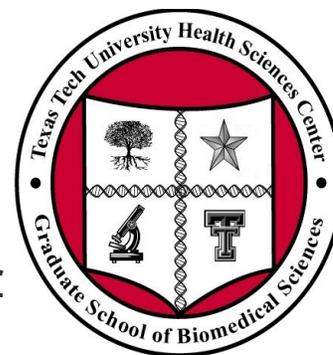




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- Page 8 and 9 Alumni

Research Week and the Marsh Lectures

The 8th annual Research Days will take place June 16th and 17th. The Marsh lecture will be given on the 16th by Dr Fulton Crews who is a Professor of Pharmacology and Psychiatry at the University of North Carolina at Chapel Hill. He is also the Director of the Skipper Bowles Center for Alcohol Studies.

As in previous years there will be podium presentations made by Pharmaceutical Science and Pharmacy Practice faculty, poster presentations, the annual dinner, and the awards ceremony.

Dr. Thekkumkara, Lloyd Alfonso and John Thundyil before the Research Days dinner in 2008. The dinner was held at the Amarillo Botanical Gardens and had more than 100 guests.

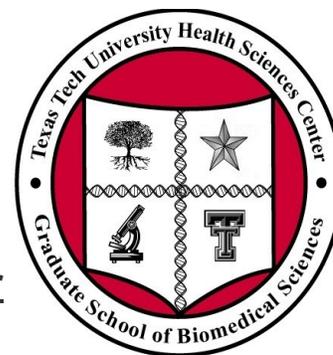




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American Association of Pharmaceutical Sciences

Several GPPS students attended the American Association of Pharmaceutical Sciences conference held in Atlanta November 16th-20th 2008. They were Vivek Gupta, Lloyd Alfonso, Kunal Taskar, Vinay Rudraraju, Fancy Thomas, Sharanya Vemula, Nikhil Vad, Chandan Thomas, Samata Tiwari, Shashi Kudugunti and Li Yang. Sharanya and Nikhil won awards for their presentations.

This year's meeting hosted the first "Texas Tech School of Pharmacy Friends and Alumni reception." Around forty current and former students, faculty and staff attended. The banquet was a good opportunity to find out how the program has grown. The banquet was organized by Dr. Smith and the student AAPS chapter headed by Nikhil Vad.

GPPS students attended several other conferences during the fall semester. They included the Society for Neuroscience, The American Epilepsy Society and The International Society for the Study of Xenobiotics.



Nikhil Vad heads the student chapter of AAPS at TTUHSC and was instrumental in organizing the banquet.



Dr. Abbruscato (left) who is the current head of the Pharmacy Science graduate program, Mansoor Khan (center) who was one of the first professors of the Pharmacy Science program and Quentin Smith (right) who is the chair of the Pharmaceutical Sciences Department at the Friends and Alumni reception November the 17th



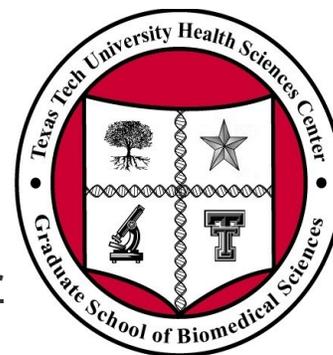
Fancy Thomas recently completed her Ph.D., her advisor was Quentin Smith. She is now an Assistant Professor at Lipscomb University in Tennessee.



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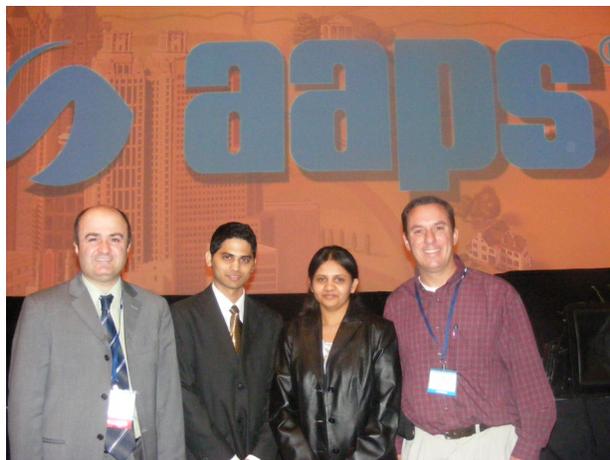


AAPS Posters

L. Alfonso, K. Srivenugopal, J. Gunaje
Aspirin Inhibits Anti-Cancer Drug –Induced p21waf/
CIP1 Levels: Implications in Chemotherapy

S. Bai, **V. Gupta**, M. Quamrul, F. Ahsan
Lactose-Based Dry Powder Formulations of Low Mo-
lecular Weight Heparin for Pulmonary Delivery

V. Rudraraju, K. Taskar, J. Gaasch, F. Thomas, R. Mittapalli, C. Adkins, P. Lockman, D. Palmieri, P. Steeg, Q. Smith
Uptake of Suberoylanilide Hydroxamic Acid, a Histone
Deacetylase Inhibitor, into Brain Metastases of Breast
Cancer



Left to right Majid Moridani, his student Nikhil Vad
Sharanya Vemula and her advisor Tom Abbruscato.
This is at the awards ceremony for Nikhil and Sha-
ranya's posters at AAPS.

F. Thomas, V. Rudraraju, K. Taskar, P. Lockman, D. Palmieri, P. Steeg, Q. Smith
Brain Uptake of Gemcitabine Across the Blood Brain
Barrier

C. Thomas, F. Ahsan
Surface Modified Respirable PLGA Microspheres for
Pulmonary Delivery of a Hepatitis B Vaccine

S. Vemula, T. Yang, L. Yang, T Abbruscato
Characterization of the Blood Brain Barrier Sodium Glu-
cose Cotransporter in a Mouse Model of Focal Ischemia

V. Gupta, A. Rawat, F. Ahsan
Inhalable Cationic Porous Microspheres of PGE1 for
Treatment of Pulmonary Arterial Hypertension (PAH)

S. Kudugunti, N. Vad, M. Moridani
The Biochemical Mechanism of 4-(1H-Pyrrol-1YI) Phe-
nol Toxicity in Human SK-Mel-28 Melanoma Cell Line:
A Tyrosinase Mediated Prodrug Bioactivation Approach

K. Taskar, V. Rudraraju, H. Thorshiem, J. Gaasch, R. Mittapalli, P. Lockman, P. Steeg, D. Palmieri, J. Polli, S. Castellino, S. Rubin, Q. Smith
Distribution of Dual Tyrosine Kinase Inhibitor Lapatinib
in Brain Metastases of Breast Cancer

F. Thomas, H. Thorsheim, S. Goda, J. Gaasch, R. Gabathuler, M. Demeule, C. Che, J. Castaing, P. Lockman, Q. Smith
Brain Uptake of ANG1005- a Novel Paclitaxel-Peptide
Vector Conjugate with Improved Blood Brain Barrier
Transport.

C. Thomas, A. Hussain, F. Ahsan
Frog Palate Model as a Tool for Studying the Effect of
Pharmaceutical Excipients on the Mucociliary Transport
Rate

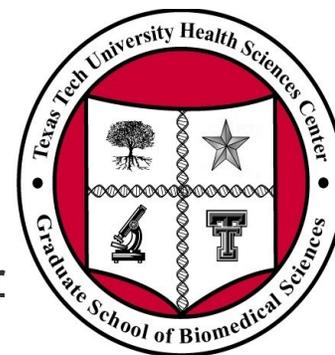
C. Thomas, F. Ahsan
Preparation and Characterization of Porous PLA and PLGA
Nanoparticles for Pulmonary Delivery of Hepatitis B
Vaccine



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AAPS Posters

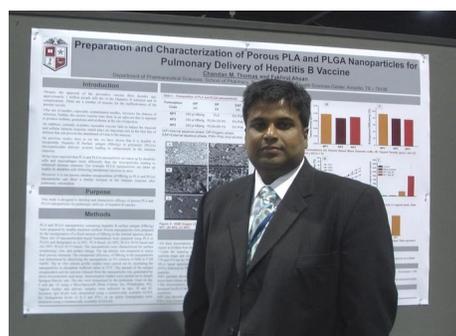
N. Vad, S. Kudugunti, M. Moridani
In Vivo Efficacy and Toxicity of Acetaminophen as an Anti-Melanoma Agent in Skin B16-F0 Melanoma Tumor Model in C57BL/6 Mice

L. Yang, T. Yang, S. Vemula, T. Arumugam, T. Abbruscato
Na⁺, K⁺, 2Cl⁻ Cotransporter as a Neuroprotective Target for Stroke

N. Vad, A. Whiteside, B. Naik, G. Yount, M. Moridani
Investigation of Hydrocinnamic Acid Derivatives as Anti-Melanoma Drugs

L. Yang, M. Mikov, P. Fawcett, H. Zhang, I Tucker
Effects of Bile Salts on BBB Permeability Using an In Vitro RBE4/Astrocyte Co-Culture Model

T. Yang, S. Vemula, L. Yang, J. Paulson, T. Abbruscato
Nicotine Worsens Behavioral Performance and Alters NKCC Expression and Activity in Mouse Cerebral Artery Occlusion Model



Chandan Thomas from Dr. Ahsan's lab at the AAPS conference.

Epilepsy, Neuroscience & Xenobiotics Posters

K. Bohn, R. Mittapalli, K. Taskar, V. Rudraraju, C. Adkins, Q. Smith, P. Lockman
Microvascular density in a murine model of brain metastasis of breast cancer
Neuroscience, Washington DC November 08

R. Mittapalli, K. Bohn, J. Egbert, V. Manda, V. Rudraraju, K. Taskar, J. Gaasch, Q. Smith, P. Lockman
Permeability measurements at the blood-brain and blood-tumor barrier using different molecular weight fluorescent markers
Neuroscience, Washington DC November 08

I. Shaik, R. Yesudas, T. Thekkumkara, R. Mehvar
In Vitro and In Vivo Inhibition of Rat NADPH-Cytochrome P450 Reductase by an Antisense Approach
The International Society for the Study of Xenobiotics San Diego, CA, October 08

K. Borges, S. Willis, R. Samala
Brain Metabolic Changes In Mice On The Ketogenic Diet
American Epilepsy Society, Seattle WA December 08

V. Manda, R. Mittapalli, Q. Smith, P. Lockman
Nicotine and cotinine inhibit P-glycoprotein at the Blood Brain Barrier
Neuroscience, Washington DC November 08

R. Parasrampur R. Mehvar
Effect of Nitric Oxide on Hepatobiliary Disposition of Rhodmine-123 in isolated perfused rat liver model
The International Society for the Study of Xenobiotics San Diego, CA, October 08

R. K. Sumbria, U. Bickel
Assessment of blood-brain barrier damage by microdialysis probe implantation
Neuroscience, Washington DC November 08

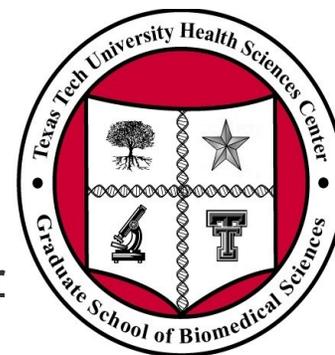
K. Borges, T. Rosenberger, R. Samala, S. Willis
Lack of anticonvulsant and neuroprotective effects of eicosapentaenoic and docosahexaenoic acid in mice.
Neuroscience, Washington DC November 08



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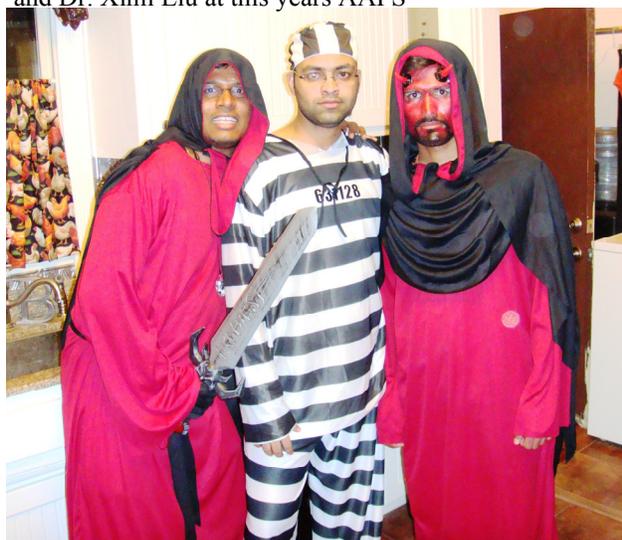


Graduates

Two students graduated during the fall semester. Fancy Thomas's advisor was Dr. Smith. Her dissertation title was "Blood-Brain Barrier to Anticancer Drugs and its Circumvention through a Novel Receptor-Mediated Transport Mechanism." Dr. Abbruscato's student Sharanya Vemula received her Ph.D for her dissertation "Neurovascular sodium dependent glucose transporter as a target for stroke therapy."



Left to right: Chandan Thomas, Fancy Thomas, Kunal Taskar, Samata Tiwari, Vinay Rudraraju, Vivek Gupta, and Dr. Xinli Liu at this years AAPS



Left to right is Arun Satelli, Hussaini Qhattal, and Raj Mittpalli. How would you like to work in their labs?

Student Publications

Bai S, Ahsan F. Synthesis and Evaluation of Pegylated Dendrimeric Nanocarrier for Pulmonary Delivery of Low Molecular Weight Heparin. *Pharm Res.* 2008 Nov 25. [Epub ahead of print]

Zhang Z, Lockman PR, **Mittapalli RK**, Allen DD, Dwoskin LP, Crooks PA. bis-Pyridinium cyclophanes: novel ligands with high affinity for the blood-brain barrier choline transporter. *Bioorg Med Chem Lett.* 2008 Oct 15;18(20):5622-5. Epub 2008 Aug 30.

Parasrampur R, Mehvar R. Hepatobiliary disposition of rhodamine 123 in isolated perfused rat livers. *Xenobiotica.* 2008 Oct;38(10):1263-73

Vad NM, Yount G, Moore D, Weidanz J, Moridani MY. Biochemical mechanism of acetaminophen (APAP) induced toxicity in melanoma cell lines. *J Pharm Sci.* 2008 Aug 29. [Epub ahead of print]

Vad NM, Yount G, Moridani MY. Biochemical mechanism of acetylsalicylic acid (Aspirin) selective toxicity toward melanoma cell lines. *Melanoma Res.* 2008 Dec;18(6):386-99.

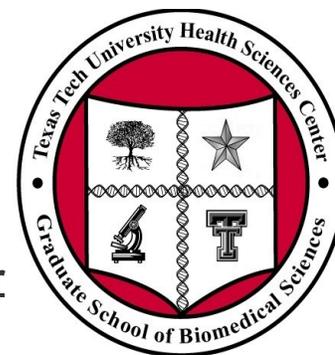
Vemula S, Roder K, Yang T, Bhat GJ, Thekkumkara TJ, Abbruscato TJ. A functional role for sodium dependent glucose transport across the blood-brain barrier during oxygen glucose deprivation. *J Pharmacol Exp Ther.* 2008 Nov 3. [Epub ahead of print]



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Graduate Student Association of Amarillo

The GSAA officers are Vivek Gupta president, Imam Shaik vice president, Chris Adkins treasurer, Satyanarayana Goda secretary, Siva Koganti historian, Rajendar Mittapalli international officer and Kaci Bohn is the student senate officer.

The association focuses on participation in public service events. During the fall semester GSAA members took part in the American Heart Association Heart Walk, and the Juvenile Diabetes Walk. GSAA also participated with the Back to School picnic sponsored by the School of Pharmacy. Additionally Katie Bennett represented the School of Pharmacy at the Women in Science Endeavors conference in Amarillo in October.

The GSAA also provides social activities for its members. During the fall semester these included Halloween, Christmas, and Diwali parties, bowling nights and several birthday parties for students and faculty. Planning started for the annual spring break ski trip.



Katie Bennett is teaching students at the Women in Science Endeavors conference. The aim of this conference is to provide mentors to middle school girls living in Amarillo who want to learn more about science careers.



This is the 2008 Diwali party. From left to right is Sharanya Vemula, Kunal Taskar, and Shashi Kudigunti. Bhavna Verma's back is to the camera, and to her right is Prabodh Kandala.

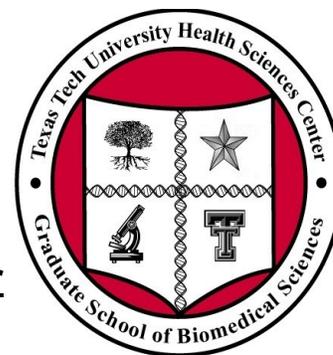
Diwali is a 5 day festival which occurs on the new moon between October 13th and November 14th. It is significant in Hinduism, Sikhism, Buddhism and Jainism. It is a celebration of the victory of good over evil within individuals.



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New Faculty

GPPS has added two new Assistant Professors. They are Dr. Karen Mark and Dr. Yong Min Kwon. Both started in January 2009.

Dr. Mark completed her PhD in Pharmaceutical Science at the University of Nebraska Medical Center, College of Pharmacy in 1999. She was a Research Associate/Postdoctoral Fellow at the University of Arizona, College of Medicine in the Pharmacology Department. Prior to joining the SOP Pharmaceutical Sciences Faculty Dr. Mark was an Assistant Professor in the Pharmacology Division at the University of Missouri-Kansas City, School of Pharmacy. Her research is concerned with inflammation and neurological diseases such as Alzheimer's or Parkinson's disease. For more information, please visit her [webpage](#).



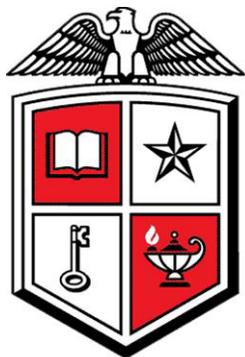
Dr. Mark and her student Shuangling Zhang



Dr. Kwon completed his Ph.D. in Pharmaceutics and Pharmaceutical Chemistry from the University of Utah where he studied with Prof. Sung Wan Kim. He was a Research Fellow in the Department of Pharmaceutical Sciences College of Pharmacy at the University of Michigan, working with Prof. Victor Yang. Dr. Kwon's research interests lie in the design of drug delivery systems for tumor targeting and therapy, modification proteins and surfaces using polyethylene glycol (PEGylation) and in functional polymeric drug delivery systems for controlled release and delivery of therapeutic bioactive agents. More information is available on his [webpage](#).

New Student

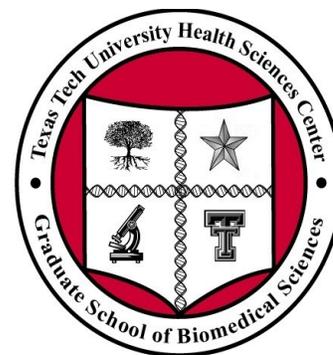
Shuangling Zhang started her graduate studies at the University of Missouri Kansas City in August 2007. She joined Dr. Mark's lab in February 2008. After graduating from China Pharmaceutical University in 2004 she worked in Research and Development for Hapont Pharmaceuticals in China.



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Alumni

Twenty seven students have graduated from GPPS since Spring 2001. This is their most recent contact information.

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Fax: 301-827-9274
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Fax: 318-342-1737
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Raki Shaw and Nusrat Motlekar at the 2004 GSBS graduation ceremony.

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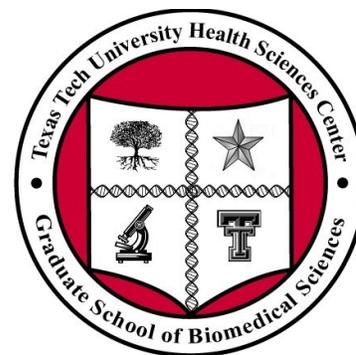
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Alumni



This picture was taken at the annual Christmas party in 2004.

From left to right Alamdar Hussain (graduated fall 2005) Cornelia Kiewert, (fall 2006) and Joachim Hartman (summer of 2006).

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Agonist is published every fall and spring semester by the Graduate Program of Pharmaceutical Sciences (GPPS). To include information in the next Agonist please contact Teresa Carlisle at 356-4000 ext 287 or email Terresa.Carlisle@ttuhsc.edu.