



Agonist

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



UPDATE FROM DR. AHSAN

The past two semesters, spring and summer 2013, for our graduate program were very eventful: We have welcomed brand new babies, greeted fresh graduate students, celebrated dissertation defenses, awards and publications, hosted summer research interns and high profile external speakers, and contributed at local and national scientific meetings. Three current graduate students (Shumi, Abir, and Tori) and three alumni (Kunal, Rachita and Shuangling) became first-time parents. Three of our colleagues (the Karaymans and Dr. Cucullo) were also blessed with new babies. Congratulations to the new parents! Five students from three continents (Abul, Bangladesh; Heidi, USA; Ben, Kenya; Nihar, Afroz and Verma, India) joined us in the excitement and frustration of the world of science. Let's wish them the best of luck with their academic pursuits! Hussaini, Shuangling, Kaushik, Chris and Moon have successfully defended their PhD dissertations. Cheers to the new PhD graduates! Hussaini and Shuangling received their degrees in May 2013. We look forward to awarding Kaushik, Chris and Moon their PhD degrees in the May 2014 Graduation Ceremony. Our students were recognized locally and nationally for their contribution to the science. Abir was awarded a nationally competitive American Heart Association (AHA) pre-doctoral fellowship—the first time for our program. His abstract submitted to the Controlled Release Society (CRS) was selected for the best paper award, and he was awarded \$1,500 to be received at the CRS meeting in Hawaii. The Society of Toxicology selected Parul's abstract for the graduate student symposium. Remarkably, our graduate students have published twenty peer-reviewed papers, and they have made numerous oral and poster presentations at local and national meetings. Further, our program has been proud to host and train ten young men and women in pharmaceutical and biomedical research this past summer. On the whole, this is all great news for our graduate program, students, alumni and faculty. But we have to continue to work hard to push our program to the next level of accomplishment in science. We should aim to become the best Graduate Program in Pharmaceutical Sciences in the country. And from here it is possible! ■



Congratulations to Shahriar (Abir) Absar! Shahriar, a graduate student in Dr. Fakhru Ahsan's lab, was awarded a Predoctoral Fellowship from the American Heart Association. His grant titled "*Stealth delivery system for targeted and triggered release of tissue plasminogen activators*" received an outstanding score of 1.07 and percentile rank of 1%. As an AHA predoctoral fellow, Shahriar will receive a stipend of \$25,000 each year, starting July, 2013, and continuing over the next two years. It is important to mention that Shahriar is the first graduate student to receive such a nationally competitive predoctoral award from our 16-year old graduate program. Shahriar received part of his doctoral training concerning this project under the mentorship of Dr. Young Min Kwon.

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Susan King, Graduate Student Advisor: 414-9330

Dr. Tom Abbruscato, Associate Dean for GSBS, Professor, Pharmaceutical Sciences: 414-9234

Agonist is published every fall and spring semester by the Graduate Program of Pharmaceutical Sciences (GPPS). For updates and new information, e-mail Susan at susan.king@ttuhsc.edu.

Fall 2013 Issue 12

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Click here for deadlines of Current Awards and Scholarships

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SPRING 2013 GRADUATES

Hussaini Syed Sha Qhattal

Lab of Dr. Xinli Liu

Dissertation Presented

March 19, 2013

“CD44 Mediated Tumor Targeting of Hyaluronan-Conjugated Liposomes”

Contact Information:

Hussaini_mph@yahoo.com



Shuangling Zhang

Lab of Dr. Quentin Smith

Dissertation Presented

March 15, 2013

"Alpha 1-Acid Glycoprotein (AGP) Effects on the Function and Structure of an In Vitro Blood Brain Barrier Model "

Contact Information:

zsl_2008@163.com



SUMMER 2013 GRADUATES

Kaushik Shah

Lab of Dr. Thomas Abbruscato

Dissertation Presented

June 10, 2013

“Role of Sodium Dependent Glucose Transporters at the BBB and in the Diabetic Brain”

Contact Information:

kaushik.shah@ttuhsc.edu



Md. Mamunur (Moon) Rashid

Lab of Dr. Vardan Karamyan

Dissertation Presented

June 14, 2013

“Upregulation of metalloendopeptidase neurolysin (EC 3.4.24.16) in neuronal cell death: in vitro and in vivo observations, and in vitro studies elucidating the mechanism of its upregulation”

Contact Information:

tturashid@gmail.com



Chris Adkins

Lab of Dr. Paul Lockman

Dissertation Presented

June 12, 2013

“Characterization, treatment, and prevention of preclinical brain metastases of breast cancer”

Contact Information:

chris.adkins@ttuhsc.edu



FALL 2013 DISSERTATIONS

Ameya Paranjpe - Lab of Dr. Kalkunte Srivenugopal

Friday, October 11, 2013 - 1:30-2:30pm
AMA 107 / ABI 1130 / LUB HSC 1C111

Shahriarul (Abir) Absar - Lab of Dr. Fakhru Ahsan

Friday, November 1, 2013 - 1:30-2:30pm
AMA 107 / ABI 1130 / LUB HSC 1C111

Brijesh Patel - Lab of Dr. Fakhru Ahsan

Friday, November 22, 2013 - 1:00-2:00pm
AMA 107 / ABI 1130 / LUB HSC 1C111

CONVOCATION MAY 20, 2013

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Shuangling Zhang (Sp 2013) - after being hooded by Dr. Quentin Smith



Hussaini Syed Sha Qhattal (Sp 2013) - after being hooded by Dr. Xinli Liu



Shuangling Zhang with her son, husband and parents



Hussaini Syed Sha Qhattal with his wife



Dr. Thomas Abbruscato, Dr. Xinli Liu, Hussaini Syed Sha Qhattal, Shuangling Zhang and Dr. Quentin Smith



All PhD and Masters GSBS Graduates from Lubbock and Amarillo campuses

PUBLICATIONS

≈**Absar S, Nahar K**, Kwon YM, Ahsan F. Thrombus-targeted nanocarrier attenuates bleeding complications associated with conventional thrombolytic therapy. *Pharm Res.* 2013 Jun; 30(6):1663-76. Epub 2013 Mar 7.

≈**Shahriar Absar, Kamrun Nahar**, Suna Choi, Fakhru Ahsan, Victor C. Yang, Young M. Kwon. Serum albumin-protamine conjugate for biocompatible platform for targeted delivery of therapeutic macromolecules. *J Biomed Mater Res A.* 2013 Aug 14. [Epub ahead of print]

≈**Pramanik KC, Kudugunti SK, Fofaria NM**, Moridani MY, Srivastava SK. Caffeic acid phenethyl ester suppresses melanoma tumor growth by inhibiting PI3K/AKT/XIAP pathway. *Carcinogenesis.* 2013 Jun 10. [Epub ahead of print]

≈**Gupta N, Patel B, Nahar K, Absar S**, McMurtry IF, Oka M, Komatsu M, Ahsan F. (2013) Pharmaceutical engineering of fasudil, a rho-kinase inhibitor, for the treatment of pulmonary arterial hypertension (PAH). *Respiratory Drug Delivery.* Book Chapter.

≈**Gupta V, Gupta N**, Shaik IH, Mehvar R, McMurtry IF, Oka M, Nozik-Grayck E, Komatsu M, Ahsan F. Liposomal fasudil, a rho-kinase inhibitor, for prolonged pulmonary preferential vasodilation in pulmonary arterial hypertension. *J Control Release.* 2013 Apr 28; 167(2):189-99. Epub 2013 Jan 23.

≈**Gupta V, Gupta N**, Shaik IH, Mehvar R, Nozik-Grayck E, McMurtry IF, Oka M, Komatsu M, Ahsan F. Inhaled PLGA particles of prostaglandin E1 ameliorate symptoms and progression of pulmonary hypertension at a reduced dosing frequency. *Mol Pharm.* 2013 May 6;10(5):1655-67. Epub 2013 Mar 26.

≈**Gupta V, Gupta N**, Shaik IH, Mehvar R, McMurtry IF, Oka M, Nozik-Grayck E, Komatsu M, Ahsan F. "Liposomal fasudil, a rho-kinase inhibitor, for prolonged pulmonary preferential vasodilation in pulmonary arterial hypertension." *J Control Release.* 2013 Apr 28; 167(2):189-99. Epub 2013 Jan 23.

≈**Gupta V, Gupta N**, Shaik IH, Mehvar R, Nozik-Grayck E, McMurtry IF, Oka M, Komatsu M, Ahsan F. "Inhaled PLGA particles of prostaglandin E1 ameliorate symptoms and progression of pulmonary hypertension at a reduced dosing frequency." *Mol Pharm.* 2013 May 6; 10(5):1655-67. Epub 2013 Mar 26.

≈**Gupta P**, Goel R, Pathak S, Srivastava A, Singh SP, Sangwan RS, Asif MH, Trivedi PK. De novo assembly, functional annotation and comparative

analysis of *Withania somnifera* leaf and root transcriptomes to identify putative genes involved in the withanolides biosynthesis. *PLoS One.* 2013 May 8; 8(5):e62714. Print 2013.

≈**Gupta P, Adkins C**, Lockman P, Srivastava SK. Metastasis of Breast Tumor Cells to Brain Is Suppressed by Phenethyl Isothiocyanate in a Novel In Vivo Metastasis Model. *PLoS One.* 2013 Jun 27; 8(6):e67278. Print 2013.

≈**Subhasree Nag**, Dwayaja H. Nadkarni, Jiang-Jiang Qin, **Sukesh Voruganti**, Thao Nguyen, Su Xu, Wei Wang, Hui Wang, Sadanandan E. Velu, and Ruiwen Zhang. Anticancer Activity and Molecular Mechanisms of Action of Makaluvamines and Analogues. *Molecular and Cellular Pharmacology* 12/2012; 4(2):69-81. DOI:10.4255/mcpharmacol.12.07.

≈**Qian B, Nag SA**, Su Y, **Voruganti S**, Qin JJ, Zhang R, Cho WC. miRNAs in cancer prevention and treatment and as molecular targets for natural product anticancer agents. *Curr Cancer Drug Targets.* 2013 Jun; 13(5):519-41.

≈**Yu J, Nag SA**, Zhang R. Advances in translational pharmacological investigations in identifying and validating molecular targets of natural product anticancer agents. *Curr Cancer Drug Targets.* 2013 Jun; 13(5):596-609.

≈**Nag S**, Qin J, Srivenugopal KS, Wang M, Zhang R. The MDM2-p53 pathway revisited. *J Biomed Res.* 2013 Jul; 27(4):254-71. Epub 2013 Jun 6.

≈**Nahar K, Gupta N**, Gauvin R, **Absar S, Patel B**, Gupta V, Khademhosseini A, Ahsan F. In vitro, in vivo and ex vivo models for studying particle deposition and drug absorption of inhaled pharmaceuticals. *Eur J Pharm Sci.* 2013 Aug 16; 49(5):805-18. Epub 2013 Jun 22.

≈**Paranjpe A**, Srivenugopal KS. Degradation of NF- κ B, p53 and other regulatory redox-sensitive proteins by thiol-conjugating and -nitrosylating drugs in human tumor cells. *Carcinogenesis.* 2013 May; 34(5):990-1000. Epub 2013 Jan 25.

≈**Kast RE**, Boockvar JA, Brüning A, Cappello F, Chang WW, Cvek B, Dou QP, Duenas-Gonzalez A, Efferth T, Focosi D, Ghaffari SH, Karpel-Massler G, Ketola K, Khoshnevisan A, Keizman D, Magné N, Marosi C, McDonald K, Muñoz M, **Paranjpe A**, Pourgholami MH, Sardi I, Sella A, Srivenugopal KS, Tuccori M, Wang W, Wirtz CR, Halatsch ME. A conceptually new treatment approach for relapsed glioblastoma: coordinated undermining of survival paths with nine repurposed drugs (CUSP9) by the International Initiative for Accelerated Improvement of Glioblastoma Care. *Oncotarget.* 2013 Apr; 4(4):502-30.

(Continued on Page 6)

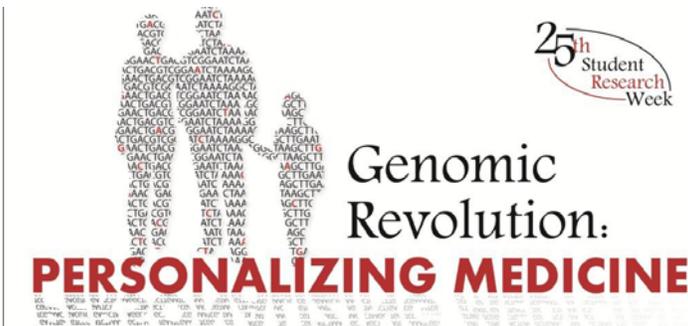
Publications (Continued from Page 5)

≈**Shah K**, Abbruscato T. The Role of Blood-Brain Barrier Transporters in Pathophysiology and Pharmacotherapy of Stroke. *Curr Pharm Des.* 2013 Jun 19. [Epub ahead of print].

≈Thundyil J, Tang Sc, Okun E, **Shah K**, Karamyan VT, Li YI, Woodruff TM, Taylor SM, Jo DG, Mattson MP, Arumugam TV. Evidence that adi-

ponectin receptor 1 activation exacerbates ischemic neuronal death. *Exp Transl Stroke Med.* 2010 Aug 11; 2(1):15. doi: 10.1186/2040-7378-2-15.

≈**Sharma S**, Zeng JY, Zhuang CM, Zhou YQ, Yao HP, Hu X, Zhang R, Wang MH. Small-Molecule Inhibitor BMS-777607 Induces Breast Cancer Cell Polyploidy with Increased Resistance to Cytotoxic Chemotherapy Agents. *Mol Cancer Ther.* 2013 May; 12(5):725-36. Epub 2013 Mar 6. ■



March 4-6, 2013
Texas Tech University
Health Sciences Center
Lubbock, Texas



At the 25th Annual Student Research Week, sponsored by the Graduate School of Biomedical Sciences of TTUHSC in Lubbock, Texas, there were many poster entries in the categories of junior and senior basic science researchers, ten of which were presented by our GPPS students. Also, one of our students was invited to give an oral presentation. Keynote Speakers included Dr. Dan M. Roden, Vanderbilt University School of Medicine, and Dr. Richard M. Weinshilboum, Mayo Clinic College of Medicine.

GPPS PRESENTERS:

Selected Student Presentation: Manoj Banjara, Katie Bennett and James Stoll. “Expression of Lipocalin-2 During Sterile Neuroinflammation: An in vitro Study”

- Manoj Banjara**, Katie Bennett and James Stoll. “Diverse Set of Damage-Associated Neuronal Proteins Stimulate Inflammation in C6 Astroglial Cells”
- Raktima Bhattacharya**, Md. Ashequr Rahman, Jon Weidanz, Ulrich Bickel. “Transcytosis of TCRm antibodies against MHC Class I - peptide complexes across human brain derived endothelial cells”
- Alejandra Fernandez**, Sarah Willis, Karin Borges, James Stoll. “Effects of chronic metformin treatment and a triheptanoin diet on seizure threshold of pilocarpine-induced epileptic mice”
- Neel M. Fofaria** and Sanjay K. Srivastava. “Acquisition of anoikis resistance by STAT-3 up-regulation promotes cell migration and metastatic potential in cancer cells”
- Parul Gupta** and Sanjay K. Srivastava. “Breast cancer growth suppression by cucurbitacin B through inhibition of TGF β supported Integrin-HER2 signaling”
- Mohammad R. Islam** and Thomas J Abbruscato. “Biphalin and Its Pegylated Analog Exhibit Neuroprotection Against Ischemia Induced Neurotoxicity”
- Pooja Naik** and Luca Cucullo. “Tobacco smoke toxicity at the BBB: Are reduced-exposure cigarette brands really less harmful?”
- Sharad Sharma**, Chun-Mei Zhuang, Jun-Ying Zeng, and Ming-Hai Wang. “Small-Molecule Inhibitor BMS-777607 Induces Breast Cancer Cell Polyploidy with Increased Resistance to Cytotoxic Chemotherapy Agents”
- Naomi J. Wangler**, Colin Sumners, Robert C. Speth, Vardan T. Karamyan. “Adeno-associated viral vector mediated over-expression of neurolysin in mouse primary neuronal and neuronal astroglial mixed cell cultures.” ■

CONFERENCE PRESENTATIONS



52nd Annual Meeting of the Society Of Toxicology March 10-14, 2013 * San Antonio, TX

Neel M. Fofaria and Sanjay K. Srivastava. "Over-expression of STAT-3 induces anoikis resistance, promotes cell migration and metastatic potential in cancer cells"

Parul Gupta and Sanjay K. Srivastava. "Inhibition of TGF β -induced integrin growth receptor cooperative signaling by Cucurbitacin B, causes breast cancer cell growth suppression"

American Association for Cancer Research Annual Meeting April 6-10, 2013 * Washington, DC

Neel M. Fofaria and Sanjay K. Srivastava. "Over-expression of STAT-3 induces anoikis resistance, promotes cell migration and metastatic potential in cancer cells."



Neel M. Fofaria and Sanjay K. Srivastava. "Activation of Chk1 critical for Piperine induced cell cycle arrest and apoptosis in melanoma cells."

Parul Gupta and Sanjay K. Srivastava. "Cucurbitacin B inhibits epithelial-to-mesenchymal transition in breast cancer cells through Snail downregulation."

Parul Gupta and Sanjay K. Srivastava. "Cucurbitacin B suppresses breast cancer growth by inhibiting TGF β -mediated integrin-HER2 signaling."

Ameya Paranjpe and Kalkunte Srivenugopal. "The NO-releasing aspirin inactivates and degrades human MGMT more efficiently than O⁶-benzylguanine and greatly sensitizes brain tumor cells to alkylating agents."

Sharma, Sharad, Jun-Ying Zeng, Chun-Mei Zhuang, Ming-Hai Wang. "Small-Molecule Inhibitor BMS-777607 Induces Breast Cancer Cell Polyploidy with Increased Resistance to Cytotoxic Chemotherapy Agents"

19th Congress of the International Society for Aerosols in Medicine April 6-10, 2013 * Chapel Hill, NC



Brijeshkumar Patel, Nilesh Gupta and Fakhru Ahsan. "Feasibility Testing of Low Molecular Weight Heparin (LMWH): Loaded Large Porous PEG-PLGA Microparticles for the Treatment of Asthma." — Podium and poster presentation.

Nilesh Gupta, Brijeshkumar Patel and Fakhru Ahsan. "Aerosolized Peptide Conjugated Nanoerythrocytes Containing Fasudil for the Treatment of Non-Small Cell Lung Cancer" — Poster presentation.



Experimental Biology 2013 Research Meeting April 20-24, 2013 * Boston, MA

Nina Blakeman, Allan M Prior, Laxman Pokhrel, Duy H Hua, and Margaret T Weis. "Novel Fatty Acyl-CoA Synthetase (FACS) Inhibitors-New Tool to Study Ischemia/Reperfusion (I/R) Injury"

Pooja Naik and Luca Cucullo. "Analysis and Impact of Mainstream Tobacco Smoke from Regular and Reduced Exposure Products on Blood Brain Barrier: Are we clearing this smoke cloud yet?"

Shikha Prasad and Luca Cucullo. "Pericytes and Astrocytes Crosstalk: Understanding Perivascular Synergism at the BBB "

Shahriar Absar, Young Min Kwon, Fakhru Ahsan. "Camouflaged and Thrombin-Triggered Delivery of Tissue Plasminogen Activator for Targeted Thrombolysis."

Kamrun Nahar and Fakhru Ahsan. "Peptide conjugated liposomes for the targeted and localized delivery of fasudil for the treatment of pulmonary arterial hypertension."

Brijesh Patel, Nilesh Gupta, Fakhru Ahsan. "Efficacy Testing of Montelukast Loaded Large Porous Particles in Allergen-Induced Rat Asthma Model."



GRADUATE STUDENT SEMINAR PROGRAM - SPRING 2013

1/9/13 - Faculty Panel - Dr. Thomas Abbruscato, Chair and Professor, Pharmaceutical Sciences, Dr. Sanjay Srivastava, Professor, Biomedical Sciences, and Dr. Junxuan (Johnny) Lu, Chair and Professor, Biomedical Sciences - "Designing Abstracts and Manuscripts"

1/16/13 - Faculty Speaker, Dr. Paul Trippier, Assistant Professor, Pharmaceutical Sciences - "A New Mode of Action for the Treatment of Neurodegenerative Diseases? and Future Drug Discovery Efforts"

1/23/13 - Nilesh Gupta - "Fasudil encapsulated Nanoerythrocytes for the treatment of pulmonary arterial hypertension"

1/30/13 - Shikha - "Pericytes and Astrocytes Cross-talk : Understanding Perivascular Synergism at the BBB"

2/6/13 - Rajiv Balyan - "Distribution of Capecitabine and its Metabolites in Brain Metastases of Breast Cancer"

2/13/13 - Raktima Bhattacharya - "Transcytosis of TCRm antibodies against MHC Class I - peptide complexes across human brain derived endothelial cells"

2/20/13 - Post Doc Speaker - Dr. Mohamed Nounou, Postdoctoral Research Associate, Pharmaceutical Sciences - "Novel Design Approach Towards Safe and Efficient Bioreducible Lysine-Based Non-Viral Gene Delivery System"

2/27/13 - Md. Shahriar (Abir) Absar - "Bioresponsive Delivery System for Tissue Plasminogen Activator"

3/13/13 - Brijesh Patel - "Respirable Polymeric Particles of Montelukast Improve Lung Functions of Asthmatic Animals"

3/20/13 - Vindhya Edpuganti - "Hepatic Ischemia Injury Alters the Concentrations of P450 Mediated Arachidonic Acid Metabolites in Rat Livers"

3/27/13 - Naomi Wangler - "Toward understanding the (patho) physiological function of the endopeptidase neurolysin in the brain"

4/3/13 - Sukesh Voruganti - "Novel MDM2 inhibitors for pancreatic cancer therapy"

4/17/13 - Shanal DeSilva - "The Role of Sodium Dependent Glucose Transporter(s) in the Pathophysiology of Brain Ischemia"

4/25/13 - Ameya Paranjpe - "Inactivation of human MGMT by Disulfiram provides a nontoxic means to potentiate the anti-glioma alkylating agents"

4/25/13 - Debasish Basak - "Reactivation of mutant p53 Protein in human cancers through redox perturbation using a nontoxic stabilized homogluthathione disulfide"

5/1/13 - Faculty Speaker - Dr. Paul Lockman, Associate Professor, Pharmaceutical Sciences, SOP - "The problem of brain metastases of breast cancer" ■

**UPCOMING CONFERENCES
SPRING 2014**



APRIL 5-9, 2014 SAN DIEGO, CALIFORNIA



**41st Annual Meeting & Exposition
of the Controlled Release Society**

July 13-16, 2014
The Hilton Chicago
Chicago, Illinois, U.S.A.

TRANSLATION

of Delivery Technology:
Innovation to Commercialization

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Twelfth Annual School of Pharmacy Research Days June 6-7, 2013



A multitude of faculty members, graduate students and residents converged on the TTUHSC Campus in Amarillo to showcase their research during the Twelfth Annual SOP Research Days, held Thursday, June 6th and Friday, June 7th. Keynote speaker was **Margaret L. Kripke, Ph.D.**, Chief Scientific Officer, Cancer Prevention and Research Institute of Texas (CPRIT). Distinguished speaker was **Michael Karin, Ph.D.**, Distinguished Professor of Pharmacology and Pathology, School of Medicine, University of California, San Diego, CA. Special speakers were **Thomas Jacobs, Ph.D.**, Associate Vice Chancellor for Federal Relations, University of Texas System; and **Mansoor A. Khan, R.Ph., Ph.D.**, Director of Product Quality Research, Senior Biomedical Research Scientist, Center for Drug Evaluation Research, U.S. Food and Drug Administration (FDA). Podium presentations were given by selected individuals throughout the day, and awards were presented to complete it. The annual dinner which followed was held Friday evening at the Amarillo Club.

Outstanding Poster Presentation Awards

→Senior Graduate Student Category:

- Shahriar Absar** and Fakrul Ahsan. “Bioresponsive Delivery System for Tissue Plasminogen Activator”
- Ameya Paranjpe** and Kalkunte Srivenugopal. “The NO-Releasing Aspirin Inactivates and Degrades Human MGMT More Efficiently than O⁶-Benzylguanine and Greatly Sensitizes Brain Tumor Cells to Alkylating Agents”
- Brijesh Patel**, Nilesh Gupta and Fakhrul Ahsan. “Low Molecular Weight Heparin Loaded Large Porous Particles in Asthma”

→Junior Graduate Student Category:

- Neel M. Fofaria** and Sanjay K. Srivastava. “Activation of Chk1 by Piperine Induces Cell Cycle Arrest and Apoptosis in Melanoma Cells”
- Neel M. Fofaria** and Sanjay K. Srivastava. “Over-Expression of STAT-3 Induces Anoikis Resistance, Promotes Cell Migration and Metastatic Potential in Cancer Cell in Vitro and in Vivo”

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- Rajiv Balyan**, Helen R. Thorsheim, Ramakrishna Samala, Paul R. Lockman and Quentin R. Smith. “Brain Metastasis Distribution of Capecitabine and its Metabolites in a Preclinical Mouse Model of Breast Cancer”
 - Manoj Banjara**, Katie Bennett, James Stoll “Lipocalin-2 Expression is Stimulated by Diverse Set of Damage-Associated Neuronal Proteins in C6 Astroglial Cells”
 - Debasish Basak**, Ameya Paranjpe, Kalkunte Srivenugopal. “Cysteine Redox Proteomics: Reactivation of Mutant p53 Proteins in Human Tumors using a Nontoxic Stabilized Glutathione Disulfide”
 - Raktima Bhattacharya**, Md.Ashequr Rahman, Jon Weidanz, Ulrich Bickel. “Transcytosis of TCRm Antibodies Against MHC Class I-Peptide Complexes Across Human Brain Derived Endothelial Cells”
 - Shanal DeSilva**, Thomas Abbruscato. “Cell/Tissue Culture Model to Study the Role of Sodium Dependent Glucose Transporter-1 in the Pathophysiology of Brain Ischemia”
 - Vindhya Edpuganti** and Reza Mehvar. “UHPLC-Tandem Mass Spectrometric (LC-MS/MS) Analysis of Free Concentrations of Arachidonic Acid (AA) and its Cytochrome P450 Metabolites in the Liver of Rats after Hepatic Ischemia”
 - Alejandra Fernandez** and James Stoll. “Effects of Voluntary Exercise on Acute Mouse Seizure Models”
 - Nilesh Gupta**, Brijeshkumar Patel and Fakhrul Ahsan. “Aerosolized Peptide Conjugated Nanoerythrocytes Containing Fasudil for the Treatment of Pulmonary Arterial Hypertension.”
 - Parul Gupta** and Sanjay K. Srivastava. “Cucurbitacin B Inhibits Epithelial-to-Mesenchymal Transition in Breast Cancer Cells through Snail Downregulation”
 - Parul Gupta** and Sanjay K. Srivastava. “Cucurbitacin B Suppresses Breast Cancer Growth by Inhibiting TGFβ Mediated Integrin-HER2 Signaling”
 - Tanvir Hye**, Liangxi Li, Kunal S. Taskar, Hussaini Syed Sha Qhattal, Helen R. Thorsheim, Paul Lockman, Quentin R. Smith, Xinli Liu. “Synthesis and Evaluation of Brain Penetration of Lapatinib-Angiopep-2 Conjugates”
 - Mohammad R. Islam**, Thomas J. Abbruscato. “Neuroprotective Potential of Opioid Peptide Biphalin and its Analogs in Stroke”
 - Kowser Miah**, Imam H. Shaik, and Reza Mehvar. “Effects of Warm Hepatic Ischemia-Reperfusion Injury on the Liver Transporters”

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(Research Days, continued from Page 8)

- Kamrun Nahar** and Fakhru Ahsan. “CAR-Peptide Decorated Nanocarrier for the Treatment of Pulmonary Arterial Hypertension”
- Pooja Naik** and Luca Cucullo. “The Effect of Nicotine and Tobacco-Derived ROS on Blood Brain Barrier Endothelium”
- Mamoon Rashid**, Yang L., Wangler N.J., Shah K., Arumugam T.V., Abbruscato T.J., Karamyan V.T. “Endopeptidase Neurolysin is Upregulated in Mouse Brain Following Focal Ischemia”
- Hussaini Syed Sha Qhattal**, Tanvirul Hye, and Xinli Liu. “Hyaluronan Polymer Length, Grafting Density and Surface PEG Coating Influence the in Vivo Circulation”
- Naomi J. Wangler**, Colin Sumners, Robert C. Speth, Vardan T. Karamyan. “Adeno-Associated Viral Vector Mediated Over-Expression of Neurolysin in Mouse Primary Neuronal and Neuronal Astroglial Mixed Cell Cultures” ■

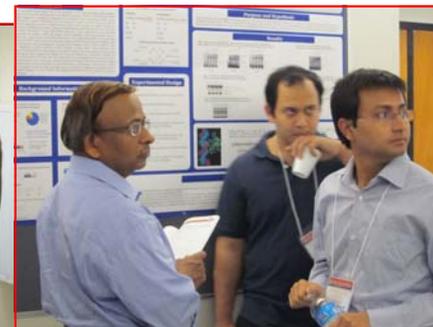
(Pictures on pages 11-12)



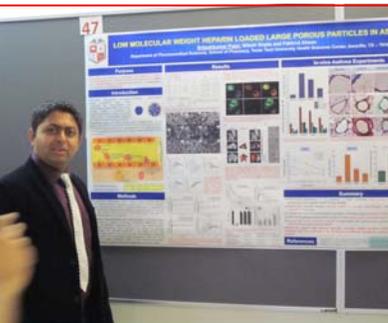
Shahriar (Abir) Absar
Senior Graduate Student Award



Ameya Paranjpe
Senior Graduate Student Award



Brijesh Patel
Senior Graduate Student Award



Neel Fofaria
Junior Graduate Student Award



Twelfth Annual School of Pharmacy Research Days

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

**April 19, 2013
Graduate Student Association at Amarillo
Award Ceremony**



**GSAA President
Vindhya Edpuganti**
presented the awards
during the ceremony.



Hussaini Syed Sha Qhattal
was presented the
“Outstanding GSAA
Student of the Year
2012-2013” award.



Dr. Vardan Karamyan
was presented the
“Graduate Faculty
Mentor of the Year”
award.



Dr. Reza Mehvar
was presented the
“Graduate Teacher of the
Year (Pharmacokinetics)”
award.



The “Graduate Teaching Team of the Year (Principles of Drug Action)”
award was presented to
Dr. Ulrich Bickel, Dr. Harold Miller and Dr. Paul Trippier.

**Special Recognition
was also given for**
First Author Publications to:

**Shahriar Absar
Pooja Naik
Hussaini Syed Sha Qhattal
Kaushik Shah
Sharad Sharma
Russell Snyder
Naomi Wangler**

AWARDS & SCHOLARSHIPS

- »**Shahriar ‘Abir’ Absar:** American Heart Association (AHA) Predoctoral Fellowship Grant, \$25,000.00 each of two years (July 2013);
Controlled Release Society (CRS) Best Paper Award, \$1,500, 2013 CRS Annual Meeting & Exposition, Honolulu, Hawaii on July 24, 2013;
Outstanding Research Poster Presentation Award, Senior Graduate Student Category (\$150), 2013 Twelfth Annual SOP Research Days, TTUHSC, Amarillo, TX;
American Association of Pharmaceutical Scientists, Graduate Student Symposium Award in Drug Discovery and Development and Interface, Selected for Podium Presentation, \$1,000 travel support award, Fall 2013.
- »**Debasish Basak:** GSBS Course Evaluation Scholarship (\$250), Spring 2013
- »**Neel Fofaria:** Outstanding Poster Presentation, Junior Graduate Student Category, 2013 Twelfth Annual SOP Research Days, TTUHSC, Amarillo, TX; Scholar-in-Training Award, AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics.
- »**Parul Gupta:** SOT Graduate Student Travel Support Award, \$1,000.
- »**Subhasree Nag:** GSAA Student Publications, First Author, 2013.
- »**Ameya Paranjpe:** Outstanding Poster Presentation, Senior Graduate Student Category, \$150, 2013 Twelfth Annual SOP Research Days, TTUHSC, Amarillo, TX.
- »**Brijeshkumar Patel:** Outstanding Poster Presentation, Senior Graduate Student Category, \$150, 2013 Twelfth Annual SOP Research Days, TTUHSC, Amarillo, TX.
- »**Sharad Sharma:** GSAA Student Publications, First Author.
- »**Sukesh Voruganti:** GSBS Spring 2013 Course Evaluation Scholarship, \$250.

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The 10-week 2013 Amarillo Biomedical Research Internship Program concluded Monday, August 5th, with a presentation about the Graduate Program by Dr. Ahsan and the movie “Naturally Obsessed - The Making of a Scientist.” Ten ABRI interns were working in SOP labs in Amarillo and Abilene. The interns were given awards by Dr. Ahsan, and then enjoyed a luncheon with parents, faculty and graduate students. For the last event of the day, the interns presented their posters.



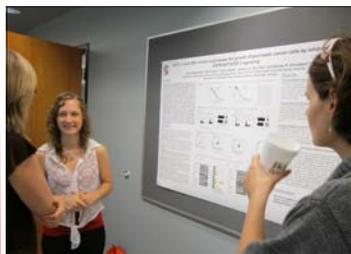
LtoR (back row): Asad Haider; Carl (Joey) Greene; Bradley Rowland; Marian Cabasal, Kelly Hartley; Wayne Chee

LtoR (front row): Benard Ogola; Robyn Blasingame; Ashlee Birkenfeld; Linley Riediger



- »Ashlee Birkenfeld - Dr. Sanjay Srivastava, Biomedical Sciences - “GS-19, a novel GSK inhibitor suppresses the growth of pancreatic cancer cells by inhibiting EGFR/AKT/STAT-3 signaling”
- »Robin Blasingame - Dr. Ruin Zhang, Pharmaceutical Sciences - “Anti-cancer properties of Sarsapogenin”
- »Marian Cabasal - Dr. Laurence Wood (Abilene), Immunotherapeutics - “USP18 as a Novel Tumor Suppressor”
- »Wayne Chee - Dr. Junxuan Lu, Biomedical Sciences - “Quantitation of Decursin, Decursinol Angelate and Decursinol Simultaneously in Human Plasma by Solid Supported Liquid Extraction (SLE) and UHPLC-MS/MS and its Application in a Clinical Pharmacokinetic Study”
- »Carl (Joey) Greene - Dr. Xinli Liu, Pharmaceutical Sciences - “Bio-Activation of Hyaluronan-Near Infrared Dye Conjugate (IR820-HA) for Selective Imaging of Tumors Cells”

- »Asad Haider - Dr. Quentin Smith, Pharmaceutical Sciences - “Characterization and Comparison of Brain Metastases of Breast Cancer in Young and Old Mice”
- »Kelly Hartley - Dr. Magdalena Karbowniczek (Abilene), Immunotherapeutics - “P75NGFR Expression is not regulated by Rheb and Tsc1 Activity in Mouse Embryo Neural Tubes and Dorsal Root Ganglia”
- »Benard Ogala - Dr. Thomas Thekkumkara, Biomedical Sciences - “2- Methoxyestradiol: A Regulator of Angiotensin Type 1 Receptor”
- »Linley Riediger - Dr. Maciej Markiewski (Abilene), Immunotherapeutics - “Generation of a C5aR Conditional Knockout Using Recombineering Technology”
- »Bradley Rowland - Dr. Irene La-Beck (Abilene), Immunotherapeutics “Immunological Effects of Liposome Treatment and Impact on Tumor Growth and Angiogenesis”



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New Students for Fall 2013

Md. Abul Kaiser,
B.Pharm and M.Pharm.
University of Dhaka
Bangladesh
Lab: Dr. Luca Cucullo

Maria (Heidi) Villalba,
B.S. in Biology
West Texas A&M University
Canyon, Texas
Lab: Dr. Paul Lockman

Benard Ogola,
B.S. in Biochemistry
Texas Tech University
Lubbock, Texas
Lab: Dr. Thomas J. Thekkumkara



Nihar Kinarivala, B.Pharm.
Nirma University
Ahmedabad, India
Lab: Dr. Paul Trippier

Afroz Mohammad, M.Pharm.
Kakatiya University
Warangal, India
Lab: Dr. Paul Lockman

Kshitij Verma, B.Pharm.
Devi Ahilya University
Indore, India
Lab: Dr. Paul Trippier

GSAA BULLETIN BOARD

Officers for 2013-2014:

President, **Mohammad Rashedul Islam**;
Vice-President, **Neel Fofaria**; Secretary, **Subhasree Nag**;
Treasurer, **Raktima Bhattacharya**; Student Senate
Representative, **Alejandra Fernandez**; Historian, **Alok Ranjan**;
International Student Representative, **Sukesh Voruganti**.

GSAA

General Body Meetings

*September 5th *September 24th *October 1st
*October 5th ~ Picnic *November 1st
November 27 ~ Bowling Party

 **aaps** American Association of
Pharmaceutical Scientists
DEVELOPING SCIENCE. IMPACTING HEALTH.

2013-2014 Officers of the Amarillo AAPS Chapter

Chair - Brijesh Patel
Chair-Elect - Nilesh Gupta
Vice-Chair - Shanal DeSilva
Treasurer - Neel Fofaria

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(left to right)
Kamrun (Shumi) Nahar & baby Neehan
Tori Terrell & baby Roxy
Shuangling Zhang & baby Yongbin (Kevin)



Born to
**Drs. Vardan
and Anna
Karamyan**
on 2/4/2013
Noemi Karamyan
6lbs, 3oz, 19.25"



Born to **Rachita
Sumbria
and Vijay**
Baby Abhiveer



Born to **Shahriarul
'Abir' Absar
and Kamrun
'Shumi' Nahar**
on 3/14/2013
Neehan Absar
6 lb, 19.5"

Born to **Kunal and
Pradnya Taskar**
on 3/16/2013
baby girl Taskar



Born to **Dr. and Mrs. Luca Cucullo**
on 8/3/2013
Silvia Cucullo
7 lb 12 oz