

# Pharmacology & Toxicology

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Boonshoft  
School of Medicine  
WRIGHT STATE UNIVERSITY

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## CHAIR'S CORNER



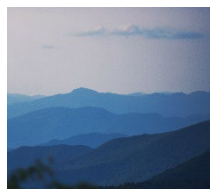
*Dr. Jeffrey B. Travers*

The Department of Pharmacology and Toxicology newsletter keeps our alumni, 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 departmental webpage: <http://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 Ms. Lois Schneider, who, as all who is familiar with the Department knows, is the point person for all financial issues in the entire department. To get on the Departmental Mailing list to receive an electronic version, or to provide suggestions as to content, please contact Ms. Catherine Winslow at [Catherine.Winslow@wright.edu](mailto:Catherine.Winslow@wright.edu)

## Department garners top NIH designation

We are pleased to announce that according to the latest (2022) Blue Ridge Institute for Medical Research (<https://brimr.org>) the Department is the top WSU department for National Institutes of Health funding with over \$2M per year. According to BRIMR, Dr. Travers was the top-funded investigator here at WSU in 2022.



*Congrats to the Departmental researchers!!*



## BSOM Faculty Seed Grants awarded to Drs Di Fulvio and Sulentic

Congratulations to Drs. Mauricio Di Fulvio and Dr. Courtney Sulentic whose seed grants were chosen for funding. Dr. Di Fulvio's grant, entitled "New mechanisms regulating insulin-secreting  $\beta$ -cell mass" was a collaboration with Dr. Ashot Kozak. Dr. Sulentic's proposal was with Dr. Michael Leffak and was entitled, "Control of human antibody class switching by genetic polymorphisms".

*From little seed grants come great future science!*

## New Class of MS Students Begin

We are excited to announce that again this year, we were able to recruit a highly talented crop of 49 MS students to the Department's MS program starting Fall 2023. Our new students represented the USA as well as at least five other countries. The Department welcomes students in both Fall and Winter semesters.

*Welcome to our new learners! We hope to provide more space to accommodate all of our growth, especially an expanded student area, along with adjunct office space in the near future*

## Departmental holiday party advances funding for PTOX student scholarship

We are pleased to announce that again this year the Ugly Christmas Sweater Party was able to raise sufficient funds to now finish the 20<sup>th</sup> Anniversary Student Scholarship. Now in its 7<sup>th</sup> year, this party held December 2<sup>nd</sup> at the Polen Farms Barn in Kettering was attended by almost 150 friends of the Department. The band Soul Express and a visit from Santa Claus made the evening a special one. As outlined below, multiple prizes were given in this event sponsored by the *Travers Children's' Inheritance Fund!*



Dancing to MOTOWN



Santa's Helpers Winners- Drs. Terry Oroszi and David Ellis



Funniest Sweater- Dr. Max Rubin



Ugly but Classic- Akhil Varghese



Most Grandmotherly Ugly Sweater-Dr. Ann Sherbet



Ugly Dermatology Resident Category- Dr. Sakya



BURN IT NOW! (2<sup>nd</sup> place) Dr. Julian Trevino



Grand Prize Winner Shana Trosclair



Most Disturbing- Scott Risner



Most Original- Chuck and Theresa Fitzgerald



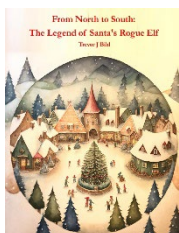
Thanks to Nicki Crellin from the BSOM development office who assisted in fundraising. As noted below Ms. Crellin is definitely a fan of Santa!



## New Studies Begin in the Pharmacology Translational Unit

One of the goals of the Department is to foster translational studies to facilitate the process where 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. Regarding the latter, the PTU is currently conducting almost a dozen pharma-sponsored studies. These include testing a topical aryl hydrocarbon receptor modulator for psoriasis in children, and a new study testing novel agents for the challenging skin disease hidradenitis. The PTU also is testing a novel agent for the blistering disease bullous pemphigoid. We also have a novel self-funded study testing if high doses of oral vitamin D can treat psoriasis. In addition to these studies, we are particularly looking for healthy adults 18-45 years and over age 65 years of age interested in some of our translational studies. If questions or for more details, please contact PTU Medical Director Dr. Rohan or PTU Administrative Director Elizabeth Cates at 937-245-7500.

## KUDOS Section



**Dr. Trevor Bihl**, Adjunct Assistant Professor, recently published "From North to South: The Legend of Santa's Rogue Elf" a children's allegorical story about the true message of Christmas, love and sharing, and to avoid jealousy.

*Wonderful sentiments and likely a statistically significant work*

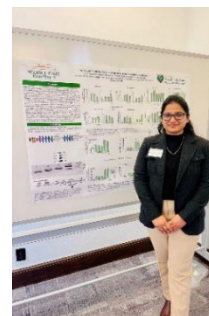
Kudos to **Dr. David Cool** who is co-author on a new patent, **Identification and analysis of protein biomarkers. Patent No. US 11,774,457 B2.**

Andrew Kemp, who graduated in December from WSU with his degree in computer science.  
Proud father **Dr. Michael Kemp** handed him his diploma!



*Another Raiders alumni in the Kemp family...*

Congratulations to **Venkata Rachakonda** in the Sulentic Laboratory whose 3 min presentation at the 2023 Virtual Ohio Society for Toxicology received an award.



## 2023 Publications

2023 was another banner year for departmental publications. Below please find list of manuscripts published in 2023 from PubMed. **Bold- faculty**; **Red – student**.

Wang J, Chen S, Sawant H, **Chen Y**, Bihl J. The miR-210 Primed Endothelial Progenitor Cell Exosomes Alleviate Acute Ischemic Brain Injury. *Curr Stem Cell Res Ther*. 2023 Nov 10. doi: 10.2174/011574888X266357230923113642. Epub ahead of print. PMID: 37957914.

**Rathod YD**, Abdelgawad R, Hübner CA, **Di Fulvio M**. *Slc12a2* loss in insulin-secreting  $\beta$ -cells links development of overweight and metabolic dysregulation to impaired satiation control of feeding. *Am J Physiol Endocrinol Metab*. 2023 Nov 1;325(5):E581-E594. doi: 10.1152/ajpendo.00197.2023. Epub 2023 Oct 11. PMID: 37819196.

Tilly TB, Ward RX, Morea AF, Nelson MT, Robinson SE, Eiguren-Fernandez A, Lewis GS, Lednicky JA, Sabo-Attwood T, **Hussain SM**, Wu CY. Toxicity assessment of CeO<sub>2</sub> and CuO nanoparticles at the air-liquid interface using bioinspired condensational particle growth. *Hyg Environ Health Adv*. 2023 Sep;7:100074. doi: 10.1016/j.heha.2023.100074. Epub 2023 Aug 6. PMID: 37711680; PMCID: PMC10500621.

**Cvammen W**, Rider SD Jr, **Travers JB**, **Kemp MG**. Effects of Age and Sex on the Expression of Core Circadian Clock Genes in Human Skin Epidermis. *J Invest Dermatol*. 2023 Nov 21:S0022-202X(23)03058-0. doi: 10.1016/j.jid.2023.10.020. Epub ahead of print. PMID: 37992958.

**Egiebor E**, **Rohan C**, Shamma HN. Lichen planus pemphigoides temporally associated with molluscum contagiosum virus treatment. *JAAD Case Rep*. 2023 Mar 28;35:115-117. doi: 10.1016/j.jdcr.2023.03.010. PMID: 37168024; PMCID: PMC10165161.

**Corbin D**, **Christian L**, Rapp CM, **Liu L**, **Rohan CA**, **Travers JB**. New concepts on abnormal UV reactions in systemic lupus erythematosus and a screening tool for assessment of photosensitivity. *Skin Res Technol*. 2023 Mar;29(3):e13247. doi: 10.1111/srt.13247. PMID: 36973991; PMCID: PMC10059080.

**Bayless S**, **Bihl T**, **Rohan CA**, **Travers JB**, Whitney E. Inappropriate Testing of Streptococcal Pharyngitis in Children Aged Below 3 Years: Application of Statistical Process Control. *Clin Pediatr (Phila)*. 2023 May;62(4):309-315. doi: 10.1177/00099228221125823. Epub 2022 Sep 28. PMID: 36171730.

**Wu T**, **Frommeyer TC**, **Rohan CA**, **Travers JB**. Uncommon Petaloid Form of Seborrheic Dermatitis Seen in Fitzpatrick Skin Types V-VI. *J Clin Investig Dermatol*. 2023 Jul;11(1):10.13188/2373-1044.1000086. doi: 10.13188/2373-1044.1000086. Epub 2023 Jul 27. PMID: 38249156; PMCID: PMC10798803.

**Fisher GW**, **Travers JB**, **Rohan CA**. Rosacea pathogenesis and therapeutics: current treatments and a look at future targets. *Front Med (Lausanne)*. 2023 Dec 13;10:1292722. doi: 10.3389/fmed.2023.1292722. PMID: 38193038; PMCID: PMC10773789.

**Sirhan Z**, **Alojair R**, Thyagarajan A, **Sahu RP**. Therapeutic Implications of PTEN in Non-Small Cell Lung Cancer. *Pharmaceutics*. 2023 Aug 5;15(8):2090. doi: 10.3390/pharmaceutics15082090. PMID: 37631304; PMCID: PMC10458395.

**Abunada A, Sirhan Z, Thyagarajan A, Sahu RP.** Tyrosine kinase inhibitors and human epidermal growth factor receptor-2 positive breast cancer. *World J Clin Oncol.* 2023 May 24;14(5):198-202. doi: 10.5306/wjco.v14.i5.198. PMID: 37275938; PMCID: PMC10236985.

**Torralba EJV, Singh S,** Short RF, Rapp CM, Henkels KM, **Sahu RP, Travers JB.** Radiation therapy produces microvesicle particle release in HaCaT keratinocytes. *Skin Res Technol.* 2023 May;29(5):e13332. doi: 10.1111/srt.13332. PMID: 37231923; PMCID: PMC10316468.

Thyagarajan A, Rapp CM, Schneider L, Lund A, **Travers JB, Sahu RP.** Exposure to diesel exhaust particulates and desert sand dust generates microvesicle particles and platelet-activating factor agonists. *Skin Res Technol.* 2023 Apr;29(4):e13312. doi: 10.1111/srt.13312. PMID: 37113092; PMCID: PMC10234165.

**Althaiban A,** Thyagarajan A, **Sahu RP.** KRAS Pathway-based Therapeutic Approaches in Pancreatic Cancer. *Mini Rev Med Chem.* 2023;23(8):953-961. doi: 10.2174/1389557523666221226095931. PMID: 36573057.

**Pathipaka R,** Thyagarajan A, **Sahu RP.** Melatonin as a Repurposed Drug for Melanoma Treatment. *Med Sci (Basel).* 2023 Jan 14;11(1):9. doi: 10.3390/medsci11010009. PMID: 36649046; PMCID: PMC9844458.

**Parikh SD,** Wang W, Nelson MT, **Sulentice CEW,** Mukhopadhyay SM. Bioinspired Hierarchical Carbon Structures as Potential Scaffolds for Wound Healing and Tissue Regeneration Applications. *Nanomaterials (Basel).* 2023 Jun 2;13(11):1791. doi: 10.3390/nano13111791. PMID: 37299693; PMCID: PMC10254541.

**Gilbert MM, Mathes SC, Mahajan AS, Rohan CA, Travers JB,** Thyagarajan A. The role of sirtuins in dermal fibroblast function. *Front Med (Lausanne).* 2023 Mar 13;10:1021908. doi: 10.3389/fmed.2023.1021908. PMID: 36993812; PMCID: PMC10040577.

**Champaneria MK, Patel RS, Oroszi TL.** When blood pressure refuses to budge: exploring the complexity of resistant hypertension. *Front Cardiovasc Med.* 2023 Jun 21;10:1211199. doi: 10.3389/fcvm.2023.1211199. PMID: 37416924; PMCID: PMC10322223.

**D'Addabbo P, Frezza D, Sulentic CEW.** Evolutive emergence and divergence of an Ig regulatory node: An environmental sensor getting cues from the aryl hydrocarbon receptor? *Front Immunol.* 2023 Feb 3;14:996119. doi: 10.3389/fimmu.2023.996119. Erratum in: *Front Immunol.* 2024 Jan 05;14:1356336. PMID: 36817426; PMCID: PMC9936319.

**Oyebanji OA, Brewer C, Bayless S, Schmeusser B, Corbin DA, Sulentic CEW,** Sherwin CMT, **Chen Y,** Rapp CM, Cates EE, Long Y, **Travers JB, Rohan CA.** Topical Photodynamic Therapy Generates Bioactive Microvesicle Particles: Evidence for a Pathway Involved in Immunosuppressive Effects. *J Invest Dermatol.* 2023 Jul;143(7):1279-1288.e9. doi: 10.1016/j.jid.2022.12.018. Epub 2023 Jan 25. PMID: 36708950; PMCID: PMC10293022.

**Repas SJ, Schmeusser BN,** McCullough WP, Lehrer DS, **Travers JB,** McCullough PJ. Normal 24-hour urine calcium concentrations after long-term daily oral intake of vitamin D in doses ranging from 5000 to 50,000 international units in 14 adult hospitalized psychiatric patients. *J Steroid Biochem Mol Biol.* 2023 Jul;231:106329. doi: 10.1016/j.jsbmb.2023.106329. Epub 2023 May 12. PMID: 37182752.

**Davi K,** Yurtsever I, **Xu YJ.** A missense mutation in the *suc22* gene encoding the small subunit of ribonucleotide reductase significantly sensitizes fission yeast to chronic treatment with hydroxyurea. *MicroPubl Biol.* 2023 Dec 19;2023:10.17912/micropub.biology.001041. doi: 10.17912/micropub.biology.001041. PMID: 38188419; PMCID: PMC10765247.

**Xu YJ**, Bhadra S, Mahdi ATA, Dev K, Yurtsever I, Nakamura TM. Comprehensive mutational analysis of the checkpoint signaling function of Rpa1/Ssb1 in fission yeast. *PLoS Genet.* 2023 May 18;19(5):e1010691. doi: 10.1371/journal.pgen.1010691. PMID: 37200372; PMCID: PMC10231789.

Bhadra S, **Xu YJ**. TTT (Tel2-Tti1-Tti2) Complex, the Co-Chaperone of PIKKs and a Potential Target for Cancer Chemotherapy. *Int J Mol Sci.* 2023 May 5;24(9):8268. doi: 10.3390/ijms24098268. PMID: 37175973; PMCID: PMC10178989.

**Xu YJ**, Bhadra S, Mahdi ATA, Dev K, Yurtsever I, Nakamura TM. Comprehensive mutational analysis of the checkpoint signaling function of Rpa1/Ssb1 in fission yeast. *bioRxiv [Preprint].* 2023 Mar 6:2023.03.06.531248. doi: 10.1101/2023.03.06.531248. Update in: *PLoS Genet.* 2023 May 18;19(5):e1010691. PMID: 36945624; PMCID: PMC10028789.

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## Graduates Fall 2023

Nagarjuna Bandla

Pavani Batchu

Anjali Bhavanika Bodapunti

Prerna Bommasamudram

Madhuri Chandu

Sangeetha Chimmula

Krishna Chaithanya Devalaraju

Soumya Erri

Uma Venkata Kishore Gandham

Bhavana Kasaraneni

Babitha Sri Kasula

Rani Samyuktha Kokkerala

Sahithi Kothapalli

Anjum Mohammad

Chandana Reddy Nimmala

Lahari Paladugu

Sandhya Rani Pendyala

Sruthi Sagiraju

Shaheela Shaheela

Nishath Anjum Shaik

Aarita Sanjay Sood

Ajay Undrakonda

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## Spotlight

*Each issue of the Departmental Newsletter will “spotlight” an individual faculty or program in the Department. For this issue, we are taking the opportunity to spotlight Ms. Lois Schneider.*

Lois Schneider was born in Davenport Iowa and the fourth child of Gene and Mary Fox. Her father Gene was a self-employed chiropractor and mother Mary a music educator. Lois is the youngest of four, with older sister Camilla, and brothers Jim and Tom. The family arrived in the Dayton area when she was about six months old and she grew up in Wayne Township, which is today known as Huber Heights. In school, Lois had twin interests in numbers and music, playing the (French) Horn throughout her school career, as well as taking dance lessons and was an active Girl Scout outside of school. Upon graduation from Wayne High School in 1978, she went to Wright State University to study accounting, a career that had better potential to pay living expenses.

Of interest, she had several accounting classes together with another student Craig Schneider. According to Lois, she was Craig's first girlfriend, and these two married in 1983. Craig went on to get his Masters in Divinity from the local United Seminary, and was a pastor appointed as System Director of Spiritual Care for Premier Health, from which he recently retired. Lois and Craig have three children. Eldest Jon, married Tori and has two children Willow (age 4) and Mary (age 2). Stefanie, married to Mike Kennedy, has three children Landen (11), Lorelei (9) and Leandri (6). Youngest is son Ben.



After graduating with her accounting degree from Wright State University, Lois achieved her CPA and worked for various area firms, before coming to her present position with the Department in December 2009. Lois enjoys her job, which combines working with people she likes, spreadsheets and being exposed to new technologies. It is not uncommon to go to her office and see multiple spreadsheets on her computer at once. Lois is indeed the “go-to” person for all financial matters in the Department, and we all are appreciative and heavily dependent upon her expertise.

When not helping with budgets and providing sage advice in navigating the labyrinthine processes involved in spending Department money, Lois enjoys spending time with family. In particular, she is chronically sharing stories and pictures of her adorable grandchildren. Lois also considers herself “crafty” and has two sewing machines, four knitting machines and has dedicated a small bedroom and a corner of her basement to these arts and supplies. Lois also enjoys reading, in particular romance novels!

Lois has a long passion for music and continues to play the French horn with various groups, including the Sinclair Community College Community Band since 2005. She is also active and Board Treasurer for the nonprofit Huber Heights Performing Arts. Finally, she and Craig are on the finance committee for her church, Aldersgate United Methodist, in Huber Heights. Lois puts her technical knowledge to work for her church by helping with weekly media and streaming the services.

We are all so fortunate to have this source of wisdom, efficiency and fiscal responsibility in our midst and are pleased to spotlight Ms. Lois Schneider and her many accomplishments.



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