

Rx News

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

AWARDS/HONORS

Aaron Beedle, Assistant Professor

Served as a reviewer for the Muscular Dystrophy Association Scientific Advisory Committee grant review panel, May 21-22, 2015, Chicago, IL.

Dr. Catherine Bourg and Gin Fleming, Clinical Assistant Professors

Awarded \$2,000 through the Faculty Achievement in Classroom Teaching (FACT) grant program to implement new teaching strategies in the Disease State Management series for second-year students.

Trisha Branan and Anthony Hawkins, Clinical Assistant Professors

Awarded \$1500 through the Faculty Achievement in Classroom Teaching (FACT) grant to implement new teaching strategies in the Critical Care Pharmacy elective for third-year students.

Trisha Branan, Clinical Assistant Professor

Selected to the first ACCP Research Institute Mentored Research Investigator Training (MeRIT) Program, a two-year longitudinal program to begin July 2015.

Ewan Cobran, Assistant Professor

Accepted to Owens Institute of Behavioral Research (OIBR) Grantsmanship Development Program (previously OIBR Mentoring Program) 2015-2017

Cindy Davenport, Administrative Associate I, Regulatory Affairs, Gwinnett

Named Employee of the Year 2014

Also noted for service to College were : Five years - Leah Costyn, research professional I; Janet Fowler, administrative associate II; Cindy Davenport, administrative associate I; Susan Herda, admissions counselor I; and Wei Jia, research professional II; 10 years - Renee Dobbs, student affairs professional; and Linda Duncan, lab tech II.

Stephanie Phan, Clinical Assistant Professor

Awarded \$500 through Faculty Achievement in Classroom Teaching (FACT) grant to develop and implement new methods in a psychiatry elective

Lilian Sattler, Interdisciplinary Assistant Professor

Accepted to the Owens Institute of Behavioral Research (OIBR) Grantsmanship Development Program (previously OIBR Mentoring Program) 2015-2017.

Somanath Shenoy, Associate Professor

Invited to the grant review panel of the "Infection, immunity and Lung diseases" section of the "Italian Ministry of Health", Italy.

GRANTS

Somanath Shenoy, Associate Professor

Received \$310,275 from National Institutes of Health for study of protein kinase b (AKT)-mediated pathway regulating endothelial barrier function

PUBLICATIONS

Amber Clemmons, Clinical Assistant Professor, with David DeRemer, Clinical Associate Professor, and Stephen Clark, Adjunct Clinical Assistant Professor (former UGA-GRU PGY2 Oncology Resident)

Fosaprepitant for the prevention of nausea and vomiting in patients receiving BEAM or high-dose melphalan before autologous hematopoietic stem cell transplant. *J Oncol Pharm Pract* 2015 May 7. pii: 1078155215585190. [Epub ahead of print]

Azza El-Remessy, Associate Professor

Silencing p75NTR prevents proNGF-induced endothelial cell apoptosis and development of acellular capillaries in rat retina.

The study was published in *Molecular Therapy: Methods and Clinical Development*

The main findings that overexpression of the nerve growth factor precursor (proNGF) is capable of inducing cell death in a p75NTR-dependent manner of the small capillaries of rat retina resulting in ischemia, a hall mark of several ischemic retinal diseases including diabetic retinopathy, retinopathy of prematurity and retinal vein occlusion. Targeting proNGF or p75NTR can be further developed for the treatment of these blinding diseases

Invited review article: *Molecular Mechanisms of diabetic retinopathy: potential therapeutic targets.*

The article was published in *Mid. Eas. Afr. J. Ophthalmology*

The article provides a current update on the main pathways that are engaged in the pathology of diabetic retinopathy including oxidative stress and inflammation

Susan Fagan, Jowdy Professor

Artham S, Fouda AY, El-Remessy AB, Fagan SC. Vascular protective effects of angiotensin receptor blockers: Beyond blood pressure. *Receptors and Clinical Investigation* 2015; 2:e774. Doi:10.14800/rci.774

Soliman SA, Ishrat T, Fouda AY, Patel A, Pillai B, Fagan SC. Sequential therapy with minocycline and candesartan improves long term recovery after experimental stroke. *Translational Stroke Research*, ePub ahead of print, May 26, 2015

Eileen Kennedy, Assistant Professor

Flaherty BR, Wang Y, Trope EC, Ho TG, Muralidharan V, Kennedy EJ* (co-corresponding) and Peterson DS.* "The Stapled AKAP disruptor peptide STAD-2 displays antimalarial activity through a PKA-independent mechanism." *PLOS One*, 2015, 10(5): e0129239, DOI 10.1371/journal.pone.0129239 (PMID: 26010880).

Kennedy EJ* (corresponding) and Kannan N. "Dialing in EGFR signaling." *Chem Biol*, 2015, pii: S1074-5521(15)00200-8. DOI 10.1016/j.chembiol.2015.06.001.

Beth Phillips, Rite Aid Professor, and Catherine Bourg, Clinical Assistant Professor

Thurston MM, Bourg CA, Phillips BB, and Huston SA. Impact of Health Literacy Level on Aspects of Medication Nonadherence Reported by Underserved Patients with Type 2 Diabetes. *Diabetes Technology and Therapeutics*. 2015;17:187-93. DOI: 10.1089/dia.2014.0220

Somanath Shenoy, Associate Professor

Fairaq A, Goc A, Artham S, Sabbineni H, Somanath PR. TNF α induces inflammatory stress response in microvascular endothelial cells via Akt- and P38 MAP kinase-mediated thrombospondin-1 expression. *Mol Cell Biochem*. 2015 May 12. [Epub ahead of print]

Tumor necrosis factor- α (TNF α) and thrombospondin-1 (TSP-1) are well-known mediators of inflammation. However, a causal relationship between TNF α stimuli and TSP-1 expression in endothelial cell stress, and the underlying mechanisms has not yet been investigated. Our study demonstrates the novel role of TNF α in inducing inflammatory stress response in hMEC through Akt- and P38 MAPK-mediated expression of TSP-1, independent of NF κ B signaling.

Abdalla M, Sabbineni H, Prakash R, Ergul A, Fagan SC and Somanath PR. Akt inhibitor, triciribine, ameliorates chronic hypoxia-induced vascular pruning and TGF β -induced pulmonary fibrosis, *British Journal of Pharmacology*, 2015 May 29. [Epub ahead of print] DOI: 10.1111/bph.13203

Interstitial lung disease is associated with severe pulmonary vascular remodeling, peripheral vascular rarefaction and fibrosis, thus limiting lung function. We investigated the role of the Akt pathway and its downstream molecular mechanisms in pulmonary fibrosis in mice, and determined the therapeutic benefits of the Akt inhibitor triciribine for the treatment of pulmonary fibrosis in mice. Whereas Akt1 deficiency in mice protected from chronic hypoxia-induced peripheral vascular pruning, hyperactivation of Akt1 induced focal fibrosis. Triciribine inhibited hypoxia- and TGF β -induced pulmonary vascular rarefaction and fibrosis. Mechanistically, we found that Akt1 modulates pulmonary remodeling via regulation of thrombospondin1 (TSP1) expression. TSP1 $-/-$ mice were resistant to Akt1-induced pulmonary fibrosis. Our study provides the pre-clinical data on the potential benefits of the Akt inhibitor triciribine for the treatment of interstitial lung disease.

PRESENTATIONS

Jim Bruckner, Professor, and Cathy White, Associate Professor

Presented their research findings on potential effects of pyrethroid insecticides on children's health to the U.S.EPA Scientific Advisory Panel in Washington, DC, from May 17 – 20.

Azza El-Remessy, Associate Professor

Presentations at Annual Research on Vision and Ophthalmology (ARVO) 2015 in Denver, CO: Inducible Overexpression of Endothelial ProNGF as A Mouse Model to Study Retinal Microvascular Dysfunction; High fat diet dysregulates microRNA-17-5p and enhances retinal TXNIP expression: Role of ER-stress; and Modulation of P75NTR protects against ischemic retinopathy: Possible contribution of mesenchymal stem cells

Dexi Liu, Professor and Head, Pharmaceutical and Biomedical Sciences

Presentations at "The 18th Annual Meeting of the American Society of Gene and Cell Therapy", New Orleans, LA, May 13-16, 2015

(Podium, with Travel Award) Kenya Kamimura, Hiroyuki Abe, Takeshi Yokoo, Tsutomu Kanefuji, Takeshi Suda, Yuji Kobayashi, Guisheng Zhang, Masafumi Oda, Yutaka Aoyagi, Shuji Terai and Dexi Liu. Image-guided, Liver-targeted Hydrodynamic Gene Delivery in Dogs - Preclinical Assessment of Effectiveness and Safety of the Procedure.

(Poster) Mohammed Al Saggar, Qian Yao and Dexi Liu. Hydrodynamic Cell Delivery for Assessment of Tumor Growth and Drug Sensitivity in Different Organs and Microenvironment

(Poster) Hao Sun, Yongjie Ma, Mingming Gao, Mohammad Al-Saggar, Yahya Al Hamhoom and Dexi Liu. Assessment of IL-15/sIL-15Ra Gene Therapy on Lewis Lung Carcinoma Growing in Mouse Lung, Liver and Kidneys

(Poster) Mingming Gao, Yongjie Ma, Kexiu Song, Hao Sun and Dexi Liu. Recapitulating the Triglyceride-lowering Effect of Cold Exposure by Overexpression of Fibroblast Growth Factor-21 Gene

(Poster) Chunbo Zhang, Leping Li and Dexi Liu. Transcription Factor Binding Site in Plasmid Regulates Persistence of Transgene Expression in Mouse Liver

(Poster) Tsutomu Kanefuji, Takeshi Yokoo, Takeshi Suda, Kunihiko Sawada, Yoshinori Arai, Hiroyuki Abe, Kenya Kamimura, Dexi Liu and Shuji Terai, Impact of Injection Volume on Hydrodynamic Delivery To the Liver in Mice

(Poster) Takeshi Yokoo, Tsutomu Kanefuji, Takeshi Suda, Akiomi Ushida, Tomiichi Hasegawa, Kenya Kamimura, Dexi Liu and Shuji Terai. Rheological Modification of Hydrodynamic Gene Delivery.

(Poster) Yuji Kobayashi, Kenya Kamimura, Hiroyuki Abe, Masato Ohtsuka, Hiromi Miura, Takeshi Yokoo, Tsutomu Kanefuji, Takeshi Suda, Guisheng Zhang, Masanori Tsuchida, Yutaka Aoyagi, Dexi Liu, Shuji Terai, Effect of Fibrotic Tissue on Liver-targeted Hydrodynamic Gene delivery

(Poster) Hiroyuki Abe, Kenya Kamimura, Yuji Kobayashi, Masato Ohtsuka, Hiromi Miura, Riuko Ihashi, Takeshi Yokoo, Tsutomu Kanefuji, Takeshi Suda, Masanori Tsuchida, Yutaka Aoyagi, Guisheng Zhang, Dexi Liu, Shuji Terai, Effective Prevention of Liver Fibrosis by Liver-targeted Hydrodynamic Gene Delivery of Matrix Metalloprotease-13 in Rat Liver Fibrosis Model.

Kalen Manasco, Clinical Associate Professor

(Poster) Terry, CO, Gallay AN, Manasco KB. Rituximab for neuromyelitis optica positive transverse myelitis. Pediatric Pharmacy Advocacy Group Annual Meeting. Minneapolis, Minnesota. May 2015.

Beth Phillips, Rite Aid Professor

"ASHP Accreditation Update: Highlights of the New (2014) PGY1 Residency Accreditation Standards, Training, and Match Stats" Eastern States Residency Conference. Hershey, PA. May 5, 2015.

Beth Phillips with Michael Thiman, Clinical Assistant Professor, "Practical Approaches in Preparing for the NAPLEX®" Review of Pharmacy for 2015 Graduates. Athens, GA. May 1, 2015.