

Thomas J. Abbruscato
Assistant Professor

Grants Funded

“Tobacco Smoke Chemicals and Stroke Alter Brain K⁺ Efflux,” Principal Investigator, NIH NINDS, \$327,572/year (2004 – 2009)

“Nicotine Effects on Blood-Brain Barrier Potassium Transport,” Principal Investigator, Texas AHA, \$62,000/year

Other Funded Grants

“Novel Inroads into the Pathophysiology and Treatment of Stroke,” Co-I Research Center \$58,000/year (2003-2005) TTUHSC School of Pharmacy (Bickel)

“Reducing Medication Related Total Serum Anticholinergic Activity in Long Term Care Elders”
Co-I, IHA Grants Program \$49,650 total cost (2003-2005) Institute for Healthy Aging (Stenhouse) **1% effort**

“Quantification of Medication-Related Cholinergic Burden in the Rat Brain,” Co-I, Seed Grant \$7,130 total cost (2004-2006) TTUHSC School of Pharmacy (Rudd)

Publications

Abbruscato, T.J. Lopez, S.P. Roder, K.R., and Paulson, J.R. Regulation of BBB Na,K,2Cl-Cotransporter through phosphorylation during in vitro stroke conditions. *J. Pharmacol. Exp. Ther.* 310(2):459-68, 2004.

Yang, T., Hussain, A., Paulson, J., **Abbruscato, T.J.**, Ahsan, F. Effect of Cyclodextrins on Nasal Delivery of Low Molecular Weight Heparins: *in vivo* and *in vitro* Studies. *Pharm. Res.* 21(7):1127-36, 2004.

Hawkins, B.T, **Abbruscato, T.J.**, Egleton, R.D., Brown, R.C., Huber, J.D., Campos, C.R., and Davis, T.P. Nicotine Increases In Vivo Blood- Brain Barrier Permeability and Alters Cerebral Microvascular Tight Junction Protein Distribution. *Brain Research* 1027: 48-58, 2004.

Peer-Reviewed Original Research or Review Articles “Submitted or “In Press” in 2004.

Lockman, P.R., Van der Schyf, C.J., **Abbruscato, T.J.**, and Allen, D.D. Chronic Nicotine Exposure Alter Blood-Brain Barrier Permeability and Diminishes Brain Uptake of Methyllycaconitine. *J. Neurochem.* (Accepted with revision 2004/2005).

Research Awards Received in 2004.

Research Days, School of Pharmacy, Best Graduate Student Poster 2004, Jennifer Paulson

Summer Accelerated Biomedical Research (SABR) Program Funded Stipend for Justin Thomas, Summer 2004.

Service on Journal Editorial Boards or as Journal Reviewer in 2004

Editorial Advisory Board

Journal of Pharmacology and Experimental Therapeutics (7 manuscripts)

Life Sciences (4 manuscripts)

Reviewer

International Journal of Pharmaceutics (1 manuscript)

Journal of Cell Science (1 manuscript)

Pharmaceutical Research (1 manuscript)

Journal of Pharmaceutical Sciences (1 manuscript)

Fakhrul Ahsan
Assistant Professor

GRANTS

“Alkylglycoside mediated pulmonary delivery of low molecular weight,” Principal Investigator, NIH, (July 2004 to June 2006; \$150,000 Direct cost + \$72,000.00 indirect), Heparins

“Nasal delivery of low molecular weight heparins,” Principal Investigator, American Heart Texas Affiliate 0265182Y (July 2002 to June 2005; \$124,000.00)

Publications

T. Yang, F. Mustafa, S. Bai, **F. Ahsan*** (2004) Pulmonary delivery of low molecular weight heparins. *Pharmaceutical Research* 21: 2009-2016. (impact factor: 2.61).

T. Yang, A. Hussain, J. Paulsson, T. Abbruscato, and **F. Ahsan*** (2004) Cyclodextrins in nasal delivery of low molecular weight heparins: *in vivo* and *in vitro* studies. *Pharmaceutical Research* 21: 1127-1136. (impact factor: 2.61).

J. Arnold, **F. Ahsan**, E. Meezan, D. Pillion (2004) Correlation of tetradecylmaltoside induced increases in nasal peptide drug delivery with morphological changes in nasal epithelial cells. *Journal of Pharmaceutical Sciences* 93: 2205-2213. (impact factor: 2.07).

T. Yang, F. Mustafa, **F. Ahsan*** (2004) Alkanoylsucroses in nasal delivery of low molecular weight heparins: *in vivo* absorption and reversibility studies in rats. *Journal of Pharmacy and Pharmacology* 56: 53-60. (impact factor: 1.5).

A. Hussain, J.J. Arnold, MA Khan, **F. Ahsan***. (2004). Absorption enhancers in pulmonary protein delivery. *Journal of Controlled Release* 94: 15-24. (impact factor: 3.33).

F. Mustafa, T. Yang, MA Khan, **F. Ahsan*** (2004) Chain length dependent effects of alkylmaltosides on nasal absorption of enoxaparin. *Journal of Pharmaceutical Sciences* 93: 675-683. (impact factor: 2.07).

M.A. Khan and **F. Ahsan** (2004) Formulation and route of administration – influencing drug permeability and absorption. In: *Rogge and Taft eds. Preclinical Drug Development*, Marcel Dekker, NY (In press).

Research Awards Received in 2004.

Received TTUHSC President Young Investigator Award 2004. This award is given to Assistant Professors who showed exceptional potential as an independent investigator.

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

- (1) Pharmaceutical Research; reviewed ten papers
- (2) International Journal of Pharmaceutics, reviewed three papers
- (3) Journal of Pharmaceutical Sciences, reviewed two papers
- (4) European Journal of Pharmaceutical Sciences, reviewed three papers
- (5) Journal of Drug Targeting, reviewed one paper
- (6) Journal of controlled release, reviewed one paper
- (7) Expert Opinion on Therapeutic Patents, reviewed one paper
- (8) Drug Discovery Today, reviewed one paper.

- (9) I also reviewed a book last year and which has been published in Pharmaceutical Research. Attached with the published manuscript.

David D. Allen
Associate Professor
Associate Dean for Curricular Affairs

Publications

Lockman P.R., Koziara J.M., Mumper R.J., and **Allen D.D.** Nanoparticle surface charges alter blood-brain barrier integrity and uptake. *Journal of Drug Targeting*. In Press. 2004.

Cui Z., Hsu C.H., Lockman P.R., Atwood C.S., **Allen D.D.** and Mumper R.J. Novel D-penicillamine carrying nanoparticles for metal chelation therapy in Alzheimer's and other CNS diseases. *European Journal of Pharmaceutics and Biopharmaceutics*. In Press. 2004.

Lockman P.R., McAfee J.H., Geldenhuys W.J. and **Allen D.D.** Cation transport specificity at the blood-brain barrier. *Neurochemical Research*. 29: 2233-2238. 2004.

Geldenhuys W.J., Lockman P.R., McAfee J.H., Fitzpatrick K.T., Van der Schyf C.J. and **Allen D.D.** Molecular modeling studies on the active binding site of the blood-brain barrier choline transporter. *Bioorganic & Medicinal Chemistry Letters*. 14: 3085-3092. 2004.

Koziara J.M., Lockman P.R., **Allen D.D.** and Mumper R.J. Paclitaxel nanoparticles for potential treatment of brain tumors. *Journal of Controlled Release*. 99: 259-269. 2004.

Crooks P.A., Ayers J.T., Xu R., Sumithran S.P., Grinevich V.P., Wilkins L.H., Deaciuc A.G., **Allen D.D.** and Dwoskin L.P. Development of subtype-selective ligands as antagonists at nicotinic receptors mediating nicotine-evoked dopamine release. *Bioorganic & Medicinal Chemistry Letters*. 14: 1869-1874. 2004.

The following are grant proposals funded for research during 2004

"Development of Novel Treatments for Nicotine Addiction." RFA. National Institute on Drug Abuse, National Institutes of Health, Bethesda, MD. U19 MH069059-01. (\$4,754,551 direct costs; total costs \$6,570,832). Linda P. Dwoskin, Ph.D., Principal Investigator. Texas Tech School of Pharmacy Subcontract, \$347,612 total costs. David D. Allen, Ph.D. Subcontract Principal Investigator. Funded. July 1, 2003 - June 30, 2008.

"Tobacco Smoke Chemicals and Stroke Alter Brain K⁺ Efflux." NINDS, National Institutes of Health R01 # 1R01NS046398-01, Bethesda, Maryland. 1 RO1 NS 046526-01. Co-Investigator. April 1, 2004 - March 31, 2009. \$1,685,058 total direct and indirect costs. Funded.

Editorial Reviewer Activity (12 manuscripts total):

I served as a Journal Referee for the *Journal of Pharmacology and Experimental Therapeutics* (2 manuscripts) and have also reviewed for *American Journal of Pharmaceutical Education*, *Journal of Pharmaceutical Sciences*, *Drug Development and Industrial Pharmacy* (2 manuscripts), *Drug Discovery today*, *Neuroscience*, *Pharmaceutical Research*, *European Journal of Pharmaceutical Sciences* and the *Journal of Controlled Release* (2 manuscripts) during the year 2004.

I also served as a Guest Editor for the *American Journal of Pharmaceutical Education* for a manuscript submitted to this journal.

Ulrich Bickel
Professor

Grants

Actively Funded Extramural Grants as Principal Investigator in 2004.

“Targeting the Blood-Brain Barrier in Neuroinflammation,” Principal Investigator, NIH, annual direct cost: \$166,250, total cost \$246,050 (2003 - 2006)

Other Funded Grants in 2004:

Pathophysiology and Treatment of Stroke (PATOS) funded by TTUHSC/SOP from Tobacco funds. Start date was in November 2002. The current funding period ends in August 2005. This year’s budget is \$40,000, which is entirely used for the salary of Alexander Mdzinarishvili, Ph.D. (Senior Research Associate).

My Role: Director, Co-P.I. (together with Drs. Abbruscato, Klein and van der Schyf).

Publications

Fischer, D., Osburg, B., Petersen, H., Kissel, T., and **Bickel, U.** Effect of Poly(ethylenimine) molecular weight and pegylation on organ distribution and pharmacokinetics of polyplexes with oligodeoxynucleotides in mice. *Drug Metab. Dispos.* 32: 983-992, 2004. (*Impact factor* = 3.652)

Bickel, U., How to measure brain uptake. *NeuroRX* 2:15-26, 2005 (*new journal in 2004, no impact factor yet available*)

Peer-Reviewed Original Research or Review Articles “Submitted” or “In press” in 2004 in Scientific Journals listed on Pubmed or Chem Abstracts.

1) Fischer, D., Bhattacharya, R., Osburg, B., and **Bickel, U.** Inhibition of monocyte adhesion on brain-derived endothelial cells by NF-kappaB decoy/polyethylenimine complexes. *J. Gene Med.* in press (*Impact factor* = 3.806)

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

I reviewed a manuscript for J Nucl Med.

Carolyn L. Bouma

Assistant Professor

Service on Journal Editorial Boards or as Journal Reviewer in 2004

Annals of Pharmacotherapy – 4 papers reviewed during 2004.

Jayarama Bhat Gunaje

Associate Professor

Publications:

Bhat, G.J., Samikkannu, T., Thomas, J.J and Thekkumkara, T.J. (2004). □-Thrombin rapidly induces tyrosine phosphorylation of a novel, 74-78 kDa stress response protein(s) in lung fibroblast cells. *J. Biol. Chem.* **279**, 48915-48922.

Grants funded: “Control of IL-6 signaling by thrombin in lung fibroblasts”, Principal Investigator, NIH, 7RO1 HL066000-05; Total award: \$25,761.

Jochen Klein

Associate Professor

Grants

Actively Funded Extramural Grants as Principal Investigator in 2004

“*Amyloid deposition and central cholinergic activity.*” Alzheimer Association (Investigator-initiated Grant Program # 04-1178). Start date: 09/01/2004. End date: 08/31/2006. Total amount funded: \$ 146,424 (\$ 77,781 in the first year).

Extramural Grants Submitted and/or Reviewed during 2004 as Principal Investigator

“*Central cholinergic function in AChE-deficient mice.*” Submitted to NIH as an R03 application. Start date requested: 12/01/04. Total amount: \$ 146,320 for two years (\$ 50,000 direct cost plus \$ 23,160 indirects per year). The grant will be **funded starting Feb 1, 2005**. Reviewer’s comments are enclosed.

“*Cholinergic function in Alzheimer mouse models.*” Submitted to American Health Assistance Foundation (AHAF). Total amount: \$ 96,472. **Rejected** (without ranking or scientific comments). Letter from AHAF is enclosed. No resubmission planned as this project was funded by the Alzheimer Association (see above).

“*Manipulations of ion movements in traumatic brain injury.*” Submitted to NIH / NINCDS as an R21. P.I.: J. Klein; Co-P.I.’s: N. van der Schyf, T. Abbruscato. Total amount: \$ 275,000 for two years. **Rejected (triaged)**. Reviewer’s comments are enclosed. No resubmission planned at this stage; preliminary experiments scheduled for 2nd half of 2005.

“*Chloride channel blockers as a possible target for neuroprotection: studies with bilobalide as model compound.*” Submitted to the American Heart Association, Texas Affiliate (Grant-in-Aid) on 01/06/03. Total amount: \$ 124,000 (for two years). **Rejected (45th percentile)**.

“*Bilobalide for the treatment of brain ischemia*”. Submitted to NIH as an R15 application. Total amount: \$ 222,750. **Rejected (62nd percentile)**. Resubmission is planned for late 2005, probably as a R21 at NCCAM.

Other funded grants in 2004

PATOS Stroke Center (intramural funding by TTUHSC). \$ 135,000 per year for a total of five years were requested by four investigators (U. Bickel, director; with T. Abbruscato, J. Klein, N. van der Schyf). Original proposal was not followed up, but the Center was funded with \$ 40,000 for 2004/05.

“*Novel drugs with a dual mechanism of action for the prevention and/or treatment of Alzheimer’s disease*”. Intramural grant from the Institute of Healthy Aging of TTUHSC. P.I.: N. van der Schyf; Co-P.I.: J. Klein. \$ 49,590 for one year. Funding expired August 31, 2004.

“*Alzheimer’s disease drug development center*”. Intramural grant from the Institute of Healthy Aging of TTUHSC. P.I.: R. Schiffer. Co-P.I.s: J. Klein and N. van der Schyf. Intramural funding of \$ 60,000 per year (2004/05). Will be extended for three years.

“*Alkylglycoside-mediated pulmonary delivery of low molecular weight heparins.*” Funded by NIH as an R15 application. P.I.: F. Ahsan; Co-investigator: J. Klein (5% effort). Total amount funded from 2004-06: \$ 222,000 for two years.

Peer-Reviewed Original Research or Review Articles published in 2004 in Scientific Journals listed on PubMed or Chem abstracts.

J. Hartmann, C. Erb, U. Ebert, K.H. Baumann, A. Popp, G. König and **J. Klein** (2004) Central cholinergic functions in human amyloid precursor protein knock-in/ presenilin-1 transgenic mice. *Neuroscience* 125, 1009-1017. Impact factor: 3.6 (2003)

C. Kiewert, M.L. Buchholzer, J. Hartmann, S.S. Chatterjee and **J. Klein** (2004) Stimulation of hippocampal acetylcholine release by hyperforin, a constituent of St. John’s wort. *Neurosci. Lett.* 364, 195-198. Impact factor: 2.0 (2003)

A. Walter, U. Korth, M. Hilgert, J. Hartmann, O. Weichel, M. Hilgert, K. Fassbender, A. Schmitt and **J. Klein** (2004) Glycerophosphocholine is elevated in cerebrospinal fluid of Alzheimer patients. *Neurobiol. Aging* 25, 1299-1303.

Impact Factor: 5.6 (2003)

T. Weismüller, **J. Klein** and K. Löffelholz (2004) Effects of norepinephrine and cardiotrophin-1 on PLD activity and incorporation of myristic acid into phosphatidylcholine in rat heart. *J. Pharmacol. Sci.* 95, 335-340.

Impact factor: 1.4 (formerly Jpn. J. Pharmacol.)

Peer-Reviewed Original Research or Review Articles “Submitted” or “In press” in 2004 in Scientific Journals listed on PubMed or Chem abstracts.

B. Schatter, S. Jin, K. Löffelholz and **J. Klein**: Ethanol-induced apoptosis in astrocytes: cross-talk between phosphatidic acid and ceramide. *BMC Pharmacology*, submitted.

Books, Book Chapters, Non-Peer-Reviewed Articles, or Articles in Journals not listed on PubMed or Chem abstracts which were published in 2004.

K. Löffelholz and J. Klein (2004) “How is the brain supplied with choline, but protected against excess choline?” In: “*Cholinergic Mechanisms: Function and Dysfunction*” (Silman I. et al., eds.), Taylor & Francis, London, pp. 395-398.

J. Klein, M.L. Buchholzer, S. Kopf and K. Löffelholz (2004) “Control of acetylcholine release under stimulatory conditions by its biosynthetic precursors, glucose and choline.” In: “*Cholinergic Mechanisms: Function and Dysfunction*” (Silman I. et al., eds.), Taylor & Francis, London, pp. 399-404.

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

In 2004, I served as ad hoc-reviewer for the following journals:

- *BMC Neuroscience*
 - *Journal of Neurochemistry*
 - *Life Sciences*
 - *Neurochemistry International*
 - *Neuropharmacology*
- I also served as a grant reviewer for the *Alzheimer Association* and for TTUHSC (SOP seed grant).

Paul R. Lockman
Research Instructor

Grants

Actively Funded Extramural Grants as Principal Investigator in 2004.

Philip Morris Foundation (September 1, 2003 - September 1, 2005). Extramural post-doctoral grant: Brain uptake and neurotransmitter effects of alternative smoking cessation therapeutics. (Annual award amount \$43,200, 40,000 Direct; 3,200 Indirect).

Extramural Grants Submitted and or Reviewed during 2004 as Principal Investigator.

Eli Lilly / ICOS Pfizer grant submission (2004): Cerebrovasculature flow effects of Tadalafil. Pending: Award Request \$50,000.

R15 NIH Area Grant (2004): Neurokinetics and Neuroeffects of Methyllycaconitine National Institute on Drug Abuse, National Institutes of Health, Bethesda, Maryland. Assignment # 1 R15 DAO18758-01. Not Funded: Award Request \$222,750, Annual direct 75,000, Indirect: 36,375, Two year grant application.

Pfizer Viagra grant submission (2004): Sildenafil reversal of blood-brain barrier dysfunction induced by subarachnoid hemorrhage. Not funded Award Request \$50,000.

Other Funded Grants in 2004

Texas Tech Seed Grant (October 2004 – August 2004): Evaluation of blood-brain barrier integrity and cerebrovascular flow after subarachnoid hemorrhage. Funded: Award amount \$8,500. Funding has just recently been obtained, however we have completed approximately 50% of the grant.

Peer-Reviewed Original Research or Review Articles published in 2004 in Scientific Journals listed on PubMed or Chem Abstracts.

Lockman PR, Koziara J, Mumper RJ, Allen DD. (2004) Nanoparticle surface charges alter blood-brain barrier integrity and uptake. J Drug Targ. 9-10: 635-41. ISI Impact factor: 1.78

Lockman PR, McAfee JH, Geldenhuys WJ, Van Der Schyf CJ, Allen DD. (2004) Cation transport specificity at the blood-brain barrier. Neurochem Res. 29 (12): 2245-2250. ISI Impact factor: 1.51

Koziara J, Lockman PR, Allen DD, Mumper RJ. (2004) Paclitaxel nanoparticles for the potential treatment of brain tumors. J Cont Rel. 99: 259-269. ISI Impact factor: 3.30

Geldenhuys WJ, Lockman PR, McAfee JH, Van Der Schyf CJ, Allen DD. (2004) Molecular modeling studies on the active binding site of the blood-brain barrier choline transporter. Bioorg Med Chem Lett. 14 (12): 3085-3092. ISI Impact factor: 2.18

Peer-Reviewed Original Research or Review Articles “Submitted” or “In press” in 2004 in Scientific Journals listed on Pubmed or Chem Abstracts.

Cui Z, Lockman PR, Atwood CS, Allen DD, Mumper RJ. (2004) Novel d-penicillamine carrying nanoparticles for metal chelation therapy in alzheimer's and other CNS diseases. Eur J Pharm Biopharm. In Press. ISI Impact factor: 1.39

Lockman PR, Van der Schyf CJ, Abbruscato TJ, Allen DD. (2004) Chronic nicotine exposure alters blood-brain barrier permeability and diminishes brain uptake of methyllycaconitine. (In revision). ISI Impact factor: 4.83

Research Awards Received in 2004.

Best Faculty Research Poster Award: Texas Tech University HSC, SOP (2004)

Lockman PR, Van der Schyf CJ, Abbruscato TJ, Paulson JR, Allen DD. (July 2004) Chronic nicotine exposure diminishes brain uptake of methyllycaconitine. Poster presentation Texas Tech University HSC annual Research Day, School of Pharmacy. Amarillo, Texas.

Mentor for Best Research Poster Award by a Pharm.D.(2004)

A Pai, **Lockman PR**, KE Roder, Abbruscato TJ, Van der Schyf CJ, Allen DD. (July 2004) Nicotine induced alterations in brain uptake of d-glucose. Poster presentation Texas Tech University HSC annual Research Day, School of Pharmacy. Amarillo, Texas.

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

Journal Referee – International Journal of Cancer

Journal Referee – Journal of Controlled Release

Teaching Awards Received in 2004.

P1 Teaching Team of the Year; Texas Tech University HSC, SOP (2004)

Designated Fellow, American Foundation of Pharmaceutical Education (2004)

Reza Mehvar
Professor

Teaching Awards

- Chancellor's Council Distinguished Teaching Award: Texas Tech University System, Lubbock, TX.
- President's Excellence in Teaching Award: Texas Tech University Health Sciences Center, Lubbock, TX.
- Teacher of the Year: Second-Year Pharmacy Students (Class of 2006), School of Pharmacy.
- Member, Teaching Team of the Year: First-Year Pharmacy Students (Class of 2007) for Principles of Drug Action Course, School of Pharmacy.

Publications

Articles Published in 2004:

Mehvar R and Chimalakonda AP, Hepatic Disposition of Cyclosporine A in Isolated Perfused Rat Livers, *J. Pharm. Pharmaceut. Sci.*, 7: 47-54 (2004).

Chimalakonda AP and **Mehvar R**, Effects of Duration of Ischemia and Donor Pretreatment with Methylprednisolone or Its Macromolecular Prodrug on the Disposition of Indocyanine Green in Cold-Preserved Rat Livers. *Pharm. Res.*, 21: 1000-1008 (2004).

Mehvar R, The Relationship Among Pharmacokinetic Parameters: Effects of Altered Kinetics on the Drug Plasma Concentration-Time Profiles. *Am. J. Pharm. Educ.*, 68 (article 36):1-9 (2004).

Vuppugalla R and **Mehvar R**, Hepatic Disposition and Effects of Nitric Oxide Donors: Rapid and Concentration-Dependent Reduction in the Cytochrome P450-Mediated Drug Metabolism in Isolated Perfused Rat Livers. *J. Pharmacol. Exp. Ther.* 310: 718-727 (2004).

Vuppugalla R and **Mehvar R**, Short-Term Inhibitory Effects of Nitric Oxide on Cytochrome P450-Mediated Drug Metabolism: Time Dependency and Reversibility Profiles in Isolated Perfused rat Livers. *Drug Metab. Dispos.*, 32: 1446-1454 (2004).

Poirier T, Crouch M, Hak E, MacKinnon G, **Mehvar R**, and Monk-Tutor M. Guidelines for Manuscripts Describing Instructional Design or Assessment: The IDEAS format. *Am. J. Pharm. Educ.* 68 (article 92): 1-5 (2004).

Book Chapters Published in 2004:

Mehvar R and Brocks DR, Stereospecific Pharmacokinetics and Pharmacodynamics: Cardiovascular Drugs. In: IK Reddy and R Mehvar (eds.), *Chirality in Drug Design and Development*. Marcel Dekker, New York, pp. 281-350, 2004.

Brocks DR, Vakily M, and **Mehvar R**, Stereospecific Pharmacokinetics and Pharmacodynamics: Selected Classes of Drugs. In: IK Reddy and R Mehvar (eds.), *Chirality in Drug Design and Development*. Marcel Dekker, New York, pp. 191-280, 2004.

Book Edited in 2004:

Reddy IK and **Mehvar R**: *Chirality in Drug Design and Development*, Marcel Dekker, New York, 2004.

Grant Activities

PI: Local Immunosuppression for Liver Transplantation; National Institutes of Health (NIGMS) R01 Application; \$1,355,990; Pending (Percentile: 1.7; Priority Score: 136).

PI: Compatibility and Stability of IV Admixtures; Healix Infusion Therapy; \$20,000.

PI: Stability of Daptomycin in ReadyMED Infusion System; Healix Infusion Therapy; \$13,500; Pending

Investigator: Pediatric Pharmacology Research & Development Center; Texas Tech School of Pharmacy Center of Research Excellence; Funded (Program Director: Richard Leff, Pharm.D.).

Professional Service

Associate Editor; *Journal of Pharmacy and Pharmaceutical Sciences* (www.ualberta.ca/~csps).

Chair; In Vitro/In Vivo Drug Metabolism Abstract Screening Sub-Committee, PPD, American Association of Pharmaceutical Scientists (AAPS) Annual Meeting.

Member, *American Journal of Pharmaceutical Education* Task Force on Journal Improvement; *American Association of Colleges of Pharmacy*.

Reviewer for the following journals in 2004:

Journal of Pharmacy and Pharmaceutical Sciences (2); *Pharmaceutical Research* (2); *Journal of Pharmacology and Experimental Therapeutics* (2); *Chirality* (1); *Drug Metabolism and Disposition* (1); *Drug Development and Industrial Pharmacy* (1).

Majid Moridani
Assistant Professor

Publication in year 2004

Moridani, A SNPpet of background on pharmacogenomics, *College of American Pathologists, CAP Today* 2004; **18(11):**60-63.

Moridani, Through Thick and Thin (Fad diet, weight loss and vitamin B12 deficiency), "*Advance for Medical Laboratory Professionals*", 2004;**16(15):** 22-24.

Moridani, Pharmacogenomics of Phase I and Phase II Drug Metabolizing Enzymes, *CSCC News*, 2004; **46(6):**1-3.

Sabzevari, Galati, **Moridani**, Siraki, O'Brien. Molecular cytotoxic mechanisms of anticancer hydroxychalcones. *Chem Biol Interact.*, 2004;**148(1-2):**57-67.

Siraki, Chevaldina, **Moridani**, O'Brien. Quantitative structure-toxicity relationships by accelerated cytotoxicity mechanism screening. *Curr Opin Drug Discov Devel.*, 2004;**7(1):**118-125.

Moridani, Unexpected relationship between plasma homocysteine and intrauterine growth restriction. *Clin. Chem.*, 2004;**50(4):**782-784.

Moridani, Siraki, Chevaldina, Scobie, O'Brien. Quantitative structure toxicity relationships for catechols in isolated rat hepatocytes. *Chem.-Biol. Interac.*, 2004;**147(3):**297-307.

Acted as reviewer for following journal during the year 2004

Journal of Pharmacy and Pharmaceutical Sciences

Eugene W. Shek
Assistant Professor

Peer-Reviewed Original Research or Review Articles published in 2004 in Scientific Journals listed on PubMed or Chem Abstracts.

ShklyaeV S, Aslanidi G, Tennant M, Prima V, Kohlbrenner E, Kroutov V, Campbell-Thompson M, Crawford J, Shek EW, Scarpace PJ, Zolotukhin S. Sustained peripheral expression of transgene adiponectin offsets the development of diet-induced obesity in rats.

Proc Natl Acad Sci U S A. 2003 Nov 25;100(24):14217-22. Epub 2003 Nov 14.

Journal impact factor: 10.272

Borst SE, Lee Y, Conover CF, Shek EW, Bagby GJ.

Neutralization of tumor necrosis factor-alpha reverses insulin resistance in skeletal muscle but not adipose tissue.

Am J Physiol Endocrinol Metab. 2004 Nov;287(5):E934-8. Epub 2004 Jun 22.

Journal impact factor: 3.828

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

Reviewer for Hypertension and Am J Physiology

Quentin Smith

Grants Funded:

National Institutes of Health, 5R37NS044687-21 "Osmotic Opening of the Blood-Brain Barrier to Antitumor Agents" Co-PI -Q.R. Smith (PI of Texas Tech Subcontract), (4/02-2/05) \$128,214.

National Institutes of Health, 1R13NS046495-01 "Cerebral Vascular Biology 2003 Conference" PI -Q.R. Smith (6/03-6/04) \$10,000.

Pfizer, Inc., Role of blood constituents in blood-brain barrier penetration of selected drugs. P.I. – Q.R. Smith, (12/02-12/04) \$126,247.

Pfizer, Inc., Brain uptake of selected drugs by *in situ* perfusion: Contribution of L-System transport. P.I. – Q.R. Smith (5/02-5/04) \$28,147.

Journals:

Journal of Pharmacology and Experimental Therapeutics – Editorial Board

Reviewer for:

American Journal of Physiology

Brain Research

Journal of Cerebral Blood Flow and Metabolism

Journal of Pharmacology and Experimental Therapeutics

Journal of Neurochemistry

Journal of Neuroscience Research

Publications (Peer Reviewed Papers):

1. **Smith, Q.R.**, and Allen, D.D.: In situ brain perfusion technique. *Meth. Mol. Med.*, 10: 209-219, 2003.
2. **Smith, Q.R.**: A review of blood-brain barrier transport techniques. *Meth. Mol. Med.*, 10: 191-208, 2003.

Abstracts at National/International Scientific Meetings:

1. **Smith, Q.R.**, Mandula, H., Parepally, J., Lockman, P., and Allen, D.D.: Influence of cerebral perfusion fluid flow rate on blood-brain barrier transport as assessed using the in situ brain perfusion technique. *Vth*

- International Cerebral Vascular Biology Conference*, Amarillo, Texas, June 2003.
2. Parepally, J., Mandula, H., and **Smith, Q.R.**: Role of p-glycoprotein on the restricted brain uptake of melphalan. *Annual Meeting of the American Association of Pharmaceutical Scientists*, Salt Lake City, Utah, October 2003.
 3. Mandula, H., Parepally, J., Neuwelt, E., and **Smith, Q.R.**: Blood-brain barrier permeability and transport of the antioxidant, N-acetylcysteine. *Annual Meeting of the American Association of Pharmaceutical Scientists*, Salt Lake City, Utah, October 2003.
 4. **Smith, Q.R.**, Parepally, J.R., Mandula, H., Feng, R., and Liu, X.: Brain uptake of the high affinity organic anion transporter substrate, naproxen. *Annual Meeting of the American Association of Pharmaceutical Scientists*, Salt Lake City, Utah, October 2003.
 5. **Parepally, J.**, Mandula, H., Pagel, M.A., Neuwelt, N., and Smith, Q.R.: Brain delivery of chemoprotective agents via intra-arterial infusion. *Society for Neuroscience*, New Orleans, Nov 2003.
 6. **Smith, Q.R.**, Stoll, J., Mandula, H., Parepally, J., Neuwelt, E., and Greig, N.: Rapid brain uptake of tertiary butyl chlorambucil in vivo due to nonrestrictive plasma protein binding. *Society for Neuroscience*, New Orleans, Nov 2003.

Service to University and Profession

1. Chair, Department of Pharmaceutical Sciences, Texas Tech School of Pharmacy
2. Executive Committee, Texas Tech School of Pharmacy
3. Academic Program Management Committee, Texas Tech School of Pharmacy
4. Graduate Council, Graduate School of Biomedical Sciences

Kalkunte S. Srivenugopal
Associate Professor

Grants

Actively Funded Extramural Grants in 2004

“Regulation of MGMT by Phosphorylation” NIH IRO1 CA 74321 – Non-competing continuation renewed successfully for the third year (9/1/04 to 8/30/05), Principal Investigator, Direct Costs \$150,000, Indirect Costs \$72,750. Total \$222,750 for the period. 30% effort.

“Inhibition of DNA repair by p53 tumor suppressor: a novel approach for pediatric glioma therapy” funded by the Association for Research of Childhood Cancer (Buffalo, NY), 7/1/2001- open ended, Principal Investigator, Total Direct Costs transferred from UT M.D. Anderson Cancer Center, \$13,000.

“Dual strategy to combat toxicity and improve drug efficacy in breast cancer therapy” funded by the Women’s Health Research Institute of Amarillo, 5/1/2004-4/31/2006, Principal Investigator, and Total Direct Costs \$7,500

Peer-Reviewed Research Articles Published in 2004

None

Peer-Reviewed Original Research Articles Submitted and under review in 2004

Suryakant K. Niture, Chinavenmeni S. Velu, and Kalkunte S. Srivenugopal,
S-thiolation mimicry: quantitative binding of reactive proteinylnyl cysteines to reduced and oxidized glutathione

affinity matrices offers a simple means for identification, purification, and kinetic analysis of proteins targeted for glutathionylation (Revised version under review in Biochemical journal)

Chinavenmani Velu, Suryakant Niture, and Kalkunte Srivenugopal, Sumoylation of MGMT repair protein in human cancer cells and its positive role in regulating MGMT stability (Manuscript under review in Journal of Biological Chemistry).

Book Chapter Published

DNA damage and repair in the therapeutic response of tumors of the central nervous system, Henry S. Friedman, M. Eileen Dolan, Srivenugopal KS, and Francis Ali-Osman in: Brain tumors / edited by Francis Ali-Osman. pp 137-145, Humana Press, Totowa, NJ, 2005.

Service as Journal Reviewer in 2004

- Cancer Research – 5 Manuscripts
- Clinical Cancer Research – 4 Manuscripts
- Journal of Molecular Biology – 2 Manuscripts
- Oncogene – 2 Manuscripts
- Cancer Epidemiology Biomarkers & prevention – 1 Manuscript

Teaching Awards Received in 2004

As a member and contributor to the Oncology course, I received the P3 teaching team of the year (2004) award. I received this award in 2003 as well.

James Stoll

Associate Professor

Grants Funded:

"Estrogen and High-Affinity Choline Transport" Principal Investigator 1 R03 AG21735-01 NIH/NIA, \$74,000 (2002-2004)

"*Characterization of the ubiquitous choline transporter*," Principal Investigator, 1 R15 GM070578 NIH/NIGMS, \$220,800 (2004 – 2006)

Service to Research

- Reviewer for Journal of Pharmacology and Experimental Therapeutics, reviewed one paper this year and its revision
- Judge at 7th Annual Pharmacy Student Research Conference Western Region, held June 4-5.

Thomas Thekkumkara, Ph.D.
Associate Dean for Research

a) Active Grants in 2004

- 1999 - 05** National Institutes of Health; R01 HL61356 (**Principal Investigator**). 3'UTR Determinants in Angiotensin II Receptor Regulation.
- 2004 - 09** National Institutes of Health; R01-NS046526, **Co-Investigator**. Tobacco smoke chemical and stroke alter brain K⁺ efflux (PI - Dr. Thomas Abbruscato)

- 2003 - 06** National Institutes of Health; R01, NS45043 **Co-Investigator**. Targeting the Blood-Brain Barrier in Neuroinflammation (PI - Dr. Ulrich Bickel).
- 2002 - 04** American Heart Association Texas Affiliate Grant in Aid, 0265220Y **Co-Investigator**. Nicotine Effects on Blood-Brain Barrier Potassium Transport and Adaptation to Stroke Conditions (PI - Dr. Thomas Abbruscato)
- 2003 – 05** American Heart Association Grant in Aid, 0365132Y **Co-Investigator**. ACE inhibitor tissue penetration and markers of reinfarction risk after an acute myocardial infarction (PI – Dr. James Tsikouris)
- 2003 – 05** American Heart Association Grant in Aid, 0365143Y **Co-Investigator**. Angiotensin Type 1 receptor regulation of IFN γ expression in T cells and its role in atherosclerosis (PI – Dr. Jon Weidanz)

b) Peer Reviewed Manuscripts

1. Thomas BE, **Thekkumkara TJ**. Glucose Mediates Transcriptional Repression of the Human Angiotensin Type-1 Receptor Gene: Role for a Novel Cis-acting Element. *Mol. Biol. Cell.* 2004 Oct; 15(10): p. 4347-4355.
2. Bhat GJ, Samikkannu T, Thomas JJ, **Thekkumkara TJ**. Alpha thrombin rapidly induces tyrosine phosphorylation of a novel, 74-78 kDa stress response protein(s) in lung fibroblast cells. *J Biol Chem.* 2004 Nov 19;279 (47):48915-48922.
3. Weidanz, JA., Jacobson, LM., Muehrer, RJ., Djamali, A., Hullett, DA., Sprague, J., Chiriva-Internati, M., Wittman, V., **Thekkumkara, TJ.**, and Becker, BN. AT1R blockade reduces IFN-g production in lymphocytes in vivo and in vitro" *Journal Kidney International* [in press]

c) Manuscript Ad hoc Reviewer

- British Journal of Pharmacology
- Gene
- Journal of Cellular Physiology

d) Grant Reviewer

- American Heart Association Research, Texas/Western Research Consortium

e) Honor/Award

- Awarded Membership to the American Society of Cell Biology
- Member Award - Teaching Team of the Year for P2, Pharmacotherapy II (Cardiovascular) Course, Texas Tech School of Pharmacy, Amarillo, Texas

Cornelis J. Van der Schyf
Associate Professor & Graduate Program Advisor

Grants

Actively Funded Extramural Grants as Principal Investigator in 2004.

None.

Extramural Grants Submitted and/or Reviewed during 2004 as Principal Investigator.

- a. Title of grant: *Novel Dual-Action Drugs in a Stroke Model*; Funding Agency: NIH; Dates of requested funding: June 1, 2005-May 31, 2007; Percent effort: 30%; Annual direct cost: \$125,000. A hard copy of the grant abstract is attached. This grant was reviewed, not scored, and a copy of the grant review is attached.
- b. Title of grant: *Natural and Synthetic Stilbenes as New Nematicides*; Funding Agency: US Department of Agriculture; Dates of requested funding: October 1, 2004-September 30, 2007;

Percent effort: 20%; Annual direct cost: \$71,812. A hard copy of the grant abstract is attached. This grant was reviewed, scored, and a copy of the grant review and score is attached. This grant will be resubmitted in February 2005.

- c. Title of grant: *Drugs Targeting Cationic Channel Mediated Tau and A-beta Neurodegeneration*; Funding Agency: Alzheimer's Association; Dates of requested funding: September 1, 2004-August 31, 2007; Percent effort: 30%; Annual direct cost: \$75,000. A hard copy of the grant abstract is attached.
- d. Title of grant: *Cation-Mediated Neurodegenerative Pathways as a Major drug Target in Alzheimer's Disease*; Funding Agency: American Federation for Aging Research (AFAR); Dates of requested funding: August 1, 2004-July 31, 2006; Percent effort: 30%; Annual direct cost: \$136,422. A hard copy of the grant abstract is attached. This grant was reviewed and not funded. AFAR does not provide a score or critiques, a copy of the letter is attached.
- e. Title of grant: *New Dual-Mechanism Drugs to Treat Alzheimer's Disease*; Funding Agency: NIH/NIA Pilot Research Grant Program; Dates of requested funding: June 4, 2004-May 31, 2006; Percent effort: 30%; Annual direct cost: \$50,000. A hard copy of the grant abstract is attached. This grant was reviewed, scored, and copies of the grant review and score are attached. This grant will be resubmitted in June 2005 after generating more data.
- f. Title of grant: *Novel Neuroprotective Cage Amines in Cerebral Ischemia*; Funding Agency: American Heart Association; Dates of requested funding: July 1, 2004-June 30, 2006; Percent effort: 30%; Annual direct cost: \$62,000. A hard copy of the grant abstract is attached. This grant was reviewed, scored, and copies of the grant review and score are attached.

Other Funded Grants in 2004

- j. Title of grant: *Novel Drugs with a Dual Mechanism of Action for the Prevention and/or Treatment of Alzheimer's Disease*; Principal Investigator: C.J. Van der Schyf; Funding Agency: Texas Tech University Health Sciences Center Institute for Healthy Aging (IHA) Grant Program 2003-2004; Dates of funding: September 8, 2003-August 31, 2004, extension granted until August 31, 2005; Percent effort: 30%; Annual direct cost: \$49,590; Role in the grant: PI.
- k. Title of grant: 1R01NS046526-01A1 *Tobacco Smoke Chemicals and Stroke Alter Brain K⁺ Efflux*; Principal Investigator: T. Abbruscato; Funding Agency: NIH (NINDS); Dates of funding: July 1, 2004-March 31, 2009; Percent effort, salary and component of grant costs: 5%; Annual direct cost \$250,000; Role in the grant: co-PI.
- l. Title of grant: *New Alzheimer's Disease Therapies – Establishment of a Drug Development Core Facility*; Principal Investigator: C.J. Van der Schyf; Funding Agency: Neuropsychiatry Alzheimer's Disease Fund; Dates of funding: September 1, 2004-August 31, 2007; Annual direct cost: \$60,000; Percent effort: 20%; Role in the grant: PI.

Publications

Geldenhuis, W.J., Malan, S.F. Murugesan, T., **Van der Schyf C.J.**, and Bloomquist, J.R.* Synthesis and biological evaluation of pentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]undecane derivatives as potential therapeutic agents in Parkinson's disease. *Bioorganic and Medicinal Chemistry*, 2004, 12, 1799-1806. Impact Factor: 2.185. Hardcopy provided.

Geldenhuis, W.J., Lockman, P.R., McAfee, J.H., Fitzpatrick, K.T., **Van der Schyf, C.J.**, and Allen, D.D.* Molecular modeling studies on the active binding site of the blood-brain barrier choline transporter. *Bioorganic and Medicinal Chemistry Letters*, 2004, 14, 3085-3092. Journal Impact Factor: 2.182. Hardcopy provided.

Loots, Du T., Mienie, L.J., Bergh, J.J., and **Van der Schyf, C.J.*** Acetyl-L-carnitine prevents total body hydroxyl free radical and uric acid production induced by 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) in the rat. *Life Sciences*, 2004, 75, 1243-1253. Journal Impact Factor: 1.944. Hardcopy provided.

Steyn, S.J., Pieterse, D.J., Mienie, L.J., and **Van der Schyf, C.J.*** Measurement of mitochondrial respiration in permeabilized murine neuroblastoma (N-2a) cells, a simple and rapid in situ assay to investigate mitochondrial toxins. *Journal of Biochemical and Biophysical Methods*, 2004, 62, 25-40. Journal Impact Factor: 1.611. Hardcopy provided.

Van der Schyf, C.J.*, and Mabic, S. Electron-induced (EI) mass fragmentation is directed by intramolecular H-bonding in two isomeric benzodipyran systems. *Molecules*, 2004, 9, 830-841. Journal Impact Factor: 0.911. Hardcopy provided.

* denotes Corresponding Author

Geldenhuis, W.J., Klein, J., Malan, S.F., Bloomquist, J.R., Murugesan, T., **Van der Schyf, C.J.** Inhibition of Monoamine Oxidase B by derivatives of pentacyclo[5.4.0.0^{2,6}.0^{3,10}.0^{5,9}]undecane. Proceedings of the 15th International Symposium on Microsomes and Drug Oxidations: Chemical Biology in the Postgenomic Era – New Approaches and Applications. Oesch F., Ph.D., ed. 2004, Medimont, Bologna, Italy, p. x-y. Will be indexed through ISI.

Service on Journal Editorial Boards or as Journal/Grant Reviewer in 2004.

1. Reviewer: *Journal of Combinatorial Chemistry*. Journal Impact Factor: 4.200. Documentation included.
2. Reviewer: *Chemical Research in Toxicology*. Journal Impact Factor: 3.332. Documentation included.
3. Reviewer: *Neurotoxicity Research*. Journal Impact Factor: new journal. Documentation included.
4. Reviewer: *Journal of Pharmacy & Pharmaceutical Sciences*. Journal Impact Factor: 1.347. Documentation included.
5. Reviewer: *Medicinal Research Reviews*. Journal Impact Factor: 7.788. Documentation included

Grant Reviewing Agencies:

6. Reviewer: NIH Study Section: 1) NIH Special Emphasis Panel: Drug Development and Delivery, ZRG1 SSS-L. Meeting dates: 6/28/2004-6/29/2004, and 11/1/2004-11/2/2004. Documentation included.
7. Reviewer: NIH Study Section: 2) Clinical Neuroplasticity and Neurotransmitters Study Section: Brain Disorders and Clinical Neuroscience Integrated Review Group, CNNT/BDCN-2. Meeting Dates: 6/24/2004-6/25/2004. Documentation included.
8. Reviewer: Alzheimer's Association 2004 Grant Review Cycle. Documentation included.
9. Reviewer: International, South Africa, National Research Foundation (NRF). Documentation included.

Teaching Awards Received in 2004

P1 Teaching Team of the Year Award, Class of 2007 – as a member of the Principles of Drug Action Team, Honors Convocation, April 2004.

Ming-Hai Wang

Professor and Amarillo Community Endowed Chair

Publications

Wang D, Shen Q, Xu XM, Chen YQ, **Wang MH**. Activation of the RON receptor tyrosine kinase attenuates transforming growth factor- β 1-induced apoptotic death and promotes phenotypic changes in mouse intestinal epithelial cells. *Carcinogenesis*. 2005 Jan;26(1):27-36. Epub 2004 Sep 24.

Xu XM, Wang D, Shen Q, Chen YQ, **Wang MH**. RNA-mediated gene silencing of the RON receptor tyrosine kinase alters oncogenic phenotypes of human colorectal carcinoma cells. *Oncogene*. 2004 Nov 4;23(52):8464-74.

Wang D, Shen Q, Chen YQ, **Wang MH**. Collaborative activities of macrophage-stimulating protein and transforming growth factor-beta1 in induction of epithelial to mesenchymal transition: roles of the RON receptor tyrosine kinase. *Oncogene*. 2004 Mar 4;23(9):1668-80.

Wang, M.-H., Wang, D., and Chen, Y.-Q. Human Macrophage stimulating protein and RON receptor tyrosine kinase: potential regulators for macrophage inflammatory activities and epithelial cell tumorigenesis. In *Trends in Protein Research* (ISBN:1-59454-153-1), eds: J.W. Robinson, 2004; Nova Science Publishers, Inc., New York.

Grants

“Oncogenic mechanisms of the RON receptor in lung epithelial cells,” Principal Investigator, National Science Foundation of China, Beijing, P.R. China, ¥1,300,000.00 (2005 – 2008)

Service

Ad hoc reviewer for following peer-reviewed journals: J. Immunology; Cut, Oncogene, and BMC Cancer.

Jon A. Weidanz
Assistant Professor

Grants

“TCR mimics: A new Class of Antibodies against HLA-peptide complexes for diagnosis and therapy of breast cancer,” Principal Investigator, Receptor Logic, LTD., Subcontract, \$81,452 in year 1 (2004 - 2007)

“Making TCRmimics,” Principal Investigator, Receptor Logic, LTD., Sponsored Research Agreement, \$50,000 for 1 year (2004-2004)

“*Specific Renin-Angiotensin System and its role in Atherosclerosis*,” Principal Investigator, American Heart Association Texas Affiliate, Beginning Grant-in-Aid # 0365143Y, \$62,500/year 2 years = \$135,000 (2003 - 2005)

Other Funded grants in 2004

Extramural

1) National Institute of Standards and Technology
Advanced Technology Program

Co-Principal Investigator: See subcontract from

Title: TCR mimics: A new Class of Antibodies against HLA-peptide complexes for diagnosis and therapy of breast cancer

Receptor Logic- 20% of time and salary

Payline at NIST was 3.6% in 2004

\$700,000/year for 3 years

Intramural-

1) Cancer Biology Center-

Member of the Cancer Biology Center

Tobacco Fund money \$40,000 for 2004-2005 year

Peer-reviewed original Research or review articles published in 2004 in Scientific Journals listed on PubMed or Chem Abstracts.

1) Card, K.F., Price-Schiavi, S., Liu, B., Thomson, E., Nieves, E., Belmont, H., Wen, J.H., **Weidanz, J.A.** and Wong, H.C. (2003) A Soluble Single-Chain T-cell Receptor IL-2 Fusion Protein Retains MHC-Restricted Peptide Specific Antigen Binding and IL-2 Bioactivity. *Cancer Immunology, Immunotherapy*, (2004), 53:345-357.

Peer-reviewed Original Research or Review Articles “submitted” or “in Oress” in 2004 in Scientific Journals listed on Pubmed or Chem Abstracts.

1) **Weidanz, JA**, Jacobson, L.M., Muehrer, R.J., Djamali, A., Hullett, D.A., Chiriva-Internati, M., Thekkumkara, T., Wittman, V., and Becker, B.N. *AT₁R blockade reduces IFN- γ production in lymphocytes in vitro and in vivo*. *Kidney International*, (2005), In Press.

2) **Weidanz, JA**, Wittman, VP, Chiriva-Internati, M., and Thekkumkara, TJ. *Angiotensin Type-1 receptor Modulates T cell Activation*. Revised submission. *International Immunopharmacology*, 2004.

3) **Weidanz, J.A.**, Wittman, V., Chiriva-Internati, M., Sherman, L.A., Price-Schiavi, S.A., Wong, H.C., Card, K.F., and Chavaillaz, P.A. *Affinity Characterization of a T cell receptor isolated from a murine high avidity p53/HLA-A2 specific CTL line*. Submitted: *Journal of Immunology*, 2004.

Patents submitted or awarded in 2004.

1) **Weidanz, JA**, Wittman, V, Tal, R. Antibodies as T cell Receptor Mimics, Methods of Production and Uses Thereof. (2004).

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

1) New England Journal of Medicine-
2) Expert Review of Vaccines-

Teaching Awards received in 2004-

P1 Teacher of the Year Award Class of 2007.

Margaret T. Weis, Ph.D.

Grants

Actively Funded Extramural Grants as Principal Investigator in 2004.

Title: Estrogen, fatty acyl CoA, & NOS function in hypertension
Funding Agency: National Institute of Health
Grant Number: NIH RO3 AG022614
Dates of Funding: 7/1/2003 – 6/30/2005
Percent Effort: 15%
Annual Total Cost: \$74,000 (Currently in a one-year no-cost extension)

Extramural Grants Submitted and or Reviewed during 2004 as Principal Investigator.

Title: Endothelial LCFACoAS and eNOS palmitoylation
Submitted: 10/1/04
Funding Agency: National Institute of Health, 1RO1 HL081388-01
Percent Effort: 35%
Annual Direct Cost: 250,000

Other Funded Grants in 2004

Title: Proposed role of eLCFACoAS in the development of post-menopausal HTN
Funding Agency: Women's Health Research Institute of Amarillo
Grant Number:
Dates of Funding: 4/1/2004 – 3/31/2005
Percent Effort: 15%
Annual Total Cost: \$35,000
Publications:

Weis, M.T., Crumley, J.L., Young, L.H., Stallone, J.N. Inhibiting long chain fatty acyl CoA synthetase increases basal and agonist-stimulated NO synthesis in endothelium. *Cardiovasc. Res.*, 63:338-346, 2004. PDF file attached

Service on Journal Editorial Boards or as Journal Reviewer in 2004. Provide information as appropriate.

Served as reviewer for Journal of Cardiovascular Research and BBA Molecular Mechanisms of Disease.

Teaching Awards Received in 2004.

Cardiovascular Therapeutics –

P2 Teaching Team of the year for 2003-2004

Bi-Botti Celestin Youan
Assistant Professor

Grants

Other Funded Grants in 2004

1. Youan, BBC (PI) *Controlled Drug Delivery Systems for Oral Pharmacotherapy of Thrombosis*. Texas University Health Sciences Center School of Pharmacy, Internal Seed Grant. Budget: approximately \$9,639.91.
2. Youan, BBC (PI, Organizer, Moderator) *Chronopharmaceutical Drug Formulation Sunrise School Organization*. American Association of Pharmaceutical Scientists (AAPS) 2004 Baltimore Nov 10, 2005. Budget: \$2,830.
3. Youan, BBC (PI) *Scholarship for Advances in Controlled Release Technology: Polymeric Systems for Pharmaceuticals, Proteins and Other Agents* (Course 20.02s) July 12-July 16, 2004. Massachusetts Institutes of Technology Professional Program. Scholarship. Budget: \$1,500.
4. Youan, BBC (PI) *National Academies Future Keck Future Conference Participant. Designing Nanostructures at the Interface between Physical and Biological Sciences*. Washington DC September 18-19th, 2004, and California, Beckman November 2004. Budget: \$1,000.

Books, Book Chapters, Non-Peer-Reviewed Articles, or Articles in Journals not listed on Pubmed or Chem Abstracts which were published in 2004.

1. Youan, BBC and Moltekar N. Formulation of genistein containing polyethylene glycol microparticles intended for oral delivery. *2004 AAPS Annual Meeting Maryland, Baltimore, November 7-11th. The AAPS Journal* Vol. 6 (S1). Impact factor of *The AAPS Journal (formerly AAPS PharmSci)* as of Jan 04/2005 = 1.558.
2. Youan, BBC and Moltekar, N. Polyethylenimine-Heparin Nanocomplexes for Non-invasive Route. *2004 AAPS Annual Meeting Maryland, Baltimore, November 7-11th. The AAPS Journal* Vol. 6 (S1). Impact factor of *The AAPS Journal (formerly AAPS PharmSci)* as of Jan 04/2005 = 1.558.
3. Veronin, M and Youan, BBC. Near infrared chemical imaging of simvastatin containing tablets obtained through the internet. *2004 AAPS Annual Meeting Maryland, Baltimore, November 7-11th. The AAPS Journal* Vol. 6 (S1). Impact factor of *The AAPS Journal (formerly AAPS PharmSci)* as of Jan 04/2005 = 1.558.
4. Youan, BBC. Overview of chronopharmaceutical drug formulation (Invited Speech). *2004 AAPS Annual Meeting Maryland, Baltimore, November 7-11th. AAPS PharmSci. The AAPS Journal* Vol. 6 (S1). Impact factor of *The AAPS Journal (formerly AAPS PharmSci)* as of Jan 04/2005 = 1.558.
5. Youan, BBC (2004) Civil War Threatens Public Health in Ivory Coast. Eletter to the editor. *British Medical Journal (BMJ)*. Impact factor of *BMJ* as of Jan 04/2005 = 7.202.

Service on Journal Editorial Boards or as Journal Reviewer in 2004.

1. Molecular and Cellular Biochemistry, An international Journal for Chemical Biology in Health Diseases”
2. Expert Opinion on Therapeutic Patents
3. AAPS PharmSci Tech
4. AAPS 2004 Annual Meeting Abstracts
5. Dr Youan is on the editorial board of the *Journal of Environmental Pollution*.