



Department of/Office of Pharmacology & Toxicology

Annual Report:

July 1, 2020 – June 30, 2021

Jeffrey Travers, MD, PhD
Professor and Chair

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Statement from the Chair/Associate Dean

The Department has experienced a very good year as measured by success in our education, service and research missions. The faculty are unified with a high *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.

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

Educational Mission.

Despite the pandemic the department was able to provide courses online and allow professors to teach during both semesters in order for us to maintain our student population.

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 Translational Unit (PTU) for educational purposes. Given the shortages of clinically-trained positions in the pharmaceutical industry, this new concentration fills an important need.

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

Degrees:

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

Other:

- Offering practical courses like Six Sigma (With optional Green and Black Belt Certifications)
- Improved relations with WPAFB/AFRL

Dr. Terry Oroszi has become Vice Chair, with her emphasis on educational programs. With our 20th anniversary of our MS program this Fall, we are currently planning a celebration scheduled for Friday October 15th. The festivities will include one of our alumni serving as the Earl H. Morris Endowed Lecturer, as well as a fund-raising initiative to create a 20th Anniversary Student Scholarship Fund. We are also taking this opportunity to fund an external review of the departmental educational programs.

Research Mission.

Research efforts are moving along well, with the majority (~80%) of our faculty either funded by effort or are submitting extramural proposals. The movement of part of the laboratory of long-term faculty colleague Dr. Saber Hussain from Wright Patterson AFB to departmental laboratory space (supported by a CRADA award) will further enhance our research infrastructure. More NIH/VA-funded translational studies and pharma-supported clinical trials are in place in the PTU. Faculty in the Department have also been publishing many manuscripts, to include in high impact journals (eg, two in the Journal of Clinical Investigation).

Service Mission.

Departmental faculty have also been very active in the service category. These efforts include service locally, as well as at the national level. The addition of new faculty member Craig A. Rohan MD, enhances the clinical services as well as adds to the educational and research missions.

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)	Jeffrey Travers, MD, PhD	2015-present

3 Fully Affiliated Faculty

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
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, Assistant Professor Director, MS Graduate Program Director, CBRN Defense Certificate Program Co-Chair EMDP Advisory Board		Healthcare and Homeland Security (Terrorism/CBRN/Crisis Decision Making)
Craig Rohan, MD, Assistant Professor Pharm/Tox Associate Clinical Professor, Dermatology Associate Medical Director PTU Staff Physician, Dayton VA Medical Center	Translational Medicine	Clinical Trials, Wright State Pharmacology Translational Unit
Ravi Sahu, PhD, Assistant Professor		Cancer pharmacology
Courtney Sulentic, PhD, Associate Professor		Immunology

Name and Academic Position	Clinical Interests	Research Interests
Jeffrey Travers, MD, PhD, Professor and 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 4260 Microbiology and Immunology, Lecturer, Fall 2020.

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

F. Javier Alvarez-Leefmans

PTX 7021 Effective Scientific Writing I, Director, Fall 2020
PTX 7022 Effective Scientific Writing I, Director, Spring 2021
PTX 7021 Effective Scientific Writing II, Spring 2021
BMS 8750 Neuroscience and Physiology, Lecture, Spring 2021

Member PhD Committee

Eva Kjer Ørnbo, University of Copenhagen, Denmark.

Yanfang Chen

PTX 8000 Cell Culture Training, Summer 2020
PTX 7021 Effective Scientific Writing I, Fall 2020
PTX 7022 Effective Scientific Writing I, Spring 2021
PTX 7021 Effective Scientific Writing II, Spring 2021
PTX 8070 Cell Culture Training, Spring 2021

Thesis Advisor

Kartheek Pothana, MS student, graduated December 2020

Thesis Advisory Committee

Venkata Sai Usha Sri Polaki, MS student, graduated July 2020
Langni Liu, BMS PhD student, graduated July 2020

David Cool

PTX 7020 Laboratory Management (Online), Director, Fall 2020
PTX 7020 Laboratory Management (Online), Director, Spring 2021
PTX 7020 Laboratory Management (MD/MS Online), Director, Summer 2021
BMS 805 Intercellular Communication-neuropeptide transmitters and receptors, Spring 2021

PhD Advisory Committee

Prithy Martis, BMS Rep, Graduated 2020
Soham Parikh, BMS Rep, Graduated 2021

Ben Schmitt, BMS committee, Graduated 2020
Jananie Rockwood, BMS Rep, Projected graduation 2022
Adaku Ume, BMS co-advisor, Projected graduation 2022
Phillip Walker, MD/PhD BMS committee, Projected graduation 2021
Xiu Huan Yap, BMS committee, Graduated 2021
Hannah Shows, BMS committee, Projected graduation 2022
Kristen Rehl, BMS rep, Projected graduation 2022
Christina Davidson, BMS committee, Projected graduation 2023

Thesis Advisory Committee

Venkata Sai Usha Sri Polaki, MS student, graduated July 2020
Langni Liu, BMS PhD student, graduated July 2020

Mauricio Di Fulvio

PTX 7300 Cellular Pharmacology & Toxicology, 8 sessions, Co-director, Spring 2021
PTX 7110 Journal Club, Director, Fall 2020

Thesis Advisory Committee

Rana Abdeljawad, MS advisor, Graduation 2021
Modhi Alshammari, MS advisor, Projected graduation fall 2021
Yaksh Rathod, MS advisor, Graduation spring 2021
Yaksh Rathod, PhD BMS advisor, 2021-2026
Charles Luu, Committee member
Abdullah Alshudukhi, PhD BMS committee member
Tahir Amin Sulehria, PhD BMS committee member

Khalid Elased

PTX 7001 Cellular Pharmacology & Toxicology, Co-director, Spring 2021

Thesis Advisory Committee

Harshal Sawant, MS student leader admin lab project, Graduated summer 2020
Yakshkumar Dilipbhai Rathod, MS student committee member, Graduated spring 2021
Rana Abdeljawad, MS student committee member, Graduated summer 2021
Sydney White, MS student committee, Projected graduation fall 2021
Adaku Ume, MD/PhD student, committee
Christiana Draper, MD/PhD student, committee

Saber Hussain

Advisory Committee

Capt. Bryan Mayville, PhD student, 2020-2023
Soham Parikh, PhD student committee, 2021-current

Mike Kemp

PTX 8007 Career Planning in Pharmacology & Toxicology, Fall 2020
PTX 8020 Pharmacology & Toxicology of DNA Damaging Agents, Spring 2021
PTX 8007 Career Planning in Pharmacology & Toxicology, Spring 2021
PTX 7012 Intro to Research 5 weeks rotation, Spring 2021
PTX 7002 Journal Club, Summer 2021
BMS 9970 Lab rotation, 7 weeks rotate, Summer 2021

Thesis Advisory Committee

Vivek Gogusetti, MS student, advisor, Graduated spring 2021
Nadeen Anabtawi, MS student, advisor, Graduated spring 2021
Meghana Ginugu, MS student, committee, Graduated spring 2021
William Cvammen, BMS PhD student, 2020-present
Alex Carpenter, PhD, postdoctoral training, 2020-present
Saman Khan, PhD, postdoctoral training. Feb 2021-present

Terry Oroszi

PTX 7000 Healthcare and Homeland Security Journal Club, Spring 2020
PTX 7021 Effective Scientific Writing I, online, Spring 2020
PTX 7022 Effective Scientific Writing II, online Spring 2020
PTX 8000 Leadership, Theory and Application, Spring 2020
PTX 8140 Human Studies Research, Spring 2020

PTX 7000 Healthcare and Homeland Security Journal Club, Summer 2020
PTX 7022 Effective Scientific Writing II, online Summer 2020
PTX 8140 Human Studies Research, Summer 2020

PTX 7022 Effective Scientific Writing I, Fall 2020
PTX 8000 Leadership, Theory and Application, Fall 2020
PTX 7012 Introduction to Research, Fall 2020

PTX 7012 Introduction to Research, Spring 2021
PTX 7021 Effective Scientific Writing Part I, online, Spring 2021
PTX 7022 Effective Scientific Writing Part II, online Spring 2021
PTX 8000 Leadership, Theory and Application, Spring 2021

Co-advisor

Cameron MdGlone, MD/MS student, advisor, Graduated 2021
Robert Hoopes, MD/MS student, advisor, Graduated 2021
Ryan Gabbard, MD/MS student, advisor, Graduated 2021
Roy Chen, MD/MS student, advisor, Graduated 2021
Sabina Bashir, MD/MS student, advisor, Graduated 2021
Sharlo Bayless, MD/MS student, advisor, 2019-
Jacob Dickman, MD/MS student, advisor, 2019-
Steven Repas, MD/MS student, advisor, 2019-
Zafer Sattouf, MD/MS student, advisor, 2019-
Benjamin Schmeusser, MD/MS student, advisor, 2019-
Maansi Kulkarni, MD/MS student, advisor, 2020-
Danielle Corbin, MD/MS student, advisor, 2020-
Janet Lubov, MD/MS student, advisor, 2020-
Timothy Frommeyer, MD/MS student, advisor, 2020-
Michael Gilbert, MD/MS student, advisor, 2020-
Megan Cleary, MD/MS student, advisor, 2020-
Alexander Vollmer, MD/MS student, advisor, 2020-
Ericson Torralba, MD/MS student, advisor, 2020-

Craig Rohan

PTX 7021 Effective Scientific Writing I, MD/MS students, Spring 2020
PTX 7022 Effective Scientific Writing II, MD/MS students Spring 2020

Ravi Sahu

PTX 7021 Effective Scientific Writing I, Fall 2020
PTX 7022 Effective Scientific Writing II, Course Director, 2021
PTX 7011 Thesis Development Workshop, Co-director
PTH 8407 An Overview of Animal Research

Thesis Advisory Committee

Venkata Sravya Arikatla, MS student, Graduated summer 2021
Nadeen Anabtawi, MS student, advisor, Graduated spring 2021
Sydney White, MS student, Projected graduation fall 2021
Sri Meghana Yerrapragada, MS student, Graduated summer 2021
P. Gowtham, MS student Biochemistry

Courtney Sulentic

PTX 8260 Microbiology and Immunology, Co-director, fall 2020
PTX 7300 Cellular Pharmacology & Toxicology, Spring 2021

BMS 8050 Intercellular Communication, Lecturer, Spring 2021

Thesis Advisory Committee

Sydney White, MS student, Projected graduation fall 2021
Valerie Benedict, MS student anatomy, Graduated spring 2021
Mili ben Bhakata, MS student, microbiology/immunology, Graduated fall 2020
Mia Williams Burnett, ED PhD student, current
Mili ben Bhakata, BMS PhD student, 2021-current
Soham Parikh, BMS PhD student, Graduated spring 2021
Eric Reed, BMS PhD student, current
Clayton Buckner, BMS PhD student, current
Modhi Alshammari, MS student, Projected graduation fall 2021
Rana Abdelgawad, MS student, Graduated spring 2021
Xiu Huan Yap, BMS PhD student
Hannah Shows, BMS PhD student
Rujuta Gadgil, BMS PhD student, representative
Amjed Aljagthmi, BMS PhD student, representative, Graduated 2021
Tahir Sulehria, BMS PhD student
Angela Campo, BMS PhD student, representative, Graduated 2021

Jeffrey Travers

PTX 8000 Journal Club MD/MS, Summer 2020
PTX 7021 Effective Scientific Writing, MD/MS, Summer 2020
PTX 8005 Advanced Topics in Pharmacokinetics, Course Director, Summer 2020
PTX 8010 Journal Club MD/MS, Summer 2020

Primary Advisory/Committee member

Abdulahman Alkawar, MS student, committee, Graduated 2020
Mariyyah Madkhali, MS student, committee, Graduated 2020
Hima Yenuga, MS student, committee, Graduated 2020
Lea Christian, MS student, advisor, Graduated 2021
Sravya Venkata Arikatia, MS student, advisor, Graduated 2021
Shweta S Bhadri, MS student, advisor, Graduated 2021
Michael Howell, MS student, MD/LA, Graduated 2020
Meghana Ginugu, MS student, committee, Graduated 2021
Vivek Gogusetti, MS student, committee, Graduated 2021
Chad Brewer, MS student, advisor, Projected graduation 2022
Cameron MdGlone, MD/MS student, advisor, Graduated 2021
Robert Hoopes, MD/MS student, advisor, Graduated 2021
Ryan Gabbard, MD/MS student, advisor, Graduated 2021
Roy Chen, MD/MS student, advisor, Graduated 2021
Sabina Bashir, MD/MS student, advisor, Graduated 2021
Sharlo Bayless, MD/MS student, advisor, 2019-
Jacob Dickman, MD/MS student, advisor, 2019-
Steven Repas, MD/MS student, advisor, 2019-
Zafer Sattouf, MD/MS student, advisor, 2019-
Benjamin Schmeusser, MD/MS student, advisor, 2019-
Maansi Kulkarni, MD/MS student, advisor, 2020-
Danielle Corbin, MD/MS student, advisor, 2020-
Janet Lubov, MD/MS student, advisor, 2020-
Timothy Frommeyer, MD/MS student, advisor, 2020-
Michael Gilbert, MD/MS student, advisor, 2020-
Megan Cleary, MD/MS student, advisor, 2020-
Alexander Vollmer, MD/MS student, advisor, 2020-
Ericson Torralba, MD/MS student, advisor, 2020-
Langni Liu, BMS PhD student, advisor, Graduated 2020
Cvammen William, BMS PhD student, committee, 2020-
Benita Chin PhD student, University of Sydney external examiner 2020

Yongjie Xu

PTX 7011 Thesis Development Workshop
PTX 7021 Effective Scientific Writing
PTX 7022 Effective Scientific Writing
PTX 7002 Genome Stability and Human Disease Journal Club
BMS 9940 Introduction to Research

Primary Advisory/Committee member

Alaa Mahdi, MS student, advisor, Graduated 2020
Mashaal Alyahaya, MS student, advisor, 2021-
Sankhadip Bhadra, BMS PhD student, 2020-
Nafees Ahamad, postdoctoral
Saman Khan, postdoctoral

Undergraduate medical education [medical school]

F. Javier Alvarez-Leefmans

WrightQ, Staying Alive Module

David Cool

WrightQ, Beginning to End, Balance Control and Repair

Mauricio Di Fulvio

Pharmacokinetics and Pharmacodynamics (two x 3 hour sessions), November, 2020

Khalid Elased

WrightQ, Staying Alive Module

Courtney Sulentic

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

Research Trainees

Raghiv Talreja, 3rd year medical student
Shaina Ailawadi, 3rd year medical student

Jeffrey Travers

Biomedical Research Involving Humans, October 2020
Research in Pharmacology, January 2021
Pharmacokinetics and Pharmacodynamics (two x 3 hour sessions), November, 2020

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 residents, Immunology III, IV, Photosensitivity, 2020
Lecture to residents, Hillbilly Kodachromes, Immunology I, II

Continuing medical education [grand rounds, seminars]

Craig Rohan

Seminars at Dayton Children's Medical Center, Wright Patterson Medical Center and monthly lectures to dermatology residents.

Jeffrey Travers

University of Arizona COM-Phoenix BMS Seminar Series Presentation, October 2020
University of Arizona COM-Phoenix MSTP Lecture, October 2020

Other

Craig Rohan

Guest on the Curbsiders-Internal Medicine podcast on atopic dermatitis.

Courtney Sulentic

Mentor Match Program mentor, SOT: Alicia Taylor, PhD, Early Career Toxicologist
Mentor for Women Walking West: Naazy Eman

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]

F. Javier Alvarez-Leefmans

F. Javier Alvarez-Leefmans (PI), "Pharmacological Control of Cerebrospinal Fluid Secretion with Bumetanide Targeting the Choroid Plexus Na⁺-K⁺-2Cl⁻ cotransporter NKCC1: a rational medical treatment of idiopathic intracranial hypertension". Dayton Children's Hospital Foundation, Fund closed 12/31/2020. \$20,000 over two years.

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

Mauricio Di Fulvio

Di Fulvio, M. (PI) "Role of *Slc12a5* in insulin secretion and glucose homeostasis National Institute of Diabetes, Digestive and Kidney Disease (NIDDK). R21 DK113446-01, Budget: \$ 550,000. Completed 4/30/21

Saber Hussain

Hussain, Saber. "Biosignatures discoveries of stress-Ocular Model (6.1)". \$1M, 2019-2022.

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, 2020-2023.

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.

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). "Circadian Clock Modulating Drugs in Cancer Prevention and Treatment" Ohio Cancer Research #5020, \$30,000 total costs/year, 7/1/20-6/30/22.

Kemp, M (PI). "Mapping DNA Repair and Error-Prone DNA Synthesis in Geriatric Skin"; VA Clinical Merit 1101CX002241, ~\$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

Rohan, Craig (Sub-investigator), A randomized, double-blind, multicenter study assessing short (16 weeks) and long-term efficacy (up to 1 year), safety, and tolerability of sub-cutaneous secukinumab in subjects of body weight 90 kg or higher with moderate to severe chronic plaque-type psoriasis. CAIN457A2324, Novartis.

Rohan, Craig (Sub-investigator). A Phase2, Randomized, Double-Blind, Vehicle-Controlled, Parallel-Group Study to Evaluate the Safety and Efficacy of ALX-101 Topical Gel Administered Twice Daily in Adults and Adolescents with Moderate Atopic Dermatitis. ALX-101-ATOP-204, Asana BioScience, LLC.

Rohan, Craig (Sub-investigator). A randomized, double-blind, multicenter study assessing short (16 weeks) and long-term efficacy (up to 1 year), safety, and tolerability of 2 subcutaneous secukinumab dose regimens in adult patients with moderate to severe hidradenitis Suppurativa. AIN457M2301 Novartis.

Rohan, Craig (Sub-investigator). A Phase 2a/b, 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. KPL-716-C201, Kiniksa Pharmaceuticals, Ltd.

Ravi Sahu

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, \$105,771, 08/2020-09/2021.

Sahu, Ravi (Co-PI with Miller, Co-I **Travers, Jeffrey**, Collaborators **Cool, David, Chen, Yanfeng**). "Translational relevance of the PAF system in combination chemotherapy mediated microvesicle particles release." BSoM Seed Grant RIF 223301, \$14,500, 07/2021-06/2022.

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.

Pls, 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.

Pharma-sponsored studies

Travers, JB (Polynoma, LLC 103A-301). A Multicenter, Double-blind, Placebo-controlled, Adaptive Phase 3 Trial of POL-103A Polyvalent Melanoma Vaccine in Post-resection Melanoma Patients (Stage IIb, IIc and III) with a High Risk of Recurrence. Our Pharmacology Translational Unit is one of the participating sites. 10/01/2015 to 9/30/2021

Travers, JB (Corrona Psoriasis Registry, National Psoriasis Foundation). 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. Approximately 200 clinical dermatology clinics in North America will be recruited to participate. Our Pharmacology Translational Unit is one of the participating sites. 07/01/2016 to 06/30/2021.

Travers, JB (Eli Lilly and Company, I1F-MC-RHCD). Multicenter, Double-Blind, Randomized, Placebo-Controlled Study to Evaluate Safety, Tolerability, and Efficacy of Ixekizumab in Patients from 6 to Less than 18 Years of Age with Moderate-to-Severe Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites. 12/1/2016 to 02/03/2021.

Travers, JB (Eli Lilly and Company, 14V-MC-JAIW). A Phase 3, multicenter, randomized, double-blind, placebo-controlled, parallel-group, outpatient, 113-week study designed to evaluate the efficacy and safety of baricitinib 1-mg and 2-mg in patients with moderate to severe atopic dermatitis. Our Pharmacology Translational Unit is one of the participating sites. 2/20/2018 to 2/28/2021.

Travers, JB (Eli Lilly and Company 14V-MC-JAIW). A Phase 3, Multicenter, Randomized, Double-Blind, Open-Label, Parallel-Group, Outpatient, Extension study designed to evaluate the efficacy and safety of baricitinib 1-mg and 2-mg in patients with moderate to severe atopic dermatitis. Our Pharmacology Translational Unit is one of the participating sites. 4/20/2018 to 2/28/2022.

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 (Eli Lilly and Company, I6T-MC-AMAH). A Multicenter, Randomized, Double-Blind, Extension Study Comparing the Efficacy and Safety of Mirikizumab to Secukinumab in Patients with Moderate-to-Severe Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites. 08/01/2019 to 12/01/2021.

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.

Travers, JB (Celgene Corporation, CC-10004-PPSO-003). A Phase 3 Placebo Controlled Study in Pediatric Subjects from 6 to 17 Years with Moderate to Severe Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites. 11/01/2018 to 11/01/2021.

Travers, JB (Celgene Corporation, CC-10004-PSOR-022). A Phase 3, Multicenter, Randomized, Placebo-Controlled, Double-Blind Study of the Efficacy and Safety of Apremilast (CC-10004) in Subjects with Mild-to-Moderate Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites. 12/01/2018 to 12/01/2021.

Travers, JB (Eli Lilly and Company, I6T-MC-AMBK). An Open-Label Evaluation of Mirikizumab Following Subcutaneous Administration Using Prefilled Syringe or Autoinjector in Patients with Moderate-to-Severe Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites. 04/01/2019 to 03/01/2022.

Travers, JB (Eli Lilly and Company, WSP-07-BARI). 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. Our Pharmacology Translational Unit is the only site for this Investigator-initiated study. 06/01/2019 to 06/01/2022.

Travers, JB, Co-I; Korman, Neil, PI (Celgene). An Investigator Initiated Study of Monocyte Biomarkers in Moderate to Severe Plaque Psoriasis Subjects Treated with Apremilast. This is an investigator-initiated study in collaboration with Case Western to test the ability of oral apremilast to modify monocyte biomarkers associated with thrombosis in psoriatic subjects. Our Pharmacology Translational Unit at Wright State University is one of the sites for this study, with the other one being Case Western Reserve Department of Dermatology. 05/1/2018 to 09/1/2021.

Yongjie Xu

Xu, Yongjie (PI). RO1-GM110132. "Signaling Mechanism of the DNA Replication Checkpoint. 2/1/2015 - 1/31/2022 with one-year extension in 2021.

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

F. Javier Alvarez-Leefmans

Alvarez-Leefmans F.J. (2020) Apical NKCC1 of choroid plexus epithelial cells works in the net inward flux mode under basal conditions, maintaining intracellular Cl⁻ and cell volume. *J Physiol.* 2020 Nov; 598(21): 4733-4736. doi: 10.1113/JP279867. Epub 2020 Sep 1. PMID: 32870510

Yanfang Chen

Liping Liu, Qinmao Ye, Langni Liu, Ji Chen Bihl, **Yanfang Chen**, Jing Liu, Qian Cheng. C6-ceramide treatment inhibits the proangiogenic activity of multiple myeloma exosomes via the miR-29b/Akt pathway. *J Transl Med.* 2020; 18: 298.

Jinju Wang, Shuzhen Chen, Wenfeng Zhang, **Yanfang Chen**, Ji C. Bihl. Exosomes from miRNA-126-modified endothelial progenitor cells alleviate brain injury and promote functional recovery after stroke. *CNS Neurosci Ther.* 2020 Dec; 26(12): 1255–1265.

David Cool

Smith, M.B., Ho, J., Ma, L., Lee, M., Czerwinski, S.A., Glenn, T.L., **Cool, D.R.**, Gagneux, P., Stanczyk, F.Z., McGinnis, L.K., Lindheim, L.R., Longitudinal antimüllerian hormone and its correlation with pubertal milestones, *F&S Reports*, Volume 2, Issue 2, June 2021, Pages 238-244, ISSN 2666-3341, <https://doi.org/10.1016/j.xfre.2021.02.001>.

Mauricio Di Fulvio

Di Fulvio M, Bogdani M, Velasco M, McMillen TS, Ridaura C, Kelly L, Almutairi MM, Kursan S, Sajib AA, Hiriart M, Aguilar-Bryan L., "Heterogeneous expression of CFTR in insulin-secreting β -cells of the normal human islet". *PLoS One.* 2020 Dec 2;15(12):e0242749. doi: 10.1371/journal.pone.0242749. eCollection 2020.PMID: 33264332

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Khalid Elased

Alawi LF, Dhakal S, Emberesh SE, Sawant H, Hosawi A, Thanekar U, Grobe N, **Elased KM**. "Effects of Angiotensin II Type 1A Receptor on ACE2, Neprilysin and KIM-1 in Two Kidney One Clip (2K1C) Model of Renovascular Hypertension." *Front Pharmacol.* 2021 Jan 29;11:602985. Doi: 10.3389/fphar.2020.602985. eCollection 2020.PMID: 33708117.

Saber Hussain

McMahon KM, Calvert AE, Dementieva IS, **Hussain SM**, Wilkins JT, Thaxton CS. Interparticle Molecular Exchange of Surface Chemical Components of Native High-Density Lipoproteins to Complementary Nanoparticle Scaffolds. *ACS sensors.* 2020; 5(10): 3019-3024.

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Saracino E, Maiolo L, Polese D, Semprini M, Borrachero, Conejo AI, Gasparetto J, Murtagh S, Sola M, Tomasi L, Valle F, Pazzini L, Formaggio F, Chiappalone M, **Hussain S**. A Glial-Silicon Nanowire Electrode Junction Enabling Differentiation and Noninvasive Recording of Slow Oscillations from Primary Astrocytes. *Advanced Biosystems*. 2020; 4(4):1900264.

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Mike Kemp

Alkawar AMM, Castellanos AJ, Carpenter MA, Hutcherson RJ, Madkhali MAO, Johnson RM, Bottomley M, **Kemp MG**. (2020). Insulin-like Growth Factor-1 Impacts p53 Target Gene Induction in UVB-irradiated Keratinocytes and Human Skin. *Photochem & Photobiology*. 96(6): 1332-1341.

Hutcherson RJ, Gabbard RD, Castellanos AJ, **Travers JB, Kemp MG**. Age and insulin-like growth factor-1 impact PCNA mono-ubiquitination in UVB-irradiated human skin. *J Biol Chem*. 2021 Mar 19;296:100570. doi: 10.1016/j.jbc.2021.100570. Epub ahead of print. PMID: 33753168; PMCID: PMC8065225.

Craig Rohan

Mudroch S M, **Rohan CA**, Conger N G, et al. Sweet Syndrome in an Elderly Man with Well-Controlled HIV. *Cureus* 2020 Sep; 12(9): e10330. doi:10.7759/cureus.10330 PMID: 33052291

Schmeusser B, Borchers C, **Travers JB**, Borchers S, Trevino J, Rubin M, Donnelly H, Kellawan K, Carpenter L, Bahl S, **Rohan CA**, Muennich E, Guenther S, Hahn H, Rkein A, Darst M, Mousdicas N, Cates E, Sunar U, Bihl T. Inter- and Intra-physician variation in quantifying actinic keratosis skin photodamage. *Journal of Clinical and Investigative Dermatology* 2020 8(2):4. PMID: 33088904.

Ravi Sahu

Shreepa J. Chauhan, Anita Thyagarajan, **Yanfang Chen, Jeffrey B. Travers, and Ravi P. Sahu**. Platelet-Activating Factor-Receptor Signaling Mediates Targeted Therapies-Induced Macrovesicle Particles Release in Lung Cancer Cells. *Int J Mol Sci*. 2020 Nov; 21(22): 8517.

Borchers C, Thyagarajan A, Rapp CM, **Travers JB, Sahu RP**. "Evaluation of the SARS-CoV-2 spike S protein response on PI3K agonist mediated IL-8 release. *Medical Sciences*, 2021; 9(2):30.

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Terry Oroszi

Eldalal, O., Oyebanji, O., Thapa, P., **Oroszi, T.** (2020) Overview of SARS-Cov-2 outbreak and potential therapeutic strategies, *Global Journal of Health Science* Vol. 12, No. 13

Oroszi, T. (2020), Competency-Based Education, *Creative Education*, 11, 2467-2476. doi: 10.4236/ce.2020.1111181

Oroszi, T. (2020), Power in the Workplace, Finding an Alternative to the Iron Fist, *Open Journal of Leadership*, Vol. 9, No. 2, PP. 97-112

Oroszi, T. (2020), Disruption Innovation and Theory, *Journal of Service Science and Management*, Vol. 13, No. 4, PP. 449 – 458.

Oroszi, T. (2020), Group Interaction, and Behavior in Meetings: A New Assessment Tool to Monitor Group Behavior, *Creative Education*, Vol. 11, No. 4, PP. 596-604.

Oroszi, T. (2020), Egots at the Table, a Study of Meeting Behaviors, *Psychology*. Vol.11 No. 4, PP. 636-645.

Oroszi, T. (2020), Organizational Meeting Style is Not Conducive to Group Decision Making, *Advances in Applied Psychology*, Vol. 10 No. 4, PP. 115-127.

Eldalal OA, Mosa FES, Oyebanji OA, Mahajan AS, **Oroszi TL** (2020), The Correlation between Pharmacological Parameters of Oxycodone and Opioid Epidemic. *J Pharma Pharma Sci*: 4: 186. DOI: 10.29011/2574-7711.100086

Jeffrey Travers

Langni Liu, Katherine E. Fahy, Azeezat A. Awoyemi, Pariksha Thapa, Lisa E. Kelly, Jay Chen, Ji C. Bihl, **David R. Cool, Yanfang Chen**, Christine M. Rapp, R. Michael Johnson, and **Jeffrey B. Travers** Thermal Burn Injury Generates Bioactive Microvesicles: Evidence for a Novel Transport Mechanism for the Lipid Mediator Platelet-Activating Factor That Involves Subcellular Particles and the Platelet-Activating Factor Receptor. *The Journal of Immunology* 2020 Jul 1;205(1):193-201.

Langni Liu, Azeezat A. Awoyemi, Katherine E. Fahy, Pariksha Thapa, Christina Borchers, Benita Y. Wu, Cameron L. McGlone, Benjamin Schmeusser, Zafer Sattouf, **Craig A. Rohan**, Amy R. Williams, Elizabeth E. Cates, Christina Knisely, Lisa E. Kelly, Ji C. Bihl, **David R. Cool, Ravi P. Sahu, Jinju Wang, Yanfang Chen**, Christine M. Rapp, **Michael G. Kemp**, R. Michael Johnson, **Jeffrey B. Travers**. Keratinocyte-derived microvesicle particles mediate Ultraviolet B radiation induced systemic immunosuppression. *J Clin Invest*. 2021. May 17; 131:e144963. <https://doi.org/10.1172/JCI144963>

Boettler M, Hickmann MA, **Travers JB**. Primary Cutaneous Cribriform Apocrine Carcinoma. *Am J Case Rep*. 2021 Jan 2;22:e927744. doi: 10.12659/AJCR.927744. PMID: 33386383; PMCID: PMC7784586.

Khatib J, Wargo JJ, Krishnamurthy S, **Travers JB**. Hemorrhagic Bullous Lichen Sclerosus: A Case Report. *Am J Case Rep*. 2020 Oct 7;21: e919353. doi: 10.12659/AJCR.919353. PMID: 33024070; PMCID: PMC7552941.

Jongjie Xu

Ahamad N, Khan S, Mahdi ATA, and **Xu YJ**. "Checkpoint functions of RecQ helicases at perturbed DNA replication fork. *Curr. Genet.*, <http://doi.org/10.1007/s00294-020-01147-y>, 2021.

Ahamad N, Khan S, and **Xu YJ** (2020) RecQ DNA helicase Rqh1 promotes Rad3^{ATR} kinase signaling in the DNA replication checkpoint pathway of fission yeast. *Mol. Cell. Biol.* 40(7) e00145-20 <https://mcb.asm.org/content/40/17/e00145-20>.

Books, chapters, reviews

Mike Kemp

Lubov JE, Cvammen W, and **Kemp MG**. (2021). The Impact of the Circadian Clock on Skin Physiology and Cancer Development. *Int J Mol Sci.* 22(11), 6112.

Ume AC, Pugh JM, **Kemp MG**, and Williams CR. (2020). Calcineurin inhibitor (CNI)-associated skin cancers: New insights on exploring mechanisms by which CNIs downregulate DNA repair machinery. *Photoderm Photoimmunol Photomed.* 36(6): 433-440.

Craig Rohan

Kulkarni M, **Travers JB, Rohan CA**. High Estrogen States in Hereditary Angioedema: a Spectrum Clinical Reviews in *Allergy & Immunology* 17 May 2021 Vol. 13. PMID: 34075568.

Sattouf Z, Repas SJ, **Travers JB, Rohan CA**. Vitamin D and Vitamin D Analogs as Adjuncts to Field Therapy Treatments for Actinic Keratoses: Current Research and Future Approaches. *Journal of Skin Cancer* 2021 Article ID 9920558 <https://doi.org/10.1155/2021/9920558>.

Ravi Sahu

Salleh S, Thyagarajan A, **Sahu RP**. "Exploiting the relevance of CA 19-9 in pancreatic cancer." *Journal of Cancer Metastasis and Treatment*, 2020;6:31. Doi: 10.20517/2394-4722.2020.70.

Thyagarajan A, Forino A, Konger RL, **Sahu RP**. "Dietary Polyphenols in Cancer Chemoprevention: Implications in Pancreatic Cancer," *Antioxidants (Basel)*, 2020;6:951.

Chauhan SJ, Thyagarajan A, **Sahu RP**. "Functional significance of miRNA-149 in lung cancer: Can it be utilized as a potential biomarker or a therapeutic target?" *Austin Journal of Medical Oncology*, 2020;7(1):id1048.

Mallipeddi H, Thyagarajan A, Sahu RP. "Implications of Withaferin-A for triple negative breast cancer chemoprevention." *Biomedicine and Pharmacotherapy*, 2021; 134:111124.

Travers, JB, Rohan C, Sahu RP. "New insights into the pathologic role of the platelet-activating factor system." *Frontiers of Endocrinology*, 2021;12:624132.

Terry Oroszi

Oroszi, T. & Ellis, D. (2020), *The Mindset of a Terrorist*. In Norton, R. & Mauroni, A (eds), *Agroterrorism: National Defense Assessment, Strategies, and Capabilities*. United States Air Force Center for Strategic Deterrence Studies Maxwell Air Force Base, Alabama. (pp. 29-42) (ISBN|978-0-9914849-5-9).

Jeffrey Travers

McCullough PJ, McCullough WP, Lehrer D, **Travers JB**, Repas SJ. Oral and Topical Vitamin D, Sunshine, and UVB Phototherapy Safely Control Psoriasis in Patients with Normal Pretreatment Serum 25-Hydroxyvitamin D Concentrations: A Literature Review and Discussion of Health Implications. *Nutrients*. 2021 Apr 29;13(5):1511. doi: 10.3390/nu13051511. PMID: 33947070; PMCID: PMC8146035.

Published abstracts

Mike Kemp

Kemp MG, Hutcherson, RJ, Alkawar, A, Castellanos AJ, Gabbard RD. Translesion Synthesis Pathway Activation in UVB-irradiated Human Skin is Impacted by Age and IGF-1 Receptor Status. *Environmental and Molecular Mutagenesis*. Sept 2020; 61: S1.

Carpenter MA and **Kemp MG**. Extracellular vesicles from UVB-irradiated keratinocytes contain cyclobutane pyrimidine dimers. *J. Invest. Dermatol.* 141(5): S88.

Ravi Sahu

Borchers CE, Thyagarajan A, Rapp C, **Travers JB, Sahu RP**. "Evaluation of SARS-CoV-2 spike protein response on PI3K agonist-mediated IL-8 release." *J. Invest. Dermatol.* 141(5): S37.

Courtney Sulentic

Alex-Buckner, C., Snyder, A., **Sulentic, C.E.W.**: Mapping of a highly repetitive enhancer region within the IGH gene using long-read-single molecule nanopore. *Toxicological Sciences, the Toxicologist*, **174**:2531, 2021. (virtual meeting due to COVID19)

Bhakta, M., Buckner, C., Burra, K., **Sulentic, C.E.W.**: Potential role of AhR in antibody production by human B cells. *Toxicological Sciences, the Toxicologist*, :2404, 2021. (virtual meeting due to COVID19)

Burnett, M., Benedict, V., **Sulentic, C.E.W.**: Evaluation of physiologically relevant aryl hydrocarbon receptor ligand on antibody expression in a human B cell line model, *Toxicologist*, :2430, 2021. (virtual meeting due to COVID19)

White, S., Freiwan, A.K., **Sulentic, C.E.W.**: AhR-mediated transcriptional regulation of the human immunoglobulin hs1.2 enhancer, *Toxicologist*, :2432, 2021. (virtual meeting due to COVID19)

Jeffrey Travers

Christian LR, Borchers CE, Liu L, Rapp C, **Kemp MG, Travers JB**. Xeroderma Pigmentosum A deficiency results in increased generation of microvesicle particles in response to Ultraviolet B Radiation. *J. Invest. Dermatol.* 141(5): S88.

Arikatla VS, Mahajan AS, Thyagarajan A, Sahu R, Rapp C, **Kemp MG, Spandau D, Travers JB**. Pro-energetics creatine and nicotinamide prevent stress-induced senescence in human dermal fibroblasts. *J. Invest. Dermatol.* 141(5): S115.

Bhadri S, Thapa P, Borchers CE, Rapp, **Travers JB**. Potential involvement of microvesicle particles in the synergistic effects of Ultraviolet-B radiation and Platelet-Activating Factor receptor agonists on cytokine production. *J. Invest. Dermatol.* 141(5):S88, 2021.

Brewer C, Awoyemi AA, Rapp C, Borchers CE, **Travers JB**. Heightened levels of microvesicle particles resulting from combination of ethanol and thermal burn injury. *J. Invest. Dermatol.* 141(5): S36, 2021.

Shahid A, Huang M, Yeung S, Parsa C, Orlando R, Andresen BT, **Travers JB**, Y. Huang, Absence of Adrb2 minimally affects UV-induced immunosuppression and skin cancer development. *J. Invest. Dermatol.* 141(5): S11, 2021.

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

F. Javier Alvarez-Leefmans

“Debated role of apical Na⁺, K⁺,2Cl⁻ cotransporter 1 in Choroid Plexus Epithelial Cell function; or, The Ins and Outs of NKCC1.” 55th Lake Cumberland Biological Transport Meeting. Jamestown, KY. June 22, 2021

Mike Kemp

51st Annual Meeting of the Environmental Mutagenesis and Genomic Society; Virtual Meeting (Sept 2020; oral presentation, online)

University of Georgia College of Public Health Department of Environmental Health Science, Athens, Georgia (Feb 2021; online via Zoom).

Ravi Sahu

Lipid mediator pathway and pancreatic cancer. International Conference on Toxicology and Applied Pharmacology (TOX 2021).

Role of miR-149 in PAF-R mediated effects on the growth of lung cancer and treatment efficacy. Cancer Treatment Forum 2020, International Conference on Cancer Treatment and Prevention.

Deciphering phospholipid-based signaling mechanisms for lung cancer intervention. European Summit on Pharmacology and Toxicology, 2020.

Lipid signaling pathway in targeted therapy-mediated microvesicle particles release in lung cancer. Cell-to-Cell Metabolic Cross-Talk in Physiology and Pathology, Cells 2020.

Exploring the lipid signaling pathway and microRNA-149 in modulating the growth and cytotoxic responses of targeted therapy against lung cancer. Cell-to-Cell Metabolic Cross-Talk in Physiology and Pathology, Cells 2020.

Terry Oroszi

Decision-making for Crisis Leadership, InfoSys, Webinar, India Aug. 2020

The American Terrorist, National Preparedness Summit, Dallas TX, March 2020

The American Terrorist, Toledo InfraGard, Toledo (webinar due to COVID), OH June 2020

Know Your Power. Institute of Management Accountants. Cincinnati OH. Feb. 2020

April 28, 2020: Security Matters. Guest speaker discussing Global Crisis Leadership. The video of your show was streamed live on thinktechhawaii.com and daCast.com. Also, youtube.com/thinktechhawaii.

Courtney Sulentic

The Community Exposome: Effects of Environmental Contamination on Health Disparities and Marginalized Populations through the Lens of a Toxicologist, Virtual Society of Toxicology Annual Meeting, Organizer and co-chair, 2021.

Navigating Your Health and Wellness Through graduate School and Early Careers Virtual Society of Toxicology Annual Meeting, Organizer and Chair, 2021.

Student presentations

Ohio Valley Society of Toxicology Student virtual meeting 3-minute thesis presentations: Mili Bhakta, Mia Burnett, and Sydney White each gave a presentation.

Jeffrey Travers

University of Arizona COM-Phoenix BMS Seminar Series Presentation, Phoenix, AZ. "The role of fibroblast senescence in non-melanoma skin cancer." October 2020.

University of Arizona COM-Phoenix MSTP Lecture, Phoenix, AZ. "Why you should be in skin.", October 2020.

Consultantships [sponsor activity]

F. Javier Alvarez-Leefmans

Ad hoc advisor for the faculty promotion, Academic Council of King Saud University, Kingdom of Saudi Arabia, 2020.

David Cool

Consultant, VA Travers (PI), Funded, Consultant, "Oxidized Lipids and UV Immunosuppression", 2020-2024.

Consultant, NIH-R21 Bihl (PI), Funded, Microvesicles as a novel transmitter for UV-induced bioactive products. 2018-2020.

Terry Oroszi

Gerson Lehrman Group (GLG) Council member

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

F. Javier Alvarez-Leefmans

Associate Editor, Frontiers in Membrane Physiology and Biophysics. Frontiers Journals.

Reviewer for: Frontiers in Physiology, The American Journal of Physiology-Cell Physiology, Trends in Pharmacology.

Ad hoc grant reviewer for Wings for Life Spinal Cord Research Foundation. Salzburg, Austria. 11/25/2020 to 1/12/2021.

David Cool

Zappia- The Career Experts- Experts Weigh-In On Current Job Market Trends. November 30, 2020.

NIH CounterAct Study Section Member Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (11/03-04/2020).

Editorial Board, Interdisciplinary Toxicology, 2014-Present

Mauricio Di Fulvio

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

Ad-hoc reviewer NIH-DPPS, Molecular and Cellular Endocrinology Study Section-MCE.

Ad-hoc reviewer NIH-NIDDK, Special Emphasis Panel/Scientific Review Group, 2021/05, ZDK1 GRB-B (M2) 1.

Khalid Elased

Member of the Editorial Board of the Journal of Diabetes Research.

Member of the Editorial Board of World Journal of Hypertension (WJH).

Member of the Editorial Board of World Journal of Cardiology (WJC).

Member of the Editorial Board of SAJ Pharmacy & Pharmacology.

Terry Oroszi

DoD Homeland Defense Information Analysis Center Subject Matter Expert (S.M.E.)

Joint Chief C.W.M.D. (Countering Weapons of Mass Destruction) Education Consortium, DC Washington DC
NBC Industry Group (N.B.C.I.G.)

Craig Rohan

Alpha Omega Alpha Medical Honor Society

US Air Force Meritorious Service Medal with Oak Leaf Cluster

Wright State University Dermatology Teacher of the Year, 2021

Ravi Sahu

Serves as an editorial board member, associate editor and reviewer for several scientific journals.

Jeffrey Travers

External Advisor, NCI SPORE grant, University of Pittsburgh, 2019-present.

Jongjie Xu

Ad hoc reviewer for the following journals: Genes, Cancer Letters, and Cell Cycle.

6

Summary of Service Activities

Student advising

Yanfang Chen

Thesis Advisor/committee

Kartheek Pothana, MS student, graduated December 2020

Prashanth Reddy Penthala, MS student, Leadership Program, Graduated 2020

Venkata Sai Usha Sri Polaki, MS student, graduated July 2020

Langni Liu, BMS PhD student, graduated July 2020

David Cool

PhD Advisory Committee

Prithy Martis, BMS Rep, Graduated 2020

Soham Parikh, BMS Rep, Graduated 2021

Ben Schmitt, BMS committee, Graduated 2020

Jananie Rockwood, BMS Rep, Projected graduation 2022

Adaku Ume, BMS co-advisor, Projected graduation 2022

Phillip Walker, MD/PhD BMS committee, Projected graduation 2021

Xiu Huan Yap, BMS committee, Graduated 2021

Hannah Shows, BMS committee, Projected graduation 2022

Kristen Rehl, BMS rep, Projected graduation 2022

Christina Davidson, BMS committee, Projected graduation 2023

Thesis Advisory Committee

Venkata Sai Usha Sri Polaki, MS student, graduated July 2020

Langni Liu, BMS PhD student, graduated July 2020

Mauricio Di Fulvio

Thesis Advisory Committee

Rana Abdeljawad, MS advisor, Graduation 2021

Modhi Alshammari, MS advisor, Projected graduation fall 2021

Yaksh Rathod, MS advisor, Graduation spring 2021

Yaksh Rathod, PhD BMS advisor, 2021-2026

Charles Luu, Committee member

Abdullah Alshudukhi, PhD BMS committee member

Tahir Amin Sulehria, PhD BMS committee member

Khalid Elased

Thesis Advisory Committee

Harshal Sawant, MS student leader admin lab project, Graduated summer 2020

Yakshkumar Dilipbhai Rathod, MS student committee member, Graduated spring 2021

Rana Abdeljawad, MS student committee member, Graduated summer 2021

Sydney White, MS student committee, Projected graduation fall 2021

Adaku Ume, MD/PhD student, committee

Christiana Draper, MD/PhD student, committee

Saber Hussain

Advisory Committee

Capt. Bryan Mayville, PhD student, 2020-2023
Soham Parikh, PhD student committee, 2021-current

Mike Kemp

Thesis Advisory Committee

Vivek Gogusetti, MS student, advisor, Graduated spring 2021
Nadeen Anabtawi, MS student, advisor, Graduated spring 2021
Meghana Ginugu, MS student, committee, Graduated spring 2021
William Cvammen, BMS PhD student, 2020-present
Alex Carpenter, PhD, postdoctoral training, 2020-present
Saman Khan, PhD, postdoctoral training. Feb 2021-present

Terry Oroszi

All PTX MS students and coadvisor for the MD/MS
Cameron MdGlone, MD/MS student, advisor, Graduated 2021
Robert Hoopes, MD/MS student, advisor, Graduated 2021
Ryan Gabbard, MD/MS student, advisor, Graduated 2021
Roy Chen, MD/MS student, advisor, Graduated 2021
Sabina Bashir, MD/MS student, advisor, Graduated 2021
Sharlo Bayless, MD/MS student, advisor, 2019-
Jacob Dickman, MD/MS student, advisor, 2019-
Steven Repas, MD/MS student, advisor, 2019-
Zafer Sattouf, MD/MS student, advisor, 2019-
Benjamin Schmeusser, MD/MS student, advisor, 2019-
Maansi Kulkarni, MD/MS student, advisor, 2020-
Danielle Corbin, MD/MS student, advisor, 2020-
Janet Lubov, MD/MS student, advisor, 2020-
Timothy Frommeyer, MD/MS student, advisor, 2020-
Michael Gilbert, MD/MS student, advisor, 2020-
Megan Cleary, MD/MS student, advisor, 2020-
Alexander Vollmer, MD/MS student, advisor, 2020-
Ericson Torralba, MD/MS student, advisor, 2020-

Craig Rohan

Multiple MD and MD/MS students, letters of recommendation for residency training.
Dermatology outpatient clinics at WSU and Dayton VAMC

Ravi Sahu

Thesis Advisory Committee

Venkata Sravya Arikatla, MS student, Graduated summer 2021
Nadeen Anabtawi, MS student, advisor, Graduated spring 2021
Sydney White, MS student, Projected graduation fall 2021
Sri Meghana Yerrapragada, MS student, Graduated summer 2021
P. Gowtham, MS student Biochemistry
Zaid Mohd Omar Musa Sirhan, ESW I & II
Amoolya Varma Nampally, ESW I & II
Harshitha Tummuru, ESW I & II
Apruv Kishorbhai Rana, ESW I & II

Courtney Sulentic

Regular lab meetings and advising.

Thesis Advisory Committee

Sydney White, MS student, Projected graduation fall 2021
Valerie Benedict, MS student anatomy, Graduated spring 2021
Mili ben Bhakata, MS student, microbiology/immunology, Graduated fall 2020
Mia Williams Burnett, ED PhD student, current
Mili ben Bhakata, BMS PhD student, 2021-current
Soham Parikh, BMS PhD student, Graduated spring 2021
Eric Reed, BMS PhD student, current
Clayton Buckner, BMS PhD student, current
Modhi Alshammari, MS student, Projected graduation fall 2021
Rana Abdelgawad, MS student, Graduated spring 2021
Xiu Huan Yap, BMS PhD student
Hannah Shows, BMS PhD student
Rujuta Gadgil, BMS PhD student, representative
Amjed Aljagthmi, BMS PhD student, representative, Graduated 2021
Tahir Sulehria, BMS PhD student
Angela Campo, BMS PhD student, representative, Graduated 2021

Jeffrey Travers

Primary Advisory/Committee member

Abdulrahman Alkawar, MS student, committee, Graduated 2020
Mariyyah Madkhali, MS student, committee, Graduated 2020
Hima Yenuga, MS student, committee, Graduated 2020
Lea Christian, MS student, advisor, Graduated 2021
Sravya Venkata Arikatia, MS student, advisor, Graduated 2021
Shweta S Bhadri, MS student, advisor, Graduated 2021
Michael Howell, MS student, MD/LA, Graduated 2020
Meghana Ginugu, MS student, committee, Graduated 2021
Vivek Gogusetti, MS student, committee, Graduated 2021
Chad Brewer, MS student, advisor, Projected graduation 2022
Cameron MdGlone, MD/MS student, advisor, Graduated 2021
Robert Hoopes, MD/MS student, advisor, Graduated 2021
Ryan Gabbard, MD/MS student, advisor, Graduated 2021
Roy Chen, MD/MS student, advisor, Graduated 2021
Sabina Bashir, MD/MS student, advisor, Graduated 2021
Sharlo Bayless, MD/MS student, advisor, 2019-
Jacob Dickman, MD/MS student, advisor, 2019-
Steven Repas, MD/MS student, advisor, 2019-
Zafer Sattouf, MD/MS student, advisor, 2019-
Benjamin Schmeusser, MD/MS student, advisor, 2019-
Maansi Kulkarni, MD/MS student, advisor, 2020-
Danielle Corbin, MD/MS student, advisor, 2020-
Janet Lubov, MD/MS student, advisor, 2020-
Timothy Frommeyer, MD/MS student, advisor, 2020-
Michael Gilbert, MD/MS student, advisor, 2020-
Megan Cleary, MD/MS student, advisor, 2020-
Alexander Vollmer, MD/MS student, advisor, 2020-
Ericson Torralba, MD/MS student, advisor, 2020-
Langni Liu, BMS PhD student, advisor, Graduated 2020
Cvammen William, BMS PhD student, committee, 2020-
Benita Chin PhD student, University of Sydney external examiner 2020

Yongjie Xu

Primary Advisory/Committee member

Alaa Mahdi, MS student, advisor, Graduated 2020
Mashaal Alyahaya, MS student, advisor, 2021-
Sankhadip Bhadra, BMS PhD student, 2020-
Nafees Ahamad, postdoctoral
Saman Khan, postdoctoral

Thesis Committee member

William Cvammen, BMS PhD student, 2020-present
Akshay Hira, PhD student in Dr. Kadakia's lab
Rujuta G Yashodhan, PhD student in Dr. Leffak's lab
Ishita Haider, PhD student in Dr. Zhong's lab
Amanda Myers, PhD student in Dr. Long's lab
Nadeen Anabatawi, MS student in Dr. Kemp's lab
Vivek Shashank Nag Gogusetti, MS student in Dr. Kemp's lab

Lab Rotation Graduate Students

Rakshith Reddy Katta, PTX MS student, 2021
Mashaal Yahya A Alyahya, PTX MS student

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

Mauricio Di Fulvio

BMS Curriculum Committee

Khalid Elased

BSOM Faculty Curriculum Committee
BSOM Faculty Promotions and Advancement Committee
Pharmacology and Toxicology Faculty Affairs and Development Committee

Mike Kemp

Pharmacology and Toxicology Education Committee, 2021-present.
Pharmacology and Toxicology Website Redesign Committee, 2020.

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

Craig Rohan

Dermatology Clinical Competence Committee

Courtney Sulentic

Chair Review Committee for Dr. Jeffrey Traver's 5-year review, 2021
Faculty Promotion and Advancement Committee, elected member, 2020-2022
Student Promotions Committee, elected member, 2017-2021
Pharmacology and Toxicology Faculty Affairs and Development Committee
Pharmacology and Toxicology Education Committee

Jeffrey Travers

WSU Executive Committee, 2015-present
Dean's Research Chairs Committee, 2015-present
Academy of Medicine Board of Directors, 2015-present
Bylaws Committee, 2017-present
Scholarships in Medicine Basic Scientist Track Committee, Chair, 2018-present
BSOM Dean Search Committee, 2020

Wright State University

F. Javier Alvarez-Leefmans

University Building and Grounds Committee
Neuroscience Advisory Board, NCBP

David Cool

BMS PhD Curriculum Committee
Parking Appeals Subcommittee
University Building and Grounds Committee

Khalid Elased

Laboratory Animal Care & Use Committee
BMS PhD Program Curriculum Committee

Mike Kemp

BMS PhD Nominating Committee, 2019-present

Khalid Elased

Laboratory Animal Care & Use Committee
BMS PhD Program Curriculum Committee

Terry Oroszi

WSU Faculty Senator
Faculty Senate Ad Hoc International Graduate Student Success Committee
WSU International program Oversight Committee (IPOC/IEAC)

Ravi Sahu

Institutional IACUC and IBC Committees
Departmental Admission and Scholarship Committee

Courtney Sulentic

Women's Peer Mentoring Group, initially supported by the NSF-funded LEADER Program at WSU
Academic Policies Committee, BMS PhD, elected member, 2019-2021
Women in Science Giving Circle member, 2016-present

Yongjie Xu

BMS PhD Student Admission Committee, 2021-2022

Wright State Physicians

Craig Rohan

Dermatology COATS/Clinical Operations Committee

Jeffrey B. Travers

Dermatology COATS/Clinical Operations Committee

State

Khalid Elased

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

Terry Oroszi

President, InfraGard, Dayton Alliance Chapter/FBI

National

Yanfang Chen

International Society for Extracellular Vesicles (ISV)
American Diabetes Association (ADA)
American Heart Association (AHA)

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

External Promotion Committee member for promotions, Clinical Pharmacy, Jordan University of Science and Technology
Hungarian National Research Development and Innovation Office Review Committee member: Physiology, Pathophysiology, Pharmacology, and Endocrinology grant application.
AHA High Blood Pressure Council Conference Review Committee
Delegate of WSU Boonshoft School of Medicine to the United State 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
NIH/NINDS CounterACT Program; Uo1/u54 Grants, ad-hoc, March 2021

Terry Oroszi

InfraGard Alliance/FBI
NYPD SHIELD

Courtney Sulentic

Society of Toxicology:
Elected to the Society of Toxicology Council, Councilor, 2018-2021
Council Liaison: Faculty United for Toxicology Undergraduate Recruitment and Education (FUTURE)

Committee on Diversity Initiatives
Appointed Subcommittees
Issue Statement Review
Strategic Plan Priority Implementation Task Force
Adverse Reactions Podcast development and review committee
C1 Outreach to Educators
B3 Outreach and Communication
Non-SOT Annual Meeting and Regional Chapter Funding

Elected to Presidential Chain for Women in Toxicology Special Interest Group, Society of Toxicology
Vice President, 2019-2020
President-elect, 2020-2021

Mentor Match program, mentor, Society of Toxicology
SOT Career Exploration Speed Networking, Postdoctoral Assembly, Virtual Society of Toxicology Annual Meeting 2021, Panelist

Host for Poster Tours in Immunotoxicity, Postdoctoral Assembly, Virtual Society of Toxicology Annual Meeting 2021

Diversity, Equity, Inclusion Workshop Facilitator, FUTURE Committee, Virtual Society of Toxicology Annual Meeting 2021, Facilitator

Expert Panel for Undergraduates, FUTURE Committee, Virtual Society of Toxicology Annual Meeting 2021, Panelist

The Graduate School Breakout session, Undergraduate Program, Committee on Diversity Initiatives, Virtual Society of Toxicology 2020 and 2021, Panelist

Guest Editor:

Frontiers in Toxicology, Immunotoxicology Special Topic, "Role of the Aryl Hydrocarbon Receptor in Immune Modulation"

Grant Review Panel:

NIEHS, R01 Gene-Environment Interactions and Disease, Special Emphasis Panel ZES1 LWJ-S (R1)

Ad-hoc reviewer for several journals

Jeffrey Travers

NIH Grant Review Panels

NAIMS SBIR grant reviewer 11-2020, 3-2021
NIAMS T32 review (ZARI YL M1) 202021, Co-chair

VA Grant Review Panels

VA Oncology D/E Review Panel, 5-2021, Co-chair

Hospital or affiliated institution [name]

Mike Kemp

Dayton VAMC Subcommittee on Research Safety, 2020-present

Other

Yanfang Chen

Departmental Core for Preclinical Pharmacology, Director

Khalid Elased

Member of Scientific Societies

American Diabetes Association (ADA)

Fellow of the American Heart Association (AHA)

European Association for the Study of Diabetes (EASD)

American Society for Pharmacology and Experimental Therapeutics (ASPET)

Member of the American College of Clinical Pharmacy (ACCP)

Member of the American Physiological Society (ASP)

Member of the American Society of Nephrology (ASN)

Saber Hussain

Editorial position, Journal of Nanotoxicology, 2014-present

Mike Kemp

Manuscript Reviewer: Cancer letters, FEBS letters, Biomolecules, Nucleic Acids Research, International Journal of Molecular Sciences (5); International Journal of Radiation Biology; Cancers; Radiation Research; J Biochemical and Molecular Toxicology; Frontiers in Genetics; Photodermatology, Photoimmunology, and Photomedicine.

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Patient Care Summary

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

Craig Rohan

Dermatologist and Pediatric Dermatologist at Wright State Physicians Dermatology, Dayton VA Medical Center, Wright Patterson Medical Center (Prior to 30 June 2021). Full scope clinical practice 3.5-5 days a week.

Jeffrey Travers

Dermatology clinics at Wright State Physicians and Dayton VAMC.

8

Honors and awards [Faculty or staff]

Terry Oroszi

iWoman Global Award 2020 Jury award “Woman Icon”, an international program designed to recognize women who have left an indelible mark on the society through their efforts.

Courtney Sulentic

Ohio Valley Society of Toxicology Student virtual meeting, Mentor for Sydney White, Best M.S. 3-minute thesis presentation student 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.]

F. Javier Alvarez-Leefmans

Writing and editing, along with Dr. Eric Delpire, Vanderbilt School of Medicine, the 5th edition of Cell Physiology Sourcebook: Essentials of Membrane Biophysics. Elsevier Academic Press, Scheduled for release 2022.

Alvarez-Leefmans F.J. (2021) Differences are more than just methodological. *J. Physiol.* In press <https://physoc.onlinelibrary.wiley.com/action/downloadSupplement?doi=10.1113%2FJP279867&file=tjp14329-sup-0002-Alvarez-Leefmans.pdf>

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.

Mike Kemp

Two additional publications in press.

Saber Hussain

Participated and advised in DURIP proposal for equipment through AFOSR
Participated in DHP-DoD proposals JPC-6 and JPC-5.

Craig Rohan

Accepted IRB investigator-initiated trial investigating vitamin D analogs in combination with photodynamic therapy with aminolevulinic acid (enrollment planned in the next few months).

Submitted IRB investigator-initiated trial investigating the effects of N-acetyl cysteine on prurogenic stimuli.

Bayless S, **Travers JT**, Sahu RP, **Rohan CA**. Enhanced Outcomes of Photodynamic Therapy with Aminolevulinic Acid Through Inhibition of Immunosuppression, Review Accepted by Oncology Letters, **pending publication**.

Ravi Sahu

Moderator for the Medical Student Research Symposium at Wright State University.
Faculty Judge for DAGMEC Virginia C. Woods Resident Research Forum.

Courtney Sulentic

Have five manuscripts in various forms of completion.

Wrote an immunotoxicology chapter, which is currently in press for the 6th edition of Patty's Toxicology.

Submitted a new R01.

Completed my 3rd and final year on the Society of Toxicology Council.

President for the Women in Toxicology special interest group in the Society of Toxicology.

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 (**in press**).

R01 ES031925-01A1 NIEHS (PI Sulentic). "Role of the AhR and genetic differences in human antibody production" Impact score: 38; Percentile: 21 (Reviewers 1 and 2 gave fundable scores). Submitted

R01 ES033976-01 NIEHS (PI Sulentic). "Human Antibody Regulation: Role of AhR and Gene Variants" **in review**.

Collaborative Translational Research Grant, BSoM (PI Sulentic; co-I Walusimbi and Polenakovic). "Single cell immune profiling in splenectomized vs. splenic embolized patients: Search for biomarkers of immunocompetence." **Not funded**.

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 (**in press**)

Jeffrey Travers

Extramural grant review panels:

VA Oncology D/E Review Panel, 5-2021

NIH NIAMS SBIR grant reviewer 6-2020 (chair), 11-2020 (co-chair), 3-2021 (mail in).

NIH NIAMS T32 Review (ZAR1 YL M1) 2-2021 (co-chair)

Other:

-External Advisor, NCI SPORE grant, University of Pittsburgh (2019-)

Editorial Board:

Inflammation & Allergy – Drug Targets

Clinics in Oncology (Melanoma/Skin Cancer section)