Boonshoft School of Medicine
WRIGHT STATE UNIVERSITY

Department of/Office of Pharmacology & Toxicology

Annual Report:

July 1, 2022 – June 30, 2023

Jeffrey Travers, MD, PhD
Professor and Chair

1 Statement from the Chair/Associate Dean

[Highlights of the year limited to 500 words]

The Department has experienced a very good year as measured by success in our education, service and research missions. The faculty are unified with an enthusiastic *esprit de corps*. The level of collaboration amongst faculty is very high. A regular (3x year) newsletter and weekly “Down on the Pharm” notices to the faculty have greatly improved communication. In 2021-2022 we underwent an alumni survey, then an external review of our educational programs followed by a faculty retreat to plan our future. The external review found that the departmental programs were successful as measured by metrics such as quality, satisfaction, and % graduation and job placement. A recent external EAB Masters Portfolio Analysis based upon labor market demand and competitive landscape variables completed for WSU Main campus in July 2022 also found that our MS programs have significant growth potential. The past year has resulted in record numbers of Masters students (~120) in our Program. The plan is to continue and expand our successful educational programs and to attempt to hire educational faculty to complement our research-based faculty and vibrant group of specialized adjuncts.

I will further briefly outline the Departmental accomplishments below. Please see entire document to appreciate the breadth and scope of faculty endeavors.

Educational Mission.

Academic scholarly/creative activity and teaching are essential components to the success of the departmental mission. Under the leadership of Vice Chair Dr. Terry Oroszi, the department thrived during and after the pandemic thanks to the department's ability to allows professors to teach courses in two or three semesters rather than one. Online classes allowed us to educate more students and contribute to our ability to meet the needs of increasing numbers of students. Allowing students to enroll in the Spring instead of only the Fall has added to our numbers, yet has resulted in the need to offer several courses at multiple times. This helped us maintain our student population, and this past year we had record numbers of MS students.

Another program that we spent a few years developing saw its first incoming class in 2020. This new Clinical Trials Coordination concentration leverages the Pharmacology and Translational Medicine Unit (PTU) for educational purposes. Given the shortages of clinically trained positions in the pharmaceutical industry, this new concentration fills an important need. The Clinical Trials Coordination Concentration is designed to give students a solid understanding of the current paradigm in clinical trials (randomized controlled trials, phase I, II and III trials, phase IV trials, adaptive trials, placebo-controlled trials) and how pharmaceutical companies are implementing meaningful changes to their clinical trial practices. The program centers around 45 contact hours at the Pharmacology Translational Unit (PTU), a separate year-long intensive course on aspects of regulatory procedures/medical writing and an investigative writing project on an area of interest to the student.

Today we are able to offer incoming students the following options:

Degrees:

- 2-year Research Track
- 2-year, 1-year, and a fully online non-thesis option
- Clinical Investigation Concentration (MD/MS) Program
- Clinical Trials Coordination Concentration MS degree
- Pipeline- HealthCare & Homeland Security MS degree

Graduate Level Certificates:

- Clinical Trials Coordination Certificate
- CBRN Defense Certificate
- Graduate General Toxicology Certificate (In partnership with the Navy Medical Research Lab, Dayton OH)
- Pipeline-Undergrad CBRN Defense program

Research Mission.

Research efforts are moving along well, and the majority of our faculty receive funding from extramural grants. Yongjie Xu has obtained an NIH R35 grant, and Kemp, Sahu and Travers have received NIH and VA grants. Of importance, one of the new NIH grants is an R34 that is focused on chemical warfare weapons (mustargens). This movement into the chemical warfare space builds upon our plans to launch a HealthCare & Homeland Security MS Program in the near future. The movement of part of the laboratory space of long-term faculty colleague Dr. Saber Hussain from the WPAFB into the Departmental research space has further enhanced our research infrastructure. More translational studies, both NIH/VA-funded and pharma-supported clinical trials, are in place in the PTU. Faculty in the Department have also been publishing many manuscripts. Many continue to develop new collaborations through funding as well as publications.

Service Mission.

Departmental faculty members have also been very active in the service category. These efforts include service locally, as well as at the national level. Multiple faculty colleagues are involved in extramural grant panels. The Department boasts two clinician-scientists who also add to the clinical services as well as the educational and research missions. Multiple faculty serve on extramural grant review panels.

The past year has been a good one and we have plans in place to make the next years even better!

2 Programs/Divisions

Name of Division or Program	Director	Dates
[Provide a description here of programs/divisions within the department including directors and participating faculty]		
Proteome Analysis Laboratory	David Cool, PhD	2004-present
Master's Program	Terry Oroszi, EdD	2008-present
Nanotoxicology Research	Saber Hussain, PhD	2010-present
CBRN Certificate Program	Terry Oroszi, EdD	2013-present
Clinical Trials Coordination Certificate Program	Terry Oroszi, EdD	2020-present
Preclinical Pharmacology Core	Yanfang Chen, MD, PhD	2015-present
Pharmacology Translational Unit (PTU)	Craig Rohan, MD	2022-present

3 Fully Affiliated Faculty (may be the same as #2 above for some depts)

Name and Academic Position	Clinical Interests	Research Interests
[list fully affiliated faculty, including statement of clinical and research interests]		
F. Javier Alvarez-Leefmans, MD, PhD, Professor		Neuroscience, molecular physiology & pharmacology, clinical neurology
Yanfang Chen, MD, PhD, Professor		Cardiovascular disease, cerebrovascular complications
David Cool, PhD, Professor, Director of Proteome Laboratory		Cellular mechanisms involve in neurodegeneration and neuroinflammation in response to diseases and chemical toxicity. Proteomic and genomic changes in response to endocrine diseases. Developing protocols and facilities for proteome, lipid and carbohydrate analysis

Name and Academic Position	Clinical Interests	Research Interests
Mauricio Di Fulvio, PhD, Associate Professor		Diabetes
Khalid Elased, PharmD, PhD, Professor		Diabetes, cardiovascular
Saber Hussain, PhD, Professor		Nanoparticles
Mike Kemp, PhD, Assistant Professor		How human cells maintain the integrity of their genomic DNA, particularly in response to environmental genotoxins such as ultraviolet (UV) light.
Terry Oroszi, EdD, Associate Professor Vice Chair, Pharmacology & Toxicology Director, MS Graduate Program Director, CBRN Defense Certificate Program		Healthcare & Homeland Security (Terrorism/CBRN/Crisis Decision Making)
Craig Rohan, MD, Assistant Professor Associate Clinical Professor, Dermatology Medical Director PTU Staff Physician, Dayton VA Medical Center	Translational Medicine	Clinical Trials, Wright State Pharmacology Translation Unit
Ravi Sahu, PhD, Associate Professor		Cancer pharmacology
Courtney Sulentic, PhD, Associate Professor		Immunology
Jeffrey Travers, MD, PhD, Professor & Chair Professor of Dermatology Staff Physician, Dayton VA Medical Center	Translational Medicine	Skin inflammation/cancer, lipid pharmacology Clinical Trials, Wright State Pharmacology Translational Unit
Yong-jie Xu, MD, PhD, Associate Professor		Genome integrity, signaling mechanism of replicator checkpoint

4 Teaching

Baccalaureate [any course for a bachelor's degree]

Courtney Sulentic

M&I 4260/BMS 8020/PTX 8260 Microbiology and Immunology, Lecturer (42 hr); Fall 2022

Undergraduate Research Trainees:
Rebecca Sanders

Graduate students, including thesis supervision [master's, doctor's post-doctoral]

F. Javier Alvarez-Leefmans

PTX 7021 Effective Scientific Writing I, Director, Fall 2022
PTX 7022 Effective Scientific Writing I, Spring 2023
BMS 8750/P&N Neuroscience and Physiology, Lecture, Spring 2023

Yanfang Chen

PTX 8000 Cell Culture Training, Fall 2022
PTX 8000 Cell Culture Training, Spring 2023
PTX 7021 Effective Scientific Writing I, Fall 2022
PTX 7022 Effective Scientific Writing II, Spring 2023

Mentor MS Students
Hamad Albaqami
Harish Kothapalli
Divya Akhila Yekkala

David Cool

PTX 7010 Research Techniques, Director, Fall 2022
PTX 7020 Laboratory Management, Director, 2 sections, Spring 2023
PTX 7020 Laboratory Management (MD/MS Online), Director, Summer 2023

PhD Advisory Committee
Jananie Rockwood, BMS Rep, Grad 2023
Adaku Ume, BMS co-advisor, Grad 2023
Phillip Walker, MD/PhD BMS committee, Projected graduation 2024
Mia Burnett, BMS PhD committee, Projected graduation 2025
Kristen Rehl, BMS rep, Grad 2023
Christina Davidson, BMS committee, Projected graduation 2023
Bryan Mayville, BMS PhD committee, Project graduation 2024

Mauricio Di Fulvio

PTX 7003 Biokinetics & Biodynamics, Co-director, Fall 2022
PTX 7300 Cellular Pharmacology & Toxicology, 8 sessions, Co-director, Spring 2023
PTX 7110 Journal Club, Director, Fall 2022

Thesis Advisory Committee
Modhi Alshammari, MS advisor, Graduated spring 2023
Yaksh Rathod, PhD BMS advisor, 2021-2026
Abdullah Alshudukhi, PhD BMS committee member, Graduated spring 2023

Khalid Elased

PTX 7001 Cellular Pharmacology & Toxicology, Co-director, Spring 2023
PTX 7021 Effective Scientific Writing I, fall 2022
PTX 7022 Effective Scientific Writing II, spring 2023

MS Students
Yashasvi Jagapathi, lab
Saranya Chandaka, lab
Anisha Cherukuri, MS advisor
Jaypalsinh Gohil, MS advisor
Vimarsh Joshi, MS advisor
Adil Mohammed, MS advisor
Rama Bandi, MS advisor
Meeti Champaneria, MS advisor
Yashasvi Jagapathi, MS advisor
Shaheela Shaheela, MS advisor
Pooja Chimata, MS advisor

Thesis Advisory Committee
Adaku Ume, MD/PhD student
Danielle Adams, MD/PhD student
Yakshkumar Rathod, PhD student

Saber Hussain

Advisory Committee
Capt. Bryan Mayville, PhD student, 2020-2023
Mia Burnett, PhD student, 2022-present
Delaney Grant, DAGSI student
Summer interns: 10

Mike Kemp

PTX 8007 Career Planning in Pharmacology & Toxicology, Fall 2022
PTX 7002-05 Journal Club, Fall 2022
PTX 8020 Pharmacology & Toxicology of DNA Damaging Agents, Spring 20231
PTX 8007 Career Planning in Pharmacology & Toxicology, Spring 2023

Thesis Advisory Committee
Hrishikesh Kadam, MS student, advisor, Graduated spring 2023
Prashant Gaikwad, MS student, advisor, Graduated spring 2023
Swathi Kavuri, MS student, advisor, Graduated spring 2023
Aleena Alex, MS student, advisor, Exp graduation spring 2024
William Cvammen, BMS PhD student, 2020-present, exp grad 2024
Sri Meghana Yerrapragada, BMS PhD student, 2022, exp grad 2026
Alex Carpenter, PhD, postdoctoral training, 2020-present
Saman Khan, PhD, postdoctoral training. Feb 2021-present
Dean Rider, PhD, 2022-present

Terry Oroszi

PTX 7022 Effective Scientific Writing I, Fall 2022
PTX 7012 Introduction to Research, Fall 2022
PTX 8140 Human Studies Research, Fall 2022
PTX 7014 Principles of Healthcare & Homeland Security (w/Pratt), Fall 2022
PTX 7002-03 Journal Club/Special Topics w/Pecora, Fall 2022
PTX 7021 Effective Scientific Writing I, Fall 2022
PTX 7002-03 Journal Club/Special Topics w/Pratt, Spring 2023
PTX 7006 Leadership, Theory & Application, Spring 2023
PTX 7021 Effective Scientific Writing I, Spring 2023
PTX 7022 Effective Scientific Writing II, Spring 2023
PTX 8140 Human Studies Research w/Williams, Spring 2023
PTX 7002-04 Journal Club/Special Topic w/Pecora, Spring 2023
PTX 7005 Clinical Investigation Capstone, Summer 2023
PTX 4990 Undergraduate Research in Pharmacology w/Pecora, Summer 2023
PTX 7002-02 Journal Club/Special Topics w/Pecora, Summer 2023

MS PharmTox advisor
Aarita Sood
Ajay Undrakonda
Alexander Opoku
Mark Robinson
Meghana Anagani
Mohammed Uddin
Nahla Khader
Narasimha Mallampati
Rachana Balusa
Sherin Mathew
Soumya Erri
Venkatesh Kilari
Vinitha Sakhamuri
Kesha Patel
Anusha Chinthareddy

Craig Rohan

PTX 7021 Effective Scientific Writing I, Fall 2022
PTX 7022 Effective Scientific Writing II, Spring 2023

Ravi Sahu

PTX 7021 Effective Scientific Writing I, Fall 2022
PTX 7022 Effective Scientific Writing II, Course Director, Spring 2023
PTX 7011 Thesis Development Workshop, Co-director, Spring 2023
PTH 8407 An Overview of Animal Research

Thesis Advisory Committee
Krishna Awasthi, MS student, Graduated spring 2022
Pranali Manjrekar, MS student committee, Graduated spring 2022
Rushabh Lohade, MS student committee, Graduated spring 2022
Naga Swathi Kavuri, MS student committee, Graduated spring 2022
Prashant Gaikwad, MS student committee, Graduated spring 2022
Rishikesh Kadam, MS student committee, Graduate spring 2022
WM Dilsha Wickramasinghe, MS mentor, chemistry

Courtney Sulentic

M&I 7260/BMS 8020/PTX 8260 Microbiology and Immunology Seminar Course, co-director; Fall 2022
PTX 7300 Cellular Pharmacology & Toxicology, Director, Spring 2023

Graduate Research Trainees:
Sailaja Rachakonda, mentor, Pharm/Tox M.S.
Vamshi Beemanapalli, mentor, Pharm/Tox M.S.
Elissa Wakim, M&I M.S.
Sydney White, Pharm/Tox M.S., graduated 2022
Mia Williams Burnett, ES Ph.D. program
Mili ben Bhakata, BMS Ph.D. program
Eric Reed, BMS Ph.D. program; co-advisor Tyler Nelson, Ph.D. Wright Patterson AFB
Clayton Buckner, BMS Ph.D. program; co-advisor Mike Raymer, Ph.D., Dept. Computer Science, WSU; graduated 2023 with M&I M.S.

Graduate Advisory Committees:
Pharmacology & Toxicology M.S. program
Modhi Alshammari, graduated 2022

Microbiology & Immunology M.S. program
Makda Gebrezgi
Yamini Somanchi
Lalitha Sheetal, graduated 2023

Biomedical Sciences Ph.D. program
Rujuta Gadgil (BMS representative)
Yakshkumar Rathod (BMS representative)
Anthony Young (BMS representative)

PTX non-thesis Graduate Student Mentees:
Babitha Kasula
Vineel Jampani
Bhavitha Madala
Chandana Madala
Shiva Nanavath
Babitha Sri
Sruthi Sagiraju
Bhavana Kasaraneni
Aleena Alex
Bhuvaneswari
Shrutiben Patel

Jeffrey Travers

PTX 7021 Effective Scientific Writing I, fall 2022
PTX 8005 Advanced Topics in Pharmacokinetics/Pharmacodynamics, course director, fall 2022
PTX 7022 Effective Scientific Writing II, spring 2023
PTX 8000 Journal Club MD/MS, Summer 2022
PTX 8010 Journal Club MD/MS, Summer 2022

MS Thesis Students
Pranali Manrekar, advisor, graduated spring 2023
Shikshita Singh, advisor, graduated spring 2023
Rushabh Lohade, advisor, graduated spring 2023
Taskin Sabit, advisor, proj graduation spring 2024

MD-MS students (primary advisor)
Maansi Kulkarni, 2020-2023
Danielle Corbin, 2020-2023
Janet Lubov, 2020-2023
Timothy Frommeyer, 2021-2024
Michael Gilbert, 2021-2024
Megan Cleary, 2021-2024
Alexander Vollmer, 2021-2024
Ericson Torralba, 2021-2024
Afryea Henderson, 2022-2025
Winston Owens, 2022-2025
Mark Ortenzio, 2022-2025
Andrea Shugar, 2022-2025
Garrett Fisher, 2022-2025
Rebecca Reese, 2023-2026
Youngjun Park, 2023-2026
Richard Fox, 2023-2026
Rita Kamoua, 2023-2026
Michael Leake, 2023-2026

PhD students
Cvammen William, committee 2020-

Yongjie Xu

PTX 7011 Thesis Development Workshop, spring 2023
PTX 7021 Effective Scientific Writing, fall 2022
PTX 7022 Effective Scientific Writing, spring 2023

MS Advisory students
Kajal Davi, proj grad spring 2024
Yeseswi Guduri, proj grad spring 2024

PhD Committee
Sankhadip Bhardra

Postdoctoral fellows
Kamal Dev
Ilknur Yurtsever

Undergraduate medical education [medical school]

F. Javier Alvarez-Leefmans

WrightQ, Staying Alive Module, spring 2023

David Cool

WrightQ, Beginning to End, Balance Control and Repair, fall 2022
WrightQ, Beginning to End, Balance Control and Repair, spring 2023

Khalid Elased

WrightQ, Staying Alive Module

Craig Rohan

Dermatology lectures to MS2 class

Courtney Sulentic

WrightQ, Staying Alive Module
WrightQ, Beginning to End, Balance Control and Repair

Research Trainees
Raghiv Talreja, 4rd year medical student
Shaina Ailawadi, 4rd year medical student

Jeffrey Travers

No formal lecture, but teach medical students during dermatology elective and every one of three 4h clinics/week.

Graduate medical education [residents, fellows]

Craig Rohan

Clinical rotations for dermatology, pediatrics, internal medicine and family practice, 2-4 days/week

Jeffrey Travers

Lecture to dermatology residents, Resident Immunology I

Continuing medical education [grand rounds, seminars]

Craig Rohan

Grand rounds at Harvard CH Chan School of Public Health
Hot Topics lecture at Ohio Dermatologic Association
Grand Rounds (2) at Dayton VA Medical Center
Quarterly lectures to Dayton Children's Medical Center/pediatric residents, and monthly lectures to dermatology residents.
Interviewed for (2) podcast episodes of the Curbsiders Medical Podcast.

Ravi Sahu

Academic Advisor for BSOM medical students

Jeffrey Travers

Dayton VAMC Grand Rounds, Dayton Ohio: “A new paradigm explaining role of aging in skin cancer” January, 2023.

Redox Biology Congress Invited Lecture from the Society for Free Radical Research-Europe, Vienna, Austria “Platelet-activating Factor and microvesicle particles as effectors for photosensitivity”, June, 2023

Other

Courtney Sulentic

Eimaan Virani, Centerville High School, Research Trainee
Chidimma Nnagbo, Mentor for Women Walking West

5 Scholarly Activity

Funded grants [List PI(s), grant title, funding source, amount of award, and dates of award. Please list each grant only once. Identify student & resident authors, i.e., *=student author **=resident/fellow]

Yanfang Chen

Yanfang Chen (Co-PI), Ji Bihl, (PI), “Exosomes from MIR-Primed Endothelial Progenitor Cells for Treating Ischemic Stroke.” NIH Ro1 (NHLBI, 2R01HL062996), $1,875,000, 01/2020-11/2023.

PIs, Jeffrey B Travers and Yanfang Chen, Co-PI David Cool, Craig Rohan). “UVB radiation-generated microvesicle particles as effectors for photosensitivity.” NIH R01 (NIHES031087, 04/01/2021 – 01/31/2026), $337,500, Co-PI

Khalid Elased

Williams, Clintoria Richards and **Elased, Khalid (Co-PI)** “Primary Place of Performance.”, NIH/NIDDKD, $384,866/yr., 07/2022-06/2027

Saber Hussain

Hussain, Saber. “Biosignatures discoveries of stress (6.1)”. $1M, 2023-2026.

Hussain, Saber. “Biophotonic based cellular commutation & signaling (6.1)”. $0.75 M, 2020-2023.

Hussain, Saber. “Effects of Inhaled Contaminants & Stress on Lung Surfactant Function (6.2)”. $1M, 2021-2024.

Hussain, Saber. “Expanded multi-organ in vitro model in collaboration w/ Wright State Univ to support advanced medical S&T to sustain Airmen health & performance in stressful environment. Resulted academic partnership via CRADA w/WSU 2020-2023, $1.5M equipment placed in Pharm/Tox in AFRL collaborative laboratory, train students, Synergy and partnership, enhanced medical S&T, access to talented work force.

Hussain, Saber. Renewing/creating new CRADA – cohesive approach of how to expand collaboration between AFRL & WSU.

Mike Kemp

Kemp, M (PI). "DNA damage kinase signaling in non-replicating human cells and tissues"; NIH GM130583 ~$296,000 total costs/year, 2/1/19-1/31/24.

Kemp, M (PI). "High-Throughput Luminometry to Support AFRL Collaborative Projects on the Interplay between Circadian Rhythms and Cellular Responses to Operational Stress." DoD DURIP FA9550-23-2-0080, $87,375 total costs/year, 2/1/23-1/31/24.

Kemp, M (PI). "Mapping DNA Repair and Error-Prone DNA Synthesis in Geriatric Skin"; VA Clinical Merit 1I01CX002241, ~$220,000 total costs/year, 4/1/21-3/31/25.

Kemp, M (Co-I, sub contract). "Circadian clock disruption: A risk factor for environmental mutagenesis"; NIH ES030113, $45,696 total costs/year, 11/01/20-10/31/24.

Craig Rohan

Principal investigator for trials in pediatric atopic dermatitis, pediatric psoriasis and adult psoriasis and remained subinvestigator on additional continuing trials involving psoriasis, prurigo nodularis, hidradenitis suppurativa and bullous pemphigoid.

Rohan, Craig (PI), Travers (Sub-I). (DMVT-505-3004) Dermavant. "A Phase 3 Study of Tapinarof for the Treatment of Plaque Psoriasis in Pediatric Subjects". 09/2021 to 03/2023.

Rohan, Craig (PI), Travers (Sub-I). (ARQ-151-312) Arcutis. "A Phase 3, 4-Week, Parallel Group, Double Blind, Vehicle-Controlled Study of the Safety and Efficacy of ARQ-151 Cream 0.15% Administered QD in Subjects With Atopic Dermatitis". 05/2022 to 06/2023.

Rohan, Craig (PI), Travers (Sub-I). (ARQ-151-312) Arcutis. "A Phase 3, Multicenter, Open-Label Extension Study of the Long-Term Safety of ARQ-151 Cream 0.15% and ARQ-151 Cream 0.05% in Subjects with Atopic Dermatitis." 05/2022 to 10/2023.

Rohan, Craig (PI), Travers (Sub-I). (ARQ-151-315) Arcutis. "A Phase 3, 4-Week, Parallel Group, Double Blind, Vehicle-Controlled Study of the Safety and Efficacy of ARQ-151 Cream 0.05% Administered QD in Subjects With Atopic Dermatitis." 06/2022 to 06/2023.

Rohan, Craig (PI), Travers (Sub-I). (J2T-MC-KGBI) Eli Lilly. "A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Study to Assess the Efficacy, Safety and Pharmacokinetics of Lebrikizumab Compared to Placebo in Participants 6 Months to <18 Years of Age With Moderate to Severe Atopic Dermatitis." 07/2022 to 12/2024.

Rohan, Craig (PI), Travers (Sub-I). (2T-MC-KGBJ) Eli Lilly. "A Phase 3, Multicenter, Long-Term Extension Study To Assess the Safety of Efficacy of Lebrikizumab in Participants 6 Months to <18 Years of Age with Moderate to Severe Atopic Dermatitis." 03/2023 to 12/2025.

Rohan, Craig (PI), Travers (Sub-I). (M23-696) AbbVie. "A Phase 3b/4 Randomized, Open-Label, Efficacy Assessor Blinded Study, Comparing the Safety and Assessor Blinded Efficacy of Upadacitinib to Dupilumab in Subjects with Moderate to Severe Atopic Dermatitis." 05/2023 to 05/2025.

Ravi Sahu

Sahu, Ravi (PI). "Mechanisms of augmented UVB immunosuppressive response by polyaromatic hydrocarbons", NIH R21 ES03386-01, 09/2022 - 08/2024

Sahu, Ravi (PI), "Defining the novel mechanistic insights of the platelet-activating factor-receptor axis in the therapeutic potential of pancreatic cancer. Elsa U. Pardee Foundation Grant, 12/2021-11/2022.

Sahu, Ravi/Miller (Co-PI), "Translational relevance of the PAF system in combination chemotherapy mediated microvesicle particles release". BSoM Seed Grant RIF223301, 07/2021-06/2022.

Courtney Sulentic

UES Subcontract at WPAFB, PI, in collaboration with Dr. Sean Harshman. “Utilization of Advanced Analytical Techniques and Methods for the Identification of Protein-protein Interactions of the Aryl Hydrocarbon Receptor Complex in Human Cells.”

Jeffrey Travers

Extramural awards (NIH, VA)

Travers, JB. R01 HL062996 (Travers). “Platelet-activating factor and Epidermal Cytotoxicity.” The objectives of this study are to define the role of oxidized glycerophosphocholines in UVB-mediated early responses in human and murine skin, as well as to characterize novel oxidized lipids produced in response to UVB.” NIH/NHLB, $250,000 direct costs/year, 25% effort, 07/01/1999 to 6/30/2024. **Co-I: Cool and Sahu**

PIs, Jeffrey B Travers and Yanfang Chen, Co-PI David Cool, Craig Rohan. “UVB radiation-generated microvesicle particles as effectors for photosensitivity.” NIH R01 (NIHES031087, 04/01/2021 – 01/31/2025), $ $337,500, Co-PI，04/2021-3/2026.

Travers, JB (Basic Science VA Merit Award 510BX000853). “Oxidized lipids and UV immunosuppression” The objective of this study is to define the role of microvesicle particles in UVB-mediated systemic immunosuppression using murine and human model systems. $165,000 direct costs/year, 20% VA effort, 10/01/2010 to 03/31/2028.

Travers, JB (Clinical VA Merit Award 1101CX000809). “IGF-1 and the initiation of non-melanoma skin cancer.” The objectives of this grant are to test the pro-carcinogenic effects of chronic UVB on localized areas of skin on young versus geriatric subjects, and test whether localized IGF-1 is protective. In addition, the ability of topical IGF-1 inhibitor to augment procarcinogenic effects of UVB on human skin xenografted onto immunodeficient mice will be defined. $150,000 direct costs/year, 20% VA effort, 7/01/2014 to 9/30/2023.

Travers, JB R01 ES030113 (Gaddameedhi). NIH/ES subcontract to WSU-Michael Kemp PI for subcontract. 10/06/2020-10/31/2022.

Pharma-sponsored studies

Travers, JB, Corrona Psoriasis Registry (CorEvitas), The Corrona Psoriasis Registry is a prospective, non-interventional, research study for patients with psoriasis under the care of a dermatologist. Target enrollment is approximately 10,000 patients with no defined upper limit on enrollment. National Psoriasis Foundation, 07/01/2016 to 06/30/2024.

Travers, JB. WSP-07BARI. Eli Lilly and Company. “An Investigator-Initiated Study to Evaluate the Efficacy of Baricitinib in Treatment of Delayed-Type Hypersensitivity versus Irritant Skin Reactions in Healthy Adult Male Subjects.” 06/2019 to 10/2023

Travers, JB. AIN457M2301E1, Novartis, “A Multicenter, Double-blind, Randomized Withdrawal extension study of subcutaneous secukinumab to demonstrate long-term efficacy, safety and tolerability in subjects with moderate to severe hidradenitis suppurativa.” 06/2019 to 12/2022

Travers, JB (Bristol-Myers Squibb Company, IM011046-BMS-986165). A Multi-Center, Randomized, Double-Blind, Placebo- and Active Comparator-Controlled Phase 3 Study to Evaluate the Efficacy and Safety of BMS-986165 in Subjects with Moderate to Severe Psoriasis. Our Pharmacology Translational Unit is one of the participating sites. 09/01/2018 to 12/01/2019; extension until 2022.

Travers, JB (HS0005, UCB Biopharma). “A Phase 3, open-label, parallel group, multicenter, extension study evaluating the long-term treatment of bimekizumab in study participants with moderate to severe hidradenitis suppurativa.” 09/2021 to 09/2026.

Travers, JB (KPL-716-C201), Kiniksa Pharmaceuticals, Ltd. “A Phase 2b, Randomized, Double-Blind, Placebo-Controlled Study to Investigate the Efficacy, Safety, Tolerability and Pharmacokinetics of KPL-716 in Reducing Pruritus in Subjects with Prurigo Nodularis.” 11/2020 to 11/2022.

Travers, JB (ARGX-113-2009) ArgenX. “A Phase 2/3, Randomized, Double-Blinded, Placebo-Controlled, Parallel-Group Study to Investigate the Efficacy and Safety of Efgartigimod PH20 SC in Adult Participants with Bullous

Pemphigoid." 03/2022 to 03/2024.

Travers, JB (CNTO1959PSO3018) Janssen. "Phase 3b, multicenter, randomized, double-blinded, interventional treatment study in skin of color participants with moderate to severe plaque psoriasis or moderate to severe scalp psoriasis. Skin of color includes the entire spectrum of Fitzpatrick types I-VI and anyone who self identifies as non-white/Caucasian (inclusive of multi-racial)." 09/2022 to 12/2024.

Travers, JB (NTTO1959PS)3011) Janssen. "A Phase 3, Multicenter, Randomized, Placebo-and Active Comparator-Controlled Study. Evaluating the Efficacy, Safety, and Pharmacokinetics of Subcutaneously Administered Guselkumab for the Treatment of Chronic Plaque Psoriasis in Pediatric Participants." 07/2022 to 12/2024.

Travers, JB (RIST4721-221) Aristea. "A Randomized, Double-blinded, Placebo-controlled, Phase 2a Study to Evaluate the Efficacy and Safety of RIST4721 in Subjects with Hidradenitis Suppurativa." 08/2022 to 12/2023.

Travers, JB (HZNP-DAX-202) Horizon Therapeutics. "A Phase 2, Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Trial to Investigate the Efficacy and Safety of a Range of Doses of Daxdilimab Subcutaneous Injection in Reducing Disease Activity in Adult Participants with Moderate-to-Sever Primary Discoid Lupus." 06/2023 to 12/2025.

Travers, JB (AK002-018) Allakos. "A Phase 2 Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety, of Subcutaneous Study Drug in Adult Patients with Moderate-to-Severe Atopic Dermatitis Inadequately Controlled by Topical Treatments." 02/2023 to 06/2025.

Travers, JB (INCB 18424-320) Incyte. "A Phase 3, Double-Blind, Randomized, Vehicle-Controlled, Efficacy And Safety of Ruxolitinib Cream in Participants with Prurigo Nodularis." 06/2023 to 06/2025.

Travers, JB (IM011-1130) Bristol Myers-Squibb. "Phase 3b/4 Multi-Center, Randomized, Open-label Long-Term Safety Study of Deucravacitinib in Comparison to Active Comparator in Participants with Moderate to Severe Plaque Psoriasis." 07/2023 to 07/2026.

Travers, JB (M23-702) AbbVie. "A Phase 4 Multicenter, Randomized, Double-Blind Study of Risankizumab For the Treatment of Adult Subjects with Moderate to Severe Genital Psoriasis or Moderate to Sever Scalp Psoriasis." 07/2023 to 07/2026.

Travers, JB (Asana BioSciences, LLC, ASN002AD-201-EXT). An Open-Label Extension Study to Evaluate the Efficacy, Safety, Tolerability, and Pharmacokinetics of ASN002 in Subjects with Moderate to Severe Atopic Dermatitis. Our Pharmacology Translational Unit is one of the participating sites. 01/01/2019 to 12/01/2022.

Yongjie Xu

Xu, Y, NIH R35GM144307, "Comprehensive mutational analysis of the checkpoint signaling function of Rpa1/Ssb1 in Fission Yeast.

Publications [List each publication only once; do not list manuscripts in press. List only publications from the year covered by this report.]

Yanfang Chen

Wang J, Pothana K, Chen S, Sawant H, **Travers JB**, Bihl J, **Chen Y**. Ultraviolet B Irradiation Alters the Level and miR Contents of Exosomes Released by Keratinocytes in Diabetic Condition. Photochem Photobiol. 2022 Sep;98(5):1122-1130. doi: 10.1111/php.13583.

Ma Y, Liu H, Wang Y, Xuan J, Gao X, Ding H, Ma C, **Chen Y**, Yang Y. Roles of physical exercise-induced MiR-126 in cardiovascular health of type 2 diabetes. Diabetol Metab Syndr. 2022 Nov 14;14(1):169. doi: 10.1186/s13098-022-00942-6

Ma X, Liao X, Liu J, Wang Y, Wang X, **Chen Y**, Yin X, Pan Q. Circulating endothelial microvesicles and their carried miR-125a-5p: potential biomarkers for ischaemic stroke. Stroke Vasc Neurol. 2023 Apr;8(2):89-102. doi: 10.1136/svn-2021-001476. Epub 2022 Sep 15.

Xu X, Zhang H, Li J, Chen Y, Zhong W, **Chen Y**, Ma X. Combination of EPC-EXs and NPC-EXs with miR-126 and miR-210 overexpression produces better therapeutic effects on ischemic stroke by protecting neurons through the Nox2/ROS and BDNF/TrkB pathways. Exp Neurol. 2023 Jan; 359:114235. doi: 10.1016/j.expneurol.2022.114235. Epub 2022 Sep 26

Ma X, Zhao J, Li S, Wang Y, Liu J, Shi Y, Liu J, **Chen Y**, Pan Q. Rab27a-dependent exosomes protect against cerebral ischemic injury by reducing endothelial oxidative stress and apoptosis. CNS Neurosci Ther. 2022 Oct;28(10):1596-1612. doi: 10.1111/cns.13902. Epub 2022 Jun 29.

Mauricio Di Fulvio

Abdelgawad R, Rathod Y, Alshammari M, Kelly L, Hübner CA, Aguilar-Bryan L and **Di Fulvio M.** Loss of Slc12a2 specifically in pancreatic β-cells drives metabolic syndrome in mice.PMID: 36580474 PMCID: PMC9799326 DOI: 10.1371/journal.pone.0279560.

Saber Hussain

JY Liu, SH Pradhan, **S Hussain**, CM Sayes Platform for Exposing Aerosolized Substances to Lung Surfactant and Alveolar Cells at the Air-Liquid Interface. ACS Chemical Health & Safety 2022, 29 (5), 448-454.

A Drexelius, S Kim, **S Hussain**, J Heikenfeld. Opportunities and limitations of membrane-based preconcentration for rapid and continuous diagnostic applications. Sensors & Diagnostics, 2022, 1 (2), 222-234.

Y Yuan, M DeBrosse, M Brothers, S Kim, A Sereda, NV Ivanov, **S Hussain**, & J Heikenfeld. Oil-membrane protection of electrochemical sensors for fouling-and pH-insensitive detection of lipophilic analytes. ACS Applied Materials & Interfaces, 2022, 13 (45), 53553-53563.

M DeBrosse, Y Yuan, M Brothers, A Karajic, J van Duren, S Kim, **S Hussain** & J Heikenfeld. A Dual Approach of an Oil–Membrane Composite and Boron-Doped Diamond Electrode to Mitigate Biofluid Interferences, Sensors 2021 (23), 8063.

MT Nelson, JM Slocik, EJ Romer, CI Mankus, RT Agans, RR Naik, & **S Hussain**. Examining cellular responses to reconstituted antibody protein liquids, Scientific Reports 2021 11 (1), 1-9.

Agans RT, Dymond CE, Jimenez RE, Bunce NJ, Perry KJ, Salisbury RL, **Saber M Hussain**, Raj K Gupta, Shashi P Karna. Human Nontumorigenic Microglia Synthesize Strongly Fluorescent Au/Fe Nanoclusters, Retaining Bioavailability. ACS omega, 2020; 5 (33), 20983-20990.

Mike Kemp

Gaikwad P and **Kemp MG**. (2022). Cathepsin L inhibition prevents the cleavage of multiple nuclear proteins upon lysis of quiescent human cells. *MicroPublication Biology*. eCollection 2022.

Carpenter MA, Ginugu M, Khan S, and **Kemp MG**. (2022). DNA containing cyclobutane pyrimidine dimers is released from UVB-irradiated keratinocytes in a caspase-dependent manner. *J Investigative Dermatology*. 142(11): 3062-3070.

Cvammen W and **Kemp MG**. (2022). Flavonoid nobiletin exhibits differential effects on cell viability in keratinocytes exposed to UVA versus UVB radiation. *Photochemistry & Photobiology*. 98(6): 1372-1378.

Terry Oroszi

Anagani, M., & **Oroszi, T**. (2022). Fractures in Parkinson's Disease. Health, 14(9), 972-985.

Yadlapalli Reethi, Eswar Kumar Adoni Valmiki, **Oroszi Terry**, (2022). Non-Small Cell Lung Cancer: Treatment, Diagnosis, and Life after Treatment. Journal of Cancer Therapy, 2022, 13, 450-463.
Naripireddy, S, **Oroszi,** (2022). A review article on leukemia in children with genetic disorders, Genetics Research, accepted pending revisions.

Balausu, R, **Oroszi, T.L**. (2022). The Impact Of COVID-19 on Education and Problems Higher Education Students, Parents, and Teachers Face Due To Distance Learning, Journal of Pharmaceutical Research.

Lewis, A, **Oroszi, T. L**. (2022). Metformin: Pharmacokinetic and Pharmacodynamic Journey through the Body, Pharmacology & Pharmacy, accepted pending revisions. (Pending revisions).

Adoni Valmiki, E, Yadlapalli, R, **Oroszi, T. L.** (2022). Global Impact of Coronavirus Disease 2019, Health, Vol.14 No.7.

Ketter, A, **Oroszi, T. L.** (2022). The Role of Recruitment and Retention in Clinical Trials, International Journal of Clinical Medicine, Vol.13, No.7.

Arigapudi A, **Oroszi, T. L.** (2022). Statins in Alcoholic and Non-Alcoholic Fatty Liver Disease and Chronically Elevated Liver Enzymes, International Journal of Clinical Medicine, Vol.13, No.7.

Shergill, G. S., Bhandari, S., & **Oroszi, T. L**. (2022). Recent Developments in Search of Effective Herbal Medicine for The Treatment of Leukemia, Online Journal of Complementary & Alternative Medicine. Vol.7 No. 2.

Craig Rohan

Broderick JT, McDaniel MH, Lloyd BA, **Rohan CA**. Development of carcinoma erysipeloides from malignant seeding along a pleural catheter tract in a patient with primary lung adenocarcinoma. JAAD Case Rep. 2022 Nov 24; 31:105-108. doi: 10.1016/j.jdcr.2022.11.016. PMID: 36568891.

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 novel pathway involved in immunosuppressive effects. J Invest Dermatol. 2023 Jan 25: S0022-202X (23)00013-1. doi: 10.1016/j.jid.2022.12.018. Epub ahead of print. PMID: 36708950.

Egiebor E, **Rohan CA**, Shamma HN, Lichen Planus Pemphigoides Temporally Associated with Molluscum Contagiosum Virus Treatment, JAAD Case Reports, 2023, PMID: 23525126.

Oladayo A Oyebanji, Chad Brewer, Sharlo Bayless, Benjamin Schmeusser, Danielle A Corbin, **Courtney E W Sulentic,** Catherine M T Sherwin, **Yanfang Chen**, Christine M Rapp, Elizabeth E Cates, Yuhan Long, **Jeffrey B Travers, Craig A Rohan**. 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.

Ravi Sahu

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 Research & Technology Journal 2023. DOI:10.1111/srt.13312.

Thyagarajan A*, Awasthi K, Rapp CM, Johnson RM, Chen Y, Miller KLR, Travers JB, **Sahu RP***. Topical

application of gemcitabine generates microvesicle particles in human and murine skin. BioFactors, 2022; 48(6):1295-1304.

Chauhan SJ, Thyagarajan A*, **Sahu RP***. miRNA-149 and PAFR effects on lung cancer growth and responses of targeted therapies. International Journal of Molecular Sciences, 2022; 23(12):6772.

Courtney Sulentic

Parikh, S. D., Wang, W., Nelson, M. T., **Sulentic, C. E. W.**, Mukhopadhyay, S. M. Bioinspired Hierarchical Carbon Structures as Potential Scaffolds for Wound Healing and Tissue Regeneration Applications. Nanomaterials (Basel). 2023 Jun 2;13(11). doi: 10.3390/nano13111791. PubMed PMID: 37299693; PubMed Central PMCID: PMC10254541.

D'Addabbo, P., Frezza, D. & **Sulentic, C. E. W.** Evolutive emergence and divergence of an Ig regulatory node: An environmental sensor getting cues from the aryl hydrocarbon receptor? Front Immunol, 2023; 14:996119. doi: 10.3389/fimmu.2023.996119.

Jeffrey Travers

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). 2022 Sep 28:99228221125823. PMID: 36171730.

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. PMID: 36973991.

Gilbert MM, Mathes SC, Mahajan AS, **Rohan CA**, **Travers JB**, Thyagarajan A. The role of sirtuins in dermal fibroblast function, Frontiers in Medicine Vol 10, 2023 PMID: 36993812

Dickman J, Howell M, Hoopes R, Wang Y, Dickerson TJ, Bottomley M, Shamma HN, Rapp CM, Turner MJ, **Rohan CA,** and **Travers JB**. Insights into Lichen Planus Pigmentosus Inversus using Minimally Invasive Dermal Patch and Whole Transcriptome Analysis. Journal of Clinical & Investigative Dermatology, 10(1):10.13188/2373-1044.10000772022, 2022. PMID: 36003415.

Lubov, JE, **Rohan CA, Travers JB**, Hill M, Aranda A. Stellate Geometric Depigmentation in a Pediatric Patient Post-Treatment with Intralesional Injected Corticosteroid. American Journal of Case Reports, 23:e935898, 2022. PMID: 35724245.

Kulkarni M, **Rohan CA**, **Travers JB**, Serrao R. Long-Term Efficacy of Dupilumab in Alopecia Areata. American Journal of Case Reports, 23:e936488. PMID: 35726185; PMCID: PMC9235915.

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. Clinical Pediatrics, 62:4; 309-315, 2023. PMID: 36171730.

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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 adults hospitalized psychiatric patients. Journal of Steroid Biochemistry and Molecular Biology, 231:106329, 2023. PMID: 37182752.

Torralba EJ, Singh S, Short RF, Rapp CM, Henkels KM, **Sahu RP**, **Travers JB.** Radiation ttherapy pproduces mmicrovesicle particle rrelease in HaCaT keratinocytes. Skin Research Technology, 29(5):e13332, 2023. PMID: 37231923

Jongjie Xu

Bhadra S and **Xu YJ** (2023) TTT(Tel2-Tti1-Tti2) complex, the co-chaperone of PIKKs and a potential target for cancer chemotherapy. *Int. J. Mol. Sci. 24(9), 8268*. https://doi.org/10.3390/ijms24098268.

Xu YJ, Bhadra S, Mahadi ATA, Dev K, Yurtsever I, and Nakamura TM (2023) Comprehensive mutational analysis of the checkpoint function of Rpa1/Ssb1 in fission yeast. *PLOS Genet.* https://journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1010691

Books, chapters, reviews

F. Javier Alvarez-Leefmans

Alvarez-Leefmans FJ. Intracellular Chloride Regulation. In: *Cell Physiology Sourcebook,* 5th Edition. Edited by Alvarez-Leefmans F.J., Delpire, E.J. and Kaneshiro, E.S. Elsevier (Academic Press-Elsevier). In press 2023.

Delpire, E. and **Alvarez-Leefmans F.J**. Principles of Diffusion and Membrane Permeability. In: *Cell Physiology Sourcebook,* 5th Edition. Edited by Alvarez-Leefmans F.J., Delpire, E.J. and Kaneshiro, E.S. Elsevier (Academic Press-Elsevier). In press 2023.

Mike Kemp

Yan S, Zhao J, **Kemp M**, and Sobol RW. (2022). Editorial: Mechanistic studies of genome integrity, environmental health, and cancer etiology. *Front Cell Dev Biol*. 10: 1026326.

Terry Oroszi

Oroszi, T. (2022). The American Terrorist: A 20 Year Study. Greylander Press, LLC.

Ravi Sahu

Pathipaka R, Thyagarajan A, **Sahu RP**. Melatonin as a drug repurposing for melanoma treatment. Medical Sciences 2023;11(1):9.

Altaiban A, Thyagarajan A*, **Sahu RP**. KRAS pathway-based therapeutic approaches in pancreatic cancer. Mini-Reviews in Medicinal Chemistry 2023; 23(8):

Sirhan Z, Thyagarajan A, **Sahu RP**. Therapeutic efficacy of Tucatinib versus Tucatinib combination approaches in HER-2+ breast cancer patients. Military Medicinal Journal 2022; 9(1):39.

Courtney Sulentic

Anderson, S. E., **Sulentic, C. E. W.**, Kaplan, B. L. F.: Chapter 14: Immunotoxicology in Industrial Hygiene and Occupational Exposures. In: Patty's Industrial Hygiene and Toxicology (eds. Paustenbach, Farland, Klaunig, Levy and Greim) 7th edition, Wiley.

Sulentic, C.E.W. What is natural immunity and why do I need the vaccine or a booster? In K. Conway (Ed.) COVID Conway Communications Reboot #4. Internal BSOM report (January 2022).

Jeffrey Travers

Frommeyer, TC, **Travers, J.B.** Gram positive infections associated with toxin production. In: Fitzpatrick's Dermatology in General Medicine, 10th edition, 2022.

Published abstracts

F. Javier Alvarez-Leefmans

Alvarez-Leefmans, F.J. The Ins and Outs of Apical NKCC1 in Choroid Plexus Epithelial Cells. Acta Physiologica SY 06-02 Volume 236, Issue S725. P.33 Abstracts of Europhysiology 2022, 16-18 September 2022.

Khalid Elased

Dalia Elased, Daniel Branch, Jooho Oh, Luke Pepperney**, Khalid Elased**, Kedryn Baskin. High-phosphate diet disrupts ACE/ACE2 balance in mouse kidney. Presented at the American Physiological Society Summit in Long Beach, CA, 2023.

Dalia Elased, Daniel A. Branch, Jooho Oh, Luke J. Pepperney, **Khalid Elased**, Kedryn K. Baskin. High-Phosphate Diet Decreases ACE2 Expression and Activity in Mouse Kidney. Presented at the Ohio Physiological Society 36th Annual Meeting in Ohio State University, Columbus, OH, 2022

Mike Kemp

Alexandra Carpenter, Sri M Yerraprada, Meghana R Ginugu, **Michael G Kemp**. (2022). DNA Containing Bulky DNA Adducts is Released from Keratinocytes after Genotoxin Exposure. *Environmental and Molecular Mutagenesis.* 63(S1).

William H Cvammen and **Michael G Kemp**. (2022). Pharmacological Enhancement of the Circadian Clock Protects Keratinocytes from UV Damage and Increases Transcription of DNA Damage Response Genes. 63(S1).

Ravi Sahu

Krishna Awasthi#, Anita Thyagarajan#, Christine M. Rapp, R. Michael Johnson, Yanfang Chen, Jeffrey B. Travers, **Ravi P. Sahu***. Impact of topical gemcitabine treatment on human and murine skin. (# These authors contributed equally). Annual Ohio Valley Society of Toxicology 2021 meeting, held on October 14th, 2022.

Anita Thyagarajan, R. Michael Johnson, Jeffrey B. Travers, **Ravi P. Sahu***. Topical application of gemcitabine chemotherapy generates microvesicle particles in a Platelet-activating factor-receptor- and acid sphingomyelinase-dependent manner. J. Invest. Dermatol. 142(8): S100, 2022.

Courtney Sulentic

Sulentic, C.E.W.: A regulatory node within the immunoglobulin heavy chain gene may predict sensitivity to xenobiotics that alter antibody production. Toxicological Sciences, the Toxicologist, **192**:1174, 2023.

Jeffrey Travers

Manjrekar P, Christian LR, Rapp CM, Henkles KM, Annamraju R, **Chen Y**, **Travers JB**. Evidence that microvesicle particles mediate the photosensitivity associated with xeroderma pigmentosum A deficiency. J. Invest. Dermatol. 143(5): S196, 2023.

Travers JB. Platelet-activating Factor and microvesicle particles as effectors for photosensitivity. Free Radical Biol. Med. 201S1, S10, 2023.

Yongjie Xu

Ilknur Yurtsever and **Yong-jie Xu** (2023) Structural Determinants of the Checkpoint Functions of Mrc1, the Mediator of the DNA Replication Checkpoint Conserved in Eukaryotes. 22nd Midwest DNA repair symposium May5-7, 2023, The University of Iowa, Iowa City, IA.

Yong-jie Xu, Kamal Dev, Sankhadip Bhadra, Alaa Taha A. Mahdi, and Ilknur Yurtsever (2023) Comprehensive mutational analysis of the checkpoint signaling function of Rpa1/Ssb1in fission yeast. 22nd Midwest DNA repair symposium May5-7, 2023, The University of Iowa, Iowa City, IA.

Sankhadip Bhadra, Saman Khan, Kamal Dev, Ilknur Yurtsever, and **Yong-jie Xu** (2023) Potential role of the TTT (Tel2-Tti1-Tti2) complex in regulating DNA replication checkpoint in fission yeast. 22nd Midwest DNA repair symposium May5-7, 2023, The University of Iowa, Iowa City, IA.

Significant presentations [e.g., to academic societies, medical schools and national professional societies.]

F. Javier Alvarez-Leefmans

Europhysiology 2022, Copenhagen, Denmark, invited a speaker to the Symposium “NKCC1 in the choroid plexus: which way to go?”. The meeting was organized by The Physiological Society (UK), The Scandinavian Physiological Society, The German Physiological Society, and the Federation of European Physiological Societies September (16-18, 2022).

Mike Kemp

40th Meeting of the American Society for Photobiology, Albuquerque, New Mexico (co-chair and invited talk, Symposium on Circadian Clock and Aging in Skin Carcinogenesis), September 2022.

22nd Annual Midwest DNA Repair Symposium, Iowa City, Iowa (poster presentation), May 2023.

Terry Oroszi

TEDx: Recognizing at Risk Individuals for Violent Extremism and Providing the tools to Steer them Down a Better Path. Dayton, OH., Oct 2022.

Homeland/Corporate Security and Leadership - Slippery Rock University, Slippery Rock, PA., Nov. 2022.

The American Terrorist: Finding Patterns in the Data. ASIS GSX, Atlanta GA., Sept. 2022.

The American Terrorist: Finding Patterns in the Data. National Homeland Security Conference, Cleveland, OH., July 2022.

Domestic 4/5/6 Power Platform. INSPIRE and CENVET Celebrate Women's Veterans Day, June 2022.

My Career Path. American Embassy in Baghdad for faculty and administrators from 18 universities in Iraq and Kurdistan, Jan. 2022.

Craig Rohan

Grand Rounds at Harvard CH Chan School of Public Health.

Lecture at Ohio Dermatologic Association.

Interviewed for 2 podcast episodes of the “Curbsiders” Medical Podcast.

Ravi Sahu

Oral Presentations (via video conferencing) as an Invited speaker:

The relevance of microvesicle particle release in evaluating drug response (via video conferencing). Keynote Speaker for the 5th World Congress on Cancer Research and Therapy 2023 organized by Conference Mind.

Translational relevance and impact of topical chemotherapeutics (via video conferencing). International Meet on Pharmaceutics and Drug Delivery Systems (PHARMAMEET2023).

Relevant model systems to determine the effects and mechanisms of topical chemotherapeutics (via video conferencing). 12th World Gene Convection (WGC) 2023, Sapporo, Japan.

Drug repurposing for melanoma intervention (via video conferencing). (Keynote Speaker). TOXICOLOGYMEET2022, Dubai, UAE.

Impact of drug repurposing in skin cancer intervention (via video conferencing). 2nd Global Virtual Congress on Cancer Research & Drug Development 2022.

Drug repurposing and cancer prevention (via video conferencing). International Conference on Emerging Concepts in health and Disease Management (ICECHDM)-2022. Organized by the Department of Biochemistry, University of Kerala at Kerala, India.

Mechanistic insights into the Chemopreventive effect of aspirin (via video conferencing). Keynote Speaker. 4th International Conference on Cancer Research and Therapy 2022 organized by Conference Mind.

MiRNA-149-5p and Platelet-activating factor-receptor signaling impacts lung cancer growth and the efficacy of targeted therapy (via video conferencing). 41st World Cancer Conference 2022" at Windsor, Berkshire, England.
.

Courtney Sulentic

Regulation of Antibody Production: Getting Environmental cues from the AhR? AhR Symposium 2022: Toxicity to Therapeutics, Penn State University, State College, PA 2022.

Research was highlighted in Perdew et. al., The Ah Receptor from Toxicity to Therapeutics: Report from the 5th AHR Meeting at Penn State University, USA, June 2022. *International Journal of Molecular Sciences*, **24**:5550-5566 (2023).

Human Cells as Non-Animal Alternative Approaches for Immunotoxicity Testing, Society of Toxicology, Nashville, TN, 2023. Invited Speaker: A regulatory node within the immunoglobulin heavy chain gene may predict sensitivity to xenobiotics that alter antibody production.

Allex-Buckner, C., Bhakta, M., Burra, Kaulini, **Sulentic, C. E. W.** Activation of the AhR Differentially alters Human IGH Isotype Expression Profiles. AhR Symposium 2022: Toxicity to Therapeutics, Penn State University, State College, PA 2022.

White, S., Alfaheeda, Z., Alhamdan, N., **Sulentic, C. E. W.** AhR-mediated transcriptional regulation of the human immunoglobulin hs1.2 enhancer. AhR Symposium 2022: Toxicity to Therapeutics, Penn State University, State College, PA 2022.

Jeffrey Travers

Under Continuing Medical Education section.

Consultantships [sponsor activity]

David Cool

VA Travers (PI) Funded Consultant, O*xidized Lipids and UV Immunosuppression,* 2020-2024.

Terry Oroszi

Gerson Lehrman Group (G.L.G.) Council Member – as needed

N.S.F. Grant $125/hrs., at 80 hours of consulting on deception in clearance interviews.

Courtney Sulentic

CBS News Inquiry (free of charge). Data analysis and risk assessment of a third party's chemical analysis of soil and water after the East Palestine train derailment.

Other recognition [e.g. editorships, reviewer awards]

F. Javier Alvarez-Leefmans

Associate Editor, Frontiers in Membrane Physiology and Biophysics. Frontiers Journals. Science Park PSE-D, CH –1015 Lausanne, Switzerland.

Ad hoc Reviewer for the following journals during the period reported: Frontiers in Physiology and The American Journal of Physiology-Cell Physiology.

David Cool

Editorial Board, Interdisciplinary Toxicology, 2014-present.

Mauricio Di Fulvio

Ad-hoc reviewer for NIH-NIDDK, Diabetes, Endocrinology, and Metabolic Diseases B Sub-Committee (DDK-B).

Khalid Elased

Associate Editor of the Renal Pharmacology Section of Frontiers in Pharmacology.

Saber Hussain

Editorial Positions for:

Guest editor, Frontiers of Toxicology, Nanoparticles and Nanoplastic toxicity. 2023-present.

Editorial member of Indian Defense Journal, 2020-present.

Journal of Nanotoxicology, 2014-present.

Mike Kemp

Grant Reviewer, Oak Ridge Associated Universities (ORAU)/Nazarbayev University Research Council (Kazakhstan); Sept. 2022.

Terry Oroszi

Chief Editor, InfraGard Journal, 2022.

Craig Rohan

Reviewer for Skin Research and Technology Journal.

Ravi Sahu

Editorial Board member, Associate editor, and reviewer for several scientific journals.

Publication is the Featured Cover Image Highlight, Skin Research & Technology Journal 2023.

Publication published in Mini-Review in Medicinal Chemistry and Cover Image Highlight.

Courtney Sulentic

Lead Topic Editor for Frontiers in Toxicology, Immunotoxicology Special Topic: Role of the Aryl Hydrocarbon Receptor in Immune Modulation, 2021-2022, current views ~12,000.

Grant Review Panels
NIH/NIEHS
Environmental Determinants of Disease EDD Study Section – Feb and June review panels
Systemic Injury by Environmental Exposure SIEE Study Section

External Examiner for Kenyon Honors Research, Kenyon College
Paige Milhon
Thesis: Mechanisms underlying emergence of a sub-G1 population of cells in a mutant Xenopus laevis line lacking AHR1α Advisor: Wade Powell, Ph.D., Biology

Alex Thoms
Thesis: Antagonism of the Xenopus laevis aryl hydrocarbon receptors
Advisor: Wade Powell, Ph.D., Biology

Student Awards
Sailaja Rachakonda, Selected as presenter for 3-minute Thesis Competition, Wright State University
Vamshi Beemanapalli, People's Choice Award, 3-minute Thesis Competition, Wright State University
Mia Williams Burnett, 3rd place, 3-minute Thesis Competition, Wright State University
Research Grant, Graduate School Assembly, Wright State University
Mili Bhakta, Research Grant, Graduate School Assembly, Wright State University

Jeffrey Travers

External Advisor, NCI SPORE grant, University of Pittsburgh, 2019-present.
Reviewer for multiple journals in areas of my expertise, ~2/month.
Associate Editor, Skin Research Technology
Associate Editor, Journal of Investigative Dermatology.

Yongjie Xu

Ad Hoc Reviewer for:
Ohio Cancer Research Scientific Review Committee, June 12, 2023
NIH SEP, ZES1 LWJ-S(RI) NIEHS R35 River Review, Nov. 17-18, 2022.
NIH Study Section (ZRG1 F08-M(20) 2022/10), June 30-July 1, 2022.
Cell Cycle Journal
Nature Communication Journal.

6 Summary of Service Activities

Student advising

F. Javier Alvarez-Leefmans

Pharmacology & Toxicology Leader Admin track students - 9

Yanfang Chen

Leader Admin Advisor
Hamad Albaqami
Harish Kothapalli
Divya Akhila Yekkala

Thesis Advisory Committee
Pranali Manjrekar, MS, 2021-2023
Shikshita Singh, MS, 2021-2023

David Cool

PhD Advisory Committee
Jananie Rockwood, BMS Rep, Graduated 2023
Adaku Ume, MD/PhD BMS co-advisor, Graduated 2023
Kristen Rehl, BMS rep, Graduated 2023
Christina Davidson, BMS committee, Projected graduation 2023
Mia Burnett, BMS committee, Projected graduation 2025
Bryan Mayville, BMS committee, Projected graduation 2024
Phillip Walker, MD/PhD committee member, BMS, Projected graduation 2024

Thesis Advisory Committee
Shikshita Singh, PTX, Grad. 2023

Leader Admin MS Advisor
8 students

Mauricio Di Fulvio

Thesis Advisory Committee
Yaksh Rathod, PhD BMS advisor, 2021-2026

Leader Admin MS Advisor
Advising 11 students

Khalid Elased

Thesis Advisory Committee
Sydney White, MS student committee, Graduated summer 2022
Adaku Ume, MD/PhD student, committee
Danielle Adams, MD/PhD, committee
Yakshkumar Rathod, PhD committee member

Leader Admin MS Advisor
Meeti Champaneria
Zaid Sirhan, graduated spring 2022
Eswar Valmiki, graduated summer 2022
Anisha Cherukuri
Jaypalsinh Gohil
Prashanthi Bommineni, graduated spring 2022
Vimarsh Joshi
Adil Mohammed
Rama Bandi
Yashasvi Jagapathi
Saranya Chandaka
Shaheela Shaheela
Pooja Chimata

Saber Hussain

Advisory Committee
Capt. Bryan Mayville, PhD student, 2020-2023
Soham Parikh, PhD student committee, 2021-current
Mia Burnett, PhD student, co-advisor, 2022-current
(10) Summer Intern students from WPAFB

Mike Kemp

Pharmacology & Toxicology Master's Students
Mentor for:
Balaram Gudapati
Lahari Paladugu
Chandana Nimmala
Dvijendra Tamirisa
Vamshi Beemanapalli
Suma Chigurupati
Niharika Annapureddy
Yeseswi Guduri

Thesis Advisor for:
Hrishikesh Kadam (2022-2023)
Prashant Gaikwad (2022-2023)
Swathi Kavuri (2022-2023)
Aleena Alex (2022-expected 2024)

Thesis Committee member for:
Rushabe Lohade (2022-2023; Travers)
Krishna Awasthi (2022-2023; Sahu)

Biomedical Sciences Ph.D. Students
William Cvammen (2020-present; thesis advisor)
Sri Meghana Yerrapragada (2022-present; thesis advisor)
Bryan Mayville (2022-present; Hussain)
Miliben Bhakta (2021-present; Sulentic)
Resha Shretha (2021-present; Leffak)
Sankhadip Bhadra (2020-present; Xu)
Akshay Hira (2020-present; Kadakia)
Venicia Hawach (2020-present; Leffak)
Rujuta Gadgil (2019-present; Leffak)
Eric Reed (2019-present; Sulentic/Nelson)

Terry Oroszi

Leader Admin MS Advisor
Aarita Sood
Ajay Undrakonda
Alexander Opoku
Anusha Chinthareddy
Jessica Hong
Kesha Patel
Mark Robinson
Meghana Anagani
Mohammed Burhan Uddin
Nahla Khader
Narasimha Mallampati
Rachana Balusa
Sherin Mathew
Soumya Erri
Venkatesh Kilari
Vinitha Sakhamuri

PhD Advising
Michele Miller, co-advisor, graduated 2022.

Craig Rohan

MD/MS Co-Advisor
Steven Repas, graduated spring 2022
Sharlo Bayless, graduated spring 2022
Ben Schmeusser, graduated spring 2022
Jacob Dickman, graduated spring 2022
Zafer Sattouf, graduated spring 2022
Danielle Corbin
Janet Lubov
Maansi Kulkarni
Megan Cleary
Alex Vollmar
Ericson Torralba
Timothy Frommeyer
Michael Gilbert
Garrett Fisher
Afryea Henderson
Mark Ortenzio
Winston Owens
Andrea Shugar
Rebecca Reese
Richard Fox
Rita Kamoua
Michael Leake
Youngjun Park

Medical students, dermatology residency positions.

Ravi Sahu

Thesis Mentor/Advisory Committee
Chad Brewer, committee, graduated spring 2022
Mashael Alyahya, committee, graduated summer 2022
Sydney White, MS student, graduated summer 2022
Krishna Awasthi
S. Chitra, committee

Leader Admin MS Advisor
Sreevalli Chirumamilla
Vaibhav Gajjar
Rachana Pathipaka
Lakshmi Devaropalli
Sai Priya Devarkonda

Courtney Sulentic

Graduate Research Trainees:
Sailaja Rachakonda, Pharm/Tox M.S.
Vamshi Beemanapalli, Pharm/Tox M.S.
Elissa Wakim, M&I M.S.
Sydney White, Pharm/Tox M.S., graduated 2022
Mia Williams Burnett, ES Ph.D. program
Mili ben Bhakata, BMS Ph.D. program
Eric Reed, BMS Ph.D. program; co-advisor Tyler Nelson, Ph.D. Wright Patterson AFB
Clayton Buckner, BMS Ph.D. program; co-advisor Mike Raymer, Ph.D., Dept. Computer Science, WSU; graduated 2023 with M&I M.S.

Graduate Advisory Committees:
Pharmacology & Toxicology M.S. program
Modhi Alshammari, graduated 2022

Microbiology & Immunology M.S. program
Makda Gebrezgi
Yamini Somanchi
Lalitha Sheetal, graduated 2023

Biomedical Sciences Ph.D. program
Rujuta Gadgil (BMS representative)
Yakshkumar Rathod (BMS representative)
Anthony Young (BMS representative)

PTX non-thesis Graduate Student Mentees:
Babitha Kasula
Vineel Jampani
Bhavitha Madala
Chandana Madala
Shiva Nanavath
Babitha Sri
Sruthi Sagiraju
Bhavana Kasaraneni
Aleena Alex
Bhuvaneswari
Shrutiben Patel

Jeffrey Travers

Primary Advisory/Committee member
Chad Brewer, MS student, advisor, graduation spring 2022
Cvammen William, BMS PhD student, committee, 2020-present
Pranali Manrekar, MS advisor, graduated 2023.
Shikshita Singh, MS advisor, graduated 2023.
Rushabh Lohade, MS advisor, graduated 2023.

MD/MS Co-Advisor
Steven Repas, graduated spring 2022
Sharlo Bayless, graduated spring 2022
Ben Schmeusser, graduated spring 2022
Jacob Dickman, graduated spring 2022
Zafer Sattouf, graduated spring 2022
Danielle Corbin
Janet Lubov
Maansi Kulkarni
Megan Cleary
Alex Vollmar
Ericson Torralba
Timothy Frommeyer
Michael Gilbert
Garrett Fisher
Afryea Henderson
Mark Ortenzio
Winston Owens
Andrea Shugar
Richard Fox
Rita Kamoua
Michael Leake
Rebecca Reese
Youngjun Park

Yongjie Xu

Primary Advisory/Committee member
Postdoctoral fellows:
Dr Kamal Dev

Dr Ilknur Yurtsever

PhD Student:
Sankhadip Bhardra

Research Track MS students:
Kajal Davi, advisor
Yeseswi Archana Guduri, advisor
Hrishikesh Kadam, committee
Krishna Awasthi, committee
Naga Swathi Kavuri, committee
Prashant Gaikwad, committee
Rujuta G. Yashodhan (PhD student in Dr. Michael Leffak's lab)
William Cvammen (PhD student in Dr. Kemp's lab)
Akshay Hira (PhD student in Dr. Kadakia's lab)

Committee membership/officer [indicate if committee chair]

Wright State University Boonshoft School of Medicine [or college name]

F. Javier Alvarez-Leefmans

Pharmacology and Toxicology Faculty Affairs and Development Committee

David Cool

Pharmacology and Toxicology Faculty Affairs and Development Committee, Chair
BMS Admissions Committee

Khalid Elased

BSOM Research Committee
Pharmacology and Toxicology Faculty Affairs and Development Committee
BSOM Faculty Curriculum Committee

Mike Kemp

Pharmacology and Toxicology Education Committee, 2021-present
Curriculum Committee, WSU BMS PhD program, 2022-2023

Terry Oroszi

BSOM Continuing Medical Education Committee (CME) and Toxicology Education Committee
Pharmacology and Toxicology Education Committee, 2021-present, Chair
Pharmacology and Toxicology Admissions Committee, 2021-present, Chair
BSOM Nominations Committee

Craig Rohan

Dermatology Clinical Competence Committee
Quality Control for Wright State Physicians

Ravi Sahu
Academic Advisor for medical students

Courtney Sulentic

Faculty Promotion and Advancement Committee, elected member, BSOM, 2020-2022
BSOM Strategic Plan, Research Subcommittee

Faculty Affairs and Development Committee (FADC), Pharm/Tox
Education Committee, Pharm/Tox

Service:
BSOM Medical Student Research Symposium Poster/Presentation Judge

Jeffrey Travers

WSU Executive Committee, 2015-present
Dean's Research Chairs Committee, 2015-present
Scholarship in Medicine, Basic Science Track Committee, Chair 2018-present
Premier Medical Center Research Institute Steering Committee, 2022-present

Yongjie Yu

Member of the Educational Committee in the Department of Pharmacology & Toxicology

Wright State University

David Cool

BMS Admissions Committee

Mauricio Di Fulvio

BMS Admissions Committee

Khalid Elased

Laboratory Animal Care & Use Committee

Mike Kemp

Ad-hoc committee to recommend applicants for NSF MRI, January 2023.
BMS PhD Admissions Committee, 2021-2022

Terry Oroszi

WSU Faculty Senator (2019 – Present)
WSU International Program Oversight Committee (IEAC), Chair (2021 – Present)
WSU Commencement Committee (2022 – Present)
WSU Building and Grounds Committee (2022 – Present)
WSU Faculty Senate Executive Committee (2022 – Present)
WSU Medical Advisory Group (2022 – Present)
WSU Commencement Committee (2022 – Present)

Ravi Sahu

Institutional IACUC and IBC Committees

Courtney Sulentic

Nominating Committee, BMS Ph.D. Program, elected member, 2021-2023
Women's Peer Mentoring Group, initially supported by the NSF-funded LEADER Program at WSU
Women in Science Giving Circle member, 2016-present

Yongjie Xu

BMS PhD Student Admission Committee, 2021-2022

Wright State Physicians

Saber Hussain

Premier Health Research Committee member led by Dr. Joshua Lader.

Hospital or affiliated institution [name]

State

Khalid Elased

Registered and licensed as a pharmacist in the state of Ohio.

Mike Kemp

Dayton VA Medical Center Subcommittee on Research Safety, Feb 2020-present

Awards & Honors Committee, Environmental Mutagenesis and Genomics Society, 2017-present, Chair 2019-present.

National

Mauricio Di Fulvio

Advisory Committees – Study sections of Molecular & Cellular Endocrinology & Membrane Transporters & Receptors
National Agency for the Promotion of Science and Technology, Argentina

Khalid Elased

American Heart Association High Blood Pressure Council Conference Review Committee.
Member on the American Heart Association KCVD Committee of the Council on the Kidney in Cardiovascular Disease.
Delegate of WSU Boonshoft School of Medicine to the United States Pharmacopeia (USP) Convention.

Mike Kemp

Honors and Awards Committee, Environmental Mutagenesis and Genomics Society, 2017-present, Chair 2019-present.
Excellence in Science Award Committee, FASEB, 2020-present

Terry Oroszi

InfraGard National Members Alliance Officer
NYPD SHIIELD

Courtney Sulentic

Society of Toxicology:

Presidential Chain for Women in Toxicology Special Interest Group, Society of Toxicology
Vice President, 2021-2022
Past President, 2022-2023

Mentor Match program, mentor, Society of Toxicology

Service at the 2022 SOT Annual Meeting in San Diego, CA:
Presided over the Women in Toxicology Special Interest Group Annual Reception
Invited Expert, Colgate-Palmolive Luncheon
Host for Poster Tours in Immunotoxicity, Postdoctoral Assembly
The Graduate School Breakout session, Undergraduate Program, Committee on Diversity Initiatives, Panelist

Ad-hoc reviewer for several journals

Jeffrey Travers

NIH Grant Review Panels
NAIMS T32 grant reviewer October 2022, chair

VA Grant Review Panels
VA Oncology D/E Review Panel, November 2022, Co-chair
VA Oncology D Review Panel, May 2023, chair

Other

Yanfang Chen

Departmental Core for Preclinical Pharmacology, Director

Khalid Elased

Member of Scientific Societies
American Diabetes Association (ADA)
American Physiological Society (APS)
Fellow of the American Heart Association (AHA)
Member of the American Society of Nephrology (ASN)

Mike Kemp

Manuscript Reviewer (25 manuscripts): International Journal of Molecular Sciences (x6); The Lancet Oncology; Photodermatology, Photoimmunology, & Photomedicine (x2); Biology; Frontiers in Genetics; Journal of Biochemical and Molecular Toxicology; Proteins; Cancers, Communications Biology; Mutation Research; Journal of Pharmaceutical Research International; Thernostics; Journal of European Dermatology Venerology; Frontiers in Oncology; Genes; Biomedicine and Pharmacotherapy; Journal of Insect Physiology; Environmental and Molecular Mutagenesis; Drug Design, Development, and Therapy

Ravi Sahu

Community Service:
Faculty Judge for State Science Day, The Ohio Academy of Science
Faculty Judge for Buckeye Science & Engineering Fair

Courtney Sulentic

COVID Conway Communications Reboot Newsletter, reviewer and contributor
Sulentic, C.E.W. What is natural immunity and why do I need the vaccine or a booster? In K. Conway (Ed.) *COVID Conway Communications Reboot #4*. Internal BSOM report (January 2022).

7 Patient Care Summary

[If applicable. Include number of ambulatory visits, hospitalizations, surgeries, new techniques or programs developed; new collaborations.]

Craig Rohan

Dermatology clinics at Wright State Physicians (two half-days/week) and Dayton VA Medical Center (one half-day/week).

Jeffrey Travers

Dermatology clinics at Wright State Physicians and Dayton VAMC.

8 Honors and awards [Faculty or staff]

Mike Kemp

Junior Faculty Award, Wright State University Academy of Medicine, April 2023.

Craig Rohan

“Dayton’s Top Dermatologist” award

9 Hosted events [CME, etc.]

10 Other information

[Other information that represents your department's contribution to the academic mission of the Boonshoft School of Medicine.]

Yanfang Chen

Director, Pharmacology & Toxicology Departmental Core for Preclinical Pharmacology

David Cool

Proteome Analysis Laboratory, Director, 2004-present

Collaborations & Consultants
Dr. Karen Parker, Stanford University- OT & AVP in Autism, 2009-present
Dr. Steven Lindheim OB/GYN Neu (5) GC in Infertility, endometriosis, vulvodynia, 2015- present
Dr. John Bini MVH, Dept.Surgery, Proteins in Ventilator Associated Pneumonia, 2014- present
Dr. Oleg Paliy- BMB- HPLC Analysis of Small Bacterial Metabolic Molecules, 2018- present
Dr. Richard Simman, P&T Dept, Comparison of wound healing using OASIS, 2014-present
Dr. Steven Lindheim OB/GYN Polycystic Ovary Syndrome, 2014- present
http://clinicaltrials.gov/ct2/show/study/NCT01487486
Dr Miryoung Lee- (Texas A&M) Analysis of biomarkers of dieting, 2013- present
Dr. James Olson- Emergency Medicine & NCBP (RET), Biomarkers of Stroke. Patent Filed, Ongoing Research Project, 2003- present
Dr. Jiri Sonek & Dr. David McKenna, MVH- OB/GYN, BioMarkers for Preterm Delivery Ongoing Research Project.

Mauricio Di Fulvio

Review Editor Frontiers in Endocrinology
Review Editor Frontiers in Neurosciences
Reviewer Scientific Reports, Nature Communications
Reviewer PLoS one
Reviewer Lancet
Reviewer American Journal of Physiology
Reviewer European Journal of Physiology

Khalid Elased

Delegate of the WSU Boonshoft School of medicine to the United States Pharmacopeia.

Reviewer of the following Journals:
Advances in Critical Care
American Journal of Physiology: Heart and Circulatory Physiology
American Journal of Physiology: Renal Physiology
BMC Nephrology
Brazilian Journal of Medical and Biological Research
Cellular & Molecular Biology Letters; Circulation
Circulation Research; Clinical and Experimental Hypertension
Clinical and Experimental Pharmacology & Physiology; Endocrine
Experimental Diabetes Research; Experimental Physiology
Hypertension Research; International Journal of Biological Macromolecules
International Journal of Hypertension; International Journal of Nephrology and Renovascular Disease
Journal of Diabetes Research
Journal of Proteome Research; Journal of the American Society of Hypertension

Journal of the Renin-Angiotensin-Aldosterone System
Kidney and Blood Pressure Research
Life Sciences
Metabolism- Clinical and Experimental
Microbial Pathogenesis
Molecular Psychiatry
Nephron Physiology
Nutrition Research
PLoS One
Physiological Reports
Regulatory Peptides
The Journal of Pathology.

Research Peer Review:
Abstract Reviewers for The AHA Hypertension Annual Meetings (2020) New Orleans.

National Research Development and Innovation Office (Hungary): Special Emphasis Panel/Scientific Review Group Physiology, Pathophysiology, Pharmacology and Endocrinology Study Section. Budapest, Hungary.

Saber Hussain

Participated and advised in DURIP proposal for equipment through AFOSR 2022
Assisting other faculties 2023
Participated in DHP-DoD proposals JPC-6 and JPC-5.
Collaboration with Dr. Travers through summer intern.

Terry Oroszi

Departmental seminar speakers, hosted
Dr. Swapnil Shawale, alum
Mike Shannon, former NIH director
Dr. Mark Gebhart, EM physician
Vice Chair
Provost/Dean visit
BSOM PTX Budget
Department facilities contact
Education program marketing (Green wall, where are They Now Posters, Faculty Posters)
Micro credential -Toxicology

Craig Rohan

Assisted Drs. Sahu and Travers with ongoing efforts to expand research in new clinical areas (burn research and oncology research).

Ravi Sahu

Faculty Judge and moderator for Scholarship in Medicine (SCH) presentation day.
Faculty Judge for DAGMEC Virginia C. Woods Resident Research Forum.
Member of the evaluation committee for the Medical Sciences Travel Award
Guest editor for a special issue in medical sciences journal

Courtney Sulentic

Finalizing experiments for manuscripts and grants, writing and submitting manuscripts for publication, and grant writing.

Submitted:
DURIP Equipment Proposal, PI Sulentic

“ImageXpress High-Content Imaging System to Support AFRL Collaborative Projects on the Interplay between Circadian Rhythms and Cellular Responses to Operation Stress”

Boehringer Ingelheim, PI DiFulvio, co-I Sulentic and Elased. “S1P3 antagonism protects against development and progression of metabolic dysregulation”

Major Research Instrumentation Program, National Science Foundation, PI Markey “MRI: Track 1 Acquisition of a PacBio Sequel IIe for Research and Education”

Toxic Exposures Research Program, Department of Defense, PI Sulentic, co-I Mauzy “Immunotoxicant Exposures and Individualized Immunomodulation via IgH Variants” Not funded

Hands-on Training on the EPA computational toxicology chemicals dashboard, interactive webinar, 2022

I continue to be a very active mentor to my students and consistently strive to facilitate career development opportunities as well as exposure to peers and professionals by facilitating attendance to local and national scientific meetings as evidenced by the number of student presentations highlighted above. In addition to devoting much time to mentoring and teaching, I have also focused the activities in my lab on finalizing experiments for manuscripts and grants, writing and submitting manuscripts for publication, and grant writing. In collaboration with Dr. Camilla Mauzy (Wright Patterson Air Force Base), I submitted a grant specific to Department of Defense’s Toxic Exposures Research Program. It was not funded but received fairly positive review. With the encouragement of Dr. Saber Hussain (Wright Patterson Air Force Base), I submitted an DURIP equipment grant, which is still in review. I have also worked with colleagues within the department, specifically Drs. Di Fulvio and Elased, to work on a new R01 proposal and we also submitted a company-solicited research proposal, which is in review. My lab has also focused on publications, which has resulted in three publications and one that is in review. We have three others that we are actively working on completing. In addition to the above efforts, my involvement in professional societies, university committees, academic teaching and student mentoring has remained steady. In May of 2023, I completed my service on the Presidential chain for the Women in Toxicology special interest group in the Society of Toxicology. The Society of Toxicology is a large organization with over 7000 national and international members. It is a very active society.

My goals for 2023-2024 are to continue focusing effort on my research program, most specifically on publishing papers, resubmitting my R01 grant and submitting a new R01 with Drs. Di Fulvio and Elased. I have communicated with my Program Officer to ensure that my grant goes to the proper study section. I am hopeful that my revised R01 grant will be funded but I will continue my efforts to expand my grant opportunities including collaborative grant opportunities. To this end I have initiated collaborations with experts inside and outside of WSU who are willing to contribute statistical, technical, genetic and bioinformatic expertise. As mentioned above, these collaborations have resulted in submission of research proposals during the past year. I also have an ongoing proteomics collaboration with Dr. Sean Harshman, which has helped support a student and is directly related to my current research efforts. I am looking forward to strengthening translational collaborations already initiated with Drs. Travers, Rohan, Walusimbi, and Polenakovik and identifying common research goals and potential collaborative activities with other faculty within the Pharm/Tox department and at WSU. I am currently working closely with Dr. Mike Raymer who is co-mentoring my Ph.D. student (Clayton Allex-Buckner) and providing bioinformatic expertise. I will maintain my long-standing collaboration with Dr. Saber Hussain and other scientists, including Drs. Cam Mauzy, Wanda Lyon, and Tyler Nelson at Wright Patterson Air force Base.

Jeffrey Travers

LAR advisor, 2022-2023
Secondary appointment in Dermatology, help review dermatology resident progress 2-3x per year.