Pharmacology & Toxicology Update

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Boonshoft School of Medicine
WRIGHT STATE UNIVERSITY
Department of Pharmacology and Toxicology

IN THIS ISSUE

CHAIR'S CORNER

The Department of Pharmacology & Toxicology has a newsletter designed to keep our alumni and the Boonshoft School of Medicine and Wright State University apprised of the happenings in the department. The newsletter will be issued three times per year, and can be found on the department website: medicine.wright.edu/pharmacology-and-toxicology

Each issue will also contain a "Spotlight" section that highlights a faculty colleague or a program. For this issue, we will be highlighting Dr. Ravi Sahu, assistant professor of Pharmacology & Toxicology. To get on the departmental mailing list to receive an electronic version, or to provide suggestions as to content, please contact Catherine Winslow at catherine.winslow@wright.edu.

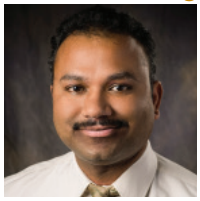
DEPARTMENT UPDATES

M.D./M.S. Program in Pharmacology & Toxicology revamped

To provide a mechanism by which our medical students can obtain specialized translational training in Pharmacology and Toxicology, approximately four years ago the Department and the Boonshoft School of Medicine collaborated on development of a four-year M.D./M.S. in Pharmacology & Toxicology in which summer semesters were packed with classes and clinical research efforts. With the assistance of Drs. Brenda Roman and Dean Parmelee at Boonshoft; Dr. Barry Milligan in the WSU Graduate School; and Drs. Terry Orozsi, David Cool, Courtney Sulentic and Jeffrey Travers in the Department, the M.D./M.S. program has been modified. The changes are designed to provide more rigor as well as to account for the new medical school curriculum with the "loss" of the second summer between second and third years of study. The major changes include addition of an online Laboratory Management Course by Dr. Cool and a series of three enrichment lectures in Pharmacology & Toxicology by Dr. Travers. Our first class of two students will be graduating this May, and an exceptional new class of five students will be starting this summer.

Bigger and Better and more Translational…

Dr. Ravi Sahu garners new translational grant



It is with great pride we announce that Dr. Ravi Sahu has received a new, one-year, $150,000 grant to study melanoma markers related to the lipid Platelet-activating factor (PAF) in human melanoma specimens. These studies stem from Dr. Sahu's discovery that melanoma cells generate PAF in response to numerous chemotherapeutic and other cytotoxic agents and that this PAF blocks tumor immunity in mouse models of experimental melanoma. These studies have considerable translational potential as Dr. Sahu hypothesizes that blocking this unwanted effect of PAF agonists could improve cancer treatment success. Please see more information on Dr. Sahu in this issue's Spotlight Section.

Congrats, Dr. Sahu!

Barbara Allbright joins Department

After 11 years of service in the Department, Laurie Schoettinger has retired to spend more time with her husband and beautiful grandchildren. We are quite fortunate to recruit Barbara Allbright, who transferred from the Department of Counseling and Wellness and Student Support Services, after 10 years. We will miss Laurie and definitely appreciate Barbara.

Please stop by and meet our newest staff!

If you do not regularly receive this newsletter, please contact Catherine Winslow at catherine.winslow@wright.edu to get on our list!

New multidisciplinary Atopic Dermatitis Clinic begins

David Morris, M.D.

It is with great excitement that we announce a new multidisciplinary Atopic Dermatitis Clinic will be starting in March. The objective of this monthly half-day clinic, conducted by pharmacologist-dermatologist Dr. Travers and Chief of Dayton Childrens Hospital Allergy Dr. David Morris, will be to provide consultation on the management of severe atopic dermatitis. Both of these colleagues are known experts in atopic dermatitis and thus this specialized clinic will serve the community, both in the Dayton area as well as the tri-state region.

Jeffrey Travers, M.D., Ph.D.

New space and personnel changes in the Pharmacology Translational Unit

One of the goals of the Department is to foster translational studies to facilitate the process through which discoveries at the laboratory bench can be brought to the clinic. Moreover, the Pharmacology Translational Unit (PTU) located in the Wright State Physicians Building, next to our campus, is set up to conduct both translational research studies as well as pharmaceutical clinical trials. The PTU recently moved into a new suite of office rooms and has two dedicated examination rooms. The PTU consists of director Elizabeth Cates, LPN, CRC; Amy Williams, CMA; nurse practitioner Scott Newman, M.S.N., NP; and Dr. Travers. WSU dermatology residents will also be working in the PTU. We are pleased to announce that the PTU has just hired Christina Knisely, M.P.H., to direct regulatory affairs. The PTU has active pharmaceutical studies enrolling both adults and children subjects with atopic dermatitis (eczema) or psoriasis. For questions, please contact PTU Director Liz at 937-245-7500.

Welcome aboard, Christina—your regulatory expertise is greatly needed!

FACULTY SPOTLIGHT

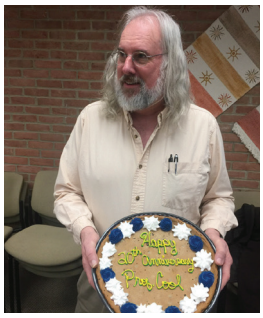
For this issue, we are taking the opportunity to spotlight Ravi P. Sahu, Ph.D., assistant professor of pharmacology & toxicology.

Dr. Sahu was born and raised in Allahabad, in the state of Uttar Pradesh in India. His father, Mohan Lal Sahu, was a businessman and ran a grocery store. His mother, Shashi Sahu, is a homemaker. Dr. Sahu was the oldest of four sons (Ashish, Amit, Saurabh). Dr. Sahu has always had a strong interest in science and, after graduating from high school and intermediate, received a B.S. in Biology and Chemistry from the University of Allahabad. He next went on to the Dr. R.M.L. Avadh University in Faizabad where he obtained his M.S. in Biochemistry in 2001 and his Ph.D. in Molecular Endocrinology in 2007. Dr. Sahu worked under noted physician-scientist and diabetes specialist Professor Ⱡesh Bhatia for his doctorate, which concerned characterizing effects of human gene mutations in early onset type 2 diabetes. Dr. Sahu was able to obtain a post-doctoral fellowship with Professor Sanjay Srivastava at the University of Pittsburgh and then transferred to Texas Tech University in Amarillo, Texas. Dr. Sahu studied cancer biology and pharmacology, and was very productive, as measured by multiple peer-reviewed publications. Dr. Sahu did a second post-doctoral fellowship at Indiana University with Drs. Jeffrey Travers and Raymond Konger. Dr. Sahu brought his experience in cancer pharmacology and was able to demonstrate the important role of the lipid mediator PAF in cancer immunity. This resulted in multiple high-impact publications, and a faculty position in the Indiana University Department of Pathology in 2012, and his first NIH grant in 2014. We at Wright State were fortunate to recruit Dr. Ravi Sahu to join the Department in June of 2015. He has established a successful research program in characterizing how environmental influences and cancer therapies modulate tumor immunity. These high-impact studies consist of cell lines, murine model systems, and also patient samples. Dr. Sahu is married to Dr. Anita Thyagarajan, and they have a five-year-old boy named Anjaneya Ravi Sahu. Dr. Ravi Sahu's major goal is to unravel the role of the immune system in cancer to develop novel therapeutic strategies to improve the care of cancer patients. His role models and influences have been many, and began with his parents. He also has been influenced by his professors, especially Professors Bhatia, Srivastava, and Travers. Another influence for Dr. Sahu has been his hero, Mahatma Gandhi. "Gandhi was amazing as he had such a positive outlook and was so patient, even in times of his suffering," Sahu said. However, Dr. Ravi Sahu's major inspiration has been his mother. When not conducting experiments or teaching, Dr. Sahu enjoys time with his family.

For Dr. Ravi Sahu, our highly inspirational colleague, we are very pleased to highlight you and your efforts!

KUDOS

Professor David Cool,



who has now worked for Wright State for 20 years. Christine Rapp has also tallied 25 years and Shuzhen Chen has logged 10 years. Congrats to you three for this accomplishment and we hope you remain with us for many more years.

It's great to have our colleagues stay with us!

Dr. Jeffrey Travers, who has recently been inducted into the Wapakoneta High School Alumni Hall of Fame. He is number 24 on a list that includes pioneer astronaut Neil Armstrong.

The standards appear to be slipping!

Dr. Yanfang Chen, who will serve as a member for an NIH special emphasis panel, which will review nine grant applications submitted by HT study section members.

Dr. Courtney Sulentic was elected Councilor for the Society of Toxicology. This is a three-year position. Congratulations!

Dr. Terry Oroszi, who is the liaison for the government Intel community and WSU, met with the CIA, DHS and FBI specifically about internships and recruiting for STEM. Additionally, Dr. Oroszi's dissertation work was accepted for publication in Journal of Business Continuity & Emergency Planning.

Dr. Jim Lucot, emeritus and still active in the department, is a consultant with Repurposed Therapeutics.

Great to have our Emeriti repurposed

Katherine Fahy, M.S., a graduate from Dr. Travers' lab, is working at Alkermes, a pharmaceutical company specializing in mental health drugs in Wilmington, Ohio. She will be part of the QA department, doing a combination of drug safety/quality monitoring and recording, research, and solving issues on the factory floor.

Congratulations, Katy!

SCHOLARLY ACTIVITY

PUBLICATIONS

Bahado-Singh R, Poon LC, Yilmaz A, Syngelaki A, Turkoglu O, Kumar P, Kirma J, Allos M, Accurti V, Li J, Zhao P, Graham SF, **Cool DR,** Nicolaides K. Integrated Proteomic and Metabolomic prediction of Term Preeclampsia. *Sci Rep.* 2017 Nov 23;7(1):16189. PMID: 29170520

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Sullenbarger JW, Hensley B, **Travers JB.** Kitty Litter Dermatitis from-Bromo-2-Nitropropane-1,3-Diol. *Skinmed.* 2017 Oct 1;15(5):389-390. eCollection 2017. PMID: 29139375

Thyagarajan A, Shaban A, **Sahu RP.** MicroRNA-Directed Cancer Therapies: Implications in Melanoma Intervention. *J Pharmacol Exp Ther.* 2018 Jan;364(1):1-12. PMID: 29054858

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Zhang C, Xiao X, Chen M, Aldharee H, **Chen Y,** Long W. Liver kinase B1 restoration promotes exosome secretion and motility of lung cancer cells. *Oncol Rep.* 2018 Jan;39(1):376-382. PMID: 29138862

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