

#### **UPDATE FROM DR. ABBRUSCATO**

The Graduate Program in Pharmaceutical Sciences (GPPS) welcomes four new graduate students this fall (profiles on page 4). A.G.M. Mostofa will work in Dr. Ming-Hai Wang's lab; Alok Ranjan will work in Dr. Sanjay Srivastava's lab; Jee Hyan Park will work in Dr. Ulrich Bickel's lab; and Tori Cowan will work in Dr. Paul Lockman's lab. We wish them a warm welcome as they join our graduate program! The GPPS was also honored to have one of our graduating students, Dr. Prabodh Kandala, selected as the 2012 GSBS Outstanding



Graduate Student. We are all very proud that Prabodh was selected for this honor, and his research determination makes this award well deserved. Over the last 7 years GPPS has had 6 of our graduates selected for this prestigious award! Also, last April we were excited to welcome back **Dr. Haritha Mandula** to present our Homecoming Seminar entitled "Bioequivalence of Drugs: a General Perspective" followed by a round-table discussion with graduate students and postdocs. Haritha graduated from the laboratory of Dr. Smith and is currently a Senior Staff Fellow at the FDA. Lastly, we would like to congratulate **Dr. Quentin Smith** for being selected as the new Dean of the School of Pharmacy. We are all looking forward to new opportunities with Dr. Smith's leadership of the SOP.



#### 2012 GSBS Outstanding Graduate Student

**Prabodh Kumar Kandala** was selected by students and GSBS faculty to carry the GSBS seal in the Commencement Exercises for the TTUHSC graduating class of 2012 on Sunday, May 20th. He is seen here receiving the Outstanding Graduate Student medallion from Dr. Abbruscato at the Convocation Ceremony on Saturday, May 19th at the Hall of Nations in the International Cultural Center. After receiving his award, Prabodh delivered the Convocation Address to the other graduates, faculty, honored

guests, staff, friends and family. Pooja Naik, Vice-President of the GSAA, reported on GSA activities for the past year.

While a GPPS student, Prabodh accumulated 4 first author and 3 coauthored publications as well as honors including the GSBS Dean's Scholars Award in 2009, the Mary Lou Clements Scholarship in 2010 and 2011, and 1st Place for the Department of Biomedical Sciences with his poster at the annual SOP Research Days in 2010 and 2011.

Out of the twelve Ph.D. students who graduated in 2012, nine were from our GPPS program. Since 2005 two of our graduates received the Dean's Recognition Award, and now six have garnered the Outstanding Graduate Student Award.



GPPS OFFICE - Suite 217 - 806-356-4015; Fax 356-4021 Dr. Tom Abbruscato, Associate Dean for GSBS, Graduate Program Advisor, Associate Professor, Pharmaceutical Sciences, x320 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 <u>Current Awards</u> <u>and</u> <u>Scholarships</u>

# Fall 2012 Issue 10

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# **SPRING 2012 GRADUATES**

**Prabodh Kandala** Lab of Dr. Sanjay Srivastava

**Dissertation Presented** March 9, 2012

"Targeting multiple signaling pathways in ovarian cancer by diindolylmethane"

Contact Information: prabodh.kandala@gmail.com



**Sivaramakrishna Koganti** Lab of Dr. Thomas Thekkumkara

**Dissertation Presented** March 26, 2012

"2-Methoxyestradiol, a Novel Pharmacological Inhibitor for Angiotensin Type I Receptor"

**Contact Information:** <u>sivarkoganti@yahoo.com</u>



Snehal Padhye

Lab of Dr. Ming-Hai Wang

**Dissertation Presented** March 2, 2012

"Targeting Pancreatic Cancer Stem Cells via Anti-RON Immunoliposomes"

Contact Information: <u>snehal.padhye@gmail.com</u>







# **Annual Homecoming Presentation**

The Invited Alumni Speaker for 2012 was **Haritha Mandula**, **Ph.D.**, Senior Staff Fellow with the FDA in Rockville, MD. She was a graduate student in Dr. Quentin Smith's lab and graduated in Fall 2005. Haritha presented a seminar entitled *"Bioequivalence of Drugs: a General Perspective"* followed by a round-table discussion and lunch with current graduate students and postdocs. As AAPS chapter sponsor

Dr. Fakhrul Ahsan presented her with a plaque from our local AAPS chapter commemorating her visit and her successful career in government. Haritha also met with her ex-committee members as well as other faculty members.





Dr. Ahsan presents an award plaque to Haritha with congrats from Hussaini SS Qhattal, AAPS Chair.



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Kaci Bohn (Su 2011) - hooded by Dr. Paul Lockman



Siva Koganti (Sp 2012) - hooded by Dr. Thomas Thekkumkara



Russell Snyder (Su 2011) hooded by Dr. Thekkumkara



All PhD and Masters GSBS Graduates



Snehal Padhye (Sp 2012) - hooded by Dr. Srivastava (for Dr. Wang)



Bhavna Verma (Su 2011) - hooded by Dr. Jon Weidanz



Prabodh Kandala (Sp 2012) - hooded by Dr. Sanjay Srivastava



RK Samala (F 2011) - hooded by Dr. Quentin Smith

Not able to attend: Shashi Kudugunti (F 2011) Yan Xu (Su 2011)

#### More graduation pictures on TTUHSC Facebook!

















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#### **GRADUATE STUDENT SEMINAR PROGRAM - SPRING 2012**

1/11/12 - Guest Speaker - Dr. Tom Hale, Professor, Pediatrics, SOM - "Using Medications in Breastfeeding Mothers"

1/18/12 - Chris Adkins - "The Role of HER2 in Brain Metastases of Breast Cancer"

1/25/12 - Shuangling Zhang - "The Effects of Alpha 1-Acid Glycoprotein (AGP) in the Extracellular Matrix Modulators"

**2/1/12 - Naomi Wangler -** "Membrane-Bound Neurolysin (EC 3.4.24.16) is the Novel Non-AT1, Non-AT2 Angiotensin Binding Protein"

**2/8/12 - Shahriar Absar -** "Stealth Nanoconstruct for Targeting of Plasminogen Activators: Evaluation of Burst Effect and Targeting Specificity"

2/15/12 - Cancer Patient Advocacy Forum 2/22/12 - Guest Speaker - Dr. Srinivas Boreddy,

**Postdoctoral Research Associate, SOP** - "Deguelin Suppresses Pancreatic Tumor Metastasis by Inhibiting Epithelial to Mesenchymal Transition"

2/29/12 - Hussaini Syed Sha Qhattal - "Optical Imaging of Tumor Targeted Nanoparticles"

3/7/12 - Guest Speaker - Dr. Rakhshanda L. Rahman, Associate Professor, Surgical Oncology, SOM - "Current Issues in Tumor Banking"

**3/14/12 - Harinath Kotte -** "Inhibition of DNA Topoisomerases and Other Repair Enzymes by S-thiolation"

**3/28/12 - Rajiv Balyan -** "Pharmaceutical Studies on Chemo-therapeutic Agents for Melanoma and Breast Cancer"

**3/28/12 - Nilesh Gupta -** "Inhalable Engineered Erythrosomes as Natural Nano-reservoirs of a Rho-kinase Inhibitor, Fasudil"

4/11/12 - Guest Speaker - Dr. Yunxia Tao, Assistant Professor, Internal Medicine Research, SOM - "Targeted cancer therapies: lessons learned from renal cell carcinoma"

**4/18/12 - Vindhya Edpuganti** - "Effect of Hepatic Ischemia Reperfusion Injury on the Disposition of P450 Metabolites of Arachidonic Acid in Rat Livers"

**4/18/12 - Raktima Bhattacharya** - "Differential Pro-apoptotic Effect of TCR mimic Antibodies on Breast Cancer and Brain Endothelial Cell Lines"

**5/2/12 - Amit Bansal -** "NOTCH-4 Inhibition to Increase Blood-Tumor Barrier Permeability"

**5/2/12 - Sukesh Voruganti** - "Novel Synthetic Makaluvamine Analogs for Pancreatic Cancer Therapy"

**5/9/12 - Guest Speaker - Dr. Tetyana Vasylyeva, Professor, Pediatrics, SOM -** "End Stage Renal Disease in Patients with Diabetes: Could We Do Better on Cardio-Vascular Health?" ■

# New Students for Fall 2012

Left to Right: A.G.M. Mostofa, M.Pharm. Lab: Dr. Ming-Hai Wang University of Dhaka Bangladesh

Alok Ranjan, B.Pharm.

Lab: Dr. Sanjay Srivastava Babasaheb Bhimrao Ambedkar Bihar University Muzaffarpur Bihar, India

Jee Hyun Park, B.A., B.S. in Pharmaceutical Sciences Lab: Dr. Ulrich Bickel University of Missouri at Kansas City Kansas City, MO

Tori Cowan, B.S. in Chemistry Lab: Dr. Paul Lockman West Texas A&M University Canyon, Texas











### March 20-22, 2012 Texas Tech University Health Science Center Lubbock, Texas



At SRW 2012, sponsored by the Graduate School of Biomedical Sciences in Lubbock, there were over 70 poster entries in the categories of junior and senior basic science researchers, 16 of which were presented by our GPPS students. Also, two of our students were invited to give oral presentations. Keynote Speakers included Dr. Gerald Shulman, Yale University School of Medicine, and Dr. Luis Fernandez, University of Wisconsin School of Medicine.

→2nd place, Basic Science Junior. Sharad Sharma, Chun-Mei Zhuang, Jun-Ying Zeng, and Ming-Hai Wang. "BMS-777607, a Small Molecule RON/MET Tyrosine Kinase Inhibitor Induces Polyploidy in Breast Cancer Cells: Molecular Mechanism and Therapeutic Implication"

#### **GPPS PRESENTERS:**

**Oral Presentation**. **Shahriar Absar**, Kamrun Nahar, Young Min Kwon, Fakhrul Ahsan. "Novel Albumin-protamine Conjugate for Triggered Release Delivery of Thrombolytic Macromolecules"

**Oral Presentation. Parul Gupta**, Christopher Adkins, Paul Lockman and Sanjay K. Srivastava. "Phenethyl isothiocyanate inhibits breast tumor metastasis to brain in a mouse model by suppressing HER2 and VEGF expression"

•Manoj Banjara, Katie Bennett and James Stoll. "Lipocalin-2 Induction in Non-Pathogen-Associated Neuroinflammation: An in vitro Study"

•Raktima Bhattacharya, Jon Weidanz, Chris Adkins, Paul Lockman and Ulrich Bickel. "Apoptotic Effect of TCR mimic Monoclonal Antibodies against Brain Seeking Breast Cancer Cell Lines"

•Alejandra Fernandez, Nicolle Nicholson, Manoj Banjara and James Stoll. "Effects of Exercise on the Acute Phase of the Pilocarpine-induced Status Epilepticus Model"

•Neel M. Fofaria and Sanjay K. Srivastava. "Piperine Causes Cell Cycle Arrest and Cell Differentiation in Melanoma Cells"

•Nilesh Gupta, Siva A Vanapalli and Fakhrul Ahsan. "Nanoengineered Erythrosomes as Reservoirs of a Rho-kinase Inhibitor, Fasudil"

•Mohammad R Islam, Kaushik Shah, Anatoliy Koval and Thomas J. Abbruscato. "The Effects of Basolateral Astrocyte Components on Human Blood Brain Barrier Characteristics"

•Prabodh K. Kandala and Sanjay K. Srivastava. "Diindolylmethane regulates anoikis through sonic hedgehog in ovarian cancer cells"

•Kamrun Nahar and Fakhrul Ahsan. "Stealth Magnetic Nanoconstructs for Targeted Delivery of Fasudil, a Rho-Kinase Inhibitor, for the Treatment of Pulmonary Arterial Hypertension"

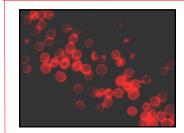
**•Pooja Naik** and Luca Cucullo. "A New Modular Dynamic In Vitro Capillary-Venule System: Cerebrovascular Physiology in a Box"

•Snehal Padhye and Ming-Hai Wang. "Combined Inhibition of RON and c-Kit chemosensitizes Pancreatic Cancer Stem Cells to Gemcitabine"

•Brijeshkumar Patel and Fakhrul Ahsan. "Inhaled Montelukast as an Alternative to Oral Administration in the Treatment of Asthma"

Shah KK, DeSilva S, Abbruscato TJ. "Glucose transporters at the blood brain barrier in diabetes"
Shuangling Zhang, Karen S. Mark. "The Effects of a1-acid Glycoprotein in the Extracellular Matrix Modulators"





This image by Nilesh Gupta was contributed to the Controlled Release Society. It was captured using a fluorescence microscope (Olympus Inc). These cell-based carrier systems were derived from erythrocytes after complete hemolysis and carefully engineered to produce nanoerythrosomes. See full article.

## PUBLICATIONS

≈Ohlin KE, Sebastianutto I, Adkins CE, Lundblad C, Lockman PR, Cenci MA. Impact of L-DOPA treatment on regional cerebral blood flow and metabolism in the basal ganglia in a rat model of Parkinson's disease. *Neuroimage*. 2012 May 15;61 (1):228-39. Epub 2012 Mar 3.

**≈Nina Blakeman,** Qian Chen, Jasmine Tolson, Brian Rueter, Brian Diaz, Brendan Casey, Lindon H. Young, Margaret T. Weis. Triacsin C, a Fatty Acyl CoA Synthetase Inhibitor, Improves Cardiac Performance Following Global Ischemia. *Am. J. Biomed. Sci.* 2012, 4(3), 249-261; 29 June 2012.

**≈Gupta P**, Srivastava SK. Anti-tumor activity of phenethyl isothiocyanate in HER2 positive breast cancer models. *BMC Med.* 2012 Jul 24;10:80.

**≈Kandala PK**, Srivastava SK. Diindolylmethane suppresses ovarian cancer growth and potentiates the effect of cisplatin in tumor mouse model by targeting signal transducer and activator of transcription 3 (STAT3). *BMC Med.* 2012 Jan 26;10:9.

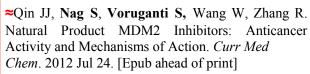
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**≈Kandala PK**, Srivastava SK. Diindolylmethane mediated Gli1 Suppression Induces Anoikis in Ovarian Cancer cells in vitro and blocks tumor formation ability in vivo. *J Biol Chem.* 2012 Aug 17;287(34):28745-54. Epub 2012 Jul 6.

**≈Koganti S, Snyder R**, Thekkumkara T. Pharmacologic Effects of 2-Methoxyestradiol on Angiotensin Type 1 Receptor Down-Regulation in Rat Liver Epithelial and Aortic Smooth Muscle Cells. *Gender Med* 2012 Apr;9(2):76-93. Epub 2012 Feb 25.

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**≈Nag SA**, Qin JJ, Wang W, Wang MH, Wang H, Zhang R. Ginsenosides as Anticancer Agents: In vitro and in vivo Activities, Structure-Activity Relationships, and Molecular Mechanisms of Action. *Front Pharmacol.* 2012;3:25. Epub 2012 Feb 28.



≈Wang W, Zhang X, Qin JJ, **Voruganti S**, Nag SA, Wang MH, Wang H, Zhang R. Natural Product Ginsenoside 25-OCH(3)-PPD Inhibits Breast Cancer Growth and Metastasis through Down-Regulating MDM2. *PLoS One.* 2012;7(7):e41586. Epub 2012 Jul 23.

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**≈Patel B**, Gauvin R, **Absar S**, Gupta V, **Gupta N**, **Nahar K**, Khademhosseini A, Ahsan F. Computational and Bio-engineered Lungs as Alternatives to Whole Animal, Isolated Organ and Cell-Based Lung Models. *Am J Physiol Lung Cell Mol Physiol.* 2012 Aug 10. [Epub ahead of print]

**≈Kaushik K. Shah**, Li Yang, Thomas J. Abbruscato. In Vitro Models of Blood Brain Barrier. *Methods in Molecular Biology*. 2012;814:431-49.

≈Li Yang, Kaushik K. Shah, Thomas J. Abbruscato. An In Vitro model of Ischemic Stroke. *Methods in Molecular Biology*. 2012;814:451-66.

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**≈Koganti S, Snyder R,** Thekkumkara T. Pharmacologic Effects of 2-Methoxyestradiol on Angiotensin Type 1 Receptor Down-Regulation in Rat Liver Epithelial and Aortic Smooth Muscle Cells. *Gend Med.* 2012 Apr;9(2):76-93. Epub 2012 Feb 25.

≈Yesudas R, Snyder R, Abbruscato T, Thekkumkara T. Functional Role of Sodium Glucose Transporter in High Glucose Mediated Angiotensin Type 1 Receptor Down-Regulation in Human Proximal Tubule Cells. *Am J Physiol Renal Physiol.* 2012 Sep;303(5):F766-74. Epub 2012 May 30.

≈Zhang X, Xu H, Zhang X, Voruganti S, Murugesan S, Nadkarni DH, Velu SE, Wang MH, Wang W, Zhang R. Preclinical Evaluation of Anticancer Efficacy and Pharmacological Properties of FBA-TPQ, a Novel Synthetic Makaluvamine Analog. *Mar Drugs.* 2012 May;10(5):1138-55. Epub 2012 May 23.

**≈Zhang S**, Mark K. α1-Acid glycoprotein induced effects in rat brain microvessel endothelial cells. *Microvasc Res.* 2012 May 24. □













# ASN

#### **CONFERENCE PRESENTATIONS**

43<sup>rd</sup> Annual Meeting of the American Society for Neurochemistry March 03 - 07, 2012 \* Baltimore, MD

•Manoj Banjara, Katie Bennett and James Stoll. "Lipocalin-2 Induction in Non-Pathogen-Associated Neuroinflammation: An in vitro Study"



•Vindhya Edpuganti and Reza Mehvar. "Isoformselective changes in arachidonic acid (AA) metabolizing cytochrome P450 (P450) enzymes in warm hepatic ischemia (IR) reperfusion injury"

•Pooja Naik, Quentin Smith, and Luca Cucullo. "Protective Role of Antioxidant Supplementation in Tobacco Smoke Toxicity at the Blood-Brain Barrier"



**Controlled Release Society** 

39th Annual Meeting and Exposition of the Controlled Release Society July 15-18, 2012 \* Québec City, Canada

•S. Absar and F. Ahsan. "Peptide-linked Targetable Nanoparticles of Tissue Plasminogen Activators for Localized Thrombolysis"

•Nilesh Gupta, Siva A. Vanapalli and Fakhrul Ahsan. "Inhalable Engineered Erythrosomes as Natural Nano-Reservoirs of a Rho-kinase Inhibitor, Fasudil"

•Kamrun Nahar, Nilesh Gupta and Fakhrul Ahsan. "Inhaled PLGA Particles of Erlotinib as an Alternative to Oral Erlotinib for the Treatment of Non-small Cell Lung Cancer"



October 16-19, 2012 • Anaheim, California

American Association for Cancer Research Annual Meeting



#### March 31 - April 4, 2012 \* Chicago, IL

•Parul Gupta, Christopher Adkins, Paul Lockman, and Sanjay K. Srivastava. "Phenethyl Isothiocyanate Inhibits Breast Tumor Metastasis to Brain in a Mouse Model by Suppressing HER2 and VEGF Expression"

•**Prabodh K. Kandala** and Sanjay K. Srivastava. "Diindolylmethane Regulates Anoikis Through Sonic Hedgehog in Ovarian Cancer Cells"



Barriers of the CNS, New London, NH Gordon Research Seminar \* 6/16-17/12 Bridging Barriers to Treat CNS Disease \* 6/17-22/12

■Chris E Adkins, Quentin R Smith, and Paul R Lockman. "The Blood-Tumor Barrier in Brain Metastases of Breast Cancer is Disrupted but Retains Signifcant Residual Function" →Best Poster Award←

•Shah KK, Abbruscato TJ. "Characterization of Glucose Transporters at the Blood Brain Barrier in Diabetes and Stroke"

•Shuangling Zhang, Quentin R. Smith, Karen S. Mark. "The Effects of α1-acid Glycoprotein in the Brain Microvasculature"



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# Eleventh Annual School of Pharmacy Research Days June 12-13, 2012

Over 140 faculty members, graduate students and residents converged on the TTUHSC Campus in Amarillo to showcase their research during the Eleventh Annual SOP Research Days, held Tuesday, June 12th and Wednesday, June 13th. The keynote speaker was Leslie Z. Benet, Ph.D., Professor,

June 12th and Wednesday, June 13th. The keynote speaker was Leslie Z. Benet, Ph.D., Professor, Department of Bioengineering & Therapeutic Sciences, University of California San Francisco. The TTUHSC Distinguished Research Presentation was given by C. Patrick Reynolds, M.D., Ph.D., Director, Cancer Center, TTUHSC School of Medicine, Lubbock. A Special Invited Medicinal Chemistry Presentation was given by Richard A. Glennon, Ph.D., Alfred and Frances Burger Professor of Medicinal Chemistry, Virginia Commenwealth University, Richmond, Virginia. Podium presentations were given by selected individuals. The annual dinner and social was held at the Amarillo Club on Tuesday evening with distinguished dinner guests including Dr. Tedd Mitchell, President, TTUHSC; Dr. Douglas Stucco, Executive Vice President for Research, TTUHSC; and the invited speakers.

#### Excellence in Research Podium Presentations/Awards for Biomedical Sciences:

•Prabodh K. Kandala and Sanjay K. Srivastava. "Gli1 Supression Induces Anoikis in Ovarian Cancer Cells in vitro and Blocks Tumor Formation Ability in vivo"

•Ameya Paranjpe and Kalkunte Srivenugopal. "Discovery and Characterization of Nitroaspirin (NCX-4016) as a Mechanism-based, Potent and Clinically Feasible Inhibitor of Human MGMT for Increasing the Efficacy of Anti-cancer Alkylating Agents"

 $\rightarrow$ 3rd Place Poster Presentation: Sharad Sharma, Chun-Mei Zhuang, Jun-Ying Zeng and Ming-Hai Wang. "BMS-777607, a Small Molecule RON/MET Kinase Inhibitor Induces Polyploidy in Breast Cancer Cells: Molecular Mechanism and Therapeutic Implication"

#### **Excellence in Research Podium Presentations/Awards for Pharmaceutical Sciences:**

•Shahriar Absar and Fakhrul Ahsan. "Thrombus-targeted Stealth Nano-construct of Tissue Plasminogen Activator for Localized Thrombolysis"

•Hussaini Syed Sha Qhattal, Tanvirul Hye and Xinli Liu. "Pharmacokinetics and Biodistribution of Hyaluronan-grafted Liposomes"

→1st Place Poster Presentation: Imam H. Shaik\*, Mohammad K. Miah\*, Ulrich Bickel and Reza Mehvar. "Effect of Hepatectomy and Pringle Maneuver "

 $\rightarrow$ 2nd Place Poster Presentation: Kamrun Nahar, Nilesh Gupta and Fakhrul Ahsan. "Inhaled PLGA Particles of Erlotinib as an Alternative to Oral Erlotinib for the Treatment of Non-small Cell Lung Cancer"

 $\rightarrow$  3rd Place Poster Presentation: Brijeshkumar Patel, Vivek Gupta and Fakhrul Ahsan. "PEG-PLGA Based Large Porous Particles for Pulmonary Delivery of a Highly Soluble Drug, Low Molecular Weight Heparin"

•Adkins CE, Smith QR and Lockman PR. "Permability Characteristics of Triple-Negative Breast Cancer Brain Metastasis Over Time"

•Rajiv Balyan, Helen R. Thorsheim, Ramakrishna Samala, Paul R. Lockman and Quentin R. Smith. "Distribution of Capecitabine and its Metabolites across Brain and Brain Metastasis"

•Manoj Banjara, Katie Bennett and James Stoll. "Lipocalcin-2 Expression Mechanism in Non-Pathogen-Associated Neuroinflammation"

•Amit Bansal, Chris E. Adkins, Mohamed Nounou, Tori Cowan and Paul R. Lockman. "Inhibition of Notch-4 Expression on Endothelial Cells Increases Blood-Tumor Barrier Permability"

•Raktima Bhattacharya, Jon Weidanz, Chris Adkins, Paul Lockman and Ulrich Bickel. "Apoptotic Effect of TCR Mimic Monoclonal Antibodies Against Brain Seeking Breast Cancer and Brain Endothelial Cell Lines" Vindbya Ednuganti and Paza Mahyar "Japform salestiva Changes in Arashidonia Asid (AA) Matshelizing

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•Alejandra Fernandez, Nicolle Nicholson, Manoj Banjara and James Stoll. "Effect of Exercise on the Acute Phase of the Pilocarpine-induced Status Epilepticus Model"

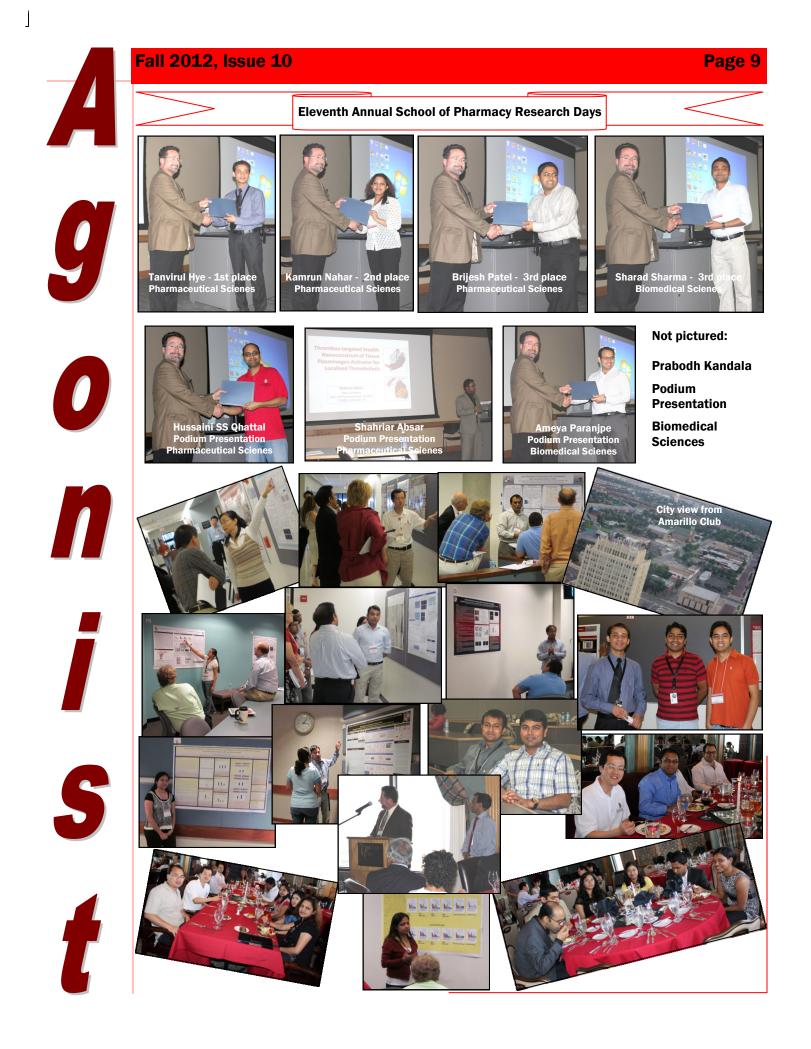
•Neel M. Fofaria and Sanjay K. Srivastava. "Piperine Causes Cell Cycle Arrest and Differentiation in Melanoma Cells"

•Nilesh Gupta, Siva A. Vanapalli, Fakhrul Ahsan. "Nanoengineered Erythrosomes as Reservoirs of a Rhokinase Inhibitor, Fasudil"

•Parul Gupta and Sanjay K. Srivastava. "Curcubitacin B Exhibits Cytotoxic Effects by Inhibiting ILK-Paxillin Signaling in Breast Cancer Cells" (Continued on Page 10)







#### (Research Days Continued from Page 8)

 Parul Gupta, Christopher Adkins, Paul Lockman and Sanjay Srivastava. "Phenethyl Isothiocyanate Inhibits Breast Tumor Metastasis to Brain in a Mouse Model by Suppressing HER2 and VEGF Expression"
 Tanvirul Hye, Hussaini Syed Sha Qhattal and Xinli Liu. "Self-Emulsifying Nanoemulsions Target Glioblas-

toma Tumors and Enhance Brain Delivery"

•Harinath Kotte and Kalkunte Srivenugopal. "Development of a Rational Nontoxic Redox Perturbing Agent for Increased Anticancer Efficacy and Thiolation of Topoisomerase Enzymes"

•Jun Liu, James Stoll. "Studies on the Low Affinity Choline Transporter"

•Shuangling Zhang, Karen S. Mark. "The Effects of Alpha 1-Acid Glycoprotein (AGP) in the Extracellular Matrix Modulators" (Pictures on page 9)

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





GSAA Vice President **Pooja Naik** presents the award for "Outstanding GSAA Student of the Year 2011-2012" to **Shahriar 'Abir' Absar.** 



**Dr. Fakhrul Ahsan** was presented the "Graduate Faculty Mentor of the Year" award by GSAA President Absar.



The "Graduate Teaching Team of the Year (Basic Pharmaceutics)" award was presented to **Dr. Reza Mehvar**.



**Graduate Student Association at Amarillo** 

April 20, 2012

Award Ceremony

The "Graduate Teacher of the Year (Physiology-based Pharmacology)" award was presented to **Dr. Margaret Weis.** 

Other special recognitions were given as follows: GSBS Dean's Scholar Award 2012 to Prabodh Kandala; first author publications - Shahriar Absar, Prabodh Kandala, Sivarama Koganti, Shashi Kudugunti, Pooja Naik, Snehal Padhye, Kaushik Shah, Russell Snyder, Hussaini Syed Sha Qhattal, Naomi Wangler

# AWARDS & SCHOLARSHIPS

»Shahriar Absar: \$500 Phonathon Award; GSBS Dean's Scholarship Award (\$5000/year until graduation)
 »Chris Adkins: AFPE Pre-Doctoral Fellowship in Pharmaceutical Sciences 2012-2013 (\$6500); Tuition scholarship for the 14th Annual Quantitative Fluorescence Microscopy at Mount Desert Island Biological Laboratory near Bar Harbor, ME in May 2012 (\$3100)

**»Kito Barrow, Nilesh Gupta, Kowser Miah, Brijesh Patel**: GSBS Course Evaluation Fall 2011 Scholarship (\$250)

»Amit Bansal: GSBS Course Evaluation Spring 2012 Scholarship (\$250)

**\*Parul Gupta:** AACR Scholar-in-Training Award sponsored by Aflac, Inc, to 11th Annual International Conference on Frontiers in Cancer Prevention Research, 10/16-19/12, Anaheim, CA (\$1000)

»Hussaini SS Qhattal: Travelship to 2012 AAPS Annual Meeting & Exposition, Chicago (\$1000)

 $\rightarrow$ Nilesh Gupta - one of 22 selected out of a total of 750 poster authors at CRS to contribute an article for the CRS Newsletter Publication giving him an opportunity to share his research with the scientific community all around the globe! (p7 for details)



 $\rightarrow$  Brijesh Patel - featured in article by Pharmaceutical Formulation & Quality: "PEG-PLGA Copolymers Show Promise for Pulmonary Delivery." View here!

 $\rightarrow$ **Prabodh Kandala** - News Article from American Society for Biochemistry and Molecular Biology: "Researchers demonstrate potential role of Gli1 protein in anoikis resistance." View <u>here!</u>

 $\rightarrow$ **Parul Gupta -** BioMed Central series blog: "Vegetable extract as a potential new therapy for HER2 positive breast cancer." View <u>here!</u>



Harinath Kotte 1979 - 2012

The 10-week 2012 Amarillo Biomedical Research Internship Program concluded Friday, July 27th, with a presentation about the Graduate Program by Dr. Abbruscato and the movie "Naturally Obsessed - The

Making of a Scientist." Fourteen ABRI interns were working in SOP labs in Amarillo, Abilene and Dallas. The interns were given awards by Dr. Abbruscato and then enjoyed a luncheon with parents, faculty and graduate students. For the last event of the day, the interns presented their posters.



LtoR: Sara Lim; Clayton Cleveland; Toni Cowan; Anthony Gipson; Kariana Weis; Camila Robles; Nicole Hoerster; Shaun Cooper; Sandirai Musuka; Wesley Wingo; Hugh Teng; Joel Oliver; Monika Jones-Higgins; Yasemin Celik.



ABRI

**»Yasemin Celik - Dr. Paul Lockman,** Pharmaceutical Sciences - "Pharmacological Concentrations of Paclitaxel Kills Brain Metastases and Central Nervous System Cells"

»Clayton Cleveland - Dr. Maciej Markiewski (Abilene), Biomedical Sciences - "Immunosuppressive properties of pre-metastatic niche in breast cancer are complement dependent"

**»Shaun Cooper - Dr. Sanjay Srivastava,** Biomedical Sciences - "Piperlongumine inhibits Pancreatic Cancer Growth by Causing Cell Cycle Arrest and Apoptosis"

**»Toni Cowan - Dr. Magdalena Karbowniczek** (Abilene), Biomedical Sciences - "Identifying the mechanism of Rheb-induced Notch activation"

**»Anthony Gipson - Dr. Margaret Weis,** Biomedical Sciences - "Fatty-Acyl-CoA Synthase Activity Kinetics and Inhibition by Triacsin C"

»Nicole Hoerster - Dr. U.S. Rao, Biomedical Sciences "Molecular Characterization of CEA Expression During Colorectal Cancer Progression and Metastasis"

»Monika Jones-Higgins - Dr. James Stoll, Biomedical Sciences - "Evaluation of Markers in Epileptogenesis"

**»Sara Lim - Dr. Kalkunte Srivenugopal,** Biomedical Sciences - "Inhibition of MGMT-mediated Base Excision Repair by the Antiestrogen Fulvestrant: Implications for Breast Cancer Therapy" »Sandirai Musuka - Dr. Richard Leff (Dallas), Pharmacy Practice - "Determination of ARQ 501 ( $\beta$  – Lapachone) Content in Serum Using a Sensitive and Selective LC-MS/MS Method: A Novel Cytotoxic Agent for Management of Solid Tumors & Hematologic Malignancies"

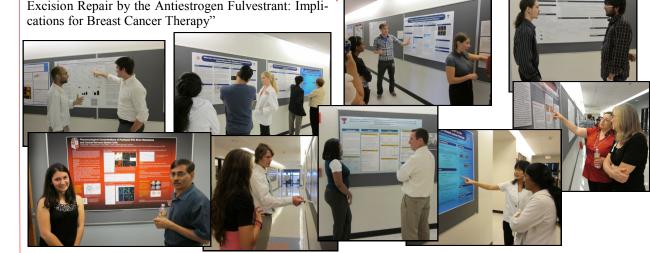
**»Joel Oliver - Dr. Xinli Liu,** Pharmaceutical Sciences "Preparation of Tumor Vasculature Targeted Liposomes to Deliver Vascular-Disruptive Microtubule Inhibitor BPR0L075"

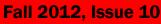
»Camila Robles - Dr. Irene La-Beck (Abilene), Pharmacy Practice - "Effects of Liposome Nanoparticle on Tumor Angiogenesis"

**»Hugh Teng - Dr. Ulrich Bickel,** Pharmaceutical Sciences - "Method Development for Triacsin C Quantitation in Blood and Organ Samples"

»Kariana Weis - Dr. Vardan Karamyan, Pharmaceutical Sciences - "Effects of Opioid Agonists on Heterodimerized mu- and delta-Opioid Receptors in HEK293 cells"

**Wesley Wingo - Dr. Quentin Smith**, Pharmaceutical Sciences - "Ang1007 and Doxorubicin Delivery to Metastatic Brain Tumors"







Chair-Elect - Brijesh Patel \*October 11th Vice-Chair - Nilesh Gupta

Treasurer - Shanal DeSilva

General Body Meetings \*November 8th

\*Christmas Party