

Rx News

A Monthly Newsletter
of The University of Georgia College of Pharmacy
April 2015

AWARDS/HONORS

Michael Bartlett, Interim Assistant Dean, Nontraditional Education and Outreach

Bartlett laboratory undergraduate James Michael Sutton was selected to receive a Richard Bryan Scholarship for high academic achievement and excellence in research. He received the award at the PBS Research Day, April 28, 2015.

Bruckner and Bartlett laboratories undergraduate Eled Gebrehiwot was selected to receive a Richard Bryan Scholarship for high academic achievement and excellence in research. She received the award at the PBS Research Day, April 28, 2015.

Aaron Beedle, Assistant Professor

Named "TEACHER OF THE WEEK" April 20, 2015 by the UGA Center for Teaching and Learning

Chaired and programmed the "Muscle Diseases: Recent Advances in Disease Mechanisms" session of the American Physiological Society at the 2015 Experimental Biology meeting in Boston, MA.

Beedle laboratory undergraduates Vedika Rajasekaran and Noreen Syed were each winners of the 2015 CURO Research Assistantship Award.

Beedle laboratory undergraduate Vedika Rajasekaran has received a prestigious 2015 Summer Internship in Biomedical Research award from the National Institutes of Health. She will work in an NIH intramural laboratory in the Washington, DC area for the summer.

Beedle laboratory undergraduate Kristen Peissig won the John E. Nine Scholarship for Excellence in the Pharmaceutical Sciences for her outstanding performance in coursework and undergraduate research. She received her award at the Department of Pharmaceutical & Biomedical Sciences research day on April 28, 2015.

Trisha Branan, Clinical Assistant Professor

Featured as the Member Spotlight in the Society of Critical Care Medicine Clinical Pharmacy and Pharmacology Section April Newsletter

Houjian Cai, Assistant Professor

Graduate student Lishann Ingram, received GlaxoSmithKline Science Achievement Award for the 2014-15 academic year by UNCF fund.

Graduate student Sumit Rai received travel award for Dr. Sidney A. McNairy, Jr. Student Symposium 2015 being held on March 16, 2015 at Clark Atlanta University

Eileen Kennedy, Assistant Professor

Graduate students Laura Hanold and Melody Fulton both received Travel Awards from the 24th Annual American Peptide Symposium in Orlando, FL

Melody Fulton was also selected for a presentation and will be a finalist for the Young Investigator's Award at the 24th Annual American Peptide Symposium in Orlando, FL

Laura Hanold was selected as the recipient for the 2015 La Rocca Graduate Student Award.

Dexi Liu, Head, Pharmaceutical and Biomedical Sciences

Served as a reviewer on NCI Center of Cancer Nanotechnology Excellence (U54) Review Panel, March 31 – April 2, 2015

Brad Phillips, Head, Clinical and Administrative Pharmacy

Named in the Top 25 pharmacy professors in the country by the Medical Technology Schools publication.

Gurvinder Singh Rekhi, Academic Faculty Associate

US patent issued for "Controlled Release Compositions Comprising a Combination of Isosorbide Dinitrate and Hydralazine Hydrochloride". US 8,992,973 B2 March 31, 2015. Inventors – Gurvinder Singh Rekhi, Richard Sidwell and Sharon Hamm.

Arthur Roberts, Assistant Professor

Roberts laboratory undergraduate Diana Nguyen received the Outstanding Research Presentation Award at the PBS Research Day, April 28, 2015.

Somanath Shenoy, Associate Professor

Served on the invited grant review panel of the "World Cancer Research Fund International", London, UK

George Zheng, Associate Professor

Zheng laboratory graduate student Liza Ngo received a prestigious National Science Foundation Scholarship Graduate Research Fellowship (GRF) Award.

PUBLICATIONS**Michael Bartlett, Interim Assistant Dean, Nontraditional Education and Outreach**

P. Li, W.D. Beck, P.M. Callahan, A.V. Terry and M.G. Bartlett, "Pharmacokinetics of cotinine in rats: a potential therapeutic agent for disorders of cognitive function." *Pharmacological Reports*, 67, 494-500 (2015).

Brian Cummings, Associate Professor

Differential effect of cocaine exposure on the abundance of phospholipid species in the rat brain and blood. In *Drug and Alcohol Dependence*. Brian S. Cummings, Sumitra Pati (PBS graduate student), Serap Sahin, Natalie E. Scholpa (ITP graduate student), Prashant Monian (undergraduate), Paul N. Trinquero (undergraduate), Jason K. Clark and John J. Wagner.

This study demonstrates that a cocaine-conditioning experience results in the remodeling of specific phospholipids in rat brain tissue in a region-specific manner and also alters the intensities and types of phospholipid species in rat blood. These results further suggest that such changes may serve as biomarkers to assess the neuroadaptations following repeated exposure to cocaine.

Azza El-Remessy, Associate Professor

Published in *Biomedical Research International*: Imbalance of the nerve growth factor and its precursor as a potential biomarker for diabetic retinopathy. This clinical study was funded by Translational Research Initiative (TRI) Grant from the Department of Clinical and Administrative Pharmacy. The study was conducted in collaboration with the Dr. Deigo Espinosa, Retina Director, Eye clinic at GRU where findings from experimental research was validated in human patients. Diabetes causes accumulation of the nerve growth factor precursor and decreases in NGF in ocular fluids, which are mirrored in serum of the same patients. There was positive correlation of the proNGF/NGF ratio between ocular fluids and serum, suggesting that this ratio can serve as biomarker of diabetic retinopathy.

Published in *Biomedical Research International*: MicroRNA-146b-3p Regulates Retinal Inflammation by Suppressing Adenosine Deaminase-2 in Diabetes. Our lab collaborated on this study, which examined the levels of novel regulators of retinal inflammation in response to diabetes. Diabetic retina experience decreases in the anti-inflammatory molecule "Adenosine" and the study attempted to identify new molecular pathways that affect adenosine level. Changes in the level of microRNA-146b-3p, a non-coding mRNA that regulate expression of adenosine deaminase were demonstrated in conjunction with retinal inflammation markers.

Eileen Kennedy, Assistant Professor

Structural and evolutionary divergence of cyclic nucleotide binding domains in eukaryotic pathogens: Implications for drug design. Mohanty S, Kennedy EJ, Herberg FW, Hui R, Taylor SS, Langsley G, Kannan N. *Biochim Biophys Acta*. 2015 Apr 3. pii: S1570-9639(15)00093-X. doi: 10.1016/j.bbapap.2015.03.012.

Neurochondrin is an atypical RII α -specific A-kinase anchoring protein. Hermann JS, Skroblin P, Bertinetti D, Hanold LE, von der Heide EK, Wagener EM, Zenn HM, Klussmann E, Kennedy EJ, Herberg FW. *Biochim Biophys Acta*. 2015 Apr 23. pii: S1570-9639(15)00115-6. doi: 10.1016/j.bbapap.2015.04.018.

Dexi Liu, Head, Pharmaceutical and Biomedical Sciences

Parisa Darkhal, Mingming Gao, Yongjie Ma, and Dexi Liu (2015) Blocking High Fat Diet-induced Obesity, Insulin Resistance and Fatty Liver by Overexpression of Il-13 Gene in Mice. *International Journal of Obesity* doi:10.1038/ijo.2015.52.

Mandi Murph, Associate Professor

Book published: Mandi Murph editor, *Melanoma-Current Clinical Management and Future Therapeutics*, ISBN 978 953 51 2036 0. 410 pages, 14 chapters published April 01, 2015. <http://www.intechopen.com/books/melanoma-current-clinical-management-and-future-therapeutics>

Melanoma - Current Clinical Management and Future Therapeutics serves as an advanced course in melanoma or an addendum to further polish expertise. Sections of the book include a thorough introduction on epidemiology and disease, the current surgical management of melanoma and lymph node dissection, immunotherapy along with drug toxicities and emerging research topics, like RAGE and autotaxin, that have potential therapeutic applications. The chapters in this book explore the most common subtype of melanoma, cutaneous disease, as well as a rare form, acral lentiginous melanoma and even canine tumors. Experts from around the globe contributed chapters, most of which have visual illustrations to depict aspects of disease management and therapy, allowing readers to grasp the advanced concepts presented.

Somanath Shenoy, Associate Professor

Goc A, Sabbineni H, Abdalla M, Somanath PR. p70 S6-kinase mediates the cooperation between Akt1 and Mek1 pathways in fibroblast-mediated extracellular matrix remodeling. *Biochim Biophys Acta - Molecular Cell Research* 2015 Apr 2; 1853(7):1626-1635.

Our previous studies suggested that mutual interaction and cooperation between Akt and cRaf/Mek pathways may be cell, stimuli and/or context specific. We investigated the specific role of Akt1 and Mek1 in extracellular (ECM) remodeling by the fibroblasts. Our study identified that cooperation between Akt1 and Mek1 is necessary to mediate ECM synthesis and that their effects were reconciled through the activation of p70 S6-kinase via phosphorylation at T421/S424 and S411, respectively. Furthermore, Akt1 and Mek1 cooperated in mediating ECM assembly via activation of integrin β 1. Together, we show for the first time that Akt1 and Mek1 pathways cooperate via p70 S6-kinase in fibroblast-mediated ECM remodeling.

Published Book Chapters: Sabbineni H and Somanath P.R, 2015. Mechanisms of Vascular Remodeling in pulmonary arterial hypertension (Chapter 1), In: *Pulmonary arterial hypertension and Nifedipine: Pathogenesis and Management*, Nova Science Publishers, pp. 1-38; and

Sabbineni H and Somanath P.R, 2015. Methods to Study Cellular Plasticity in vitro and Pulmonary Vascular Remodeling in vivo in Pulmonary Arterial Hypertension (Chapter 2), In: *Pulmonary arterial hypertension and Nifedipine: Pathogenesis and Management*, Nova Science Publishers, pp. 39-66

PRESENTATIONS

Aaron Beedle, Assistant Professor

Presented "Small Group Problem-Based Learning Exercises to Advance Students' Critical Thinking and Scientific Reasoning Skills", a 45 minute interactive invited session, at the University System of Georgia Teaching and Learning Conference 2015.

Beedle lab graduate student Steven Foltz gave a short oral presentation entitled "Therapeutic Targeting of Akt/mTOR Signaling in Fktn-deficient Muscle" at the 2015 Experimental Biology meeting in Boston, MA.

Hosted the poster session and presented "Altered Fiber Types in Regenerated Muscle of Fktn-KO Muscular Dystrophy Mice" at the 2015 Experimental Biology meeting in Boston, MA.

Beedle lab undergraduate students Vedika Rajasekaran and Noreen Syed each presented posters at the 2015 CURO Research Symposium (Athens, GA) entitled "Validation of CRISPR/Cas9 for Genome Editing of Fktn in C2C12 Mouse Myoblast Cell Lines" and "Assembly of a Dual-Selection Cassette for Gene-Specific Targeting by CRISPR/Cas9 to Recapitulate Dystroglycanopathies".

Houjian Cai, Assistant Professor

Dr. Sungjin Kim: Postdoctoral fellow: "Dietary saturated fatty acids accelerate Src kinase mediated prostate tumor progression" for Dr. Sidney A. McNairy, Jr. Student Symposium 2015 being held on March 16, 2015 at Clark Atlanta University

Sumit Rai, Graduate student: "Differentiation of Adult prostate epithelial stem cells requires heparin sulfate" for Dr. Sidney A. McNairy, Jr. Student Symposium 2015 being held on March 16, 2015 at Clark Atlanta University.

Poster presentation in Dr. Houjian Cai's lab

Dr. Qianjin Li, Postdoctoral fellow: "Inhibiting FRS2-mediated FGF/FGFR and its drug resistant mutants induced oncogenic signaling" for Dr. Sidney A. McNairy, Jr. Student Symposium 2015 being held on March 16, 2015 at Clark Atlanta University.

Dr. Meng Wu, Postdoctoral fellow: "Pathological expression of p63 is regulated by the hedgehog signaling" for Dr. Sidney A. McNairy, Jr. Student Symposium 2015 being held on March 16, 2015 at Clark Atlanta University.

Sumit Rai, Graduate student: "Differentiation of Adult prostate epithelial stem cells requires heparin sulfate" for Gordon Research Conference March 1-6, 2015 at Renaissance Tuscany Il Ciocco Lucca (Barga), Italy.

Shaivam Patel, Undergraduate student: "Screening Lead compound on targeting fatty acylation of Src kinase by Click Chemistry" abstract for Dr. Sidney A. McNairy, Jr. Student Symposium 2015 being held on March 16, 2015 at Clark Atlanta University.

Brian Cummings, Associate Professor

Resume/CV-The Do's and Don'ts That Define Success for Academic Job Applications. A Webinar presented in conjunction with the American Association of Pharmaceutical Sciences.

Anthony Hawkins, Clinical Assistant Professor

Provided a CE presentation for nurses and pharmacists on 'Management of the Intubated Patient: Pain, Agitation, Delirium' at Phoebe Putney Memorial Hospital in Albany, GA

Keith Herist, Clinical Associate Professor

Presented "HIV/AIDS - The Community Pharmacist's Perspective" to the R.C. Wilson Pharmaceutical Association at their monthly meeting on April 22.

Kalen Manasco, Clinical Associate Professor

Presented "Infectious Diseases" at the 1st Annual Pediatric Pharmacy Preparatory Review Course at the American College of Clinical Pharmacy Updates in Therapeutics in Chicago, Illinois on Sunday, April 12, 2015.

J. Russell May, Clinical Professor

"New Drug Update 2015: A Formulary Approach" at the Southeastern Primary Care and Family Medicine Symposium, Augusta, GA, April 22, 2015.

Merrill Norton, Clinical Associate Professor

Presented Keynote "The Adolescent Brain and Addiction" and "Marijuana, Alcohol, and Prescription Drugs : Update 2015" at the Mississippi School for Addiction Professionals, Hattiesburg, Mississippi;

Presented Keynote "Medication Assisted Treatments for Substance Use Disorders" at the Pathways to Understanding: Neuroscience, Addiction Treatment, and Young Adults Conference, Kennesaw State University, Kennesaw, Georgia;

Presented "Reefer Madness 2015: The Science of Leaf Marijuana and Medical Cannabinoids and the Impact on the Adolescent Brain" at the Blunt Truth : Today's Marijuana Conference, Columbia, South Carolina;

Presented with Dr. Samah Fawzi Al-shatnawi , Ph.D. candidate, three poster presentations at the Annual Meeting of the College of Psychiatric and Neurological Pharmacists (CPNP), Tampa, Florida:

Student Pharmacists and Alcohol Drinking Behavior: Findings from a Collaborative of Colleges of Pharmacy in the United States;

Perceived Stress and Impulsivity as a Predictor of Substance Use Disorders: Findings from the Student Pharmacist Chemical Health Scale III;

Influence of Sociological Factors on Physicians Prescribing of Psycho-stimulants in Patients with Attention Deficit Hyperactivity Disorder.

Beth Phillips, Rite Aid Professor

"ASHP Accreditation Update: What's New with the PGY1 Standard?" Southeastern Residency Conference. Athens, GA. April 30, 2015.

Marjorie Shaw Phillips, MS, RPh, FASHP (Clinical Professor of Pharmacy Practice UGA and Pharmacy Coordinator Georgia Regents Medical Center)

"Low Testosterone and Testosterone Replacement Therapy" at 50th Annual Primary Care and Family Medicine Symposium presented by Georgia Regents University (April 18-23, 2015) April 19, 2015 in Augusta <http://www.gru.edu/ce/medicalce/2015/pcfm2015.php>

Robin Southwood, Clinical Associate Professor

Presented Activities of a Diabetes Care Team in a Community Hospital. Presented at Interprofessional Summit in Savannah GA in April 2015

George Zheng, Associate Professor

Zheng laboratory graduate students and postdocs gave poster presentations at the Southeast Enzyme Conference on April 11 in Atlanta.

OTHER NEWS

David DeRemer, Associate Professor

Participated in the Hematology/Oncology Pharmacy Association (HOPA) Board and Health Policy Committee 2015 Capitol Hill Day. HOPA individuals met with Senate and House of Representatives personnel regarding –

- 1) Provider Status- H.R. 592/S. 314 Pharmacy and Medically Underserved Areas and Enhancement Act
- 2) Specialty Tiers- H.R. 1600 Patients Access to Treatment Act of 2015
- 3) Oral Parity – Cancer Drug Coverage Parity Act of 2015

Dexi Liu, Head, Pharmaceutical and Biomedical Sciences

Appointed as a Member of the American Association of Pharmaceutical Scientists Research and Resources Implementation Committee, the AAPS

Attended Workshop on "Managing Yourself and Leading Others", Harvard University, Boston, April 13 -14, 2015

Jason Zastre, Associate Professor

Quoted in Atlanta Journal Constitution, Washington Post and other national newspapers that problem with lethal injection drug that caused the last-minute postponement of an execution in Georgia was likely caused by shipping and storing the drug at a temperature that was too low

ANNOUNCEMENTS

Albert W. Jowdy Golf Classic, May 18, Athens Country Club

Kenneth L. Waters Lecture, November 4