



Agonist



The Official Newsletter for the
Graduate Program of
Pharmaceutical Sciences
Amarillo, Texas

UPDATE FROM DR. ABRUSCATO

Our Graduate Program in Pharmaceutical Sciences (GPPS) continues to support the research mission of the School of Pharmacy and TTUHSC. In spring and summer of 2010, GPPS graduate students participated in a total of 16 poster and oral presentations at national meetings including Experimental Biology in Anaheim, American Association for Cancer Research in Washington DC, Controlled Release in Portland, and the Gordon Research Conference in New London, NH. In addition, GPPS students had excellent participation in the 9th Annual Research Days with 27 graduate student presenters and Student Research Week in Lubbock with 16 presentations. The graduate students also authored a total of 15 publications thus far in 2010. 2010 has been a super year so far!



New additions to our curriculum have been made including a fall course on Drug Development and Discovery which is led by Dr. Fakhrol Ahsan and a new spring course in Graduate Kinetics by Dr. Reza Mehvar. I am sure the graduate students will benefit greatly from these topics and faculty expertise.

We graduated a total of 3 Ph.D. and 2 M.S students in spring and summer of 2010 and welcomed 10 new Ph.D. students to join our program, increasing our current GPPS enrollment to 43 Ph.D. students. I continue to be amazed by the contributions of the GPPS students and faculty and their collaborative efforts to build scientific research here at the School of Pharmacy and Graduate School of Biomedical Sciences.

Fall 2010 Issue 6

What's Inside

•Spring & Summer Graduate Presentations •Fall 2010	2
•Convocation 2010 •New Students	3
•Student Research Week •Conference Presentations	4
•Ninth Annual Research Days •GRC	5, 6
•Seminars •ABRI	7
•Publications •Alumni Updates	8
Awards & Scholarships	9
GSAA EVENTS	10



Rajendar Mittapalli was selected to attend the Fifth Annual NIH National Graduate Student Research Festival, October 25-26, 2010 on the main campus of the NIH in Bethesda, MD. This is an invited meeting for only the top 200 students who have received or will receive their doctoral degrees between June 2010 and the end of October 2011. To put this into perspective, it is only more or less 4 students per state that are invited. Raj's application was reviewed by NIH investigators based upon his abstract, CV and dissertation advisor letter of recommendation. NIH will cover the travel costs. Congratulations, Raj! ■

GPPS STUDENTS REPRESENT TTUHSC AT GORDON RESEARCH CONFERENCE

The prestigious Gordon Research Conference (GRC) on "Barriers of the Central Nervous System" was held at Colby Sawyer College, New Hampshire, on June 20-25, 2010. Prominent blood-brain barrier (BBB) researchers from all over the world attended this conference. The Texas Tech BBB group had a very good representation with Drs. Smith, Bickel, Abbruscato, Lockman and Mark as well as six graduate students. The Gordon-Kenan Research Seminar was held on 19th and 20th of June in conjunction with the main GRC conference at the same venue. This was a unique forum (chaired by **Kunal Taskar, Ph.D. candidate in Pharmaceutical Sciences**, and Dr. Valeska Reichel) for graduate students, post-docs, and other scientists with comparable levels of experience and education to present and exchange new data and cutting edge ideas. The focus was to encourage young researchers exploring the field of blood-brain interfaces to display their research and methods they use and interact and gain valuable knowledge from the experts in this field. For the GRC Research Seminar, Dr. Joan Abbott was the keynote speaker. Rachita Sumbria and Li Yang were among the few students selected to give a podium presentation in the student's seminar session. Each student had a chance to present his/her poster, interact and get feedback BBB researchers. Texas Tech was appreciated by many eminent researchers for their quality research and participation at the Gordon Conference. (See Page 6 for student presentations.)■



GPPS OFFICE - Suite 217 - 806-356-4015; Fax 356-4021

Dr. Tom Abbruscato, Associate Dean for GSBS,

Graduate Program Advisor, Associate Professor, Pharmaceutical Sciences, x 320

Teresa Carlisle, Graduate Program Coordinator, x287

Shari Morris, Graduate Student Advisor, x227

Agonist is published every fall and spring semester by the Graduate Program of Pharmaceutical Sciences (GPPS). For updates and new information, email Shari at shari.morris@ttuhsc.edu.

[Click here for deadlines of Current Awards and Scholarships](#)

PH.D. & MASTERS GRADUATES FOR 2010

Spring 2010



Erika Wisdom
Lab of
Dr. Thomas Thekkumkara
Thesis Presented
March 22, 2010

Acute Hyperglycemia Induced
 Cellular Alterations in Human
 Proximal Tubule Epithelial Cells

Professional Information:

AB Analyst
 B&W Pantex Plant
 U.S. Department of Energy/National Nuclear
 Security Administration
 Amarillo, Texas
erikawisdom@yahoo.com

Professional Information:

Postdoctoral Fellow
 Pennington Biomedical Research Center
 6400 Perkins Road
 Baton Rouge, LA 70808
mandavamshi@gmail.com

Ridhi Parasrampur

Lab of Dr. Reza Mehvar

Dissertation Presented

June 9, 2010

Hepatobiliary Disposition of Uptake
 and Efflux Substrates in the Isolated
 Perfused Rat Livers



Professional Information:

Postdoctoral Research Fellow, Pharmacy
 The State University of New York
 University at Buffalo
 Cooke Hall, North Campus
 Buffalo, NY 14260
ridhiprp@gmail.com

Summer 2010

Sunny Guin

Lab of Dr. Ming-Hai Wang

Dissertation Presented

June 4, 2010

Development of Immunolipo-
 some based Therapeutics
 Targeting RON Receptor
 Tyrosine Kinase Overexpressed
 by Colon and Breast Cancer Cells under Normoxic and
 Hypoxic Conditions



Professional Information:

Postdoctoral Fellow, Lab of Dr. Dan Theodorescu
 Anschutz Medical Campus
 University of Colorado
 13001 E. 17th PL, Bldg 500, Suite C6004
 P.O. Box 6511, MS F434
 Aurora, CO 80045
sunny.guin@ucdenver.edu

Sarah Willis

Lab of Dr. James Stoll

Thesis Presented

June 17, 2010

The Effect of Anaplerotic Diet
 in Epilepsy Models



Professional Information:

PharmD Student
 School of Pharmacy
 Texas Tech University Health Science Center
 1300 Coulter
 Amarillo, TX 79106
sarah.willis@ttuhsc.edu



Vamshi Manda

Lab of Dr. Paul Lockman

Dissertation Presented

June 28, 2010

Drug-drug Interaction between
 Nicotine and HIV-Protease Inhibi-
 tor Saquinavir at the Blood-brain
 Barrier

DISSERTATIONS for FALL 2010

- Arun Satelli**—Wed; 10/13/10; 10:30 am -11:30 pm;
 AMA 107/ABI 1130/LUB 2B480
- Raj Mittapalli**—Fri; 10/15/10; 10:00 am - 11:00 am;
 AMA 107/ABI 1130/LUB 2C101
- Vivek Gupta**—Wed, 10/20/10; 10:30 am - 11:30 am;
 AMA 107/ABI 1130/LUB 2C101
- Kunal Taskar**—Fri; 10/22/10; 1:00 pm - 2:00 pm;
 AMA 107/ABI 1130/LUB ACB110
- Rachita Sumbria**—Mon; 10/25/10; 9:00 am - 10:00 am;
 AMA 107/ABI 1130/LUB 2C101
- Li Yang**—Wed; 10/27/10; 10:30 am - 11:30 am;
 AMA 107/ABI 1130/LUB 2C101

A
g
o
n
i
s
t

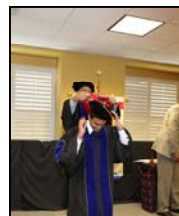


Dr. Thomas Abbruscato (representing Dr. Reza Mehvar) places hood on Imam Shaik (F09)

**CONVOCATION MAY 21, 2010
LUBBOCK, TEXAS**



Nikhil Vad (Sum09) receives his hood from Dr. Majid Moridani



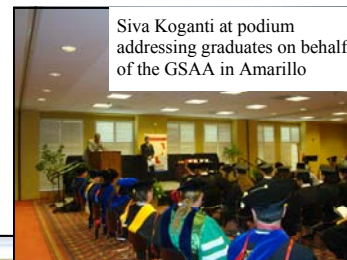
Dr. Jayarama Gunaje places hood on Lloyd Alfonso (Sum09)



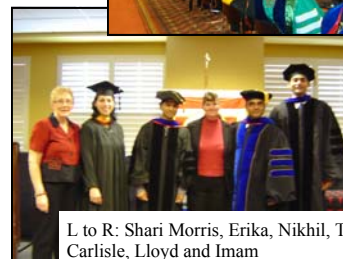
Erika Wisdom (Sp10) waits for her mentor, Dr. Thomas Thekkumkara



L to R: Dr. Jayarama Gunaje, Dr. Majid Moridani, Dr. Lloyd Alfonso, Dr. Nikhil Vad, Dr. Imam Shaik, Dr. Thomas Abbruscato, Erika Wisdom, Dr. Thomas Thekkumkara



Siva Koganti at podium addressing graduates on behalf of the GSAA in Amarillo



L to R: Shari Morris, Erika, Nikhil, Teresa Carlisle, Lloyd and Imam



Graduation Dinner with graduates, family, mentors and GPPS staff in Lubbock

Rajiv Balyan, M.S. Biomedical & Veterinary Science

Summer 2010
Lab: Dr. Majid Moridani

Manoj Banjara, B Tech in Biotechnology

Fall 2010
Lab: Dr. James Stoll (Rotation)

Raktima Bhattacharya, Ph.D.

Fall 2010
Lab: Dr. Ulrich Bickel

Vindhya Edpuganti, B.Pharm.

Summer 2010
Lab: Dr. Reza Mehvar

Alejandra Fernandez, B.S. in Biochem/Mol Bio

Fall 2010
Lab: Dr. James Stoll

NEW STUDENTS FOR 2010



L to R (back row) - Rajiv Balyan, Rashed Islam, Sharad Sharma, Nilesh Gupta, Manoj Banjara
L to R (front row) - Kamrun Nahar, Alejandra Fernandez, Raktima Bhattacharya, Vindhya Edpuganti, Subhasree Nag

Nilesh Gupta, B.Pharm.

Summer 2010
Lab: Dr. Fakhru Ahsan

Md. Rashedul Islam, M.Pharm

Fall 2010
Lab: Dr. Thomas Abbruscato

Subhasree Nag, M.Pharm.

Fall 2010
Lab: Dr. Ruiwen Zhang (Rotation)

Kamrun Nahar, M.Pharm.

Fall 2010
Lab: Dr. Fakhru Ahsan

Sharad Sharma, B.Pharm.

Fall 2010
Lab: Dr. Ming-Hai Wang



♥Brijesh Patel & Khyati Patel
5/22/10 * India

♥Satya Goda & Vijaysri Nannapaneni
8/14/2010 * California

♥Sunny Guin & Indrani Nayak
5/25/2010 * India



Texas Tech University Health Sciences Center

Student Research Week 2010

March 2-5, 2010

DEMYSTIFYING THE BRAIN: AGING AND ADDICTION

At SRW 2010 sponsored by the Graduate School of Biomedical Sciences in Lubbock, there were 22 poster entries in the category of basic science, senior researchers, 16 of which represented our GPPS student body!

1st place—Kunal Taskar. “Blood-Brain Barrier Permeability and Active Efflux Transport of Paclitaxel in Treatment of Brain Metastases of Metastatic Breast Cancer”

2nd place—Arun Satelli. “Galectin-4 is a tumor suppressor and its loss correlates with the onset and progression of colorectal cancer”

3rd place—Rachita Sumbria. “Cerebral metabolic depression associated with acute microdialysis probe implantation”

Presenters at SRW

Satyanarayana Goda, Helen Thorsheim, Thomas J Abbruscato, and Quentin R Smith. “Quantification of loop diuretic permeability at the blood-brain barrier by in situ perfusion and liquid chromatography - tandem mass spectrometry”

Vivek Gupta and Fakhru Ahsan. “Respirable PLGA Microspheres of PGE1-HP- β -CD Complex for PAH Treatment”

Prabodh K. Kandala and Sanjay K. Srivastava. “Stat-3: A novel target of Diindolylmethane in Ovarian cancer”

Siva Koganti and Thomas Thekkumkara. “2-Methoxy Estradiol Mediated Downregulation of Angiotensin Type 1 Receptor Expression”

Shashi Kudugunti, Nikhil Vad, Moridani. “In-vitro and in-vivo investigation of Caffeic acid Phenethyl Ester (CAPE) prodrug as an anti-melanoma agent”

Md. Mamunur Rashid, Li Yang, Thiruma V. Arumugam, Thomas J. Abbruscato, Vardan T. Karamyan. “The non-AT1, non-AT2 angiotensin binding site plays a role in neuronal cell death”

Vinay Rudraraju, Kunal Taskar, Rajendar Mittapalli, Kaci Bohn, Christopher Adkins, Paul Lockman, Diane Palmieri, Patricia Steeg, and Quentin R. Smith. “Doxorubicin distribution in brain metastases of breast cancer”

K.K.Shah, L. Yang, T. J. Abbruscato. “Sodium Dependent Glucose Cotransporter (SGLT1) Expression at the Blood-Brain Barrier (BBB) in Hyperglycemic Conditions and Stroke”

Russell Snyder, Prabath Biju, Rekha Yesudas and Thomas Thekkumkara. “Retinoic Acid, A Novel Transcriptional Repressor of AT1R”

Hussaini Syed Sha Qhattal, Xinli Liu. CD44 mediated tumor targeting using hyaluronan conjugated liposomes.

(Continued in next column)

Yan Xu, Jon Weidanz, Ulrich Bickel. “Transgenic in vivo model for vascular targeting to peptide-HLA complexes”

L. Yang, K. K. Shah, T. J. Abbruscato. “Antiedematous Effects of Biphalin in a Model of Focal Brain Ischemia”

Shuangling Zhang, Pooja Naik, Jill Roberts, Karen Mark. “The Effects of α 1-acid Glycoprotein in the Brain Microvasculature”



American Association for Cancer Research 101st Annual Meeting, Washington, DC April 17-21, 2010

Sunny Guin, Qi Ma, Snehal Padhye and Ming-Hai Wang. “Chronic Hypoxia-Induced Down-Regulation of RON and MET Receptor Tyrosine Kinases as a Mechanism of Acquired Resistance to Specific Tyrosine Kinase Inhibitor”

Prabodh K. Kandala, Kartick C. Pramanik, Srinivas Reddy Boreddy & Sanjay K. Srivastava. “3,3'-Diindolylmethane (DIM)-Induced Apoptosis in Ovarian Tumors is Mediated by Inhibition of EGFR-ERK Pathway”

Prabodh K. Kandala and Sanjay K. Srivastava. “STAT-3: a novel target of Diindolylmethane in ovarian cancer cells”

Shashi Kudugunti, Helen Thorsheim, Quentin Smith, Majid Moridani. “Bioactivation of Caffeic Acid Penethyl Ester Prodrug by Tyrosinase Inhibits Human Glutathione S-transferase and Case Selective Toxicity to Melanoma Cells”

Shashi Kudugunti, Rama Krishna Samala, Majid Moridani. “Lactic acid, hyperacidic media and hypoxia diminish 4-hydroxyanisole-induced toxicity in melanoma cell lines”

Arun Satelli, Prema S Rao and U S Rao. “Galectin-4 in colorectal cancer”

Experimental Biology 2010 Anaheim, CA — April 24-28, 2010



Sivaramakrishna Koganti, Thomas Thekkumkara. “2-Methoxy Estradiol Mediated Downregulation of Angiotensin Type 1 Receptor Expression”

Russell Snyder, Thomas Thekkumkara. “A Novel Mechanism for 13-cis Retinoic Acid Mediated Angiotensin Type 1 Receptor Downregulation”



37th Annual Meeting & Exposition of the Controlled Release Society, Portland, OR July 10-14, 2010

Brijeshkumar Patel, Vivek Gupta and Fakhru Ahsan. “PEG-PLGA Block Copolymer Microparticles of Low Molecular Weight Heparins for Pulmonary Delivery”

Hussaini Syed Sha Qhattal, Xinli Liu. “Molecular Weight and Grafting Density of Hyaluronan Determines CD44 Mediated Tumor Cell Uptake of Hyaluronan-Functionalized Nanoliposomes”

A
g
o
n
i
s
t



**Ninth Annual Research Days
June 15 - 16, 2010
TTUHSC School of Pharmacy
Presented by the Office of Sciences**



Sixty-six presenters participated in the Ninth Annual Research Days, which took place on Tuesday, June 15th and Wednesday, June 16th on the SOP Amarillo campus. The keynote speaker on Tuesday was the newly appointed president of TTUHSC, Dr. Ted Mitchell. The annual dinner and social followed at the Panhandle-Plains Historical Museum in Canyon. The results of the presentation judging were announced Wednesday afternoon as follows:

≈ **Department of Biomedical Sciences** ≈



1st Place - Prabodh Kandala



2nd Place – Snehal Padhye



3rd Place - Bhavna Verma



3rd Place - Parul Gupta

≈ **Department of Pharmaceutical Sciences** ≈



1st Place - Kunal Taskar



2nd Place – Chris Adkins



3rd Place - Rachita Sumbria



Dinner & Social in Canyon

Research Days poster presentations follow on the next page. →

NINTH ANNUAL RESEARCH DAYS PRESENTATIONS

(*Award winners)

Mohammad Shahriarul Absar, Suna Choi, Young Min Kwon. "Targeted and Triggered Release of Tissue Plasminogen Activator (tPA) for Safer Thrombolytic Therapy"

***Adkins CE**, Mittapalli RK, Manda VK, Taskar KS, Bohn KA, Rudraraju V, Smith QU, Lockman PR. "Heterogeneous Permeability and P-glycoprotein Function in Pre-Clinical Brain Metastases of Breast Cancer"

Bohn KA, Mittapalli RK, Adkins CE, Taskar KS, Rudraraju V, Palmieri D, Steeg PS, Smith QR and Lockman PR. "Tumor Vasculature Alterations in Brain Metastases of Breast Cancer"

V.C. Pillai and R. Mehvar. "Inhibitory Effects of Tannic Acid on Cytochrome-P450 Reductase (CPR) is Confounded by Its Ability to Directly Reduce Cytochrome C"

Raghavender Chivukula, Srinivasan Marimuthu, Lloyd F. Alfonso, Jayarama B. Gunaje. "Aspirin Acetylates p53 and Inhibits Camptothecin Induced p21 in Colon Cancer Cells"

Satyanarayana Goda, Helen R. Thorsheim, Thomas J. Abbruscato and Quentin R. Smith. "Restricted Brain Distribution of Bumetanide is Mediated by Active Efflux Transporters (Rat Oatp2 & OAT3) at the Blood-Brain Barrier"

***Parul Gupta** and Sanjay K. Srivastava. "Phenethyl Isothiocyanate Suppress the Growth of Breast Cancer Cells by Inhibiting EGFR and Her-2"

***Prabodh K. Kandala**, Kartick C. Pramanik, Srinivas Reddy Boreddy and Sanjay K. Srivastava. "3,3'-Diindolylmethane (DIM)-Induced Apoptosis in Ovarian Tumors is Mediated by Inhibition of EGFR-ERK Pathway"

***Prabodh K. Kandala** and Sanjay K. Srivastava. "STAT-3: a novel target of Diindolylmethane in ovarian cancer cells"

Sivaramakrishna Koganti, Thomas Thekkumkara. "2-Methoxy Estradiol Mediated Downregulation of Angiotensin Type 1 Receptor Expression"

Shashi Kudugunti, Helen Thorsheim, Quentin Smith, Majid Moridani. "Bioactivation of Caffeic Acid Penethyl Ester Prodrug by Tyrosinase Inhibits Human Glutathione S-transferase and Case Selective Toxicity to Melanoma Cells"

Mittapalli RK, Taskar KS, Rudraraju V, Bohn KA, Adkins CE, Palmieri D, Steeg PS, Smith QR and Lockman PR.

"Experimental Brain Metastases of Breast Cancer Demonstrates Heterogeneous Permeability Where Lesion Size Does Not Correlate to Increased Permeability"

***Snehal Padhye** and Ming-Hai Wang. "Targeting Pancreatic Cancer Stem-like Cells by Anti-RON Antibody Directed Immunoliposomes for Enhanced Cytotoxicity"

Ameya S. Paranjpe, Mohd. Aslam Yusuf and K. Srivenugopal. "Targeting the Redox-Sensing Posttranslational Modifications as a Novel Anticancer Therapeutic Strategy"

Brijeshkumar Patel, Vivek Gupta and Fakhrul Ahsan. "PEG-PLGA Microparticles of Low Molecular Weight"

Md. Mamunur Rashid, Li Yan, Thiruma V. Arumugam, Thomas J. Abbruscato, Vardan T. Karamyan. "Association of the Novel Non-AT1, Non-AT2 Angiotensin Binding Site with Neuronal Cell Death in Mouse MCAO Model of Stroke"

Ramakrishna Samala, Kunal Taskar, Vinay Rudraraju, Kaci Bohn, Rajendar Mittapalli, Amanda Roberts, Helen Thorsheim, Paul Lockman and Quentin Smith. "Free Drug Concentration in Metastatic Brain Tumors"

Arun Satelli and U.S. Rao. "Galectins: Modulators of Colorectal Cancer Progression"

Russell Snyder, Thomas Thekkumkara. "Novel Mechanism for 13-cis Retinoic Acid Mediated Angiotensin Type 1 Receptor Downregulation"

***Rachita K. Sumbria**, Peter M. Bungay and Ulrich Bickel. "Passive Blood-Brain Barrier Permeability and Neurochemical Changes Following Cerebral Ischemia/Reperfusion"

Hussaini Syed Sha Qhattal, Xinli Liu. "Molecular Weight and Grafting Density of Hyaluronan Determines CD44 Mediated Tumor Cell Uptake of Hyaluronan-Functionalized Nanoliposomes"

***Kunal S. Taskar**, Satyanarayana Goda, Vinay Rudraraju, Fancy Thomas, Helen R. Thorsheim, Quentin Smith. "Role of Blood-Brain Barrier Transporters in the Brain Uptake of the Anticancer Drug, Paclitaxel"

***Bhavna Verma**, Jon Weidanz. "TCRm Antibodies Against Peptide/HLA Complexes Represent a Novel Class of Therapeutic Antibodies for Targeting Cancer"

Naomi J. Wangler, Vardan T. Karamyan. "Towards Isolation and Identification of the Non-AT1, Non-AT2 Angiotensin Binding Site: Affinity Chromatography Approach"

Yan Xu, Jon A. Weidanz, Ulrich Bickel. "Brain Uptake and Pharmacokinetic Studies on Transgenic Mice Models"

L. Yang, K.K. Shah, T.J. Abbruscato. "Anti Edematous Effects of a Non-Selective Opioid Agonist, Biphalin, During Focal Ischemia"

Shuangling Zhang, Pooja Naik, Jill Roberts, Karen S. Mark. "The Effects of α 1-acid Glycoprotein in the Brain Microvasculature" ■



Barriers of the CNS, Gordon Research Conferences at Colby-Sawyer College, New London, NH Gordon-Kenan Research Seminar, 6/19-20/10 Blood/Brain Interfaces in Health & Disease, 6/20-25/10

Satyanarayana Goda, Helen R. Thorsheim, Thomas J. Abbruscato and Quentin R. Smith. "Restricted Brain Distribution of Bumetanide is Mediated by Active Efflux Transporters (Rat Oatp2 & OAT3) at the Blood-Brain Barrier"

Mittapalli RK, Taskar KS, Rudraraju V, Bohn KA, Adkins CE, Palmieri D, Steeg PS, Smith QR and Lockman PR.

"Experimental Brain Metastases of Breast Cancer Demonstrates Heterogeneous Permeability Where Lesion Size Does Not Correlate to Increased Permeability"

Rachita K. Sumbria, Peter M. Bungay and Ulrich Bickel. "Passive Blood-Brain Barrier Permeability and Neurochemical Changes Following Cerebral Ischemia/Reperfusion"

Kunal S. Taskar, Satyanarayana Goda, Vinay Rudraraju, Fancy Thomas, Helen R. Thorsheim, Quentin Smith. "Role of Blood-Brain Barrier Transporters in the Brain Uptake of the Anticancer Drug, Paclitaxel"

Yan Xu, Jon A. Weidanz, Ulrich Bickel. "Brain Uptake and Pharmacokinetic Studies on Transgenic Mice Models"

L. Yang, K.K. Shah, T.J. Abbruscato. "Characterization of the Neuroprotective Effects of Biphalin, a Potent Opioid Receptor Agonist, in Focal Brain Ischemia" ■

GRADUATE STUDENT SEMINAR PROGRAM - SPRING 2010

1/13/10 - Erika Wisdom - "Cell Signaling in Acute Hyperglycemia Induced Apoptosis Human Proximal Tubule Epithelial Cells"

1/13/10 - Bhavna Verma - "RL4B TCR Mimic Monoclonal Antibody Targets Specific Peptide/ HLA Class I and Retards Tumor Growth In-Vivo Using Breast Cancer Models"

1/20/10 - Snehal Padhye - "RON Targeted Doxorubicin Immunoliposomes for Pancreatic Cancer Stem like Cell Toxicity"

1/27/10 - Russell Snyder - "Retinoic Acid, A Novel Transcriptional Repressor of AT1R"

2/3/10 - Md. Mamunur Rashid - "The Novel Non-AT1, Non-AT2 Angiotensin Binding Site Plays A Role in Neuronal Cell Death"

2/3/10 - Hussaini Syed Sha Qhattal - "Formulation Optimization of Nanoliposomes and Nanoemulsions Containing Antineoplastic Agents"

2/10/10 - Venkateswaran Chithambaram Pillai - "NADPH-Cytochrome P450 Reductase: Functional Perspectives and Gene Silencing Approach"

2/10/10 - Arun Satelli - "Galectin-4, a Differentiation Biomarker of Colorectal Epithelial Cells, Exhibits Tumor Suppressor Properties"

2/17/10 - Kunal Taskar - "Pharmacokinetics and Pharmacodynamics of Paclitaxel in an Experimental Brain Metastases Animal Model"

2/17/10 - Rachita Sumbria - "Microdialysis in a murine stroke model"

2/24/10 - Shuangling Zhang - "The Effects of Acute Phase Proteins in the Brain Microvasculature"

3/17/10 - Md. (Abir) Absar - "Targeted and Triggered Release of Tissue Plasminogen Activator (tPA) for Safer Thrombolytic Therapy"

3/17/10 - Kaci Bohn - "Tumor Vasculature Alterations in Brain Metastases of Breast Cancer"

3/24/10 - Chris Adkins - "Blood-Brain Barrier Integrity in a Parkinson's Disease Rat Model"

3/31/10 - Sunny Guin - "Chronic Hypoxia Induced Down-Regulation of RON and MET Receptor Tyrosine Kinases as a Mechanism of Acquired Resistance to Specific Tyrosine Kinase Inhibitor"

3/31/10 - Ramakrishna Samala - "Novel Methods to Estimate Active Drug Concentration in Brain Tumors and Correlate with Activity in-vitro"

5/5/10 - Naomi Wangler - "Isolation and Identification of the Non-AT1 Non-AT2 Ang II Binding Site" ■

The 10-week 2010 Amarillo Biomedical Research Internship Program Concluded July 30

with a day of poster presentations and awards followed by a luncheon. The mission of the ABRI Program is to foster interest in the Graduate Program in Pharmaceutical Sciences among promising and gifted students considering graduate studies leading to research careers in biomedical sciences. Below are the ABRI students, mentors and their poster presentation:

Binod Baniya - Dr. Sanjay Srivastava - Binod Baniya, Srinivas R. Boreddy and Sanjay K. Srivastava. "Deguelin suppresses the growth of pancreatic cancer cells by targeting STAT-3"

John Fullerton - Dr. Majid Moridani - John Fullerton, Shashi Kudugunti, Rajiv Balyan, Majid Moridani. "Synthesis of Nine Novel Acetyloxybenzoic Acid Derivatives as Anti-Melanoma Agents"

Ricardo Levek - Dr. James Stoll - Ricardo Leveck, James Stoll. "Thiamine Transport by BOC1T1 and BOC2T2"

Tri Salihima - Dr. Xinli Liu - Tri Salihima, Hussaini Syed Sha Qhattal, Xinli Liu. "High Performance Liquid Chromatography - UV Detection and Quantitation of Cellular Uptake of Benzyl Isothiocyanate Nanoemulsion"

Angela Vela - Dr. Karen Mark - Angela Vela, Jill Roberts and Karen Mark. "Inflammatory Model of Liver Fibrosis in the Rat"

Hezhen Wang - Dr. Fakhrul Ahsan - Hezhen Wang, Fakhrul Ahsan. "Chemical Modification of Heparin and Prostaglandin E1 for Favorable Drug Property" ■



Binod Banjara



Angela Vela



Tri Salihima (L)

Ricardo Leveck (L front) &
John Fullerton (R)

ABRI



Hezhen Wang

PUBLICATIONS

•Lockman PR, **Mittapalli RK**, Taskar KS, Rudraraju V, Gril B, **Bohn KA**, Adkins CE, Roberts A, Thorsheim HR, Gaasch JA, Huang S, Palmieri D, Steeg PS, Smith QR. Heterogeneous Blood-Tumor Barrier Permeability Determines Drug Efficacy in Mouse Brain Metastases of Breast Cancer. *Clin Cancer Res*. 2010 Sep 9. [Epub ahead of print]

•Li Z, Yao H, **Guin S**, **Padhye SS**, Zhou YQ, Wang MH. Monoclonal antibody (mAb)-induced down-regulation of RON receptor tyrosine kinase diminishes tumorigenic activities of colon cancer cells. *Int J Oncol*. 2010 Aug;37(2):473-82.

•**Guin S**, Ma Q, **Padhye S**, Zhou YQ, Yao HP, Wang MH. Targeting acute hypoxic cancer cells by doxorubicin-immunoliposomes directed by monoclonal antibodies specific to RON receptor tyrosine kinase. *Cancer Chemother Pharmacol*. 2010 Jul 25. [Epub ahead of print]

•**Vivek Gupta**, Chandan Thomas, and Fakhrul Ahsan (2010). Principles and Practice of Pulmonary Drug Delivery. Ram I. Mahato & Ajit S Narang (Eds). *Targeted Delivery of Small and Macromolecular Drugs* (pp. 371-419). CRC Press.

•Thomas C, **Gupta V**, Ahsan F. Particle size influences the immune response produced by hepatitis B vaccine formulated in inhalable particles. *Pharm Res*. 2010 May;27(5):905-19. Epub 2010 Mar 16.

•**Kandala PK**, Srivastava SK. Activation of checkpoint kinase 2 by 3,3'-diindolylmethane is required for causing G2/M cell cycle arrest in human ovarian cancer cells. *Mol Pharmacol*. 2010 Aug;78(2):297-309. Epub 2010 May 5.

•Batra S, Sahu RP, **Kandala PK**, Srivastava SK. Benzyl Isothiocyanate-Mediated Inhibition of Histone Deacetylase Leads to NF-KB Turnoff in Human Pancreatic Carcinoma Cells. *Mol Cancer Ther*. 2010 Jun;9(6):1596-608. Epub 2010 May 18.

•**Kudugunti SK**, Vad NM, Whiteside AJ, Naik BU, Yusuf MA, Srivenugopal KS, Moridani MY. Biochemical mechanism of Caffeic Acid Phenylethyl Ester (CAPE) selective toxicity towards melanoma cell lines. *Chem Biol Interact*. 2010 Oct 6;188(1):1-14. Epub 2010 Jun 4.

•**Manda VK**, **Mittapalli RK**, Geldenhuys WJ, Lockman PR. Chronic exposure to nicotine and saquinavir decreases endothelial Notch-4 expression and disrupts blood-brain barrier integrity. *J Neurochem*. 2010 Aug 30. [Epub ahead of print]

•**Mittapalli RK**, **Hussaini SSQ**, Lockman PR and Yamsani MR. Efficacy of Superdisintegrants in Orally Disintegrating Tablets Varies Among Different Manufacturers. In press. *Die Pharmazie*, Aug 2010.

•Ma Q, Zhang K, Yao HP, Zhou YQ, **Padhye S**, Wang MH. Inhibition of MSP-RON signaling pathway in cancer cells by a novel soluble form of RON comprising the entire sema sequence. *Int J Oncol*. 2010 Jun;36(6):1551-61.

•Wang MH, **Padhye SS**, **Guin S**, Ma Q, Zhou YQ. Potential therapeutics specific to c-MET/RON receptor tyrosine kinases for molecular targeting in cancer therapy. *Acta Pharmacol Sin*. 2010 Aug 9. [Epub ahead of print]

•**Kaushik K. Shah**, **Li Yang**, Thomas J. Abbruscato. In Vitro Models of Blood Brain Barrier. *Methods in Molecular Biology* "Astrocytes: Methods and protocols." Richard Milner editor (Accepted August 2010) Book chapter.

•**Li Yang**, **Kaushik K. Shah**, Thomas J. Abbruscato. An In Vitro model of Ischemic Stroke. *Methods in Molecular Biology* "Astrocytes: Methods and protocols." Richard Milner editor (Accepted August 2010) Book chapter.

•Raktima Bhattacharya, **Yan Xu**, Md. Ashequr Rahman, Pierre-Olivier Couraud, Ignacio A. Romero, Babette B. Weksler, Jon A. Weidanz, Ulrich Bickel. A novel vascular targeting strategy for brain-derived endothelial cells using a TCR mimic antibody. *J Cell Physiol*. 2010 May 20. [Epub ahead of print] ■

UPCOMING CONFERENCES



American Association of
Pharmaceutical Sciences
November 14-18, 2010
New Orleans, LA

40TH Annual Meeting of
Neuroscience 2010
November 13-17, 2010
San Diego, CA



**WATCH FOR EMAILS ABOUT THE
2010 ANNUAL ALUMNI & FRIENDS
RECEPTION**

Alumni Updates

Jiukuan Hao, Ph.D.

Assistant Professor
Dept of Pharmaceutical Sciences
Winkle College of Pharmacy
University of Cincinnati
3225 Eden Avenue
136 Health Professions Bldg
Cincinnati, OH 45267
haojn@ucmail.uc.edu
Graduated Summer 2008

Alamdar Hussain, Ph.D.

Assistant Professor
Dept of Basic Pharmaceutical
Sciences, College of Pharmacy
University of Oklahoma
P.O. Box 26901
Oklahoma City, 73126
alamdar-hussain@ouhsc.edu
Graduated Fall 2005

AWARDS & SCHOLARSHIPS

Kaci Bohn—TTUHSC Phonathon/Thankathon Scholarship for 2010 - \$750

Prabodh Kandala—Mary Lou Clements Scholarship for 2010 - \$500

Russell Snyder—American Society for Biochemistry and Molecular Biology (ASBMB) Best Thematic Poster, themed “Hypertension: Treatment, Disparities and Molecular Mechanisms”; presented at Experimental Biology, Anaheim, April 2010 - \$500

Arun Satelli—Biotechnology Travel Scholarship from American Association of Pharmaceutical Sciences for AAPS Conference in LA (2009) - \$750; Student Scholar’s Award for Young Research Scientists from

American Association of Indian Pharmaceutical Sciences to attend the American Association of Pharmaceutical Sciences (AAPS) in Los Angeles (2009) - \$500; 2010 Graduate Student Symposium Award in Biotechnology from AAPS to be presented in New Orleans.

Rachita Sumbria—Partial registration and travel scholarship for Gordon Research Conference, New London, NH, June 2010.

Kunal Taskar—Full registration and travel scholarship for Gordon Research Conference, New London, NH, June 2010.

Sarah Willis—Double T Star-Spangled Scholarship

Li Yang—Partial registration and travel scholarship for Gordon Research Conference, New London, NH, June 2010. ■

AMERICAN ASSOCIATION OF PHARMACEUTICAL SCIENCES SCHOLARSHIPS FOR 2010

Given by the Graduate Student Association of Amarillo

Venki Chithambaram Pillai	Vivek Gupta	Vinay Rudraraju	Kunal Taskar
Satya Goda	Shashi Kudugunti	Arun Satelli	Li Yang
Sunny Guin	Vamshi Manda	Kaushik Shah	Yan Xu
	Raj Mittapalli	Rachita Sumbria	

AAPS TRAVELSHIPS FOR 2010 Annual Meeting & Exposition, New Orleans, LA

Vivek Gupta - \$750	Kunal Taskar - \$750	Yan Xu - \$750
Shashi Kudugunti - \$750	Bhavna Verma - \$750	Li Yang - \$750
Arun Satelli - \$1000+Registration		

**SCHOOL OF PHARMACY
RECOGNIZING EXCELLENCE
Honors for Students, Faculty & Staff**

**April 30, 2010
Graduate Student Association at Amarillo
Award Ceremony**



Drs. Mehvar & Bickel (Dr. Miller - Abilene) receive an award from Siva Koganti for the Graduate Student Teaching Team of the Year.



Siva presents Kunal Taskar with Outstanding Oral Presenter Award



Prabodh Kandala presents Siva with Outstanding GSBS Member of the Year for 2009.



Faculty members L to R: Dr. Ulrich Bickel, Dr. Sanjay Srivastava, Dr. Reza Mehvar, Dr. Xinli Liu, Dr. Young Min Kwon

Prabodh receives recognition for having received the Dean’s Scholar Award for 2009.



New Department Contacts

Department of Pharmaceutical Sciences - SOP Suite 309; 806-356-4015
Unit Supervisor - Desmon Dunn, x245. Coordinator - Janie Rogers, x247

Department of Biomedical Sciences - SOP Suite 309; 806-356-4015
Unit Supervisor - Marty Stephens, x241.

A
g
o
n
i
s
t

A
g
o
n
i
s
t



March of Dimes—April



COMMUNITY SERVICE OPPORTUNITIES

- GPPS students participated in:
 - *Highland Park High School Science Fair poster judging—March 12th
 - *TTUHSC School of Pharmacy Medication Clean Out—March 27
 - *PharmD & Student Senate clothing drive
 - *Casino Night fundraiser for St. Jude's Children's Research Hospital—May



AAPS Blood Drive—March

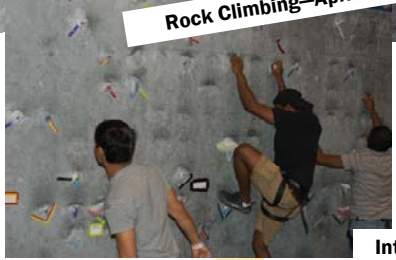


Satya Goda wins Tom Selleck Best of Show Award in Moustache March at Casino Night.

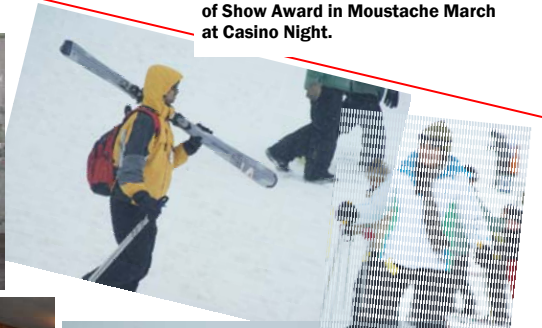
CRAZY FUN WITH GSAA



Rock Climbing—April



International Banquet—March



Skiing—March



Camping—July



Paintball—May



GSAA General Body Meetings
 12:15 -1:15 pm
 10/19/10; 11/30/10

AAPS Officers 2010-2011
 Chair—Kunal Taskar
 Chair-Elect—Satya Goda
 Vice-Chair—Hussaini Syed
 Sha Qhattal
 Treasurer—Prabodh Kandala

GSAA Officers 2010-2011

- L to R, Back Row:
 Secretary—Ameya Paranpje
 International Officer—Abir Absar
 Vice-President—Brijesh Patel
 L to R, Front Row:
 Historian—Parul Gupta
 Student Senate Office—Chris Adkins
 President—Naomi Wangler
 Treasurer—Pooja Naik

