

A. Research paper in press/in print (August-October 2007 -alphabetically by 1st author):

1. Dong F, Li Q, Sreejayan N, Nunn JM, Ren J. Metallothionein prevents high fat diet-induced cardiac contractile dysfunction: Role of peroxisome proliferator-activated receptor γ coactivator-1 α and mitochondrial biogenesis. *Diabetes* 56:2201-2012, 2007 (IF=7.96).
2. Dong F, Ren J. Fidarestat improves cardiomyocyte contractile function in db/db diabetic obese mice through a histone deacetylase Sir2-dependent mechanism. *J. Hypertens* 25: 2138-2147, 2007 (IF=4.02).
3. Miller EJ, Li J, Sinusas KM, Holman GD, Young LH. Infusion of a biotinylated bis-glucose photolabel: A new method to quantify cell-surface GLUT4 in the intact mouse heart. *Am J Physiol Endocrinol Metab.* 292:E1922-E1928, 2007 (IF=4.12).
4. Miller EJ*, Li J*, Leng L, Bucala R, Young LH. (*equal contribution) Microphage migration inhibitory factor stimulates AMP-activated protein kinase in ischemic heart. *Nature* in press (IF=26.68).
5. Ren J, Xu JX. Issue of cardiovascular safety of rosiglitazone: a revisit of its clinical application. *New Drug Invest. Tribune* 39:24, 2007 (IF=N/A).
6. Ren J. Revolving therapeutic strategies for diabetic cardiomyopathy from the 43rd EASD meeting. *New Drug Invest. Tribune* in press (IF=N/A).
7. Ren J. Focusing on cardiovascular complications and clinical management: the 43rd EASD meeting in Amsterdam. *New Drug Invest. Tribune* in press (IF=N/A).
8. Shen QW, Zhu MJ, Tong J, Ren J, Du M. Ca²⁺/calmodulin-dependent protein kinase kinase is involved in AMP-activated protein kinase activation by α -lipoic acid in C2C12 myotubes. *Am. J. Physiol. Cell Physiol.* 293: C1395 - C1403, 2007 (IF=4.34).
9. Stratton MS, Yang X, Sreejayan N, Ren J. Impact of insulin-like growth factor I on migration, proliferation and Akt-ERK signaling in early and late-passages of vascular smooth muscle cells. *Cardiovasc. Toxicol.* 7:273-281, 2007 (IF=N/A).
10. Sun JB, Duan JH, Dai SL, Ren J, Zhang YD, Tian JS, Li Y. In Vitro and in vivo antitumor effects of doxorubicin loaded with bacterial magnetosomes on H22 Cells: the magnetic bio-nanoparticles as drug carriers. *Cancer Lett.* 258:109-117, 2007 (IF=3.26).
11. Turdi S, Li Q, Lopez FL, Ren J. Catalase alleviates cardiomyocyte dysfunction in diabetes: Role of Akt, forkhead transcriptional factor and SIR2. *Life Sci* 81: 895-905, 2007 (IF=2.39).
12. Underwood KR, Means WJ, Du M. Caspase 3 is not active in postmortem beef and lamb sternomandibularis muscle. *J. Animal Sci.* Accepted (IF=1.98).
13. 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 (IF=1.84).
14. Underwood KR, Tong J, Zhu MJ, Shen QW, Means WJ, Ford SP, Paisley SI, Hess BW, Du M. Relationship between kinase phosphorylation, muscle fiber typing and glycogen accumulation in longissimus dorsi muscle of beef cattle with high and low intramuscular fat. *J. Agricul. Food Chem.* 55:9698-9703, 2007 (IF=2.32).
15. 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.* accepted (IF=4.02).

B. Research paper currently under revision or publication consideration:

16. Genbank submission: Kimzey JM, Du M. (2007). *Ovis aries* AMP-activated protein kinase α 2 subunit cDNA complete coding sequence. Genbank accession number: EU131097.
17. Li SY, Ren J. Cardiac overexpression of ADH exacerbates chronic ethanol ingestion-induced myocardial dysfunction and hypertrophy: Role of insulin signaling and ER stress. *J. Mol. Cell. Cardiol.* in review.
18. Li SY, Babcock SA, Ren J. Aldehyde dehydrogenase-2 ameliorates chronic alcohol ingestion-induced insulin insensitivity and endoplasmic reticulum stress. *J. Biol. Chem.* in review.

19. Li J, Cheng H, Hu X, Kim A, Miller EJ, Wu X, Xiao L, Sherwin RS, Young LH. AMPK mediates the cardioprotective effects of urocortin during myocardial ischemia. *PNAS* (Submitted)
20. Zhao P, Xiao X, Xu J, Leite F, Holbrook NJ, Ren J, Li J. c-Jun inhibits thapsigargin-induced apoptosis through up-regulation of DSCR1/Adapt78. *J Biol. Chem.* submitting (Zhao P is relatively new here).

C. Research Proposal submitted or awarded August – October 2007

Funded (Congratulations!):

21. Du M. (PI), Zhu MJ, Means WJ. USDA-NRI. (2007-04230). Superior muscle growth of RN pigs: role of AMP-activated protein kinase. \$299,625. (2008/1-20010/12). Funded.
22. Du M (PI); Ford SP. NIH. (1R03HD057506 – 01). A novel model for studying fetal muscle development. \$140,500. (2008/1-2009/12). Funded.

Submitted (Keep finger crossed!):

23. Skinner DC/Ren J (coPI). NIHR21: The Heart: A Novel Source and Site of Action of GnRH, \$393,250 submitted on 10/16/2007.
24. Ren J (PI). NIHR21: Air pollution, ER stress and cardiac function, \$400,100 submitted on 10/22/2007.
25. Du M. (PI) Zhu MJ, Ford SP, Nathanielsz PW, Li J, Ren J. NIH R01. Obesity, AMP-activated protein kinase and fetal skeletal muscle development. \$1,684,137. 07/2008-06/2012. Pending.
26. Sreejayan N. (PI) NIHR15, Ursodeoxycholic acid, insulin-sensitivity and atherogenesis: Role of ER-stress. \$210,750, Period: 6/1/08-6/30/10
27. Li J. (PI), NIH/NIA, Alterations in heart stress signaling during ischemia with aging. 12/07-11/09 pending award, (score:162; percentile: 15.8)
28. Li J. (PI) R15, NIH/NIA, NLHBI. Alterations in cardiac adaptive response to ischemia/reperfusion with aging. 7/1/08-6/30/11 (submitted on 10/20/2007)

D. Meeting presentation and abstract submitted in August – October 2007.

43rd European Association for the Study of Diabetes (EASD) in Amsterdam (September 2007)

1. Dr. Ren delivered a keynote talk on diabetic cardiomyopathy during the 43rd EASD in Amsterdam. Dr. Asli Ceylan-Isik, a former PhD student at C-CRAM who will return to work with Sree, had a poster.

Annual Meeting of Society for Neuroscience (SfN) in San Diego 2007

2. Dr. Bruce Culver presented two abstracts on methamphetamine-induced behavioral sensitization and prenatal/postnatal dietary sodium manipulation-induced sensitization to amphetamines in offspring.

American Heart Association Scientific Session 2007 Orlando:

3. Kim A, Li J, Hu J, Edelman AM, Young LH. Ca²⁺/Calmodulin-dependent kinase kinase β (CaMKK β) contributes to AMPK activation in the heart during hypoxia. *Circulation* 116: II-34, 2007 (AHA 2007).
4. Li Q, Yang X, Sreejayan N, Ren J. Insulin-like growth factor I deficiency prolongs survival and antagonizes paraquat-induced cardiomyocyte dysfunction: Reactive oxygen species and aging gene in heart. *Circulation* 116:II_274-II_275, 2007.
5. Ren J. Endoplasmic reticulum stress impairs murine cardiomyocyte contractile function via an Akt-dependent mechanism. *Circulation* 116: II-190, 2007

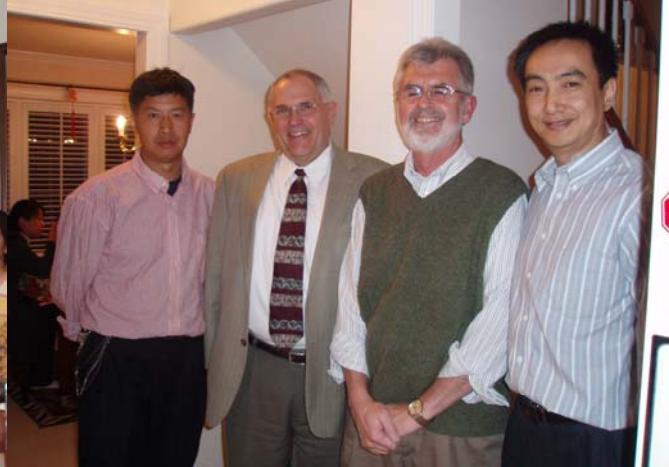
American Diabetes Association Meeting 2008 (San Francisco) **For submission deadline: mark Jan 7, 2008:**

6. Zhao P, Xiao Y, Sreejayan N, Ren J, Li J. A newly synthetic chromium complex–chromium (D-phenylalanine)₃ stimulates glucose transport via activation of AMP-activated protein kinase. American Diabetes Association (ADA) 68th Scientific Sessions, submitted (Zhao P is relative new to C-CRAM).
7. Li J, Hu J, Kim A, Xiao L, Young LH. Cardiac urocortin stimulates glucose transport and limits cardiac damage during ischemia via AMPK. ADA 68th Scientific Session, submitted.
8. Li J, Haynes N, Geringer M, Young LH, Wen L and Li J. Cardiac Toll like receptor 4-deficiency limits ischemic injury via down-regulation of p38 MAPK and up-regulation of AMPK during Ischemia. ADA 68th Scientific Session, submitted.
9. The **Inaugural University of Wyoming Asian American Biological Science Retreat** was held at Dr. Ren's residence on September 29, 2007. Speakers included Drs. Min Du, Youqing Shen, Jun Ren, Ji Li, Song Jin and Qian-Quan Sun. The goal of this meeting was to promote horizontal connection among these labs.

Dean Kelley's opening remark



C-CRAM directors, President Gern and Prof. Gao



Symposium reception: Kelley, Wold & Gao



Professor Gao's presentation on insulin



10. **C-CRAM symposium on cardiovascular medicine & environmental health** was held on 11/2/07 preceded by a dinner reception at the Ren's residence. UW vice president Dr. Gern, Dean of CHS Dr. Kelley, Dean of Graduate School Dr. Roth, several department chairs, Prof. Feng Gao from the 4th Military Medical University and Prof. Loren Wold from Ohio State University (Jun's former PhD student) are among many distinguished guests and speakers for this INBRE-sponsored event. A total of 16 talks were given including past C-CRAM winners Drs. Sreejayan and Xiaoping Yang.

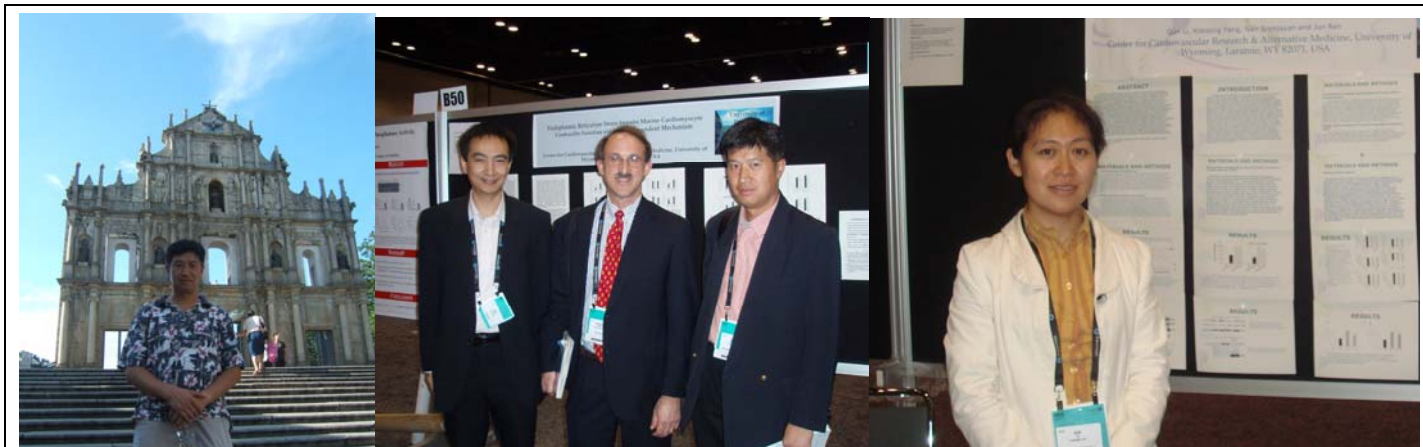
CSSA members with the Ambassador



Dr. Ren entertains the Ambassador about UW



11. **Chinese Ambassador to US Mr. Zhou's Laramie visit:** Mr. Wenzhong Zhou, the Chinese ambassador to US and his delegates visited UW campus on 8/30-31, 2007. Many C-CRAM researchers attended Mr. Zhou's public speech and forum with the Chinese students and scholars. This is the first time a Chinese ambassador visited the State of Wyoming.



12. **Macau Nanomedicine, AHA 2007 and EASD Amsterdam:** Dr. Ren presented a talk at the 1st Nanomedicine conference in Macau, China (left). Middle panel: Prof. Lawrence Young from Yale, Ji Li's former advisor, visited Dr. Ren and Prof. Gao during the recent AHA meeting. Right panel: Dr. Catherine Li presented at AHA meeting on cardiac aging.

E. C-CRAM activities, news & other laboratory issues:

1. **Jing Li**, pre-pharmacy undergraduate student, 2007 Fall EPSCoR winner, is working at LiLab to perform the projects entitled "The cardioprotective mechanisms of Toll like receptor 4-deficient mice during ischemia/reperfusion" and "aging-associated alterations in stress signaling pathways in response to ischemic stress". **Yao Xiao** and **Wendy Neng**, MCLS Ph.D. students, are now working at C-CRAM (Li and Ren, respectively) to perform projects on AMPK and UCF-101 protease inhibitor, respectively.
2. Great achievement in such a short time after coming on board in September 2007: Dr. **Ji Li** became a faculty member of UW MCLS Graduate Program to serve as a mentor of MCLS Ph.D. students. He has been invited to serve on 2008 AHA National Program Grant, Cardiac Biology 1 Study Group, and will attend the meeting on April 14 in Philadelphia. He has also received the Graduate Faculty status at UW.
3. Welcome to **Rui Guo**, **Yinan Hua**, **Heng Ma**, **Peng Zhao** (2-1st author work already) and **Janet Xiujuan Fan** to join C-CRAM. Congratulations to the new position of our new animal care taker **Xiaohui Yang**.



4. **Multicultural activities of C-CRAM members with Korean community:** C-CRAM members attended a series of Chinese-Korean social event including the Korean music festival (Catherine, Rui, Bonnie and Yihua pictured upper left) and a friendly soccer match with a victory from the Chinese team (Jun 4th left second row, team captain, scored a goal, with Subat, Xiaohui and Ji Li, 5th, 4th and 2nd from the right second row).

Happy Thanksgiving! *Vol 4: issue 4: Editor: Jun Ren (11/12/2007) copyright®*
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