



## TEXAS A&M RANGEL COLLEGE OF PHARMACY REPORT TO THE TEXAS PHARMACY CONGRESS: AUGUST 8-9, 2017

### COLLEGE NEWS

#### MAY 2017 COMMENCEMENT- EIGHTH COHORT

Eight-eight students received their Doctor of Pharmacy degrees on May 27 as the Texas A&M Rangel College of Pharmacy hosted its eighth commencement ceremony in Kingsville. Dr. Lucinda Maine, Executive Vice President and CEO of the American Association of Colleges of Pharmacy, delivered the commencement address. The evening prior to commencement, the Rangel College of Pharmacy held its annual awards banquet to celebrate the successes of the program and to recognize faculty, staff and students award recipients.

#### GOOD MANUFACTURING PRACTICE LAB SET TO OPEN

The Rangel College of Pharmacy opened its [Good Manufacturing Practice \(GMP\) Laboratory](#), a first-of-its-kind facility for the Bryan-College Station campus. This new lab will help create solid dosage forms, such as immediate and modified-release capsules and tablets and novel drug delivery systems, including nanoparticles and topical products, such as ointments or creams, for animal or human testing under rigid regulatory protocols.

#### TEXAS A&M AND DRISCOLL CHILDREN'S HOSPITAL GLOBAL HISPANIC HEALTH INSTITUTE

The Institute for Public Health Improvement has been renamed the Texas A&M and Driscoll Children's Hospital Global Institute for Hispanic Health. **Dr. Indra K. Reddy**, Dean of the Rangel College of Pharmacy, and **Dr. Carrie Byington**, Dean of the College of Medicine and Senior Vice President of the Health Science Center, represent the four-person governing board that also includes Steve Woerner, President and CEO and Eric Hamon, Executive Vice President and CFO of the Driscoll Health System. The joint institute will advance the health of the Hispanic community, ensuring the needs of the population are addressed when developing new drugs and life-saving therapies. This one-of-a-kind reach in South Texas is closely tied to the Texas A&M Healthy South Texas initiative to improve the health of rural populations throughout the state.

#### DR. ROBERTSON LEADERSHIP EXCELLENCE IN STUDENT SERVICES AWARD



Dean Indra Reddy presented the **James Robertson, Jr. Leadership Excellence in Student Services Award** to Dr. Heather Petrelli, Associate Dean for Student Affairs and Assessment, South Florida College of Pharmacy, Chair of AACP Student Services at the AACP Annual Meeting in Nashville, Tenn. on July 16, 2017 (photo at left). This award was established by the AACP in honor of the late Dr. James Robertson, Jr., to recognize faculty for their student service excellence. Each year, the AACP selects a nominee from a pharmacy college/school for their outstanding student service.

## WALGREENS DIVERSITY GRANT

Julie Mitchell, R.Ph., Healthcare Supervisor with Walgreens, presented Dean Reddy with a donation of \$8,000 in July to support the efforts of the College in increasing diversity among student pharmacists (photo at right). Since 2008, Walgreens has donated over \$1 Million annually to support diversity initiatives at schools and colleges of pharmacy.



## STUDENT NEWS



### UTAH TRIP

Ten students from the Texas A&M Rangel College of Pharmacy along with Bree Watzak, Pharm.D., Assistant Professor of Pharmacy Practice and Debra Wood, R.Ph., Experiential Education Coordinator joined 300 student pharmacists in Salt Lake City, Utah this June (photo at left). This event encompassed four days of education, personal development, and networking at the APhA Institute on Alcoholism and Drug dependencies.

### BOLIVIA TRIP

An interprofessional health care team from the Texas A&M Health Science Center ran a medical and dental clinic for five days in the remote Andean mountain village of Quesimpuco, Bolivia. A total of 363 patients were counseled and 1,160 prescriptions were dispensed. The team, led by **Dr. Bree Watzak, Assistant Professor of Pharmacy Practice**, was comprised of four pharmacy students: **Olivia Collado (P4)**, **Tanner Dodd (P3)**, **Andrew Ramirez (P2)** and **Wenfei Wei (P3)** (photo at right); two nursing students, two nurse practitioner students, three faculty from the College of Nursing, one medical student, two faculty from the College of Medicine, four dental students, and a dentist from College Station.



### COSTA RICA TRIP



**Mona Ramon (P3)** and **Diana Pena (P3)** (photo at left) travelled May 20-28, 2017, to participate in an International Medical Mission to Costa Rica as part of the Global Health Team with an organization named International Service Learning (ISL). The team consisted of one doctor, one pharmacist, three translators, and 13 volunteers from a variety of inter-professional disciplines such as medicine, pharmacy, nutrition, and ophthalmology, from California, Louisiana, New York, Pennsylvania, and Texas. The team traveled to Alajuela, San Jose, and Puntarenas during their nine day stay in Costa Rica.

## SCHOLARSHIP RECIPIENTS

**Jennifer Tran** (P4) was awarded the 2017 Nancy W. Dickey Endowed Scholarship.

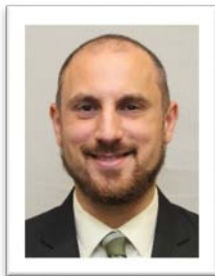
**John Medina** (P3) was awarded the Walgreens Pharmacy Student Professional Educational Assistance Scholarship.

## TPA CONFERENCE AND EXPO

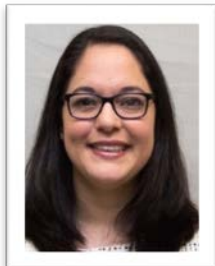
Several faculty, staff and students of the Rangel College of Pharmacy attended the Texas Pharmacy Association Conference & Expo on July 7-8, 2017 at the San Antonio Marriott River Center in San Antonio, Texas (photo at right). Fourth-year students, **Brianne Sorunke**, **Anum Abid**, and **Yovani Canales** participated in the TPA Student Patient Counseling Competition (SPCC) that occurred on Saturday, July 8 at the conference.



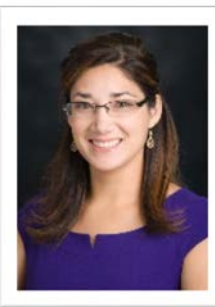
## FACULTY AND STAFF NEWS NEW HIRES



**Asim Abu-Baker, Pharm.D.**, (photo at left) joined the Rangel College of Pharmacy as the Associate Dean for Clinical and Professional Affairs, and Clinical Professor in the Department of Pharmacy Practice. Dr. Abu-Baker earned his doctor of pharmacy degree from Albany College of Pharmacy, Albany, New York, and completed his post-graduate residency in ambulatory care, adult medicine, and endocrinology in Albany, New York. He has participated in the AACP Academic Leadership Fellows Program.



**Daniela Bazan, Pharm.D.**, (photo at left) joined the Rangel College of Pharmacy as the Clinical Assistant Professor in the Department of Pharmacy Practice. Dr. Bazan earned her doctor of pharmacy degree from the University of Texas at Austin, College of Pharmacy, Austin, Texas.



**Amanda Galindo, Ed.D.**, (photo at left) joined the Rangel College of Pharmacy as the Director of Student Success. Dr. Galindo earned her doctoral degree in education, with a focus on the cognate area of higher education administration, from Texas A&M University – Kingsville. She completed her master's degree in counseling and her bachelor's degree in biology, with a secondary education certification, from Texas A&M University – Corpus Christi.

**Sana Qureshi, Pharm.D.**, (no photo available) is completing a PGY-2 residency within the Department of Pharmacy Practice at the Texas A&M Rangel College of Pharmacy under the direction of **Dr. Sebastian Perez**, Clinical Assistant Professor. Dr. Qureshi earned her doctor of pharmacy degree from the University of Texas at Austin, College of Pharmacy, Austin, Texas.

## PROMOTIONS

**John Bowman, M.S.**, Associate Professor of Pharmacy Practice, will serve as *Interim* Department Head the Department of Pharmacy Practice, effective May 30, 2017.

**Mansoor Khan, Ph.D.**, Professor, Vice Dean, and Presidential Impact Fellow, will serve as the *Interim* Department Head of Pharmaceutical Sciences, effective August 1, 2017.

National searches will be launched in the near future for these two leadership positions in the College.

## PROFESSIONAL APPOINTMENTS

**Dean Reddy** has been named to serve on the Board of Directors for the National Institute of Pharmaceutical Technology and Education (NIPTE). The Texas A&M College of Pharmacy became the seventeenth member of the NIPTE in February this year.

**Ayman K. Hamouda, BPharm., Ph.D.**, became a grant review member for the American Heart Association Cell Transport BSC2 committee.

**M. N. V. Ravi Kumar, Ph.D.**, became a member of the Editorial Board, Cancer Letters (2017-present)

## PRESENTATIONS



**Mahua Choudhuy**, Luis F Schutz, Min Hi Park, Jian Zhang, **Catherine Powell**, **Sunitha Meruvu** (photo at left), delivered a presentation during the 2nd International Conference on Obesity and Chronic Diseases, Environment, Epigenetics, and Endocrinology, July, 2017, San Francisco, CA.

**Dongin Kim** was invited to speak at the 12<sup>th</sup> International Symposium on Frontiers in Biomedical Polymers, July 14, 2017, KIST, Seoul, Korea.

He will present invited lectures at the Department of Molecular Science and Technology, Ajou University; the Catholic University of Korea, Bucheon; the Department of Radiological Science, Konyang University, Daejeon; and the Chonbuk National University, Jeonju, South Korea.

**Narendra Kumar, Ph.D.**, (July 10-11, 2017) was an invited keynote speaker of the plenary session at the 36th Cardiovascular Nursing and Nurse Practitioners Meeting" (Cardiologists and Nurses Meeting 2017) at Chicago, USA. The title of his talk was "Origin and perpetuation of chronic low-grade inflammation as a driver for cardiovascular complications during metabolic syndrome". Dr. Kumar was also an invited speaker for the health sciences residency program of Corpus Chishti medical center where Dr. Kumar delivered a guest lecture to joint groups of medical, dental, nursing, and pharmacy residents. The title of his talk was "Clinical immunology and inflammatory bowel disease".

Nagaraju Ashila, Zhixing Wu, Boqiao Fu, Changjiang Qiao, Mounika Chava, **Dai Lu**. Discovery of Potent Abelson Kinase Inhibitors from the Novel Pharmacophore Pyrano[2,3-*d*]pyrimidin-7-one. 44<sup>rd</sup> MALTO Medicinal Chemistry Meeting-in-Miniature. May 21st-23rd, 2017, Monroe, LA.

Sri Sanjana Immadi, Boqiao Fu, Teresa Olszwaska, **Dai Lu**. Application of Hemetsberger-Knittel Reaction in the Synthesis of Indole/Azaindole-2-carboxamide for the Development of Allosteric

Modulators of Cannabinoid Receptor 1, 44<sup>th</sup> MALTO Medicinal Chemistry Meeting-in-Miniature. May 21st-23rd, 2017, Monroe, LA.

Nagaraju Ashila, Boqiao Fu, Changjiang Qiao, **Dai Lu**. New Abelson Kinase inhibitors derived from pyrano[2,3-d]pyrimidine-7-one. 9th Annual Javelina Research Symposium, Texas A&M University, Kingsville, Texas, April 6<sup>th</sup>, 2017, Kingsville, TX.

Monika Chava, Venkateson Premual, **Dai Lu**. Gemcitabine-Encapsulated Albumin Nanoparticles: Linker-free Preparation, Optimization and Cytotoxicity against Pancreatic Cancer Cells. 9th Annual Javelina Research Symposium, Texas A&M University, April 6<sup>th</sup>, 2017, Kingsville, Texas.

Mohammed Mustafa, Lauren Moncayo, Debra Kendall, **Dai Lu** and Aron Lichtman. The CB1 receptor allosteric modulator LDK1258: in vivo pharmacological evaluation in mice. 27<sup>th</sup> Annual Symposium of International Cannabinoid Research Society, June 22nd-27th, 2017, Montreal, QC, Canada.

**Ayman K. Hamouda, BPharm., Ph.D.**, was invited to Texas Tech University Health Science Center to give three presentations at the Graduate School of Biomedical Sciences Career Development Event: "Career Paths in Pharmaceutical Sciences" A Q&A session with graduate students and postdocs; Research Seminar presentation "Positive Allosteric Modulator Recognition in the Nicotinic Acetylcholine Receptor"; Translational Research Club Presentation. "Neuronal Nicotinic Acetylcholine Receptor Subtype Selective Positive Allosteric Modulators," May 29-31, 2017.

**Khan, Mansoor, Ph.D.**, Abuse Deterrent Formulations – Design Strategies and Evaluation – BBC Symposium, San Antonio, March 4, 2017

**Khan, Mansoor, Ph.D.**, Abuse Deterrent product sameness with *in vitro* studies. Opportunities and challenges with FDA guidances, Category 1 studies, Washington DC, 2017

**Khan, Mansoor, Ph.D.**, Utilization of prior knowledge to modernize pharmaceutical product development. Keynote presentation at the Eighth Global regulatory Summit, Berlin, 2017. At this Summit, Dr. Khan has also presented "Patient-Centric Dosage Form Development: Challenges and Opportunities.

**Heather Miller, Pharm.D.**, Assistant Professor of Pharmacy Practice, was interviewed by BYUradio's daily news show called Top of Mind, heard nationally on Sirius XM. The interview was regarding her recent research on loperamide misuse and abuse, which was published in the Journal of the American Pharmacists Association. The link to the interview aired on July 25:

<http://www.byuradio.org/episode/78053185-faed-4ea8-b4d4-eb7297fb4355?playhead=1393&autoplay=true>

**Dr. Indra K. Reddy** was invited to speak at the San Antonio A&M Club, Aggie Park on June 12. Dr. Reddy provided the members with a presentation slide during lunch.

Gary J, **Watzak B**, Zemanek K., TeamSTEPPS Master Training. Faculty Development for the Health Science Center. July 13, 2017. College Station, Texas.

**M. N. V. Ravi Kumar**, Invited talk, Eighteenth Royal Golden Jubilee Ph.D. Congress (RGJ-Ph.D. Congress 18) Nonthaburi, Thailand June 8-10. Dr. Kumar has also presented guest Lectures at

Prince of Songkla University, Department of Pharmaceutical Technology, Hat Yai, Thailand , and at Department of Applied Thai Traditional Medicine, Faculty of Medicine and Director of Center of Excellence in Applied Thai Traditional Medicine Research, Thammasat University, Bangkok, Thailand in June 2017.

Ali SBF, Dharani S, Gay F, **Khan MA**, Rahman Z. Monitoring of blending process by on-line NIR probe for solid dosage forms manufacturing. 4th Annual Texas A&M University ENG-LIFE workshop at the interface of engineering and life sciences “Biomanufacturing and Synthetic biology” Friday April 14, 2017.

Accepted poster presentation in the Tenth AACR Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved which will be held on September 25-28, 2017 in Atlanta, GA. Title: *Exosomes-associated miR-3128 and miR-3613 are dysregulated in African American men with prostate cancer and correlated with poor prognosis.* Hamdy E.A. Ali, Andrew S. Sholl, Pei-Yau Lung, **Juan Bustamante**, Jinfeng Zhang, King S. Coffield, **Zakaria Y. Abd Elmageed**.

Accepted poster presentation in the Tenth AACR Conference on The Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved which will be held on September 25-28, 2017 in Atlanta, GA. *Transcriptome-wide profiling identifies novel differential genes associated with health disparity of prostate cancer.* Hamdy E.A. Ali, Pei-Yau Lung, Shaimaa Gad, Andrew S. Sholl, **Hamed I. Ali**, Jinfeng Zhang, **Zakaria Y. Abd Elmageed**.

## BOOK CHAPTERS

**Holder, E. Paul** “Compounding Laws and Rules.” Texas and Federal Pharmacy and Drug Law. Fred S. Brinkley, Jr. and Gary G. Cacciatore. Pharmacy Regulatory Advisors, 2017. (in press)

**Lu, D.;** Potter, D. E. Cannabinoids and the Cannabinoid Receptors: An Overview. In *Handbook of Cannabis and Related Pathologies*, 1st ed.; Preedy, V. R., Ed. Academic Press: London, United Kingdom, 2017; pp 553-563.

## PUBLICATIONS

Hamdy E. Abouzeid Ali, Rehab Abdel Hameed, Heba Effat, Emad K. Ahmed, Azza A. Atef, Sabry K. Sharawi, Mohamed Ali, **Zakaria Y. Abd Elmageed**, Abdel Hady Abdel Wahab.

[Circulating microRNAs panel as a diagnostic tool for discrimination of HCV-associated hepatocellular carcinoma.](#) Clinics and Research in Hepatology and Gastroenterology. In Press, Corrected Proof, Available online 24 July 2017.

Malki, Waleed ; Gouda, Ahmed; Al Rousan, Rabaa; Samaha, Doaa; Abdalla, Ashraf; **Abd Elmageed, Zakaria** ; Aly, Hamed. Structural-Based Design, Synthesis, SAR, and Biological Studies of Novel Alloxazine Analogues as Potent and Selective Antitumor Agents. Journal of Medicinal Chemistry. Under review. 2017.

Yao Q, Gutierrez DC, Hoang NH, **Kim D**, Wang R, Hobbs C, **Zhu L\***, Efficient Codelivery of Paclitaxel and Curcumin by Novel Bottlebrush Copolymer-based Micelles, *Molecular Pharmaceutics*, 2017, 14(7):2378-2389.

Thiessen K, Lloyd AE, **Miller MJ**, Homco, J, O’Neal KS, Gildon B. Infection. Assessing guideline-

concordant prescribing for community-acquired pneumonia. *International Journal of Clinical Pharmacy*. 5/30/2017. doi: 10.1007/s11096-017-0489-4.

Mahendra Hidau, Neelesh Mehra, Srikanth Kolluru, **Srinath Palakurthi**. Meclizine Hydrochloride Cyclodextrin Complexation and Its Influence on the Solubility for its Repurposing. *Drug Del. Lett.*, 2017 (in press).

Mahendra Hidau, Neelesh Mehra, Srikanth Kolluru, **Srinath Palakurthi**. Development and Validation of a High-Performance Liquid Chromatography Spectrometric Method for the Quantification of Talazoparib in Rat Plasma: Application to Plasma Protein Binding Studies. *Biomed Chromatogr.* 2017 (in press).

Stout J, Pittman A, Livingston J, Bentley R, **Watzak B**. The Effects of Interprofessional pediatric end-of-life simulation on communication and role understanding in health professions students. Accepted by *Nursing Education Perspectives*, May 10, 2017.

Dickey N, Carter M, **Watzak B**, Allen M, Nasir A. *What's next? Practical suggestions for rural communities facing a hospital closure*. A publication in partnership with Episcopal Health Foundation and available at <https://rchitexas.org/news-release/whats-next-final-rchi.pdf>

Yao Q, Gutierrez DC, Hoang NH, Kim D, Wang R, Hobbs C, **Zhu L\***, Efficient Codelivery of Paclitaxel and Curcumin by Novel Bottlebrush Copolymer-based Micelles, *Molecular Pharmaceutics*, 2017, 14(7):2378-2389.

Kamelia M Amin, Yasmin M Syam, Manal M Anwar, **Hamed I Ali**, Tamer M Abdel-Ghani, Aya M Serry, *Synthesis and molecular docking studies of new furochromone derivatives as p38 $\alpha$  MAPK inhibitors targeting human breast cancer MCF-7 cells*. *Bioorganic & Medicinal Chemistry*, 2017, 25, 2423-2436

Shadia A. Galal, Ahmed S. Abdelsamie, Samia A. Shouman, Yasmin M. Attia, **Hamed I. Ali**, Ashraf Tabll, Reem El-Shenawy, Yasmine S. El Abd, Mamdouh M. Ali, Abeer E. Mahmoud, Abeer H. Abdel-Halim, Amal A. Fyiad, Adel S. Girgis, Hoda I. El-Diwani. *Part I: Design, synthesis and biological evaluation of novel pyrazole-benzimidazole conjugates as checkpoint kinase 2 (Chk2) inhibitors with studying their activities alone and in combination with genotoxic drugs*. *Eur. J. Med. Chem.*, 2017, 134, 392-405.

Majdi M. Bkhaitan, Agha Z. Mirza, Hina Shamshad, **Hamed I. Ali**. *Identification of Potent Virtual Leads and ADME Prediction of Isoxazolidine Podophyllotoxin Derivatives as Topoisomerase II and Tubulin Inhibitors*. *J. Molecular Graphics and Modelling*, 2017, 73, 74–93.

**Rahman Z**, Zidan AS, Korang-Yeboah M, Yang Y, Siddiqui A, Shakleya D, **Khan MA**, Cruz C, Ashraf M. Effects of excipients and curing process on the abuse deterrent properties of directly compressed tablets. *Int J Pharm.* 2017, 517(1-2):303-311.

Sahin A, Esendagli G, Yerlikaya F, Caban-Toktas S, Yoyen-Ermis D, Horzum U, Aktas Y, **Khan MA**, Couvreur P, Capan Y. A small variation in average particle size of PLGA nanoparticles prepared by nanoprecipitation leads to considerable change in nanoparticles' characteristics and efficacy of intracellular delivery. *Artificial Cells Nanomed Biotechnol.* 2017, 1-11. DOI: 10.1080/21691401.2016.1276924.

Spinks C, Zidan AS, **Khan MA**, Faustino PJ Pharmaceutical characterization of novel tenofovir liposomal formulations for enhanced oral drug delivery: in vitro pharmaceuticals and Caco-2 permeability investigations. *Clinical Pharmacology: Advances and Applications* 2017,9, 29-38

R. Ganugula, M. Arora, and **M. N.V. Ravi Kumar**. Ex vivo rat eye model for investigating transport of next generation precision-polyester nanosystems. *ACS Appl. Mater. Interfaces* (In Press) DOI: 10.1021/acsami.7b07896

**M. N. V. Ravi Kumar** and A. K. Sood, Guest Editors, *Cancer Lett.* Theme: Metronomic Chemotherapy 400 (2017) 203-324.

Zidan AS, Kamal N, Alayoubi A, Seggel M, Ibrahim S, **Rahman Z**, Cruz CN, Ashraf M. Effect of Isopropyl Myristate on Transdermal Permeation of Testosterone From Carbopol Gel. *J Pharm Sci.* 2017;106(7):1805-1813

Beg S, Akhter S, Rahman M, **Rahman Z**. Perspectives of Quality by Design Approach in Nanomedicines Development. *Cur Nanomed* 2017;7:1-7

Yao Q, Gutierrez DC, Hoang NH, Kim D, Wang R, Hobbs C, **Zhu L\***, Efficient Codelivery of Paclitaxel and Curcumin by Novel Bottlebrush Copolymer-based Micelles, *Molecular Pharmaceutics*, 2017, 14(7):2378-2389.

## GRANTS

The Morris L. Lichtenstein Jr. Medical Research Foundation (**Mahua Choudhury**) \$54,700

Discovery Foundation (PI-**Choudhury**, Co-PIs- Gerard L Cote, Kayla Bayless) A Sensitive Epigenetic Tool for Prediction of Preeclampsia. \$32,505

Immunova LLC. (**Dongjin Kim**) Research Service/Test agreement to test "Efficacy Study of losartan and IL-2 test articles with a B16F10 Murine Melanoma Implanted Intravenously in C57BL/6 Mice" \$35,000

NIH R01 DA039942; 04/15/2016-1/31/2021, **Dai Lu** (PI) CB1 Allosteric Modulators: Molecular, Cellular and In Vivo Pharmacology. Yr 2, 02/11/2017-01/31/2018: Direct costs \$207,389. Total costs \$307,973.

Industry contract: Insys Therapeutics Corp. 06/10/2017-08/10/2017. **Dai Lu** (PI) Structural Determination for an unknown degradant from the formulation of epinephrine. Direct cost \$12,000. Total Cost: \$17,820.

Eastman Chemical Company. Polymers (**Ziyaur Rahman**), "Performance evaluation of cellulosic polymers blend as an enteric coating material for pharmaceutical use" \$79,642

Texas A&M HSC. Hyperspectral imaging in pharmaceutical sciences (**Mansoor Khan and Ziyaur Rahman**), \$200,000.