> Military Medical University and Guangdong Pharmaceutical University, respectively, to continue their academic training in cardiovascular pharmacology and physiology.

**Mr. Xu Yan and Ms. Jingying Wang**, MCLS PhD candidates, joined C-CRAM for their 3rd Lab rotation. Xu Yan is doing research at Dr. Ren's Lab and focusing on the role of AMP-activated protein kinase (AMPK) in high fat diet induced dysfunction of cardiomyocytes. Jingying Wang will finish her 3rd Lab rotation in Dr. Li's Lab, she is working on identifying novel downstream targets of AMPK signaling pathway during myocardial ischemia/reperfusion and AMPK agonist from natural products extracted from Chinese herb medicine.

**Ms. Erin Lane**, freshman nursing student, received NIH UW INBRE freshman/sophomore Scholarship to support her doing research work at C-CRAM Drs. Li and Ren's Lab.



## Congratulate the Great Achievements of Old Members of C-CRAM:

Our former colleague **Dr. Shiyun Li** was named “Chu-Tian Scholar & Professor” in Wuhan Province. **Dr. Feng Dong** relocated to Cleveland Ohio to start a prestigious Morgenthaler fellowship at the Lerner Research Institute (LRI), Cleveland Clinic in January 2008. He published 26 papers, 21 of which as the first author during the five years studying here in C-CRAM in some top journals such as “Diabetes” and “Hypertension”. He has 6 more papers in review. His productivity also includes addition of daughter Sarah, winning the university best PhD dissertation award and a C-CRAM research award. We wish him and his family the best in Ohio.

## Other Research Activities of C-CRAM:



**1** **Dr. Ren** was elected into the editorial board for “*Acta Pharmacologica Sinica*”. **Dr. Peng Zhao** from Dr. Ren’s Lab will serve as judge for state science fair. Congratulations to both of them on their great contributions to the academic events.

**2** **Dr. Xin L. Ma**, Professor and Research Director, Department of Emergency Medicine, Thomas Jefferson University, visited University of Wyoming on 2/27-2/29. He gave us two wonderful talks entitled “*Adiponectin: A Link between Type 2 Diabetes and Ischemic Heart Disease*” and “*Post-translation Protein Modifications and Their Potential Therapeutic Values*” respectively.



**3** Upon the kind invitation by Chengdu Institute of Biology Chinese Academy and Sichuan University School of Medicine, **Dr. Li** has visited



Chengdu of Sichuan Province, China, on 1/19-1/28, and gave talks entitled “*MAPK and AMPK: Critical Mediators of the Cellular Stress Response*”. He also visited Chengdu KangHong Pharmaceutical Group and Yunnan Spirin Biotech. Co. Ltd to discuss the potential collaboration in development of natural products extracted from Chinese herb medicine. Recently, Dr. Li was also invited by UW Department of Molecular Biology to present his research in signaling transduction of ischemic heart diseases on 2/22.



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