

A. **Research Papers in Press/in Print (March-August 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. **Dong F, Ford SP, Nijland MJ, Nathanielsz PW, Ren J.** Influence of maternal undernutrition and overfeeding on cardiac ciliary neurotrophic factor receptor and ventricular size in fetal sheep. *J. Nutri. Biochem.* 19:409-414, 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)₃ Supplementation Improves Glucose Disposal, Insulin Signaling and Glut-4 Membrane Translocation in a Dietary Mouse Model of Insulin Resistance, *J. Nutr.* (in press).
6. **Duan J, Xu HS, Dai S, Wang X, Wu Y, Zhang Y, Sun R, Ren J.** Phytoestrogen α -zearalanol inhibits homocysteine-induced endothelin-1 expression and oxidative stress in human umbilical vein endothelial cells. *Atherosclerosis* 197:549-555, 2008.
7. **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.* (in press).
8. **Forhead, AJ, Lamb CA, Franko KL, O'Connor DM, Wooding FBP, Cripps RL, Ozanne S, Blache D, Shen QW, Du M, Fowden AL.** Role of leptin in the regulation of growth and carbohydrate metabolism in the ovine fetus during late gestation. *Journal of Physiology*, 586: 2393-2403, 2008.
9. **Gao R, Zhu BH, Tang SB, Wang JF, Ren J.** Scutellarein inhibits hypoxia- and moderately-high glucose-induced proliferation and VEGF expression in human retinal endothelial cells. *Acta Pharmacol. Sin.* 29:707-712, 2008.
10. **Kimzey J M and Du M.** *Ovis aries* AMP-activated protein kinase α 3 subunit cDNA complete coding sequence. Genbank accession number: EU477214, 2008.
11. **Li J, Zhang HF, Wu F, Nan Y, Ma J, Guo WY, Wang HC, Ren J, Das UN, Gao F.** Insulin inhibits TNF- α induction in myocardial ischemia/reperfusion: Role of Akt and eNOS phosphorylation. *Crit. Care Med.* 36:1551-1558, 2008.
12. **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).
13. **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* (in press).
14. **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.* 44: 992-1001, 2008.
15. **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).
16. **Ma L, Zhu BH, Chen XP, Liu J, Guan YY, Ren J.** Abnormalities of sarcoplasmic reticulum Ca²⁺ mobilization in aortic smooth muscle cells from streptozotocin-induced diabetic rats. *Clin. Exp. Pharm. Physiol* 35:568-573, 2008.
17. **Ren J, Ma H.** Impaired cardiac function in leptin deficient mice. *Curr. Hypertension Report.* (in press).
18. **Ren J, Privratsky JR, Yang X, Dong F, Carlson EC.** Metallothionein alleviates glutathione depletion-induced oxidative cardiomyopathy in murine hearts. *Crit. Care Med.* 36:2106-2116, 2008.

19. **Ren J, Duan J, Thomas DP, Yang X, Sreejayan N, Sowers JR, Leri A, Kajstura J, Gao F, Anversa P.** IGF-1 alleviates diabetes-induced RhoA activation, eNOS uncoupling and myocardial contractile dysfunction. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 294:R793-802, 2008.
20. **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 press).
21. **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).
22. **Ren J, Wold LE.** Mechanisms of alcoholic heart disease. *Therapeutic Advances in Cardiovascular Disease* (in press).
23. **Sreejayan N, Dong F, Kandadi MR, Yang X, Ren J.** Chromium improves glucose intolerance, insulin resistance and hepatic ER stress in obese mice. *Obesity* 16:1331-1337, 2008.
24. **Sreejayan N, Yang X, Palanichamy K, Dolence D, Ren J.** Antioxidant properties of argpyrimidine. *Eur. J. Pharmacol*, (in press).
25. **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* (in press).
26. **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.* (in press).
27. **Tong, J., M. J. Zhu, K. R. Underwood, B. W. Hess, S. P. Ford, and M. Du.** AMP-activated protein kinase negatively regulates adipogenesis in sheep fetal skeletal muscle and 3T3 cells. *Journal of Animal Science*, 86: 1296-1305, 2008.
28. **Underwood K.R., W.J. Means, and M. Du.** Caspase 3 is not involved in the postmortem tenderization of beef. *Journal of Animal Science*, 86: 960-966, 2008.
29. **Underwood K. R., W. J. Means, M. J. Zhu, S. P. Ford, B. W. Hess, and M. Du.** AMP-activated protein kinase is negatively associated with intramuscular fat content in *longissimus dorsi* muscle of beef cattle. *Meat Science*, 79:394-402, 2008.
30. **Xu H, Duan J, Wang W, 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. Hypertens.* 26:956-963, 2008.
31. **Xu H, Duan J, Dai S, Wu Y, Sun R, Ren J.** α -Zearalanol attenuates oxLDL-induced ET-1 gene expression, ET-1 secretion and redox-sensitive intracellular signaling activation in human umbilical vein endothelial cells. *Toxicol. Lett.* 179:163-168, 2008.
32. **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* (in press).
33. **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.* (in press).
34. **Zhao P, Sharma AC, Ren J.** Pathogenesis and therapy of autoimmunity-induced dilated cardiomyopathy: Focus on cardiac excitation contraction coupling. *Frontier Biosci* (in press).
35. **Zhu MJ, Han B, Tong J, Ma C, J. M. Kimzey, K. R. Underwood, C. Ma, S. P. Ford, P. W. Nathanielsz, and M. Du.** AMP-activated protein kinase signaling pathways are down-regulated and skeletal muscle development impaired in fetuses of obese, overnourished sheep. *Journal of Physiology*, 586:2651-2664, 2008.

B. Abstracts and Presentations (March-August 2008 -alphabetically by 1st author):

1. **Brewer, K. M., F. J. Leuvano, M. Du, X. Yan, J. F. Tong, and M. J. Zhu.** Effects of maternal obesity on mucosal immune system development. Summary Research Apprentice Program, NSF EPSCOR. Laramie, July 25, WY, 2008.
2. **Forhead AJ, Q. W Shen, Du M, Fowden AL.** Cortisol suppresses the anabolic signalling proteins, p-mTOR and p-S6 kinase, in skeletal muscle of fetal sheep near term. The Physiological Society Annual Meeting, University of Cambridge, UK, July 14-16, 2008.
3. **Hua Y, Kandadi MR, Ren J, Sreejayan N.** Ursodeoxycholic acid attenuates LDL uptake in macrophages. Basic Cardiovascular Sciences Conference 2008. Heart Failure: Molecular Mechanisms and therapeutic targets, Keystone Colorado, July 28-31, 2008
4. **Kandadi MR, Unnikrishnan M, Prabhakar K, Veerapur V, Ren J, Sreejayan N.** A new synthetic small molecule that alleviates diet-induced insulin resistance and lipid abnormalities, American Association of Pharmaceutical Scientists Annual Meeting, Georgia, Atlanta, Nov 16-20, 2008 (accepted)
5. **Kimzey, J. M., Du M.** Development of AMP-activated protein kinase fluorescence constructs for monitoring pluripotential cell differentiation. Graduate Student Symposium, Laramie, WY, April 2-3, 2008.
6. **Kimzey, J. M., R. J. McCormick, M. M. Stayton, and M. Du.** Development of AMP-activated protein kinase fluorescence constructs for monitoring pluripotential cell differentiation. Western Section of ASAS Annual Meeting, Laramie, WY, June 24-26, 2008.
7. **Leuvano, F. L., K. M. Brewer, J. F. Tong, J. M. Kimzey, and M. Du.** Metformin increases offspring skeletal muscle growth from maternal obese mice. Summary Research Apprentice Program, NSF EPSCOR. Laramie, July 25, WY, 2008.
8. **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. *Diabetes 57* (Supp 1):A403. 68th American Diabetes Association (ADA) Scientific Session.
9. **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. *Diabetes 57* (Supp 1):A426. 68th American Diabetes Association (ADA) Scientific Session.
10. **Li J.** Signaling pathways in the ischemic hearts. *Chinese Pharmacologist*, 25:22-24, 2008. The Symposium of Cardiovascular Pharmacology of 2008, Lanzhou, China.
11. **Li Q, Thomas DP, Ren J.** Intramyocardial Delivery of Mesenchymal Stem Cell Ameliorates the Function of Cardiomyocytes from Area at Risk after Myocardial Infarction. AAPS 2008 Annual Meeting Abstract. (accepted).
12. **Ma H, Wang J, Wu J, Zhao P, Li Q, Gao X, Ren J, Li J.** A novel AMPK activator from Chinese herb medicine and ischemia phosphorylate the cardiac transcription factor FOXO3. *Chinese Pharmacologist*, 25:52-54, 2008. The Symposium of Cardiovascular Pharmacology of 2008, Lanzhou, China.
13. **Nair S, Dong F, Kandadi MR, Ren Jun.** Chromium (D-phenylalanine)₃ supplementation improves glucose disposal, insulin signaling and Glut-4 membrane translocation in a dietary mouse model of insulin resistance. *Diabetes 57* (Supp 1):A598. 68th American Diabetes Association (ADA) Scientific Session.
14. **Sreejayan N., F. Dong, P. Zhao, J. Ren, and M. Du.** Novel chromium complex inhibits skeletal muscle atrophy and whole body glucose intolerance associated with hindlimb suspension. College of Health Sciences 14th Annual Research Day Presentation, Laramie, WY, April 4th, 2008.
15. **Tong, J. F., Du M.** AMP-Activated Protein Kinase (AMPK) Mediates Phosphorylation of Forkhead Protein (FOXO) Independent of Insulin-Like Growth Factor-1 (IGF-1)/PKB Pathway in C2C12 Myotubes. Graduate Student Symposium, Laramie, WY, April 2-3, 2008.
16. **Tong, J., K. R. Underwood, X. Yan, M. J. Zhu, and M. Du.** AMP-activated protein kinase (AMPK) and insulin-like growth factor-1 (IGF-1) on expression of muscle-specific ubiquitin ligases in C2C12 myotubes. The 2008 Joint ADSA-ASAS Annual Meeting, Indianapolis, IN, July 7-11, 2008.
17. **Underwood, Du M.** Gestational nutrition affects growth and adipose tissue deposition in steers. Graduate Student Symposium, Laramie, WY, April 2-3, 2008.
18. **Underwood, K. R., J. Tong, M. J. Zhu, W. J. Means, and M. Du.** Myostatin is associated with marbling in beef cattle. The 2008 Joint ADSA-ASAS Annual Meeting, Indianapolis, IN, July 7-11, 2008.
19. **Yang, X., L. Liu, S. X. Yang, M. Du, J. France, and M. Z. Fan.** Contributions of hormonal factors to the

mammalian target of rapamycin (mTOR)-mediated and mTOR-independent postnatal decreases in skeletal muscle protein synthesis. Canadian Society of Animal Science, Guelph, Ontario, Aug. 11-14, 2008.

20. **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. *Diabetes* 57 (Supp 1):A759. 68th American Diabetes Association (ADA) Scientific Session.
21. **Zhao P, Xiao Y, Nair S, Ren J and Li J.** A Newly synthetic chromium complex –chromium (D-phenylalanine)₃ stimulates glucose transport via activation of AMP-activated protein kinase. *Diabetes* 57 (Supp 1):A533-534. 68th American Diabetes Association (ADA) Scientific Session.
22. **Zhao P, Su G, Hao E, Xiao X, Zhu X, Ma H, Ren J, Li J.** Radix astragali suppresses myocardial inflammation and improves cardiac function in autoimmune myocarditis rats. *Chinese Pharmacologist*, 25:61-63, 2008. The Symposium of Cardiovascular Pharmacology of 2008, Lanzhou, China.
23. **Zhu, M. J., M. S. Strable, J. T. Brenna, M. Du, B. W. Hess, G. E. Moss, P. W. Nathanielsz, and S. P. Ford.** Maternal obesity and overnutrition increase placental fatty acid (FA) transport. Society for Gynecologic Investigation, San Diego, CA, March 26-29, 2008.
24. **Zhu, M. J., G. Wu, M. Du, B. W. Hess, G. E. Moss, P. W. Nathanielsz, and S. P. Ford.** Maternal obesity and over-nutrition down-regulates system A amino acid (AA) transporter 2 (SNAT2) in ewe placentomes. Society for Gynecologic Investigation, San Diego, CA, March 26-29, 2008.

C. Manuscripts and Abstracts Submitted in March-August 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. **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 review).
6. **Hua Y, Kandadi MR, Ren J, Nair S.** Ursodeoxycholic acid attenuates LDL-uptake in macrophages under insulin resistant conditions. *Atherosclerosis.* (in review).
7. **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).
8. **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 review).
9. **Ma H, Li J, Ren J.** Aldehyde dehydrogenase 2 overexpression prevents ethanol-induced cardiac depression by inhibiting protein phosphatases. *J. Mol. Cell. Cardiol.* (submitted).
10. **Turdi S, Schamber RM, Chew, HG, Jr., Culver B, Ren J.** Acute methamphetamine exposure inhibits cardiac contractile function. *Toxicol. Lett.* (in review).
11. **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).
12. **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).
13. **Zhao P, He L, Li J, Ma H, Wang J, Zhu X, Ren J, Li J.** Reduced ischemic cardiomyocyte contractile dysfunction, apoptosis and injury in TLR4-deficient mice. *Circulation* (under revise).

14. **Zhao P, Xiao Y, Wang J, Wang Z, Dolence K, Nair S, Ren J, Li J.** A newly synthetic chromium complex –chromium (D-Phenylalanine)₃ activates AMP-activated protein kinase and stimulates glucose transport. *Acta Pharm Sin* (invited paper, under review).

Abstracts:

1. **Kandadi MR, Unnikrishnan MK, Hua Y, Li J, Ren J, Nair S.** A new synthetic AMPK agonist alleviates insulin resistance and lipid abnormalities. 2008 AHA Scientific Session.
2. **Li J, Kim A, Hu J, Wu X, Miller E, Xiao L, Young LH.** AMPK mediates the cardioprotective effect of Urocortin. 2008 AHA Scientific Session.
3. **Li Q, Thomas DP, Kandadi MR, Nair S, Li J, Ren J.** Forkhead Transcription Factor 3 (FOXO3) is involved in regulation of contraction and stress resistance of murine cardiomyocytes. X. 2008 AHA Scientific Session.
4. **Li Q, Hueckstaedt LK, Turdi S, Li J, Ren J.** Ucf-101 mitigates streptozotocin-induced cardiomyocyte dysfunction via restoring the activation of AMP-activated protein kinase. 2008 AHA Scientific Session.
5. **Ma H, Li J, Ren J.** Aldehyde Dehydrogenase 2 overexpression prevents ethanol-induced cardiac depression by inhibiting protein phosphatases. 2008 AHA Scientific Session.
6. **Ma H, Li S, Dolence K, Li J, Shen Y, Ren J.** Advanced Glycation Endproduct (AGE) accumulation and AGE receptor (RAGE) upregulation contribute to the onset of diabetic cardiomyopathy. 2008 AHA Scientific Session.
7. **Ma H, Xu P, Shen Y, Ren J.** Cisplatin compromises the ultrastructure of mitochondria and mechanical function of cardiomyocytes. 2008 NISBRE, Washington DC, August 6-8, 2008.
8. **Ma H, Wang J, Lane E, Ren J, Li J.** Alterations in Cardiac MIF-AMPK Cascades in Response to Ischemic Stress with Aging. 2008 AHA Scientific Session.
9. **Ma H, Wang J, Leng L, Bucala R, Ren J, Li J.** Extracellular Signaling-regulated Kinase (ERK) Mediates the Cardioprotective Effect of Macrophage Migration Inhibitory Factor (MIF) during Ischemia/Reperfusion. 2008 AHA Scientific Session.
10. **Ren J, Ma H, Hua Y, Li Q, Kuo S, Nicholas S.** Duesbery and Arthur E. Frankel. Anthrax lethal toxin suppresses murine cardiomyocyte contractile function and intracellular calcium handling via a matrix metalloproteinase-dependent mechanism. 2008 AHA Scientific Session.
11. **Turdi S, Guo R, Wolf EM, Zhang X, Culver B, Ren J.** Depressed cardiomyocyte contractile function in an experimental model of Alzheimer's disease. 2008 AHA Scientific Session.
12. **Turdi S, Yan X, Ren J.** High-Fat-Diet induced cardiomyocyte dysfunction in AMPK-deficient mice. 2008 AHA Scientific Session.
13. **Turdi S, Li J, Ren J.** AMPK deficiency exacerbates aging-induced cardiomyocyte dysfunction. 2008 AHA Scientific Session.
14. **Wang J, Ma H, Zhao P, Li Q, Ren J, Li J.** Ischemia and AMPK activator phosphorylate cardiac transcription factor FOXO3. 2008 AHA Scientific Session.
15. **Zhao P, Dong F, Ren J.** Leptin-Restored cardiomyocyte contractile function in obesity is obliterated by increased age. 2008 AHA Scientific Session.
16. **Zhao P, Xiao Y, Dolence K, Nair S, Ren J, Li J.** A new chromium complex regulates glucose transport via activation of AMPK. 2008 AHA Scientific Session.
17. **Zhao P, He L, Leng L, Bucala R, Dolence K, Li J.** Macrophage migration inhibitory factor mediates LPS-induced contractile dysfunction of cardiomyocytes. 2008 AHA Scientific Session.
18. **Zhao P, Li J, Ma H, Wang JJ, Ren J, Li J.** Toll-like Receptor 4-deficiency improves ischemic contractile dysfunction of cardiomyocytes. 2008 AHA Scientific Session.

D. Awarded Grants:

1. **Ren J:** American Diabetes Association: eNOS uncoupling in diabetic cardiomyopathy: mechanisms, consequences and therapeutics. (PI), \$300,000 (7/1/2008-6/30/2011).
2. **Li J:** American Heart Association National SDG Program: Aging-associated alterations in heart stress signaling during ischemia/reperfusion. (PI), \$308,000 (7/1/08-6/30/12)
3. **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). Relinquish due to overlap with AHA SDG.
4. **Li J:** NIH 1R03AG-028163: Alterations in heart stress signaling during ischemia with aging. (PI), \$143,000 (4/1/08-3/30/10).

5. **Li J:** American Federation for Aging Research (AFAR) A08007: Alterations in AMP-activated protein kinase signaling during ischemia with aging. (PI), \$60,000 (7/1/08-6/30/2010).
6. **Li J:** NIH UW INBRE Pilot Grants: Aging-associated alterations in cardiac MIF-AMPK signaling during ischemia/reperfusion. \$25,000.
7. **Ma H:** INBRE Young Investigator Development Grant (No. P20 RR16474): Fossil Fuel and Cardiac Health (P.I.) \$5,000 (2008-2010).
8. **Ma H:** INBRE new investigator travel support to the National IDeA Symposium, August 6-8, 2008 in Washington DC.
9. **Turdi S:** The College of Health Science Research Grant. \$1,100, May, 2008.
10. **Kyla Jones, Emily Byra:** Wyoming Space Grant Consortium Grants, study cardiac deconditioning. \$5,000 (Faculty sponsor: Jun Ren).

E. Pending Grants:

1. **Ren J.** NIH/NCCR: Wyoming IDeA Network of Biomedical Research Excellence (INBRE). (PI). \$16,705,815.
2. **Roth D, Nunez N, Ren J.** NIH/NCCR: 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.
4. **Du, M., M. J. Zhu, B. W. Hess, and S. P. Ford.** NIH. Programming stem cell niche and muscle regeneration by obesity at early developmental stage. \$393,250.
5. **Wang, L. Q., and M. Du** (Co-PI). USDA-NRI. Microarray data analyses for genes crucial for adipogenesis. \$100,000.

F. Welcome New Members of C-CRAM:

Welcome **Jingying Wang** (MCLS program Ph.D. student) joined Dr. Ji Li's lab to pursue her Ph.D. degree during the following four years. Welcome **Asli Ceylan Isik** back to C-CRAM working in Dr. Ren's and Dr. Nair's labs.

This summer, we had six high school students who won the opportunity to join the SRAP (Summer Research Apprentice Program) working in C-CRAM for nearly two months. **Curie Ahn** and **Ashley Wood** worked at Dr. Nair's lab to perform diabetes associated research. **Zeke Perez** came from Colorado, and **Bethany Gunkel** from South Dakota. Zeke evaluated the cardiac function and addressed the related mechanisms in type 1 diabetes under the direction of **Peng Zhao**, M.D, who will leave Laramie for China on 21st August. Bethany's subject was to investigate the effect of high fat diet-induced pregnant-obese sheep on their fetus with the help of another Ph.D. student, **Jingying Wang**. Both Zeke and Bethany did good job and gave their presentations entitled "Macrophage Migration Inhibitory Factor and Type 1 Diabetes" and "The Cardiac Signaling Pathways during Over Nourished Obese Sheep Pregnancy and the Impact on Fetal Growth", respectively, in the symposium to all the SRAP students and their parents at the end of the summer program." Additionally, **F. L. Leuvano** and **K. M. Brewer**, who are from Denver, were trained for seven weeks in Dr. Du's lab during the summer under the support of SRAP.



Welcome **Garrett Poulos** (3rd-year PharmD student) will join C-CRAM to pursue his research interest. Four new MCLS Ph.D. candidates, **Hanying Zhang** from Najing, and **Yang Li** from Beijing, **Chao Tong** from Chongqing, and **Evgeniy Panzhinskiy** from Russia will join C-CRAM to start their lab rotation in Dr. Li's lab. Another new MCLS student, **Wei Xu**, will have her first rotation in Dr. Du's and Dr. Zhu's labs.

G. Invited Speakers:

- ◆ **Ren J:** Presented in a US Congressional Biomedical Event on the Capital Hill in Washington, DC on June 19, 2008.

- ◆ **Ren J:** Cardiac dysfunction in cardiometabolic syndrome, University of British Columbia Faculty of Pharmacy, Vancouver, Canada, March 2008.
- ◆ **Li J:** The Cellular Fuel Gauge-AMPK in the Heart, Saint Louis University, Saint Louis, MO, April, 2008.
- ◆ **Li J:** AMPK: Mediator of the Cardioprotective Effects of MIF and Urocortin. Uniformed Service University, Bethesda, MD, June, 2008.
- ◆ **Li J:** MAPK and AMPK: Critical Mediators of the Cellular Stress Response, Institute of Biochemistry and Cell Biology, SIBS, CAS, Shanghai, July, 2008.
- ◆ **Li J:** MKP-1 and AMPK: Targets for Inflammatory and Ischemic Heart Diseases, Shihezi University School of Pharmacy, Shihezi, July, 2008.
- ◆ **Li J:** MAPK and AMPK: Critical Mediators of the Cellular Stress Response, Lanzhou University School of Life Sciences, Lanzhou, July, 2008.
- ◆ **Li J:** The Signaling Mechanisms of the Cellular Stress Response, Institute of Lanzhou Modern Physics, CAS, Lanzhou, July, 2008.
- ◆ **Li J:** Signaling Pathways in the Ischemic Hearts. The Symposium of Cardiovascular Pharmacology, Lanzhou, July 19-21, 2008.

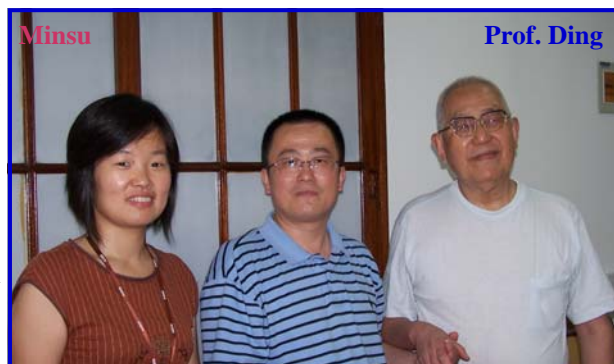
H. Congratulations on AHA Abstracts Accepted by 2008 AHA Scientific Session:

Congratulations on the following accepted Abstracts (3,000 out of 11,200) of C-CRAM for 2008 American Scientific Session at New Orleans, Louisiana, on Nov 8-12, 2008:

1. **Turdi S, Yan X, Ren J.** High-Fat-Diet induced cardiomyocyte dysfunction in AMPK-deficient mice. (Poster presentation on Nov. 11).
2. **Zhao P, He L, Li J, Ma H, Wang J, Zhu X, Ren J, Li J.** Toll-like Receptor 4-deficiency improves ischemic contractile dysfunction of cardiomyocytes. (Poster presentation on Nov. 9).
3. **Li J, Kim A, Cheng H, Hu J, Wu X, Miller E, Xiao L, Young LH.** AMPK mediates the cardioprotective effect of Urocortin. (Oral presentation on Nov. 11).

I. Other Research Activities of C-CRAM:

- ◆ Members from C-CRAM won the UW 2008 Indoor Soccer Championship in April and the Laramie Soccer Association Summer championship (co-ed league). We also participated in the Laramie Volleyball League (team Harvest Christian Church) and finished in third place in May. **Congratulations!!**
- ◇ Matt Stratton, Xiaohui Yang and Heng Ma finished 1-2-3 in the 2008 Stanley Cup NHL hockey pool.
- ◆ Dr. Ren received appointment as the Editor for "*Clin Exp. Pharmacol. Physiol*" and editorial board for "*Journal of Cardiometabolic Syndrome*".
- ◇ Bonnie won the College of Health Sciences Outstanding Staff Award of 2008, **Congratulations!**
- ◆ Dr. Li received appointment as Adjunct Professor of Shihezi University and Visiting Professor of Lanzhou University to build up the international collaboration in the future.
- ◇ Dr. Li met **Professor Guangsheng Ding**, Honorary Editor-in-Chief, and Dr. **Minsu Wu**, Editorial Director, of *Acta Pharmacologia Sinica (APS)*, in Shanghai, to discuss the contributions from C-CRAM to APS in the future.
- ◆ Dr. Du received Young Scientist Award, Western Section American Society of Animal Science, 2008.



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