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Associate Professor of Pharmacology
School of Pharmacy, University of Wyoming
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EDUCATION

1991-96: PhD, Mangalore University, India
1989-91: Masters in Pharmaceutical Sciences, Mangalore University, India
1989-91: Bachelors in Pharmaceutical Sciences

PROFESSIONAL EXPERIENCE

2008- : Associate Professor of Pharmacology, University of Wyoming, School of Pharmacy,
Laramie, WY, USA
2002-08: Assistant Professor of Pharmacology, University of Wyoming, School of Pharmacy,
Laramie, WY, USA
1998-02: Post-Doctoral Fellow, Department of Physiology, University of Tennessee, Memphis,
TN, USA
1996-98: Post-Doctoral Research Fellow, Department of Medicine II, Klinikum Grosshadern,
Ludwig-Maximilians University, Munich, Germany

AWARDS AND HONORS

2010: Faculty Research Award, College of Health Science, University of Wyoming
2010: Inter-professional Award, College of Health Sciences, University of Wyoming
2009-: Director, Center for Cardiovascular Research and Alternative Medicine (CCRAM),
University of Wyoming
2009: Outstanding Researcher Award, College of Health Sciences, University of Wyoming
2008: Excellence in Teaching Award, Alpha Nu Chapter of Phi Lambda Sigma, University of
Wyoming, School of Pharmacy
2008: Teacher of the Year Award, Awarded by the Class of 2008, University of Wyoming,
School of Pharmacy
2006: New Investigators Award, College of Health Sciences, University of Wyoming
2006: Honorary Membership, Phi Lambda Sigma Leadership Honorary Society, University of
Wyoming
2006: International Travel Award, University of Wyoming
2005: Inaugural Research Award, Center for Cardiovascular Research and Alternative
Medicine (CRAM), University of Wyoming
2004: Board Member, Wyoming Division Community Board of American Heart Association
1998: Simon Wolff Research Foundation Fellowship, UK

1997: NATO Advanced Study Institute Fellowship
1996: Deutsche Forschungsgemeinschaft Post Doctoral Fellow
1996: Sir Dorabji Tata Trust Award

RESEARCH GRANTS:

Grant Application under Review:

Source: National Institutes of Health 1 R15 HL10641601A1
Title: Targeting Cathepsin K in Heart Failure
PI: Sreejayan, Nair
Period: Period: 01/01/2012 12/31/2012
Amount: \$ 353,750
Priority Score: 2.7

Ongoing:

Agency: NIH-InBRE (P20RR016474)
Title: Targeting ER-Stress to Alleviate Insulin Resistance
PI: Sreejayan, Nair (PI for the entire InBRE is Dr. Jun Ren, MD, PhD)
Period: Period: 07/01/2009-4/30/2011
Amount: \$ 180,000.00

Source: InterHealth Pharmaceuticals (INTRHLTH48190)
Title: Synthesis and characterization of novel chromium complexes
Period: 09/1/08 -
Aggregate Award: \$25,000.00
Brief Description: Synthesis of chromium-dinicotino- amino acids complexes

Funded and Completed Projects:

Source: College of Health Sciences, University of Wyoming
Title: Targeting Cathepsin-K in Cardiac Hypertrophy
PI: Sreejayan, Nair
Period: 07/1/2010-06/30/2011
Amount: \$ 7,500

Source: NASA, EPSCoR (NASA41150PHRM)
Title: Insulin Resistance in Space Flight
PI: Sreejayan, Nair
Period of funding: 07/01/06-12/31/07
Aggregate Amount: \$42,150.00
Brief Description: To assess insulin signaling and skeletal muscle atrophy in cells under micro-gravity conditions and in an animal hind-limb suspension model.

Source: American Diabetes Association, Junior Faculty Award (AMDIAB47595)
Title: Chromium Phenylalanine as Insulin Sensitizer
PI: Sreejayan, Nair
Period of funding: 07/01/05-06/30/08
Aggregate Amount: \$ 400,341.00
Brief Description: This project is to study the mechanisms of novel chromium amino acid complexes as insulin-potentiating agents.

Source: Wyoming NASA Space Grant Consortium
Title: Insulin-resistance under micro-gravity conditions
PI: Sreejayan, Nair
Period of funding: 06/05-12/05
Aggregate Amount: \$10,000.00
Brief Description: To investigate insulin-signaling under micro-gravity conditions.

Source: National Institutes of Health COBRE (DHHSNIHLC3910)
Title: Spatiotemporal Nitric Oxide Gradients
PI: Sreejayan Nair (sub project); PI for the COBRE: Dr. James D. Rose, PhD.
Aggregate Amount: \$ 247,000.00
Period of Funding: 12/02 – 06/05
Brief Description: Used as start-up money to set up a new cell culture lab at SoP

Source: AHA Southeast Affiliate Post-doctoral fellowship (0020397B)
Title: Nitric Oxide and Insulin Signaling
PI: Sreejayan, Nair
Period of funding: 06/01/00-07/30/02
Aggregate Amount: 60,000
Brief Description: Evaluate the effects of nitric oxide on insulin signaling in the vasculature

Relinquished (due to overlap with ADA grant):

Source: National Institutes of Health (NIH PA03-053-1R15AT002903-01)
Title: Chromium (phenylalanine) improves insulin-signaling
PI: Sreejayan, Nair
Period 07/01/05-06/30/07
Aggregate Amount: \$213,000.00
Brief Description: This project is to study the mechanisms of novel chromium amino acid complexes as insulin-potentiating agents.

Grant Activities as a mentor:

Source: Wyoming EPSCoR
Title: Effects of Chromium Complexes on cAMP-mediated Kinases
Applicant: Jacalyn Rose Maris
Aggregate Amount: \$600
Period: 08/05-12/05
Status: Completed

Source: Wyoming EpSCoR:
Title: Inhibition of PDGF-signal by Curcumin in Rat Aortic Smooth Muscle Cells
Applicant: Joshua Storey
Aggregate Amount: \$600
Status: Completed

Source: University of Wyoming College of Health Research Committee
Title: Anti-migratory effects of curcumin.
Applicant: Xiaoping Yang
Aggregate Amount: \$2,500.00; Period: 01/01/04-06/30/05; Status: Completed

RESEARCH PUBLICATIONS

1. Hua H, Clark S, Ren J, **Sreejayan N**. (2012) Molecular mechanisms of chromium in alleviating insulin resistance. *J. Nutr. Biochem* 23: 313-319.
2. Palanichamy K, **Sreejayan N**, Ontko A (2011) Overcoming cisplatin resistance using gold(III) mimics: Anticancer activity of novel gold(III) polypyridyl complexes. *J Inorg Biochem*. 106: 32-42
3. Ceylan-Isik AF, **Sreejayan N**, Ren J.: Endoplasmic reticulum chaperon tauroursodeoxycholic acid alleviates obesity-induced myocardial contractile dysfunction *J. Mol. Cell Cardiol*. 50, 2011, 107-16
4. Kandadi MR, Unnikrishnan MK, Warriar AK, Du M, Ren J, **Sreejayan N**: Chromium (d-phenylalanine)₃ alleviates high fat-induced insulin resistance and lipid abnormalities. *J Inorg Biochem*, 105, 58-62, 2010
5. **Sreejayan N**, Marone PA, Lau FC, Yasmin T, Bagchi M, Bagchi D: Safety and toxicological evaluation of a novel chromium(III) dinicocysteinatate complex. *Toxicol Mech Methods*, 20, 321-33, 2010
6. Zhao J, Yue W, Zhu MJ, **Sreejayan N**, Du M: AMP-activated protein kinase (AMPK) cross-talks with canonical Wnt signaling via phosphorylation of β -catenin at Ser 552. *Biochem. Biophys. Res. Commun*. 395: 146-151, 2010
7. Hua Y, Kandadi MR, Zhu M, Ren J, **Sreejayan N**: Tauroursodeoxycholic Acid Attenuates Lipid Accumulation in Endoplasmic Reticulum-Stressed Macrophages. *J Cardiovasc Pharmacol*, 55: 49-55, 2010.
8. Kandadi MR, Rajanna PK, Unnikrishnan MK, Boddu SP, Hau Y, Li J, Du M, Ren J, **Sreejayan N**: 2-(3,4-Dihydro-2H-pyrrolium-1-yl)-3oxoindan-1-olate (DHPO), a novel, synthetic small molecule that alleviates insulin resistance and lipid abnormalities. *Biochem Pharmacol*. 79: 623-31, 2010
9. Zhao P, Wang J, Ma H, Xiao Y, He L, Tong C, Wang Z, Zheng Q, Dolence EK, **Sreejayan N**, Ren J, Li J: A newly synthetic chromium complex-chromium (D-phenylalanine)₃ activates AMP-activated protein kinase and stimulates glucose transport. *Biochem Pharmacol* 77:1002-1010, 2009
10. 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* 12: 992-999, 2009
11. **Sreejayan N**, Yang X, Palanichamy K, Dolence K, Ren J: Antioxidant properties of argpyrimidine. *Eur J Pharmacol* 593:30-35, 2008
12. **Sreejayan N**, Dong F, Kandadi MR, Yang XP, Ren J: Chromium alleviates glucose intolerance, insulin resistance, and hepatic ER stress in obese mice. *Obesity* 16:1331-1337, 2008
13. Ren J, Duan JH, Thomas DP, Yang XP, **Sreejayan N**, Sowers JR, Leri A, Kajstura J, Gao F, Anversa P: IGF-I alleviates diabetes-induced RhoA activation, eNOS uncoupling, and myocardial dysfunction. *Am J Physiol -Reg Integr Comp Physiol* 94: R793-R802, 2008

14. Liu Y, Dolence J, Ren J, Rao M, **Sreejayan N**: Inhibitory effect of dehydrozingerone on vascular smooth muscle cell function. *J Cardiovasc Pharmacol* 52: 422-429, 2008
15. Jungst C, **Sreejayan N**, Zundt B, Muller I, Spelsberg FW, Huttel TP, Kullak-Ublick GA, del Pozo R, Jungst D, von Ritter C: Ursodeoxycholic acid reduces lipid peroxidation and mucin secretagogue activity in gallbladder bile of patients with cholesterol gallstones. *Eur J Clin Invest* 38:634-639, 2008
16. Dong F, Kandadi MR, Ren J, **Sreejayan N**: Chromium (D-phenylalanine)₃ supplementation alters glucose disposal, insulin signaling, and glucose transporter-4 membrane translocation in insulin-resistant mice. *J Nutr* 138:1846-1851, 2008
17. 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*, 2008
18. 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
19. **Sreejayan N**, Yang X: Isolation and functional studies of rat aortic smooth muscle cells. *Methods Mol Med* 139:283-292, 2007
20. Li Q, Yang X, **Sreejayan N**, Ren J: Insulin-like growth factor I deficiency prolongs survival and antagonizes paraquat-induced cardiomyocyte dysfunction: role of oxidative stress. *Rejuvenation Res* 10:501-512, 2007
21. Jungst C, **Sreejayan N**, Eder MI, von Stillfried N, Zundt B, Spelsberg FW, Kullak-Ublick GA, Jungst D, von Ritter C: Lipid peroxidation and mucin secretagogue activity in bile of gallstone patients. *Eur J Clin Invest* 37:731-736, 2007
22. Fang CX, Yang XP, **Sreejayan N**, Ren J: Acetaldehyde promotes rapamycin-dependent activation of p70(S6K) and glucose uptake despite inhibition of Akt and mTOR in dopaminergic SH-SY5Y human neuroblastoma cells. *Exp Neurol* 203:196-204, 2007
23. Dong F, Yang XP, **Sreejayan N**, Ren J: Chromium(D-phenylalanine)₃ improves obesity-induced cardiac contractile defect in ob/ob mice. *Obesity* 15:2699-2711, 2007
24. 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 gamma coactivator 1alpha and mitochondrial biogenesis. *Diabetes* 56:2201-2212, 2007
25. Yang XP, Thomas DP, Zhang XC, Culver BW, Alexander BM, Murdoch WJ, Rao MNA, Tulis DA, Ren J, **Sreejayan N**: Curcumin inhibits platelet-derived growth factor-stimulated vascular smooth muscle cell function and injury-induced neointima formation. *Arterioscler Thromb Vasc Biol* 26:85-90, 2006
26. Yang XP, Li SY, Dong F, Ren J, **Sreejayan N**: Insulin-sensitizing and cholesterol-lowering effects of chromium (D-Phenylalanine)(3). *J Inorg Biochem* 100:1187-1193, 2006
27. Yang X, Doser TA, Fang CX, Nunn JM, Janardhanan R, Zhu M, **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, 2006
28. Wold LE, Ceylan-Isik AF, Fang CX, Yang XP, Li SY, **Sreejayan N**, Privratsky JR, Ren J: Metallothionein alleviates cardiac dysfunction in streptozotocin-induced diabetes: Role of

- Ca²⁺ cycling proteins, NADPH oxidase, poly(ADP-Ribose) polymerase and myosin heavy chain isozyme. *Free Rad Biol Med* 40:1419-1429, 2006
29. Li SY, Yang X, Ceylan-Isik AF, Du M, **Sreejayan N**, Ren J: Cardiac contractile dysfunction in Lep/Lep obesity is accompanied by NADPH oxidase activation, oxidative modification of sarco(endo)plasmic reticulum Ca²⁺-ATPase and myosin heavy chain isozyme switch. *Diabetologia* 49:1434-1446, 2006
 30. 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
 31. Yang XP, Zhu MJ, **Sreejayan N**, Ren J, Du M: Angiotensin II promotes smooth muscle cell proliferation and migration through release of heparin-binding epidermal growth factor and activation of EGF-receptor pathway. *Mol Cells* 20:263-270, 2005
 32. Yang XP, **Sreejayan N**, Ren J: Views from within and beyond - Narratives of cardiac contractile dysfunction under senescence. *Endocrine* 26:127-137, 2005
 33. Yang XP, Palanichamy K, Ontko AC, Rao MNA, Fang CX, Ren J, **Sreejayan N**: A newly synthetic chromium complex - chromium (phenylalanine)₃ improves insulin responsiveness and reduces whole body glucose tolerance. *FEBS Letts* 579:1458-1464, 2005
 34. Li SY, Du M, Dolence EK, Fang CX, Mayer GE, Ceylan-Isik AF, LaCour KH, Yang X, Wilbert CJ, **Sreejayan N**, Ren J: Aging induces cardiac diastolic dysfunction, oxidative stress, accumulation of advanced glycation endproducts and protein modification. *Aging Cell* 4:57-64, 2005
 35. Yigzaw Y, Poppleton HM, **Sreejayan N**, Hassid A, Patel TB: Protein-tyrosine phosphatase-1B (PTP1B) mediates the anti-migratory actions of sprouty. *J Biol Chem* 278:284-288, 2003
 36. **Sreejayan N**, Lin Y, Hassid A: NO attenuates insulin signaling and motility in aortic smooth muscle cells via protein tyrosine phosphatase 1B-mediated mechanism. *Arterioscler Thromb Vasc Biol* 22:1086-1092, 2002
 37. Chang Y, Ceacareanu B, Dixit M, **Sreejayan N**, Hassid A: Nitric oxide-induced motility in aortic smooth muscle cells: role of protein tyrosine phosphatase SHP-2 and GTP-binding protein Rho. *Circ Res* 91:390-397, 2002
 38. **Sreejayan N**, Wittig BM, von Stillfried N, Hennicke MS, Meyer G, Stieber P, Lamerz R, von Ritter C: Human biliary mucin binds to E-selectin: a possible role in modulation of inflammation. *Am J Physiol Gastrointest Liver Physiol* 280:G1043-1048, 2001
 39. Wildhirt SM, Schulze C, Conrad N, **Sreejayan N**, Reichenspurner H, von Ritter C, Reichart B: Reduced myocardial cellular damage and lipid peroxidation in off-pump versus conventional coronary artery bypass grafting. *Eur J Med Res* 5:222-228, 2000
 40. **Sreejayan N**, von Ritter C: Lipid peroxidation in bile: Role of bile acids and the effect on biliary epithelial cell function. *Pathophysiol* 5 225-232, 1999
 41. Ganesh Pai C, **Sreejayan N**, Rao MN: Evidence for oxidant stress in chronic pancreatitis. *Ind J Gastroenterol* 18:156-157, 1999
 42. **Sreejayan N**, von Ritter C: Effect of bile acids on lipid peroxidation: The role of iron. *Free Rad Biol Med* 25:50-56, 1998

43. **Sreejayan N**, Rao MNA, Priyadarsini KI, Devasagayam TPA: Inhibition of radiation-induced lipid peroxidation by curcumin. *Int J Pharm* 151:127-130, 1997
44. Sreejayan, Rao MNA: Nitric oxide scavenging by curcuminoids. *J Pharm Pharmacol* 49:105-107, 1997
45. Guha SN, Priyadarsini KI, Devasagayam TPA, **Sreejayan N**, Rao MNA: Hydroxyl radical reactions of (4-hydroxy, 3-methoxy-5-bromophenyl) pentenone, a curcuminoid antioxidant. *Rad Phy Chem* 49:43-46, 1997
46. **Sreejayan N**, Rao MNA: Free radical scavenging activity of curcuminoids. *Arzneimittel-Forschung/Drug Res* 46:169-171, 1996
47. **Subramanian M, Sreejayan N, Rao MNA, Devasagayam TPA, Singh BB: Diminution of Singlet Oxygen-Induced DNA-Damage by Curcumin and Related Antioxidants. *Mutat Res* 311:249-255, 1994**
48. **Sreejayan N**, Rao MNA: Curcuminoids as Potent Inhibitors of Lipid-Peroxidation. *J Pharm Pharmacol* 46:1013-1016, 1994
49. **Sreejayan N**, Rao MNA: Curcumin Inhibits Iron-Dependent Lipid-Peroxidation. *Int J Pharm* 100:93-97, 1993
50. **Sreejayan N**, Rao MNA: Oxygen free radical scavenging by Momordica charantia extract. . *Fitoterapia* LXII:344-346, 1991

MANUSCRIPTS UNDER REVIEW or PREPARATION:

1. Hua H, Dolence J, Shi GP, Ren J, **Sreejayan N**: Cathepsin-K Knockout Mitigates Obesity Associated Cardiac Hypertrophy and Contractile Dysfunctions. *Diabetes*. (under review)
2. Nair S, Ren J. Autophagy and Cardiovascular Aging: Lesson Learned From Rapamycin. *Cell Cycle* (under review)
3. Sreejayan Nair and Jun Ren Xu X, Hua Y, **Sreejayan N**, Zhang Y, Ren J. Reactivation of Autophagic Flux by Akt2 Knockout Preserves Cardiac Function in High Fat Diet-Induced Obesity. *Cell Metabolism* (under review)
4. Ceylan-Isik A, Zhao H, Ren J, **Sreejayan N**: Cardiac Specific Deletion of Endothelin-1 Receptor A (ET_A) Rescues the Heart from High-Fat Diet-Induced Cardiac Dysfunction via Regulating Autophagy. *Diabetes* (under review)
5. Ceylan-Isik A, Kandadi MR, Ren J, **Sreejayan N**: Regulation of miR-133a by Apelin Alleviates High-Fat Diet-Induced Myocardial Contractile Dysfunction (under preparation)
6. Hua H, Xu X, Shi GP, Ren J, **Sreejayan N**: Cathepsin-K Knockout Attenuates Pressure Overload-Induced Cardiac Hypertrophy and Dysfunction (under preparation)
7. Hua H, Ren J, **Sreejayan N**: Cross-talk between PTP-1B and ER-Stress in Regulating Insulin Signaling (under preparation)

BOOK CHAPTERS

1. **Sreejayan, N.**, Yang, X. Isolation and functional studies of rat aortic smooth muscle cells. *Vascular Biology Protocols* Eds. **Sreejayan N** and Ren J, 283-93, 2007, Humana Press, New Jersey.
2. Devasagayam TPA, **Sreejayan N**, Curcumin as Antioxidant. In: *Micronutrients and Health: Molecular Biological Mechanisms*. Eds: Nesaretnam K, Packer, L., pp 42-59, 2001, AOCS Press, IL
3. **Sreejayan N**, von Ritter R. Bile acids and lipid peroxidation. *Advances in DNA damage and repair*. Dizdaroglu M; Ed., p 471-472, 1999, Kluwer Academic Press, The Netherlands.

BOOKS EDITED

1. *Vascular Biology Protocols (Methods in Molecular Medicine Series)*, Eds. Sreejayan N and Ren J, Humana Press, New Jersey, USA (2007) ISBN: 978-1-58829-870-6
2. *Nutritional and Therapeutic Intervention of Diabetes and Metabolic Syndrome*, Eds. Bagchi D and Sreejayan N, Elsevier (in press).
3. *Nutrition and Enhanced Sports Performance: Recommendations for Muscle Building*, Bagchi D, Sreejayan N, Sen CK.(eds) Elsevier/Academic Press (under preparation)

PRESENTATIONS (selected)

1. Ceylan-Isik, A, Zhao, H, Ren J, **Sreejayan N**, “Cardiac specific deletion of endothelin-1 receptor-A rescues the heart from high-fat diet-induced cardiac dysfunction via regulating autophagy. *American Heart Association, Scientific Sessions, 2011*, Orlando, FL, Nov 12-16 (oral presentation)
2. Hua Y, Dolence J, Ren J, Shi, GP, **Sreejayan N**, “Cathepsin K Knockout Mitigates High Fat Diet-Induced Cardiac Dysfunction. *American Heart Association, Scientific Sessions, 2011*, Orlando, FL, Nov 12-16 (oral presentation)
3. **Sreejayan N**, “*Novel Chromium complexes as Insulin Sensitizers*” IFT Annual Meeting, Chicago July 17-20, 2010 (invited speaker)
4. **Sreejayan N**, “Strategies to Alleviate of Insulin Resistance”, 5th International Symposium on Diet and Health held at Niigata, Japan, Oct 30-Nov 1, 2010 (invited speaker)
5. Ceylan Isik AF, Ren J, **Sreejayan N**. The Chemical Chaperone Tauroursodeoxycholic Acid Alleviates Cardiac Contractile Dysfunction in Obesity: Role of Endoplasmic Reticulum-Stress in Cardiac Functionality. *FASEB J*. 24, 573.8, 2010 (EB meeting)
6. **Sreejayan N**, New Generation Chromium Complexes as Insulin Sensitizers, Colorado State University, April 16, 2010 (invited speaker)
7. Kandadi MR, Prabhakar KR, Unnikrishnan MK, Li J, Ren J, and **Sreejayan N**. A Newly Synthetic Small Molecule-DHPO Alleviates Insulin Resistance Via Activation of AMP-Activated Protein Kinase. *Diabetes* 58: A491-A491, 2009 (ADA meeting)
8. Hua Y, Kandadi MR, Ren J, and **Sreejayan N**. Ursodeoxycholic Acid Attenuates LDL Uptake in Macrophages. *Circ Res* 103: E49-E49, 2008. (AHA meeting)
9. **Sreejayan, N.**, F. Dong, M.R. Kandadi, and J. Ren. 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**: A598-A598, 2008 (ADA meeting)
10. **Sreejayan, N.** and J. Ren. Inhibitory effect of dehydrozingerone on vascular smooth muscle cell functions. *FASEB Journal*. **21**: 259, 2007 (EB meeting)
 11. Li, Q., X.P. Yang, **Sreejayan N.**, and J. Ren. Insulin-like growth factor I deficiency prolongs survival and antagonizes paraquat-induced cardiomyocyte dysfunction: Reactive oxygen species and aging gene in heart. *Circulation*. **116**: 274-275, 2007 (AHA meeting)
 12. Austin, K., E. Van Kirk, **Sreejayan N.**, W. Murdoch, and B. Alexander. Curcumin induced changes in TP53 and cyclin D1 enhance cytotoxic effect of cisplatin in human ovarian cancer cells. *Biology of Reproduction*. 157-158, 2007
 13. **Sreejayan, N.**, X.P. Yang, E.K. Dolence, J. Ren, and K. Palanichamy. Argpyrimidine: A biological antioxidant? *Diabetes*. **55**: A475-A475, 2006
 14. **Sreejayan, N.**, X.P. Yang, D.P. Thomas, S.X. Zhang, B.W. Culver, J. Ren, and D. Tullis. Curcumin attenuates neointimal development and collagen content following arterial injury in rats. *Circulation Research*. **97**: E19-E19, 2005
 15. Sreejayan, N. Curcumin attenuates platelet-derived growth factor-induced migration and proliferation of aortic smooth muscle cells. *Arteriosclerosis Thrombosis and Vascular Biology*. **23**: A28-A29, 2003
 16. Chang, Y.Z., M. Dixit, **Sreejayan N.**, B. Ceacareanu, and A.I. Hassid. Nitric oxide stimulated vascular smooth muscle cell motility: Role of SHP2 and RhoA. *Hypertension*. **40**: 436-436, 2002
 17. **Sreejayan, N.**, Y. Lin, and A. Hassid. Nitric oxide increases c-src activity via tyrosine dephosphorylation in aortic smooth muscle cells. *Molecular Biology of the Cell*. **10**: 50a-50a, 1999
 18. Wildhirt, S.M., C. Schulze, H. Reichenspurner, N. Conrad, G. Rieder, D.H. Boehm, **Sreejayan N.**, C. Von Ritter, A. Welz, and B. Reichart. Gen expression vasoaktiver mediatoren, myokardiale lipid peroxidation und marker der kardiomyozyten-schadigung bie minimal invasiven (MIDCAB), port-access und konventionellen herzchiruugischen eingriffen. *Thoracic and Cardiovascular Surgeon* **46**: 189-190, 1998
 19. von Ritter, C., **Sreejayan N.**, I. Müller, G. Meyer, and D. Jüngst. Ursodeoxycholic acid reduces lipid peroxidation and mucin secretagogue activity of human bile in cholesterol gallstone disease. *Gastroenterology*. **114**: A548-A549, 1998
 20. **Sreejayan, N.**, N. Von Stillfried, B.M. Wittig, P. Stieber, and C. Von Ritter. Human biliary mucin binds to E-selectin: A possible role in modulation of inflammation and tumor metastasis. *Tumor Biology* **19**: 51, 1998
 21. **Sreejayan, N.** and C. von Ritter. Effect of bile acids on lipid peroxidation: Role of iron. *Gastroenterology*. **114**: A542-A542, 1998

EDITORIAL BOARD:

Editorial Board Member, *International Journal of Physiology, Pathophysiology and Pharmacology*

GRANT REVIEWER (ad hoc)

- 2010 : United Kingdom Diabetes Association
- 2009- : Natural Sciences and Engineering Research Council (Discovery Grant), Canada
- 2007 : UW Agricultural Experiment Station’s competitive grants program
- 2006 : American Diabetes Association

JOURNAL REVIEWER (ad-hoc)

American Journal of Physiology – Heart and Circulatory Physiology, American Journal of Physiology - Lung Cellular and Molecular Physiology, American Journal of Physiology – Endocrine and Metabolism, Biochemical Pharmacology, Atherosclerosis Thrombosis and Vascular Biology, , Bioorganic and Medicinal Chemistry, Circulation Research, Clinical and Experimental Pharmacology and Physiology, Diabetologia, Environmental Toxicology and Pharmacology, European Journal of Pharmacology, Free Radicals in Medicine and Biology, Journal of Applied Physiology, Journal of Inorganic Biochemistry, Journal of Cardiovascular Pharmacology and Therapeutics, Journal of Medicinal Food, Life Sciences, Obesity, International Journal of Biological Macromolecules, International Journal of Nutrition and Metabolism, International Journal for Recent Patents on Endocrine Metabolic & Immune Drug Discovery, Neurosignals, Vitamin and Nutrition Research, Pharmacological Report, Physiological Genomics Planta Medica, Recent Patents on Cardiovascular Drug Discovery

PATENTS

Nair Sreejayan, Jun Ren, Xiaoping Yang (2007) Application of Chromium-amino acid complexes in the treatment of diabetes and other diseases (US Patent # 7,271,278 B2). The patent has been licensed to a Pharmaceutical Company for product development.

UNDERGRADUATE AND GRADUATE STUDENT SUPERVISION

Graduate students:

1. Ms. Yinan Hua
Committee Chair: Sreejayan, N.
Program: Biomedical Graduate Science
Thesis title: Role of Cathepsin K in Heart Failure.
Status: Ongoing
2. Mr. Evgeniy Eduardovich Panzhinskiy
Committee Chair: Sreejayan, N.
Program: Molecular and Cellular Life Sciences Graduate Program
Thesis title: ER Stress in Cardiovascular Disease
Status: Ongoing
3. Mr. Xihui Xu
Chair: Dr. Jun Ren; Committee Member: N. Sreejayan
Program: Biomedical Graduate Sciences
Thesis title: Autophagy and cardiovascular disease
Status: Ongoing

4. Ms. Elena Topchiy
Committee Chair: Dr. Lehmann, TE; External committee member: Nair Sreejayan
Program: Chemistry
Thesis Title: Structural studies of the peptides/antibody complex of malarial parasite
Status: Ongoing
5. Ms. Gwendoline Mochia Toh-Boyo
Committee Chair: Dr. Debasis Dutta; External Committee Member: N. Sreejayan
Program: Chemistry
Thesis title: Miniaturization of Flow-Counterbalanced Capillary Electrophoresis
Status: Ongoing
6. Ms. Yang Li Committee
Chair: Dr. Teresa Lehmann; External Committee Member: N. Sreejayan
Program: Chemistry
Thesis title: Study of metalol-bleomycin complexes through NMR and molecular dynamics
Status: Ongoing
7. Mr. Nathan D. Roe
Chair: Dr. Jun Ren; Committee Member: N. Sreejayan
Program: Molecular and Cellular Life Sciences Graduate Program, Committee
Thesis title: eNOS uncoupling in the Heart
Status: Ongoing
8. Mr. Xu Yan
Chair: Dr. Min Du; Co-chair: N. Sreejayan
Program: Molecular and Cellular Life Sciences Graduate Program, Committee
Thesis title: Obesity, insulin signaling and fetal programming
Status: Graduated, July 2011
9. Mr. Naoki Yanagisawa
Committee Chair: Dr. Debasis Dutta; External Committee Member: N. Sreejayan
Program: Chemistry
Thesis title: Miniaturization of Flow-Counterbalanced Capillary Electrophoresis
Status: Ongoing
10. Mr. Xi Xia
Chair: Dr. Jun Ren; Committee Member: N. Sreejayan
Program: Biomedical Graduate Sciences
Thesis title:
Status: Ongoing
11. Mr. Jensen, Dane
Chair: Dr. William Flynn; External Committee Member: N. Sreejayan
Program: Graduate Neurosciences Program, Ongoing
Thesis title: Neurokinin signaling
Status: Ongoing
12. Mr. Yan Huang

Chair: Dr. Min Du; External committee member: N. Sreejayan
Program: Animal Sciences
Thesis title: Maternal obesity and fetal programming
Status: Ongoing

13. Tursunjan Nurmamat

Chair: Dr. S. Ford; External committee member: N. Sreejayan
Program: Molecular and Cellular Life Sciences
Thesis title: Maternal obesity and fetal programming
Status: Ongoing

14. Mr. Junfeng Tong

Chair: Dr. Min Du; External Committee Member: N. Sreejayan
Program: Molecular and Cellular Life Sciences Graduate Program, Committee
Thesis title: Maternal Obesity, AMPK and Fetal Skeletal Muscle Development
Status: Graduated, January 2010

15. Ms. Yuanyuan Jiao

Chair: Dr. Qian-Quan Sun; External committee member: N. Sreejayan
Program: Graduate Neuroscience Program, Committee
Thesis title: Activity-dependent Plasticity of Neocortical Inhibitory Networks
Status: Ongoing

16. Mr. Liren Zhang

Committee Chair: Dr. Stephen Ford; External Committee Member: N. Sreejayan
Thesis title (Tentative): Effect of maternal obesity on fetal pancreatic development
Program: Animal Sciences Graduate Program
Status: Graduated, June 2010

17. Mr. Machender Reddy Kandadi

Committee Chair: Dr. MK Unnikrishnan; Co-chair: N. Sreejayan
Program: Pharmaceutical Sciences (Manipal University)
Thesis title: Antidiabetic activity of a novel AMPK-activator DHPO
Status: Graduated, July 2010

18. Ms. Zhang, Xiaochun

Committee Chair: Dr. Bruce Culver; Committee member: N. Sreejayan
Program: Graduate Neurosciences Program
Thesis title: Obesity induced neuronal inflammation.
Status: Graduated, February 2007

19. Mr. Sachin Jain

Committee Chair: Dr. Mary Alice Bruce; External committee member: N. Sreejayan
Thesis title: Math Anxiety in Elementary School kids
Status: Graduated, June 2005

Master's Program

1. Ms. Mercy Adetoye,

Committee Chair: Dr. Donald Skinner; Committee member: N. Sreejayan
Program: Graduate Neurosciences Program

Thesis title: Regulation of Photoperiodic Prolactin Secretion
Status: Graduated, August 2009

2. Ms. Alexandra P Kuzmanov
Committee Chair: Dr. Shane Broughton; External committee member: Sreejayan, N.
Program: Master of Science in Food Science and Human Nutrition
Thesis title: Do omega-3 fatty acids affect hormones related to polycystic ovary syndrome infertility? Status: Graduated, July 2009
3. Mr. Casey J Armstrong
Program: MS in Kinesiology and Health
Committee Chair: Dr. Paul Thomas; External committee member: Sreejayan, N.
Thesis title: Role of AMPK in exercise training
Status: Graduated, July 2010
4. Mr. Edward Waggy
Committee Chair: Dr. Paul Thomas External committee member: Sreejayan, N.
Major: MS in Kinesiology and Health
Thesis title: AMPK in exercise training
Role: External committee member, Status: Graduated, December 2010
5. Cindy F. Fang
Chair: Dr. Jun Ren; Committee member: N. Sreejayan
Program: Zoology-Physiology
Thesis: Aldehyde dehydrogenase in the heart
Status: Graduated, June 2005

Post doctoral Fellows:

1. Yang, Xiaoping, Ph.D. Post-doctoral fellow, 12/2003 -06/2006
2. Dong, Feng, Ph.D., Post-doctoral fellow, 02-12/2009
3. Ceylan Isik, Asli F., Post-Doctoral Fellow, 06/2008-07/2011
4. Janardhanan, Rajiv Ph.D., Post-doctoral fellow, 6/2004-4/2005
5. Palanichamy, Kamalakannan PhD., Post-doctoral (part-time), 06/2005-7/2006
6. Warriar, Ajaya S. PhD, Post-doctoral fellow, 08/2006-01/2007

Rotation students, SRAP fellows:

1. Haoyu, Zhao, Undergraduate Student, 02/2010-
2. Chitoor, N, Graduate Student rotation, 08-11/2010
3. Bhise, Archit SRAP student, 06-07/2008
4. Caps, Jessica Caps, SRAP student, 06-07, 2006
5. Fritz, Shantelle, SAARP student, 06-07/2009
6. Kyle, Leah Graduate student rotation, 08/06-10/06
7. Lauwers, Allyson Pharm.D. Student, 12/2003-6/2004
8. Lindsey, Poppe, Pharm. D., student, 08-12/2008
9. Maris, Jacalyn Rose Undergraduate, 8/2005-01/2006
10. Mhd Reza, Haraz, High school student, 08-10/2008
11. Ramanan, Shalini, Highschool student, 10-12/2009
12. Storey, Joshua, Undergraduate Student Assistant, 1/2004-6/2005
13. Stratton, Matthew S. Undergraduate, 08-12/2006

PhD Thesis Reviewer:

1. “Novel Method of Standardization of a Traditional Drug *Terminalia Chebula Retz* Using Fuzzy Logic and Modern Analytical Tool Coupling”, Thesis submitted by K. Jayaram Kumar to the Department of Pharmaceutical Sciences, Birla Institute of Technology, Mesra, Ranchi India.
2. “Antioxidant, Antiinflammatory and Phytochemical Screening of Important Plants Used as Immunomodulator in Indigenous Systems of Medicine” thesis submitted to the Manipal Academy of Higher Education, Manipal, India
3. Synthesis and characterization of substituted Cinnoline derivatives, Vinayaka Mission University, Tamil Nadu, India

TEACHING:

Course Number	Course Name	Year	Credit Hours	Number of Students
PHCY6231	Pharmacology II	2011	4	45
PHCY6550	Advanced Cardiovascular Physiology and Pharmacology	2011	3	07
PHCY6230	Pharmacology I	2010	4	50
PHCY6231	Pharmacology II	2010	4	50
PHCY6312	Clinical toxicology	2010	4	50
PHCY6230	Pharmacology I	2009	4	50
PHCY6231	Pharmacology II	2009	4	50
PHCY6312	Clinical toxicology	2009	4	50
PHCY6230	Pharmacology I	2008	4	50
PHCY6231	Pharmacology II	2008	4	50
PHCY6312	Clinical toxicology	2008	4	50
PHCY6102	Biopharmaceutics and Pharmacokinetics	2008	4	50
ANSC5061	Cell Signaling	2008	3	08
PHCY6230	Pharmacology I	2007	4	50
PHCY6231	Pharmacology II	2007	4	50
PHCY6312	Clinical toxicology	2007	4	50
HM 6520	Molecular and Cellular Basis of Diseases	2007	4	10
PHCY4470	Pharmacology	2007	4	30
PHCY6230	Pharmacology I	2006	4	50
PHCY6231	Pharmacology II	2006	4	50
PHCY6312	Clinical toxicology	2006	4	50
HM 6520	Molecular and Cellular Basis of Diseases	2006	4	10
PHCY4470	Pharmacology	2006	4	30
PHCY6230	Pharmacology I	2005	4	50
PHCY6231	Pharmacology II	2005	4	50
PHCY6312	Clinical toxicology	2005	4	50
HM 6520	Molecular and Cellular Basis of Diseases	2005	4	10

PHCY4470	Pharmacology	2005	4	30
PHCY6230	Pharmacology I	2004	4	50
PHCY6231	Pharmacology II	2004	4	50
PHCY6312	Clinical toxicology	2004	4	50
HM 6520	Molecular and Cellular Basis of Diseases	2004	4	10
PHCY4470	Pharmacology	2004	4	30
PHCY6230	Pharmacology I	2003	4	50
PHCY6231	Pharmacology II	2003	4	50
PHCY6312	Clinical toxicology	2003	4	50
HM 6520	Molecular and Cellular Basis of Diseases	2003	4	10
PHCY4470	Pharmacology	2003	4	30

(Note: All courses were team-taught. I was the course coordinator for the Pharmacology I PHCY 6230 since 2004. I also participate in the Graduate neurosciences seminars which is every Monday from 5.30 p.m.-7.00 p.m., each semester).

ADVISING:

Academic adviser for a total of 64 Pharm. D. students since 2002

UNIVERSITY SERVICE:

University:

- 2010 : Member, Graduate Council
- 2010 : External Member, Molecular Biology Faculty Search Committee
- 2009- : Member, Institutional Animal Care and Use Committee
- 2008 : External Member, Faculty Search Committee, Comparative Physiology
- 2007 : External Member, Faculty Search Committee, Chemistry
- 2006- 09: Member, Admission Committee, Mol. and Cellular Life Sciences Graduate Program

College of Health Sciences:

- 2008- : Ad-hoc member, Advisory Committee Microscopy Core Facility
- 2005- : Microbial Biology Content Committee (ad-hoc)

Division/School:

- 2011 : Member, Curriculum and Instruction Committee
- 2010 : Ad-hoc Member, Pharmaceutics Faculty Search Committee
- 2008 : Chair, Pharmacology Faculty Search Committee
- 2008- : Chair, Space and Equipment Committee
- 2007-08: Member, School of Pharmacy, Curriculum Development Committee
- 2007-08: Member, School of Pharmacy, Students Affair Committee
- 2007: Member, Toxicology Faculty Search Committee
- 2003-07: Member, Space and Equipment Committee
- 2003 : Member Animal Care subcommittee