

**C-CRAM 2006 Annual Report (Division of Pharmaceutical Sciences, SoP)**

- A. Research paper in print (alphabetically by last name of 1<sup>st</sup> author): IF=impact factor**
1. Barceló-Coblijn G, Wold LE, Ren J, Murphy EJ. Prenatal ethanol exposure increases brain cholesterol content in adult rats *Lipids* 39:000-000 (December), 2006 (IF=1.91).
  2. Ceylan-Isik AF, LaCour KH, Ren J. Gender disparity of streptozotocin-induced intrinsic contractile dysfunction in murine ventricular myocytes: Role of chronic activation of Akt. *Clin. Exp. Pharm. Physiol.* 33:102-108, 2006 (IF=1.44).
  3. Ceylan-Isik AF, LaCour KH, Ren J. Sex difference in cardiomyocyte function in normal and metallothionein transgenic mice: the effect of diabetes mellitus. *J. Appl. Physiol.* 100: 1638-1646, 2006 (IF=3.04).
  4. Ceylan-Isik AF, Wu S, Li Q, Li SY, Ren J. High-dose benfotiamine rescues cardiomyocyte contractile dysfunction in streptozotocin-induced diabetes mellitus. *J. Appl Physiol.* 100:150-156, 2006 (IF=3.04).
  5. Dong F, Fang CX, Yang XP, Zhang X, Ren J. Cardiac over-expression of catalase rescues insulin resistance-induced cardiac contractile dysfunction: Role of oxidative stress, protein carbonyl formation and insulin sensitivity. *Diabetologia* 49:1421-1433, 2006 (IF=5.34).
  6. 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 (IF=3.04).
  7. Dong F, Zhang X, Ren J. Leptin regulates cardiomyocyte contractile function through endothelin-1 receptor - NADPH Oxidase pathway. *Hypertension* 47: 222-229, 2006 (IF=6.33).
  8. Dong F, Zhang X, Yang X, Yang H, Zhang Z, Culver B, Ren J. Impaired cardiac contractile function in ventricular myocytes from leptin deficient ob/ob obese mice. *J. Endocrinol* 188: 25-36, 2006 (IF=3.06).
  9. Doser TA, Culver B, Ren J. COX-2 inhibitors and cardiovascular event: deja vu du jour. *Vascular Disease Prevention* 3: 217-221, 2006 (IF=N/A).
  10. Duan J, Dai S, Fang CX, Sun RY, Shavali S, Sharma SK, Ebadi M, Ren J. Phytoestrogen  $\alpha$ -zeaxaranol antagonizes homocysteine-induced imbalance of nitric oxide/endothelin-1 and apoptosis in human umbilical vein endothelial cells (HUVEC). *Cell. Biochem. Biophys.* 45: 137-145, 2006 (IF=2.14).
  11. Ebadi M, Brown-Borg H, Ren J, Sharma S, Shavali S, El ReFaey H, Carlson EC. Therapeutic efficacy of selegiline in neurodegenerative disorders and neurological diseases. *Curr Drug Targets* 7:1513-1529, 2006 (IF=4.40).
  12. Fang CX, Doser TA, Yang X, Sreejayan N, Ren J. Metallothionein antagonizes aging-induced cardiac contractile dysfunction: Role of PTP1B, insulin receptor tyrosine phosphorylation and Akt. *Aging Cell* 5: 177-185, 2006 (IF=6.01).
  13. Fang CX, Wu S, Ren J. Intracerebral hemorrhage elicits aberration in cardiomyocyte contractile function and intracellular  $Ca^{2+}$  transients. *Stroke* 37: 1875-1882, 2006 (IF=5.86).
  14. Guo KK, Ren J. Cardiac overexpression of alcohol dehydrogenase (ADH) alleviates aging-associated cardiomyocyte contractile dysfunction: Role of intracellular  $Ca^{2+}$  cycling proteins. *Aging Cell* 5: 259-265, 2006 (IF=6.01).
  15. Kim J, Li Q, Fang CX, Ren J. Paradoxical effects of ginkgolide B on cardiomyocyte contractile function under normal and high glucose environments. *Acta Pharmacologica Sinica* 27:536-542, 2006 (IF=1.12).
  16. Li Q, Fang CX, Nunn JM, Zhang J, LaCour KH, Ren J. Characterization of cardiomyocyte excitation-contraction coupling in the FVB/N-C57BL/6 intercrossed "chocolate" brown mice. *Life Sci.* 80:187-192, 2006 (IF=2.51).

17. 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* 41: 585-592, 2006 (IF=2.04).
18. Li SY, Li Q, Shen J, Dong F, Sigmon VK, Liu Y, Ren J. Attenuation of acetaldehyde-induced cell injury by overexpression of aldehyde dehydrogenase-2 transgene in human cardiac myocytes: Role of MAP kinase signaling. *J. Mol. Cell. Cardiol.* 40: 283-294, 2006 (IF=3.87).
19. Li SY, Yang X, Ceylan-Isik AF, Du M, Sreejayan N, Ren J. Cardiac contractile dysfunction in ob/ob obesity is accompanied with NADPH Oxidase Activation, oxidative modification of sarco(endo)plasmic reticulum  $Ca^{2+}$ -ATPase and myosin heavy chain isozyme switch. *Diabetologia* 49:1434-1346, 2006 (IF=5.34).
20. Morawietz H, Bornstein SR, Dong F, Zhang X, Ren J. Leptin, endothelin, NADPH oxidase and heart failure - Response: leptin, endothelin, NADPH oxidase and heart failure. *Hypertension* 47: e20-e21, 2006 (IF=6.33).
21. Relling DP, Esberg LB, Fang CX, Johnson WT, Murphy EJ, Carlson EC, Saari JT, Ren J. High fat diet induced-juvenile obesity leads to cardiomyocyte dysfunction and upregulation of Foxo3a transcription factor independent of lipotoxicity and apoptosis. *J. Hypertension* 24:549-561, 2006 (IF=5.22).
22. Ren J, Relling DP. Leptin-induced suppression of cardiomyocyte contraction is amplified by ceramide. *Peptide* 27: 1415-1419, 2006 (IF=2.23).
23. Ren J, Wei CM, New sniper assignment for a celebrity – Role of endothelin-1 in diabetic cardiomyopathy. *J. Cardiothoracic-Ren. Res.* 1: 30-32, 2006 (IF=N/A).
24. Ren J, Wu S. A burning issue: Do sepsis and systemic inflammatory response syndrome (SIRS) directly contribute to cardiac dysfunction? *Frontier Biosci* 11:15-22, 2006 (IF=2.62).
25. Ren J. Cardiac health and diabetes mellitus in women – problems and prospects. *Minerva Cardioangiologica* 54:289-309, 2006 (IF=N/A).
26. Ren J. Hope or hype: the obsession for tetrahydrobiopterin and GTP cyclohydrolase I (GTPCH I) in cardiovascular medicine. *J. Cardiothoracic Renal Res.* 1:15-21, 2006 (IF=N/A).
27. Ren J. Pharmacology of the 21<sup>st</sup> century: bridging the past and forefront of molecular medicine. *New Drug Invest. Tribune* 28:7, 2006 (IF=N/A).
28. Shen Q, Du M, Ren J. Fitness or fatness: the debate continues for AMP-activated protein kinase (AMPK) in the heart. *Curr. Cardiol. Rev.* 2: 117-123, 2006 (IF=N/A).
29. Wold LE, Ceylan-Isik AF, Fang CX, Yang X, Li SY, Sreejayan N, Privratsky JR, Ren J. Metallothionein alleviates cardiac dysfunction in streptozotocin-induced diabetes: Role of  $Ca^{2+}$  cycling proteins, NADPH oxidase, poly(ADP-Ribose) polymerase and myosin heavy chain isozyme. *Free Rad Biol Med.* 40:1419-1429, 2006 (IF=4.97).
30. Wu S, Fang CX, Kim J, Ren J. Enhanced pulmonary inflammation following experimental intracerebral hemorrhage. *Exp. Neurol.* 200: 245-249, 2006 (IF=3.78).
31. Wu S, Ren J. Benfotiamine alleviates diabetes-induced cerebral oxidative damage independent of advanced glycation end-product, tissue factor and TNF- $\alpha$ . *Neurosci Lett* 394:158-162, 2006 (IF=1.90).
32. Xu P, Li SY, Li Q, Ren J, Van Kirk EA, Murdoch WJ, Radosz M, Shen Y. Biodegradable cationic polyester as an efficient carrier for gene delivery to neonatal cardiomyocytes. *Biotechnology and Bioengineering* 95:893-903, 2006 (IF=2.48).
33. Xu P, Van Kirk EA, Li SY, Murdoch WJ, Ren J, Hussain MD, Radosz M, Shen Y. Highly stable core-surface-crosslinked nanoparticles as cisplatin carriers for cancer chemotherapy. *Colloids and Surfaces B: Biointerfaces*, 48:50-57, 2006 (IF=1.59).
34. Yang X, Doser TA, Fang CX, Nunn JM, Janardhanan R, Zhu MJ, Sreejayan N, Quinn MT, Ren J. Metallothionein prolongs survival and antagonizes senescence-associated cardiomyocyte diastolic dysfunction: Role of oxidative stress. *FASEB J.* 20:1024-1026 (E260-E270), 2006 (IF=7.06).

35. Yang X, Li SY, Dong F, Ren J, Sreejayan N. Insulin-sensitizing and cholesterol lowering effects of chromium (phenylalanine)<sub>3</sub>. *J. Inorganic Biochem.* 100:1187-1193, 2006 (IF=2.42).
36. Yang X, Thomas DP, Zhang X, Culver BW, Alexander BM, Murdoch WJ, Rao MNA, Tulis DA, Ren J, Sreejayan N. Curcumin inhibits PDGF-stimulated vascular smooth muscle cell function and injury-induced neointima formation. *Arter. Thromb. Vasc. Biol.* 26: 85-90, 2006 (IF=7.05).
37. Zou XW, Wu S, Ren J. Systemic inflammatory response after stroke. *Int. J. Cerebrovasc Dis* 14: 537-542, 2006 (IF=0.75).

**B. Research paper in press – 2007 (alphabetically by last name of 1<sup>st</sup> author):**

1. 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.* 203:196-204, 2007.
2. Jay MA, Ren J. Peroxisome proliferator-activated receptor (PPAR) in metabolic syndrome. *Curr Diabetes Rev.* in press.
3. Li Q, Ren J. Cardiac overexpression of metallothionein attenuates chronic alcohol intake-induced cardiomyocyte contractile dysfunction. *Cardiovasc. Toxicol.* in press.
4. 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 press.
5. 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.
6. 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* in press.
7. Relling DP, Esberg LB, Johnson WT, Murphy EJ, Carlson EC, Saari JT, Lukaski HC, Ren J. Dietary interaction of high fat and marginal copper deficiency on cardiac contractile function. *Obesity Res.* in press.
8. 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.
9. Ren J. Acetaldehyde and alcoholic cardiomyopathy: lessons from the ADH and ALDH-2 transgenic models. *Novartis. Found. Symp.* in press.
10. Ren J. Fixing the broken heart: problems and prospects in managing the cardiometabolic risk. *Advances in Gene, Molecular and Cell Therapy* (invited review) in press.
11. 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.
12. Ren J. Wide spectrum of presentation and variable mechanisms of compromised cardiac function in multiple organ dysfunction syndrome. *J Organ Dysfunction* (invited review) in press.
13. Ren J. Diabetesity finds its way to our children. *New Drug Invest. Tribune* (invited) in press
14. Wu S, Li Q, Du M, Li SY, Ren J. Cardiac overexpression of catalase prolongs lifespan, attenuates aging-induced cardiomyocyte contractile dysfunction and protein damage. *Clin. Exp. Pharm. Physiol.* in press.

**C. Book edited** “Vascular Biology Protocols” edited by N. Sreejayan and J. Ren (Humana Press 2007)

1. Ghosh S, Rodrigues B, Ren J. Rat models of cardiac insulin resistance. In “Vascular Biology Protocols” a part of the “Methods in Molecular Medicine” Book Series. Ed: Sreejayan N and Ren J, 1st ed. The Humana Press Inc., Totowa, New Jersey, USA, in press.
2. Li SY, Ren J. Assessment of protein glycooxidation in ventricular tissues. In “Vascular Biology Protocols” a part of the “Methods in Molecular Medicine” Book Series. Ed: Sreejayan N and Ren J, 1st ed. The Humana Press Inc., Totowa, New Jersey, USA, in press.

3. Sreejayan N, Yang X. Isolation and functional studies of rat aortic smooth muscle cells in “Vascular Biology Protocols” a part of the “Methods in Molecular Medicine” Book Series. Ed: Sreejayan N and Ren J, 1st ed. The Humana Press Inc., Totowa, New Jersey, USA, in press.
4. Wold LE, Ren J. Mechanical measurement of contractile function of the isolated ventricular myocytes. In “Vascular Biology Protocols” a part of the “Methods in Molecular Medicine” Book Series. Ed: Sreejayan N and Ren J, 1st ed. The Humana Press Inc., Totowa, New Jersey, USA, in press.

**D. Research paper in revision or review (alphabetically by last name of 1<sup>st</sup> author):**

1. Dong F\*, Yang X\*, Sreejayan N, Ren J. Chromium (D-phenylalanine)<sub>3</sub> improves obesity-induced cardiac contractile defect in *ob/ob* mice. *Obesity Res.* in review. (\*equal first authorship)
2. Dong F, Ren J. Fildarestat improves cardiomyocyte contractile function in db/db diabetic obese mice through a histone deacetylase Sir2-dependent mechanism. *J. Hypertens.* in review.
3. Duan J, Xu HS, Dai S, Wang X, Wu Y, Zhang Y, Sun R, Ren J. Phytoestrogen  $\alpha$ -zearalanol inhibits homocysteine-induced endothelin-1 gene expression and oxidative stress in human umbilical vein endothelial cells. *J. Appl. Physiol.* in review.
4. Fang CX, Dong F, Nunn JM, Ren J. Metallothionein prevents high fat diet-induced cardiac contractile dysfunction: Role of peroxisome proliferator-activated receptor  $\gamma$  coactivator-1 $\alpha$  and mitochondrial biogenesis. *Diabetes* in review.
5. Fang CX, Turdi S, Li Q, Lopez FL, Ren J. Catalase alleviates cardiomyocyte dysfunction in diabetes: Role of Akt, forkhead transcriptional factor and silence information regulator 2. *Free Rad Biol Med* in review.
6. 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. *Clin. Exp. Pharm. Physiol.* in review.
7. Li LL, Kang XL, Ran X, Wang C, Luo X, Huang L, Wang Y, Ren J, Mao XM. Association of adiponectin gene polymorphism with plasma adiponectin concentration in Uygurs of Xinjiang, China. *Diabetologia* in review.
8. Li SY, Xu PS, Babcock SA, Dolence EK, Brownlee M, Shen Y, Ren J. Advanced glycation endproducts (AGEs) is linked to cardiomyocyte contractile dysfunction in streptozotocin-induced diabetic mice. *Diabetes* in revision.
9. 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 revision.
10. Ren J, Privratsky JR, Carlson EC, Dong F, Fang CX. Cardiac-specific overexpression of metallothionein prevents glutathione depletion-induced oxidative cardiomyopathy in murine ventricular myocytes. *Hypertension* in revision.
11. Ren J. Interaction between high fat diet and alcohol dehydrogenase on ethanol-elicited cardiac contractile depression in murine myocytes. *Alcohol Clin Exp Res.* in review.
12. Ren J, Guo KK, Liao SJ, Privratsky JR, Carlson EC, Cai L, Chen AF. Metallothionein attenuates GTP cyclohydrolase I inhibition-induced cardiac contractile and morphological abnormality: Role of eNOS uncoupling and oxidative stress. *Hypertension* in review.
13. 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. *Aging Cell* acceptable pending minor revision.
14. Wang GJ, Wu XC, Lin YL, Lee CK, Lai TC, Chen CF, Ren J. Depressor and vasodilator effects of petasin, a calcium channel inhibitor in vascular smooth muscle cells. *J. Cardiovasc. Pharmacol.* in review.

15. Xu H, Duan J, 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. Biol. Chem.* in review.
16. Xu P, Li SY, Li Q, Ren J, Radosz M, Shen Y. An artificial virion from pH-controlled hierarchical self-assembly for gene delivery. *J Am Chem Soc* in review.
17. Yang X, Palanichamy K, Dolence EK, Ren J, Sreejayan N. Argpyrimidine: a novel biological antioxidant? *Free Rad Biol Med* in review.
18. Zhang QJ, Lia QX, Zhang HF, Zhang KR, Guo WY, Wang HC, Ren J, Gao F. Aerobic exercise sensitizes myocardial contractile response to insulin - Role of Akt-dependent eNOS activation. *Cardiovasc Res.* in revision.
19. Zhang X, Dong F, Mayer RT, Gardner K, Ren J, Culver B. Cyclooxygenase-2 is a target during methamphetamine-induced neurotoxicity and its selective inhibition exacerbates dopamine depletion in striatum. *J. Neurosci.* in review.

**E. Meeting presentation at the national or international levels – 2006 (\*indicates presenter)**

1. Culver B\*, Zhang X, Bruch D, Mayer GE, Shandera M.  $\alpha$ -Benzyl-N-Methylphenethylamine, an impurity of illicit methamphetamine synthesis, augments methamphetamine-induced neurotoxicity via inhibition of cytochrome P450 2D6. Soc. Neurosci. Abst. 293.4/PP18, 2006 (poster).
2. Fang CX\*, Dong F, Nunn FM, Ren J. Metallothionein transgene prevents insulin resistance-induced cardiac contractile dysfunction by promoting mitochondrial biogenesis through upregulation of peroxisome proliferator-activated receptor gamma coactivator-1 (PGC-1) alpha. *Circulation* 114: II-843, 2006 (oral).
3. Li Q\*, Wu S, Li SY, Lopez FL, Kajstura J, Anversa P, Ren J. Cardiac overexpression of insulin-like growth factor-1 attenuates senescence-associated cardiac diastolic contractile dysfunction and protein damage. 15th World Congress of Pharmacology (IUPHAR-2006), Beijing, China (poster).
4. Li SY\*, Xu P, Babcock SA, Shen Y, Ren J. Advanced glycation endproduct (AGE) is linked to cardiomyocyte contractile dysfunction in streptozotocin-induced diabetic mice. The 15th World Congress of Pharmacology (IUPHAR-2006), Beijing, China (poster).
5. Ren J\*, Relling DP, Esberg LB, Zhao BH. Dietary influence of high fat and marginal copper deficiency on cardiac contractile function in isolated cardiomyocytes. The 15th World Congress of Pharmacology (IUPHAR-2006), Beijing, China (poster).
6. Ren J\*. Oxidative stress and alcoholic cardiomyopathy, Satellite Meeting of the 15th IUPHAR (World Congress) on Cardiovascular Pharmacology, Suzhou, China June 2006 (oral).
7. Ren J\*. Oxidative stress and alcoholic cardiomyopathy: Lessons from the transgenic studies” University of Colorado Health Sciences Center, February 2006 (oral).
8. Ren J\*. Use of transgenic models of ADH and ALDH, Novartis (formerly Ciba) Foundation Symposium on “Acetaldehyde related pathology: Bridging the trans-disciplinary divide”, London, UK, September 2006 (oral).
9. Sreejayan N\*, Yang X, and Ren J. Insulin potentiating properties of Novel chromium complexes at the 4th Annual Congress of International Drug Discovery Science and Technology, May 25 -28, 2006, Dalian, PRC (oral).
10. Zhang QJ, Lia QX, Zhang HF, Zhang KR, Guo WY, Wang HC, Ren J, Gao F\*. Long-term aerobic exercise sensitizes myocardial contractile response to insulin: Role of Akt-dependent eNOS activation. *Circulation* 114:II-299, 2006 (poster).

**F. Proposal submitted/awarded (\$253,380 awarded to Dr. Sreejayan and \$214,372 to Dr. Ren):**

- (1). Sreejayan: Novel synthetic chromium amino acid complexes as enhancers of insulin response. American Diabetes Association (AMDIAB47595), \$146,230, Funding Period: 07/06-06/07
- (2). Sreejayan: Inhibition of space flight induced skeletal muscle atrophy by novel chromium complexes. Wyoming NASA EPSCoR Seed Grant Program, \$42,150, Funding Period: 07/06-06/07

- (3). Sreejayan: Synthesis and Biological Activity of Novel chromium complexes. InterHealth Pharmaceuticals (INTRHLTH48190), Aggregate Award: \$65,000.00.
- (4). Sreejayan: Targeting PTP-1B in Alzheimer's disease, American Health Assistance Foundation (Alzheimer's disease research), \$87,400 (not funded).
- (5). Sreejayan: Attenuation of atherosclerosis by curcumin. American Heart Association (BGIA), \$ 240,000 (not funded).
- (6). Sreejayan: Mechanisms of vascular protective effects of curcumin. NIH, \$210,000 (not funded)
- (7). Sreejayan: 4-hydroxyisoleucine chromium complex as insulin potentiator, NIH \$210,000 (pending).
- (8). Li S-Y: Role of advanced glycation endproduct in diabetic cardiomyopathy: redox modulation of Ca<sup>2+</sup> regulatory proteins. American Heart Association Pacific Mountain Affiliate, \$120,000 (47<sup>th</sup> percentile, not funded – revision pending).
- (9). Ren J: Role of Akt and Foxo transcription factor in the pathogenesis of diabetic cardiomyopathy and antioxidant treatment. American Heart Association Pacific Mountain Affiliate, \$198,000 (55<sup>th</sup> percentile, not funded – revision pending).
- (10). Ren J: Role of Akt and forkhead transcription factor in cardiac dysfunction under insulin resistance and type 2 diabetes. American Diabetes Association (not funded)
- (11). Ren J. Role of oxidative stress and antioxidant in cardiac dysfunction under aging. NIH \$1,200,000 (not funded, revision pending).
- (12). Li LL and Ren J. Genetic polymorphism in type 2 diabetic patients. Chinese National Science Foundation, RMB 800,000 (pending).
- (13). Yang X: Role of metallothionein in protecting cardiac aging. NIH R15 (administratively withdrawn).

**G. Patent:** Sreejayan N, Yang X, Ren J. Application of Chromium-D-phenylalanine complexes in the treatment of diabetes, obesity and related diseases UW 05-094 (US provisional application 60/694,543), licensed to a Nutraceutical company in California.

**H. 2006 C-CRAM Research Awards (Selection committee: J. Ren, B. Culver & J. Vandel):**

Top three finishers: (1) Xiaoping Yang: 43.94 points; (2). Cindy Fang: 41.46 points; (3) Feng Dong: 31.36 points. The selection committee is pleased to announce **Xiaoping Yang** as the 2006 C-CRAM award winner. The selection is based on points from publication, grant, presentation and patent.

**I. 2006 National or International Service (grant reviewer & editor etc):**

- (1). International or national *ad hoc* grant reviewer: Dr. Sreejayan – American Diabetes Association; Dr. Ren – American Heart Association, National Institute of Health, Singapore National Medical Research Council, Swiss National Science Foundation & Faculty of European Diabetes Association.
- (2). Dr. Ren – Associate Editor-In-Chief, Medjaden Scientific Publishing Services Ltd., Hong Kong, China; Editorial board member of 5 international and national journals.

**J. 2006 C-CRAM Student Graduation:**

Tom Doser and Sara Babcock graduated from University of Wyoming during spring 2006.  
Cindy Fang: M.Sc. July 2006. Thesis title: metallothionein protection against diabetic cardiomyopathy.  
Feng Dong: PhD December 2006 Dissertation: Role of leptin in obesity-associated cardiac dysfunction.

**K. 2006 NHL Stanley Cup Playoff hockey pool winners:**

First place: Delwar Hussain; Second place: Feng Dong; Third place: Xiaoping Yang.

**Best wishes for a more successful 2007!!!**