



Department of/Office of Pharmacology & Toxicology

Annual Report:

July 1, 2018 – June 30, 2019

Jeffrey Travers, MD, PhD
Professor and Chair, Pharmacology & Toxicology
Staff Physician, Dayton VA Medical Center

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Statement from the Chair/Associate Dean

The Department of Pharmacology & Toxicology continues to move forward in positive fashion on the educational, investigative and service fronts. 2018 has been a very good year for the Department due to the winning combination of a hard-working diverse faculty, improving infrastructure, and the cohesion found in our group.

Under the expert guidance of Dr. Terry Oroszi and assisted by Ms. Catherine Winslow, the MS program overall has achieved modest growth, and in 2018 the Program began a limited on-line curriculum. In addition, the MD-MS program has been re-vamped to fit with the changes in the medical school curriculum. The MD-MS program is starting to have an impact in the BSOM, with ten posters presented by our MD-MS students at the 11th Annual Medical Student Research Symposium.

As a way to equally distribute the teaching load in the department, we have established minimal faculty teaching standards of 3 classes per year. To take advantage of the very high faculty to student ratio, the Department has developed a plan that each student is assigned a faculty mentor and they are to meet twice a year. In addition to that support, students have program meetings with the director and assistant director of the program. We have also begun a monthly MS student research forum where students provide a brief update of their research. Finally, we continue to produce a departmental newsletter three times a year that highlights faculty, staff, and student accomplishments.

Dr. Norma Adragna has retired, and we are announcing an Adragna-Lauf Award to be given annually to the outstanding MS student.

Dr. Michael Kemp was hired as Assistant Professor.

Dr. Mauricio Di Fulvio was promoted to Associate Professor in July 2018. Dr. Sulentic has been elected as a counselor for the Society of Toxicology. Drs. Cool, Chen, and Travers all serve on extramural grant review panels.

At present, essentially all full-time faculty are either funded by (either PI or have % effort) or are submitting extramural grant proposals. The most recent being Drs. Bihl and Kemp receiving NIH R01 grants.

We are investing and expanding our departmental cores: Proteomics, Pharmacology Translational Unit, and the Preclinical Pharmacology core.

Regarding the Pharmacology Translational Unit, we currently have more than ten active pharmaceutical industry sponsored trials ranging from atopic dermatitis to a melanoma vaccine. The PTU also has open IRB protocols for ~10 different translational studies funded by the NIH or VA. To help support that unit, we have a director, an MA coordinator, an RN coordinator, and a regulatory specialist. We are currently hiring a dermatologist to assist in the PTU. The Department has also awarded a small pilot grant to Dr. Ulas Sunar in Engineering to assist his studies characterizing mesoscopic imaging of human skin.

Lastly, our department will continue to collaboratively work with each other and other faculty at Wright State University.

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]		
Cell Biophysics	Norma Adragna, PhD	2003-present
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
Training Program (BioSTAR, GradPrep)	Courtney Sulentic, PhD	2015-present
Preclinical Pharmacology Core	Yanfang Chen, MD, PhD	2015-present
Pharmacology Translation Unit (PTU)	Jeffrey Travers, MD, PhD	2015-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]		
Norma Adragna, PhD, Professor		Cardiovascular, ion transport, cell signaling, cellular physiology, membrane transport, cancer biology
F. Javier Alvarez-Leefmans, MD, PhD, Professor		Neuroscience, molecular physiology & pharmacology, clinical neurology
Ji Bihl, MD, PhD, Assistant Professor		Cerebrovascular diseases and diabetes, specifically in developing novel predictive and therapeutic avenues for hemorrhagic stroke and vascular complications of diabetes
Yanfang Chen, MD, PhD, Professor		Cardiovascular disease, cerebrovascular

Name and Academic Position	Clinical Interests	Research Interests
David Cool, PhD, Professor, Director, Proteome Laboratory		complications Cellular mechanisms involved 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, PhD, PharmD, Professor		Diabetes, cardiovascular
Saber Hussain, PhD, Professor		Nanoparticles
Mike Kemp, PhD, Research 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)
Ravi Sahu, PhD, Assistant Professor		Cancer pharmacology
Courtney Sulentic, PhD, Associate Professor		Immunology
Jeffrey Travers, MD, PhD, Professor and Chair Professor of Dermatology Staff Physician, Dayton VA Medical Center	Translational medicine	Skin inflammation/cancer, lipid pharmacology
Yong-jie Xu, MD, PhD, Associate Professor		Genome integrity, signaling mechanism of replicator checkpoint

4 Teaching

Baccalaureate [any course for a bachelor's degree]

Dr. Ji Bihl

High School Student:
Eileen Yang

Dr. Courtney Sulentic

M&I 4260 Microbiology and Immunology, Lecturer (9.5 hrs)

Students:

Gabriel Crabb, WSU, BioSTAR Trainee

Justine Deeter, WSU, Biology

Dr. Travers

Ramzi Elased, undergrad/Harvard, May, 2019-present

Dr. Yong-jie Xu

Brittany Hawley, WSU COSM, ASK program

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

Dr. F. Javier Alvarez-Leefmans

PTX 7022, Effective Scientific Writing, Part 1, Director

PTX 7002, Effective Scientific Writing, Part 2, Co-Director

Student (not in lab, but awarded):

Hazem Gammoh, WSU Graduate Student Excellence Awards

Mentor, Leader Admin students:

Abeer Najjar

Kimberly Thomas

Ram Vallabaneni

Dr. Ji Bihl

PTX 8000, Cell Culture Training, Summer, Director

PTX 8070, Cell Culture Training, Fall, Director

PTX 8014, Integrative Pharmacology and Toxicology, Summer

Postdoctoral Fellow:

Jinju Wang, PhD, 2016-present (Post-doc Fellowship Award, AHA, 2 yr grant)

Thesis Director:

Manasi Halurkar, MS, 2017-present, expected graduation summer 2019

Venkata Sai Usha Sri Polaki, MS, 2018-present

Thesis Advisory Committees:

Qinmao Ye, MS, 2018 graduated

Azeezat Awoyemi, MS, 2018 graduated

Pariksha Thapa, MS, 2019 expected graduation

Visiting Scholar:

Yuchen Li, PhD, 20189-2019

Mentor, Leader/Admin Students:

Lavanya Kandur, MS 2018-present

Anhar Hosawi, 2018-present

Bissan Hassan, 2018-2019, graduated

Unmesha Thanekar, 2018-present

Lab Rotation/Summer Research Students:

Avinash Mahajan, MS, 2018
Othman Eldalal, MS, 2018
Tahani Alshammari, MS, 2018, graduated

Dr. Yanfang Chen

PTX 8000, Cell Culture Training, Fall
PTX 8000, Cell Culture Training, Summer
PTX 8014, Integrative Pharmacology and Toxicology, Summer

Thesis Director:

Qinmao Ye, MS, 2016-2018, graduated
Karthek Pothana, MS, 2018-2020

Thesis Advisory Committee:

Manasi Halurkar, MS, 2018, expected graduation summer 2019
Langni Liu, BMS PhD, 2014-present

Visiting Scholar:

Hua Liu, MD, PhD, 2018-2019

Mentor, Leader/Admin Students:

Sri Donepudi, MS 2018-2019, graduated

Dr. David Cool

PTX 7020, Laboratory Management, Classroom, Director
PTX 7020, Laboratory Management, Online MS students, Director
PTX 7500, Research Techniques, class 1, Director
PTX 7500, Research Techniques, class 2, Director
PTX 7021, Effective Scientific Writing, Part 2
BMS 805, Intercellular Communication, 4 hours
PTX 7020, Laboratory Management, MD/MS students

Thesis Director:

Hima Priya Yenuga, MS, 2018-2020

Mentor, Leader/Admin Students:

Faten Bin Dayel, MS, graduated 2018
Ariel Molnar, MS, proj graduation 2018
Alycia Lewis, MS, 2017-2019, graduated
Mansour Alghusn, MS, 2017-2018, graduated

Thesis Advisory Committees:

Gousia Begum, MS, graduated
Raisa Siddique, MS, later switched to L/A
Brian Stodgill, BMS/PhD, proj. graduation 2019
Yirong Zhou, BMS/PhD, graduated 2018
Jenny Jurcsisin, BMS/PhD, proj. graduated 2019
Raji Santhanakrishnan, BMS/PhD, graduated 2019
Prithy Martis, BMS/PhD, proj. graduation 2020
Soham Parikh, BMS/PhD, proj. graduation 2020

Dr. Mauricio Di Fulvio

PTX 7001, Cellular Pharmacology & Toxicology, Co-Director
PTX 7110, Journal Club, Director

Thesis Director:

Yakshkumar Rathod, MS, 2018-present

Mentor, Leader/Admin Students:
Ambika Shoemaker, 2018-present

Dr. Khalid Elased

PTX 7001, Cellular Pharmacology & Toxicology, Co-Director
PTX 9021, Effective Scientific Writing 1, Co-Director
PTX 9022, Effective Scientific Writing 2, Co-Director

Thesis Director:
Unmesha Thanekar MS, proj graduated 2019

Thesis Committee:
Aparna K. Poluparthi, MS, 2016-2018,
Raisa Siddique, MS, 2017, switched to L/A
Leonid M Yermakov, MD/PhD, 2018-present
Christiana Draper, MD/PhD, 2018-present

Mentor, Leader/Admin:
Sanjeev Dhakal, MS, 2018, graduated
Ruby Gill, MS, 2018, graduated
Dalal Bin Dayel, MS, 2018-present
Mohammed Alasmari, MS, 2018-present
Noha Alsharif, MS, 2018-present

Dr. Saber Hussain

Thesis Director:
Shar Qureshi, MS, graduated 2018
Lt Robert Boehm, MS, graduated 2018

Thesis committee:
Aparna K. Poluparthi, MS, 2016-2018, graduated
Raisa Siddique, MS, 2017, switched to L/A track

Advisor Leadership Students (due to being at WPAFB):
Ariel Molnar, MS, graduated 2018
Madeline DeBrosse, MS, proj. graduation 2019

Dr. Mike Kemp

PTX 7012, Intro to Research
PTX 7002, Journal Club/Special Topics

Thesis Director:
Kavya Shaj, PharmD, MS, 2017-present, proj. graduation summer 2019
Abdulrahman Alkawar, MS, 2018-present
Mariyyak Madkhali, MS, 2019-present

Mentor Leader/Admin Students:
Bushra Alharbi, MS, 2018-present

Undergraduate Advisor/Lab:
Rebekah Hutcherson, Honors Undergraduate Research, 2018-present

Dr. Terry Oroszi

PTX 7021, Effective Scientific Writing, Part 1, summer 2018
PTX 7022, Effective Scientific Writing, Part 2, summer 2018
PTX 8000, Advanced Writing, summer 2018
PTX 8140, Human Studies Research, summer 2018
PTX 8004, Applications to Medical Chem Rad, Nuc, summer 2018
PTX 8005, Applications to Medical Biological Defense, summer 2018
PTX 8006, Case Studies for CBRN Defense, summer 2018
PTX 7022, Effective Scientific Writing, Part 2, fall 2018
PTX 8000, Leadership: Theory and Application, fall 2018
PTX 8140, Human Studies Research, fall 2018
PTX 8004, Applications to Medical Chem Rad, Nuc, fall 2018
PTX 8005, Applications to Medical Biological Defense, fall 2018
PTX 8006, Case Studies for CBRN Defense, fall 2018
PTX 7022, Effective Scientific Writing, Part 2, spring 2019
PTX 8000, Leadership: Theory and Application, spring 2019
PTX 8140, Human Studies Research, spring 2019
PTX 8004, Applications to Medical Chem Rad, Nuc, spring 2019
PTX 8005, Applications to Medical Biological Defense, spring 2019
PTX 8006, Case Studies for CBRN Defense, spring 2019
PTX 7005, Clinical Investigations Capstone, summer 2019
PTX 7021, Effective Scientific Writing, Part 1, summer 2019
PTX 7022, Effective Scientific Writing, Part 2, summer 2019
PTX 8000, Leadership, Theory & Application, summer 2019
PTX 8004, Applications to Medical Chem Rad, Nuc, summer 2019
PTX 8005, Applications to Medical Biological Defense, summer 2019
PTX 8006, Case Studies for CBRN Defense, summer 2019
PTX 8140, Human Studies Research, summer 2019

Co-Advisor MD/MS Students:

Larilynn Yelton, 2015-2018, graduated 2018
Casey Walk, 2015-2018, graduated 2018
Andrew La'Pelusa, 2016-present
Jude Khatib, 2017-present
Jaree Naqvi, 2017-present
Benita Wu, 2017-present
Michael Williams, 2017-present
Roy Chen, 2018-present
Sabina Bashir, 2018-present
Ryan Gabbard, 2018-present
Cameron McGlone, 2018-present
Rob Hoopes, 2018-present
Steven Repas, 2019-present
Zafer Sattouf, 2019-present
Sharlo Bayless, 2019-present
Jacob Dickman, 2019-present
Benjamin Schmeusser, 2019-present

Doctoral Advising/Co-advisor:

Michele Miller, PhD, 2017-present

Dr. Ravi Sahu

PTX 7021, Effective Scientific Writing 1, fall 2018
PTX 9220, Effective Scientific Writing 2, Director, spring 2019
PTX 7002, Journal Club for Thesis, spring 2019
PTX 8014, Integrative Pharmacology & Toxicology, summer 2019
Overview of Animal Research for MD students BSOM, summer 2019

Thesis Director:

Sayali Kadam, MS, proj. graduation 2019, summer switched to L/A
Shreepa Chauhan, MS, 2018-present

Advisor/Lab, PhD & L/A Students:

Mugdha Jaitpal, MS, proj. graduation 2018
Shorooq Khader, MS, graduated 2018
Felicia Gooden, PhD student, 2018-present

Mentor Leader/Admin Students:

Abdullah Althaiban, MS, 2018-present

Other:

Anita Thyagarajan, PhD, Research Scientist, 2015-present

Dr. Courtney Sulentic

PTX 7300, Cellular Pharmacology & Toxicology, Directory
M&I 7260, Microbiology and Immunology, Lecturer, 9 hours
M&I 7260, Microbiology and Immunology, Co-director, 24.5 hours
BMS 8050, Intercellular Communication, lecturer, spring 2018/19, 11.5 hours

Graduate Research Trainees:

Salina Daniels, Biology MS, non-thesis, 2018
Miliben Bhakata, M&I MS, 2018-present
Siham Abdulla, MS, graduated non-thesis 2018
Clayton Buckner, M&I MS; transitioned to BMS PhD program, 2019-present

Graduate Advisory Committees:

Wedad Mudayfin, M&I MS
Amjed Aljagthmi, BMS representative
Astha Shakya, BMS representative
Tahir Sulehria
Angela Campo, BMS representative
Alan Cone, BMS representative, recently left program
Denise Kramer, left program
Amanda Hanes, BMS representative, defended 2018

Mentor Leader/Admin Students:

Harshal Sawant, MS, 2018-present
Vishwanath Gampala, MS, 2018-present
Philip Ndoki, 2018-2019, graduated

Dr. Jeffrey Travers

PTX 7021, Effective Scientific Writing, Part 1
PTX 7022, Effective Scientific Writing, Part 2
PTX 8000 B02 Independent Study Journal Club (Director)

BSOM Medical School

-Pathobiology and Therapeutics Module for 2nd year Medical Students.
Co-led Problem-Based Learning Modules for “Immunologic Disorders and Immunopharmacology”, and
“Environmental Pathology and Toxicology”
“Dermatology infectious rashes”.

Thesis Director:

Azzizat Awoye, MS, 2016-2018, graduated 2018
Avinash Mahajan, MS, 2018-present
Simon Oyebanji, MS, 2018-present
Pariksha Thapa, MS, 2018-present

Thesis Advisory Committees:

Aparna Poluparthi, MS, proj. graduation 2018
Walid Mari, MS, 2016-2018, graduated 2018
Shreepa Chauhan, MS, 2018-present
Mariyyah Madkhali, MS, 2018-present
Hima Priya Yenuga, MS, 2018-present
Kavja Shaj, MS, 2018-present, defended 2019

Co-Advisor MD/MS Students:

Larilynn Yelton, 2015-2018, graduated 2018
Casey Walk, 2015-2018, graduated 2018
Andrew La'Pelusa, 2016-present
Jude Khatib, 2017-present
Jaree Naqvi, 2017-present
Benita Wu, 2017-present
Michael Williams, 2017-present
Roy Chen, 2018-present
Sabina Bashir, 2018-present
Ryan Gabbard, 2018-present
Cameron McGlone, 2018-present
Rob Hoopes, 2018-present
Steven Repas, 2019-present
Zafer Sattouf, 2019-present
Sharlo Bayless, 2019-present
Jacob Dickman, 2019-present
Benjamin Schmeusser, 2019-present

PhD Program Students:

Xiao Zhang, M.S. (Yanfang Chen M.D., Ph.D.), 2015-, left program
James Readler (Kate Excoffin, Ph.D.), 2015-2018
Langni Liu, 2016-present

Dr. Yong-jie Xu

PTX 7002, Thesis Development course
BMS 9940, Introduction to Research

Thesis Director:

Rittu Samuel, MS, proj. graduation 2019
Darlington O Abrefa, MS, M&I
Alaa Mahdi, MS, 2018-present

Postdoctorals:

Michal Wozniak, PhD
Nafees Ahamad, PhD

Mentor Leader/Admin Students:

Qassem Ozran, MS, 2018-present
Yash Jain, MS, 2018-present

Visiting Scholar:

Min Yang, PhD

Undergraduate medical education [medical school]

Dr. Javier Alvarez-Leefmans

Wright Q Year 1, Staying Alive, spring 2019

Dr. David Cool

Wright Q Year 1 Group 16 Staying Alive, spring 2018
Wright Q Year 2 Group 11 Beginning to end, Balance control and Repair, fall 2018

Dr. Khalid Elased

Wright Q Legacy Curriculum, facilitator

Dr. Courtney Sulentic

Wright Q Legacy Curriculum, facilitator, 2017-2018
Wright Q Legacy Curriculum, facilitator, 2018-2019
Principles of Disease, Engaged Learning Modules, Faculty Facilitator, 4 hours

Research Mentor for BSOM M2 Students:

Rachel Rhee, 2019
Shaigan Bhatti, 2019

Dr. Jeffrey Travers

Pathobiology and Therapeutics Module for 2nd year Medical Students.
Co-led Problem-Based Learning Modules for "Dermatology infectious rashes", 2018

Graduate medical education [residents, fellows]

Dr. Courtney Sulentic

John Byun, Internal Medicine Resident, Research Scholar Track, 2018-2019

Dr. Jeffrey Travers

Department of Dermatology, Resident student lectures "New concepts in skin cancer" 2018

Continuing medical education [grand rounds, seminars]

Dr. Jeffrey Travers

Dermatology Grand Rounds, Wright State Physicians, monthly

Other

Dr. Courtney Sulentic

Vinodh Erukonda, Beaver Creek HS research trained
Alicia Taylor, PhD, Early Career Toxicologist
Melinda Meiring, undergraduate, Women in STEPP Leadership/Women in Science Giving Circle mentor, WSU

Dr. Jeffrey Travers

Medical Education Resources, Inc. I am a regular lecturer for this non-profit company that is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide AMA PRA Category 1 Credit(s)TM. MER is widely-recognized as one of the leading providers of high-quality continuing medical education symposia and educational materials for physicians.

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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]

Dr. F. Javier Alvarez-Leefmans

No cost extension: Dayton Children's Hospital Foundation (PI). Fund 670180 "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".

Dr. Ji Bihl

NIH R01 (NINDS), 1R01NS102720, PI 05/01/2018-12/31/2023, Exosomes From MIR-Primed Endothelial Progenitor Cells for Treating Ischemic Stroke, **Yanfang Chen, Co-PI**, \$1,875,000

ADA Innovative Basic Science Grant (1-17-IBS-187, \$345,000, **PI, Yanfang Chen Co-PI**, 01/01/2017-12/31/2019, THERAPEUTIC ROLE OF miR-126 OVER-EXPRESSING EPC-MVs for ISCHEMIC STROKE IN DIABETES
The major goal of this project is to determine the therapeutic role of miR-126-EPC-MVs in ischemic stroke in diabetes by protecting ECs/EPCs/neurons/astrocytes against ischemic and inflammatory injury and promoting angiogenic/neurogenic repair; and determine the predictive role of the levels of cEPC-MVs and their carried miR-126 for ischemic stroke outcomes in diabetic patients.

NIH R21 (5 R21 AR071110, \$407,332, **PI, Yanfang Chen Co-PI**, 08/10/2017-07/31/2019, MICROVESICLES AS A NOVEL TRANSMITTER FOR UVB-INDUCED BIOACTIVE PRODUCTS
The major goals of this project are to determine the involvement of PAF-PAFR signaling pathway in mediating UVB-induced MVP release and the effects of antioxidant on UVB-induced MVP release, and determine the bioactive agents in UVB-MVP.

AHA Scientist Development Grant (16SDG26420078), "Role of ACE2 over-expressing endothelial progenitor cells in cerebral hemorrhage", 2016.1-2019.12, PI, Bihl, **Yanfang Chen Co-PI**, \$320,000

AHA Postdoctoral Fellowship Award, 18POST33990433, Supervisor, 07/01/2018-12/31/2020, The Regulatory Effect of Exercise on Circulation EPC-Exs and Its Implication in Ischemic Stroke, \$110,000.

Dr. Mauricio Di Fulvio

American Diabetes Association (Innovative Basic Science Award # 1-17-IBS-258). Di Fulvio, M (PI) Chloride-regulated insulin secretion. Budget: \$350,000 (1/1/17-12/31-19)

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

Dr. Khalid Elased

BSOM Translational Grant, 2016-2018, Novel Approach to the Discovery of New Urinary Biomarkers for Early Detection of Chronic Kidney Disease Role: Co- Principal Investigator. Total amount of Fund \$ 50,000.00

Henry Jackson Foundation, 2017-2018, Molecular Imaging of RAS for the Discovery of Novel Biomarkers in Chronic Kidney Disease. Role: Principal Investigator (sub -contractor) (Grobe PI). Total amount of Fund for WSU \$ 60,000.00

Dr. Saber Hussain

Air Force Office of Scientific Research (AFOSR), Hussain, PI

Biomolecular Interaction of Nanomaterials (6.1), 2016-2019, \$1,000,000
Radiogenetics, human performance augmentation, 2016-2019, \$75,000.

Selected AFOSR Star Team Award, top 1%

Consortium Funding for postdoc \$150, NRC \$300,000

DAGSI Funding for graduate Student, \$50,000

Dr. Mike Kemp

NIH GM130583, PI, DNA Damage Kinase Signaling in Non-replicating Human Cells and Tissues, awarded 2/1/19.

Dr. Ravi Sahu

Elsa U. Pardee Foundation Grant , (P.I. Sahu), 03/2018 - 02-2019, 1 summer month Impact of platelet-activating factor in targeted therapy responses in melanoma patients.

No cost extension, NIH/NIEHS, 7K22ES023850-02, (P.I. Sahu), 07/2014 - 06/2017, 2 summer months (no cost extension), Environmental Pro-oxidative Stressors and immunosuppression.

Dr. Courtney Sulentic

5R25GM090122 National Institute of general Medical Sciences (08/01/2011-06/30/2016, currently in a no-cost extension) Biomedical Scholars Program (BioSTAR), Initiative for Maximizing Student Development (IMSD), Program Director

R21AR070010 NIH, co-PI (07/01/2016-03/31/2018), Photodynamic therapy-induced immune modulation: Mechanisms and influence on therapeutic efficacy", Women in Science Giving Circle Faculty Grant.

Dr. Jeffrey Travers

Pharmaceutical-sponsored studies:

103A-301 10/01/2015 to 9/30/2019
Polynoma, LLC
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.

Corrona Psoriasis Registry 07/01/2016 to 06/30/2021
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.

I1F-MC-RHCD 12/1/2016 to 02/03/2021
Eli Lilly and Company
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.

LP0162-1326 3/15/2017 to 3/1/2019

Leo Pharmaceuticals

A Phase 3 trial to provide evidence of the efficacy and safety of tralokinumab monotherapy in the treatment of subjects with moderate-to-severe AD inadequately controlled with topical therapies. Such subjects would be candidates for systemic therapy. Our Pharmacology Translational Unit is one of the participating sites.

CC-1004-SPSO-001

6/9/2017 to 11/3/2018

Celgene Corporation

A Phase 3, Multi-Center, Randomized, Placebo-Controlled, Double-Blind Study of the Efficacy and Safety of Apremilast (CC-10004) in Subjects with Moderate to Severe Plaque Psoriasis of the Scalp. Our Pharmacology Translational Unit is one of the participating sites.

I4V-MC-JAIW

2/20/2018 to 2/28/2021

Eli Lilly and Company

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.

I4V-MC-JAIX

4/20/2018 to 2/28/2022

Eli Lilly and Company

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.

IM011046-BMS-986165

09/01/2018 to 12/01/2019

Bristol-Myers Squibb Company

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.

I6T-MC-AMAJ

06/11/2018 to 07/01/2020

Eli Lilly and Company

A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study Comparing the Efficacy and Safety of Mirikizumab to Secukinumab and Placebo in Patients with Moderate-to-Severe Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites.

I6T-MC-AMAH

08/01/2019 to 12/01/2021

Eli Lilly and Company

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.

ASN002AD-201

06/01/2018 to 06/01/2019

Asana BioSciences, LLC

A Randomized, Double-Blind, Placebo-Controlled, Phase 2b 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.

ASN002AD-201-EXT

01/01/2019 to 12/01/2022

Asana BioSciences, LLC

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.

I1F-MC-RHCR

11/01/2018 to 01/01/2020

Eli Lilly and Company. A 24 week Multicenter, Randomized, Double-Blind, Parallel-Group Study Comparing the Efficacy and Safety of Ixekizumab to Guselkumab in Patients with Moderate-to-Severe Plaque Psoriasis. Our Pharmacology Translational Unit is one of the participating sites.

CC-10004-PPSO-003

11/01/2018 to 11/01/2020

Celgene Corporation

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.

CC-10004-PSOR-022 12/01/2018 to 12/01/2020
Celgene Corporation

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.

CAIN457A2324 8/01/2018 to 8/01/2020
Novartis

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. Our Pharmacology Translational Unit is one of the participating sites.

LP0162-1337 9/01/2018 to 9/01/2019
LEO Pharmaceuticals

An open-label, single-arm, multi-centre, long-term extension trial to evaluate the safety and efficacy of tralokinumab in subjects with atopic dermatitis who participated in previous tralokinumab clinical trials. Our Pharmacology Translational Unit is one of the participating sites.

ALX-101-ATOP-204 03/01/2019 to 03/01/2020
Asana BioSciences, LLC

A Phase 2, 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. Our Pharmacology Translational Unit is one of the participating sites.

I6T-MC-AMBK 04/01/2019 to 03/01/2020
Eli Lilly and Company

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.

WSP-07-BARI 06/01/2019 to 06/01/2020
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. Our Pharmacology Translational Unit is the only site for this Investigator-initiated study.

Celgene 05/1/2018 to 09/1/2020
Korman, Neil PI (Travers co-Investigator)

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.

Extramural support:

(ACTIVE)

R01 HL062996 (Travers) 07/01/1999 to 6/30/2019 25% effort
NIH/NHLB \$250,000 direct costs/year

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.

Basic Science VA Merit Award (Travers) 10/01/2010 to 03/31/2020 20% VA effort

510BX000853
Oxidized lipids and UV immunosuppression

\$146,000 direct costs/year

The objective of this study is to define photodynamic therapy-mediated systemic immunosuppression using murine and human model systems.

Clinical VA Merit Award (Travers) 7/01/2014 to 6/30/2019 20% VA Effort
1101CX000809 \$150,000 direct costs/year

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. **These studies were renewed with 0.7% score for another 4 years.**

R01 AG048946-01 (Travers/Spandau-co-PIs) 09/01/2014 to 04/30/2020* 20% effort

**No cost extension*

Wounding Therapy and Photocarcinogenesis \$205,000 direct costs/year

The objective of these studies is to test the ability of wounding therapies including fractionated laser resurfacing to inhibit abnormal dermal senescence in human geriatric subjects and includes a clinical study to define if laser resurfacing can protect against skin cancer in geriatric subjects at our VA dermatology clinic. This grant has been moved to Wright State University and a subcontract established for Dr. Spandau.

Dr. Yong-jie XU

RO1-GM110132, NIH/NIGMS, (2/1/2015 - 1/31/2020), Title: Signaling Mechanism of the DNA Replication Checkpoint. Total Cost (DC + IDC): \$1,350,500

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

Dr. F. Javier Alvarez-Leefmans

Jeannine M. C. Gregoriades, Aaron Madaris, Francisco J. Alvarez, and **Francisco J. Alvarez-Leefmans**. Genetic and pharmacological inactivation of apical Na⁺-K⁺-2Cl⁻ cotransporter 1 in choroid plexus epithelial cells reveals the physiological function of the cotransporter 05 APR 2019 <https://doi.org/10.1152/ajpcell.00026.2018>

Dr. Ji Bihl

Pan Q, Ma C, Wang Y, Wang J, Zheng J, Du D, Liao X, Chen Y, **Chen Y, Bihl J**, Chen C, Yang Y, Ma X (2019). "Microvesicles-mediated communication between endothelial cells modulates, endothelial survival, and angiogenic function via transferring of miR-125a-5p," J Cell Biochem. 2019 Mar; 120 (3):3160-3172.

Ma C, Wang J, Liu H, Chen Y, Ma X, Chen S, **Chen Y, Bihl J** (Co-corresponding author), Yang Y (2018). Moderate exercise enhances endothelial progenitor cell-exosomes release and function. Medicine & Science in Sports & Exercise. 2018 Oct;50(10):2024-2032.

Ma X, Wang J, Li J, Ma C, Chen S, Lei W, Yang Y, Liu S, **Bihl J** (Co-corresponding author), Chen C (2018). Loading MiR-210 in Endothelial Progenitor Cells Derived Exosomes Boosts Their Beneficial Effects on Hypoxia/Reoxygenation-Injured Human Endothelial Cells via Protecting Mitochondrial Function. Cell Physiol Biochem. 2018;46(2):664-675.

Liao FL, Tan L, Liu H, Wang JJ, Ma XT, Zhao B, **Chen YF, Bihl J**, Yang Y, Chen RL (2018). Hematopoietic stem cell-derived exosomes promote hematopoietic differentiation of Mouse embryonic stem cells in vitro via inhibiting the miR126/Notch1 pathway. Acta Pharmacol Sin. 2018 Apr;39(4):552-560.

Zhang C, Wang J, Ma X, Wang W, Zhao B, **Chen Y**, Chen C, **Bihl J** (2018). "ACE2-EPC-EXs protect ageing ECs against hypoxia/reoxygenation-induced injury through the miR-18a/Nox2/ROS pathway," J Cell Mol Med. 2018 Mar;22(3):1873-1882.

Dr. David Cool

Bahado-Singh RO, Sonek J, McKenna D, **Cool DR**, Aydas B, Turkoglu O, Bjorndahl T, Mandal R, Wishart D, Friedman P, Graham SF, Yilmaz A., Artificial Intelligence and Amniotic Fluid Multiomics Analysis: The Prediction Of Perinatal Outcome in Asymptomatic Short Cervix. *Ultrasound Obstet Gynecol.* 2018 Oct 31. doi: 10.1002/uog.20168. [Epub ahead of print] PMID: 30381856.

Lebeau, P., Platko, K., Al-Hashimi, A., Šárka Lhoták, J.H.B., Holzapfel, N., **Cool, D.R.**, Trigatti, B., Seidah, N.G., Austin, R.C., Loss-of-function PCSK9 variants that are retained in the endoplasmic reticulum (ER) evade detection by GRP78 and fail to cause ER stress. *J. Biol. Chem.* 2018. 293:19 p7329-7349. DOI 10.1074/jbc.RA117.001049

Mari, W., Younes, S., Naqvi, J. Issa, A.A., **Oroszi, T.L.**, **Cool, D. R.**, Simman, R. (2019). Use of a natural porcine extracellular matrix with negative pressure wound therapy hastens the healing rate in stage 4 pressure ulcers. *Wounds: a compendium of clinical research and practice.*

Dr. Khalid Elased

Gutta S, Grobe N, Kumbaji M, Osman H, Saklayen M, Li G, **Elased KM** (2018). Increased Urinary Angiotensin Converting Enzyme 2 (ACE2) and Neprilysin (NEP) in Type 2 Diabetic Patients. *Am J Physiol Renal Physiol.* 2018 Aug 1;315(2): F263-F274. doi: 10.1152/ajprenal.00565.2017. Epub 2018 Mar 21. PMID: 29561187.

Yermakov LM, Drouet DE, Griggs RB, **Elased KM**, Susuki K (2018). Type 2 Diabetes Leads to Axon Initial Segment Shortening in db/db Mice. *Front Cell Neurosci.* 2018 Jun 8; 12:146. doi: 10.3389/fncel.2018.00146. eCollection 2018. PMID: 29937715

Dr. Saber Hussain

MC Brothers, M DeBrosse, CC Grigsby, RR Naik, **SM Hussain**, Jason Heikenfeld, and Steve S. Kim. Achievements and Challenges for Real-Time Sensing of Analytes in Sweat within Wearable Platforms, *Acc. Chem. Res.*, 2019, 52 (2), 297–306, 2019.

DH Ellis, EI Maurer-Gardner, CEW Sulentic, **SM Hussain**. Silver nanoparticle antibacterial efficacy and resistance development in key bacterial species *Biomedical Physics & Engineering Express*, Volume 5, Number 15 (1), 015013

R Silva, J Teodoro, A Varela, F Duarte, A Rolo, **S Hussain**, C Palmeira. Hepatic mitochondrial dysfunction induced by silver nanoparticles in Sprague-Dawley rats *Eur J of Clinical Investigation* 48, 114-115, 2018.

EK Breitner, KE Burns, **SM Hussain**, KK Comfort. Implementation of physiological fluids to provide insight into the characterization, fate, and biological interactions of silver nanoparticles. *Nanotechnology* 29 (25), 254001, 2018

Dr. Mike Kemp

Khan AQ, **Travers JB**, **Kemp MG**. Roles of UVA Radiation and DNA Damage Responses in Melanoma Pathogenesis. *Environ. Mol. Mutagen.* 59(5):438-460, 2018. PMID: 29466611.

Poudel S, Yao J, **Kemp MG**, Leffak M. (2018). Interaction between DUE-B and Treslin is required to load Cdc45 on chromatin in human cells. *J Biol Chem.* 293(37): 14497-14506.

Dr. Terry Oroszi

Oroszi, T. (2018). A preliminary analysis of high-stakes decision-making for crisis leadership. *Journal of Business Continuity & Emergency Planning*, 11(4).

Oroszi, T. (2018) Healthcare professionals speak to the need for CBRN training. *NCT Chemical, Biological & Nuclear Warfare.*

Dr. Ravi Sahu

Travers JB, Weyerbacher J, Ocana JA, Borchers C, Rapp CM, Sahu RP. Acute ethanol exposure augments low dose UVB-mediated systemic immunosuppression via enhanced production of Platelet-activating factor receptor agonists. *J. Invest. Dermatol.* 139(7)2018. PMID: 30682347.

Thyagarajan A, Kadam SM, Liu L, Kelly LE, Rapp CM, **Chen Y**, **Sahu RP**. Gemcitabine induces microvesicle particle release in a platelet-activating factor-receptor-dependent manner via modulation of the MAPK pathway in pancreatic cancer cells. *Int J Mol Sci.* 2018. Dec 21;20(1). Pii. E32. Doi: 10.3390/ijms20010032. PubMed PMID:

30577630; PubMed Central PMCID: PMC6337552.

Romer E, Thyagarajan A, Krishnamurthy S, Rapp CM, Liu L, Fahy K, Awoyemi A, **Sahu RP**. Systemic platelet-activating-factor-receptor agonism enhances non-melanoma skin cancer growth. *Int J Mol Sci*. 2018. Oct 11; 19(10). Pii: E3109. Doi: 10.3390/ijms19103109. PubMed PMID: 30314274; PubMed Central PMCID: PMC6212876.

Dr. Jeffrey Travers

LaPelusa A, Rorex JN, Weir N, **Travers, JB**. An aberrant reaction to *Candida Albicans* antigen used for recalcitrant warts successfully treated with oral prednisone. *JAAD Case Reports*. 4(3): 242-244, 2018.

DaSilva-Arnold SC, Thyagarajan A, Seymour LJ, Yi Q, Bradish JR, Al-Hassani M, Zhou H, Perdue NJ, Nemeth V, Krbanjevic A, Serezani APM, Olson MR, Spandau DF, **Travers JB**, Kaplan MH, Turner MJ. Phenotyping acute and chronic atopic dermatitis-like lesions in Stat6^{VT} mice identifies a role for IL-33 in disease pathogenesis. *Arch. Dermatol. Res*. 310(3):197-207, 2018. PMID: 29368135.

Ocana JA, Romer E, Sahu RJ, Pawelzik S-C, FitzGerald G, Kaplan MH, **Travers JB**. Platelet-activating factor-induced reduction in contact hypersensitivity responses is mediated by mast cells via cyclooxygenase-2-dependent mechanisms. *J. Immunol*. 200(12): 4004-4011, 2018. PMID: 29695417.

Harrison KA, Romer E, Weyerbacher J, Ocana JA, Sahu RP, Murphy RC, Kelly LE, Smith TA, Rapp CM, Borchers C, **Cool DR**, Li G, Simman R, **Travers JB**. Enhanced Platelet-activating Factor synthesis facilitates acute and delayed effects of ethanol intoxicated thermal burn injury. *J. Invest. Dermatol*. 138(11):2461-2469, 2018. PMID: 29857067.

Kemp MG, Krishnamurthy S, Kent MN, Schumacher DL, Sharma P, Excoffon KJDA, **Travers JB**. Spironolactone depletes the XPB protein and inhibits DNA damage responses in UVB irradiated human skin. *J. Invest. Dermatol*. 139: 448-454, 2019. PMID: 30227140.

Hawash A, **Travers JB**, Gokce S. Toxic cutaneous responses from inhalant abuse. *JAAD Case Reports*. 5(1): 31-33, 2018. PMID: 30555882.

Hoopes R, Veerkamp PM, **Travers JB**. Exuberant reaction of facial keloid to topical imiquimod. *Jacobs Journal of Expt Derm*. 3(1) 025, 2019.

Mari W, S Younes, J Naqvi, AA Issa, **TL Orozsi, JB Travers**, R Simman. Use of a natural porcine extracellular matrix with negative pressure wound therapy hastens the healing rate in Stage 4 pressure ulcers. *Wounds*. 31(5):117-122, 2019. PMID: 30990777.

Yu H, Dilbaz S, Coßmann J, Hoang AC, Diedrich V, Herwig A, Harauma A, Hoshi Y, Moriguchi T, Landgraf K, Körner A, Lucas C, Brodesser S, Balogh L, Thuróczy J, Karemore G, Kuefner MS, Park EA, Rapp C, **Travers JB**, Röszer T. Breast milk alkylglycerols sustain beige adipocytes through adipose tissue macrophages. *J. Clin. Invest*. 130:2485-2499, 2019. PMID: 31081799.

Poon C, Sunar U, Rohrbach DJ, Krishnamurthy S, Olsen T, Kent M, Simman R, **Travers JB**. Early assessment of burn severity in human tissue ex vivo with multi-wavelength spatial frequency domain imaging. *Toxicol. In vitro*. 52: 251-254, 2018. PMID: 29859991.

Books, chapters, reviews

Dr. Mike Kemp

Khan, AQ, **Travers JB and Kemp MG**. (2018). Roles of UVA Radiation and DNA Damager Responses in Melanoma Pathogenesis. *Environmental and Molecular Mutagenesis*, 59(5): 438-60.

A100 Travers JB, Kemp MG, Spandau DF. Protection of geriatric skin from abnormal pro-carcinogenic UVB responses by dermal wounding strategies which upregulate dermal IGF-1 levels. *J. Invest. Dermatol*. 139(5) S131, 2019.

Dr. Terry Orozsi

Oroszi, T. L., & Ellis, D. H. (2019). *The American Terrorist: Everything You Need to Know to be a Subject Matter Expert*. Greylander Press, LLC. (PRINT, AUDIO BOOK, and EBOOK)

Oroszi, T. & Ellis, D. (2019) *The Mindset of a Terrorist*. In Norton, R. & Mauroni, A (eds) *Preparing for Agroterror: Deliberate Threats to America's Food Industries* (In Press)

Oroszi, T. (2019). *Contextual Factors Influencing CBRN Leadership Decision-Making*. In *Chemical Warfare Agents: Chemistry, Pharmacology, Toxicology, and Therapeutics*. CRC Press.

Oroszi T.L., Shoenleben J., James L.C. (2018) *Increasing Healthy Exercise in the Primary Care Setting*. In: Duckworth M., O'Donohue W. (eds) *Behavioral Medicine and Integrated Care*. Springer, Cham

Dr. Ravi Sahu

Khader S, Thyagarajan A, **Sahu RP**. Exploring signaling pathways and pancreatic cancer treatment approaches using genetic models. *Mini Rev Med Chem*. 2019 Mar 27. Doi: 10.2174/1389557519666190327163644. [Epub ahead of print] PubMed PMID:30924420

Dr. Courtney Sulentic

Sulentic, C. E.W., Snyder, A. D., Salisbury, R. L.: *The Aryl Hydrocarbon Receptor and Immunity*. In: McQueen, C.A., *Comprehensive Toxicology*, 3rd edition. Vol. 11, pp. 238-271. Oxford: Elsevier Ltd. 2018.

Kaplan, B. L. F., **Sulentic, C. E. W.,** Haggerty, H. G., Holsapple, M. P., Kaminski, N. E.: Chapter 12: Toxic Responses of the Immune System. In: Casarett & Doull's *Toxicology, The Basic Science of Poisons* (ed. C. D. Klaassen) 9th edition, McGraw-Hill, USA 2019.

Dr. Travers

Khan AQ, **Travers JB, Kemp MG**. Roles of UVA Radiation and DNA Damage Responses In Melanoma Pathogenesis. *Environ. Mol. Mutagen*. 59(5):438-460, 2018. PMID: 29466611.

Travers, J.B. Gram positive infections associated with toxin production. In: *Fitzpatrick's Dermatology in General Medicine*, 9th edition, 2019.

Travers, J.B. Platelet-activating Factor as an Effector for Environmental Stressors. In: *Lipid Signaling in Human Diseases*. Handbook of Experimental Pharmacology, eds. Cambronerio, JG and Frohman M. 2019. 164. PMID: 31087194.

Published abstracts

Dr. Ji Bihl

Wang J, Chen S, Liu H, Yang Y, **Bihl J** (2019) "Exercise enhanced the function of endothelial progenitor cell-derived exosomes on protecting neurons against hypoxia/reoxygenation insult," International Stroke Conference, Honolulu, HI.

Wang J, Pan Q, Liu H, Zhao B, Yang Y, Ma X, **Bihl J** (2018) "Enrichment of miR-126 boosts the therapeutic effects of endothelial progenitor cells derived exosomes on ischemic stroke in diabetic mice," American Diabetes Association 78th Scientific Session, Orlando, FL.

Wang J, Ma X, Cheng C, Chen S, Liu S, Zhao B, **Bihl J** (2018) "ACE2-EPCs protect ECs majorly through their exosomal effects on mitochondria," ATVB 2018, San Francisco, LA.

Dr. David Cool

Jiri Sonek; Ray Bahado-Singh; David McKenna; **David Cool**; et al., Amniotic fluid metabolomics and targeted proteomics in prediction of preterm birth. AJOG. Vol. 218, Iss. 1/S, page S432, January 2018
10.1016/J.AJOG.2017.11.249

Smith, Meghan, Lindheim, S., **Cool, D.R.**, Is anti-mullerin hormone (AMH) really just a number? Longitudinal AMH and its correlation with pubertal milestones. Abstract 3603; ASRM Denver, CO. 10/6-10/2018.

T.A. Sensing, C.E. Hardman, **D.R. Cool**, J.R. Lynde, J.S. Bruun, R. Armstrong, A.S. Shoen, and J.K. Bini. A pilot study of cytokine profiles in patients who develop ventilator-associated pneumonia. Soc. Crit. Care 2019.

Dr. Mauricio Di Fulvio

Impaired glucagon and insulin responses in mice lacking the Cl- loader Nkcc2a. Kelly L and **Di Fulvio M.** Diabetes 2018 Jul 67(Supplement 1). <https://doi.org/10.2337/db18-2151-P>.

Borrowing epithelial chloride transporters and channels to help understand insulin secretion in CFRD. **Di Fulvio M**, McMillen T, Kelly L and Aguilar-Bryan L. European Cystic Fibrosis Society Basic Science Conference. Loutraki, Greece • March 29 to April 1, 2018.

Dr. Khalid Elased

Yermakov LM, Drouet DE, Griggs RB, **Elased KM**, Keiichiro Susuki K. Structural changes in axon initial segment in diabetic brain. Conference: Society for Neuroscience 2018 Annual Meeting. Location: San Diego, CA, November 3- November 7, 2018. Sponsor(s): Society for Neuroscience Annual Meeting.

Dhakal S, Hosawi A, Alawi LF, Grobe N, **Elased KM**. Effect of AT1 receptor on renal and urinary biomarkers of acute Kidney injury in 2K1C Model of Renovascular Hypertension. 33th Meeting of the Ohio Physiological Society held in Cincinnati University, Cincinnati, OH, September 28-29, 2018.

Thanekar U, Gill RK, Dhakal S, Hosawi A, **Elased KM**. Effect of Sodium Glucose Co-transporter 2 (SGLT-2) inhibitor on the Urinary shedding of ACE2 and Neprilysin (NEP) in db/db diabetic Mice. 33th Meeting of the Ohio Physiological Society held in Cincinnati University, Cincinnati, OH, September 28-29, 2018.

Gill RK, Salem E, Grobe N, M **Elased KM**. Effect of insulin on renal and urinary shedding of biomarkers of diabetic kidney disease. Wright State University Boonshoft School of Medicine Central Research Forum. Dayton, OH, USA, October 18, 2018.

Dhakal S, Hosawi A, Alawi LF, Grobe N, **Elased KM**. Effect of AT1 receptor on renal and urinary biomarkers of acute Kidney injury in 2K1C Model of Renovascular Hypertension. Wright State University Boonshoft School of Medicine Central Research Forum. Dayton, OH, USA, October 18, 2018.

Thanekar U, Gill RK, Dhakal S, Hosawi A, **Elased KM**. Effect of Sodium Glucose Co-transporter 2 (SGLT-2) inhibitor on the Urinary shedding of ACE2 and Neprilysin (NEP) in db/db diabetic Mice. Wright State University Boonshoft School of Medicine Central Research Forum. Dayton, OH, USA, October 18, 2018

Dr. Saber Hussain

Total of 6- Society of Toxicology 2018, San Antonio, TX.

Dr. Mike Kemp

Travers JB, Kemp MG, Spandau DF. Protection of geriatric skin from abnormal pro-carcinogenic UVB responses by dermal wounding strategies which upregulate dermal IGF-1 levels. J. Invest. Dermatol. 139(5) S131, 2019.

Dr. Terry Oroszi

Lukey, Brian; **Oroszi, T.**; McAtee, Matthew; Xu, Dan; Marcel, Barry; Liu, Mason. (2018) Get onboard the DoD TRAIN: The Toxicology and Health Risk Assessment Information Network, Department of Defense Toxicology Efforts, TriService Toxicology Consortium Meeting

Dr. Ravi Sahu

Shoroq Khader, Anita Thyagarajan, **Ravi P. Sahu**. KRAS murine models in pancreatic cancer therapies. Present at Ohio Physiological Society 2018.

Mamdouh Salman A., Alsehehri, Anita Thyagarajan, **Ravi P. Sahu**. Myeloid-derived suppressor cells in pancreatic cancer: Implications in novel therapeutic approaches. Present at Ohio Physiological Society. 2018.

Sayali Kadam, Anita Thyagarajan, **Ravi P. Sahu**. Role of Platelet-activating factor-receptor (PAF-R) pathway in miR-149-mediated effects in melanoma and melanoma therapy effectiveness. Presented at Cancer Research Day at Wright State University, Dayton, OH.

Dr. Courtney Sulentic

Buckner, C., Snyder, A., Abdulla, S., **Sulentic, C.E.W.**: CRISPR/Cas9 editing of the polymorphic hs1.2 enhancer alters antibody production and sensitivity to TCDD. *Toxicological Sciences, The Toxicologist*, 168:2305, 2019.

Buckner, C. (platform and poster), Snyder, A., Abdulla, S., **Sulentic, C.E.W.**: Functional characterization of the polymorphic hs1.2 enhancer using CRISPR/Cas9 gene editing. *Autumn Immunology Conference (AIC)*, 47:34, 2018.

Bhakta, M. (platform and poster), Buckner, C., Alhamdan, N., Kashgari, B., Burra, K., **Sulentic, C.E.W.**: Effect of AhR on IgG production in a human B-cell line. *Autumn Immunology Conference (AIC)*, 47:36, 2018.

Buckner, C., Snyder, A., Abdulla, S., **Sulentic, C.E.W.**: Elucidating the role of the polymorphic hs1.2 enhancer in immunoglobulin production using CRISPR/Cas9 gene editing. *Toxicological Sciences, The Toxicologist*, 162:2363, 2018.

Erukonda, V., Buckner, C., Alhamdan, N., **Sulentic, C.E.W.**: Role of the AhR in immunoglobulin expression and antibody isotypic profile in a human B cell line. *Toxicological Sciences, The Toxicologist*, 162:1123, 2018.

Dr. Travers

Kemp MG, **Travers JB**. Spironolactone depletes XPB protein and inhibits the UVB DNA damage response in human skin. *J. Invest. Dermatol.* 138(5) S190, 2018.

Spandau D, Collier A, **Travers JB**, Wek R. Regulation of protein synthesis during the progression of UVB-induced squamous cell carcinoma. *J. Invest. Dermatol.* 138(5) S194, 2018.

Liu L, Fahy K, Bihl J, Rapp CM, **Travers JB**. UVB induces release of bioactive microvesicle particles in keratinocytes via platelet-activating factor and acid sphingomyelinase. *J. Invest. Dermatol.* 138(5) S195, 2018.

Romer E, Sahu R, Smith T, Rapp CM, Borchers C, **Travers JB**. Enhanced platelet-activating factor synthesis facilitates acute and delayed effects of intoxicated thermal burn injury. *J. Invest. Dermatol.* 138(5) S166, 2018.

Awoyemi A, Romer E, Liu L, Rapp CM, **Travers JB**. Ethanol augments stimulated microvesicle particle formation and release in a keratinocyte cell line. *J. Invest. Dermatol.* 138(5) S195, 2018.

Thapa P, Liu L, Rapp CR, **Travers JB**. Synergistic effects of UVB and Platelet-activating factor on microvesicle particle production. *J. Invest. Dermatol.* 139(5) S130, 2019.

Liu L, Thapa P, Rapp CR, **Travers JB**. Evidence that UVB-generated microvesicle particles are involved in acute skin inflammation. *J. Invest. Dermatol.* 139(5) S131, 2019.

Travers JB, Kemp MG, Spandau DF. Protection of geriatric skin from abnormal pro-carcinogenic UVB responses by dermal wounding strategies which upregulate dermal IGF-1 levels. *J. Invest. Dermatol.* 139(5) S131, 2019.

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

Dr. F. Javier Alvarez-Leefmans

Invited Seminar Speaker. "Cation-Chloride Cotransporters in Cerebrospinal Fluid Secretion and K⁺ Absorption by Choroid Plexus Epithelial Cells: the Apical NKCC1 puzzle." Department of Physiology, Emory University School of Medicine, Atlanta, GA, May 17, 2018.

Dr. Ji Bihl

The Role of Stem Cell-Released Exosomes in Stroke. Wright State University, Dayton, OH, September 2018.

Dr. Mauricio Di Fulvio

Borrowing neuronal genes to better understand insulin secretion. Seminar. Dept of Neuroscience Cell Biology and Physiology. Boonshoft School of Medicine, Wright State University.

The metabolic and hormonal consequences of lacking Nkcc2a. 53rd Annual Lake Cumberland Biological Transport Group Meeting, Jamestown, KY

Chloride transporters in β -cell physiology. Membrane Transport Proteins. Gordon Research Conference. Grand Summit Hotel at Sunday River in Newry, ME

Chloride transporters and channels in β -cell physiology and insulin secretion. ITTS Inaugural Conference 2018. Channels and co-transporters in Neuronal and Pancreatic β -cell physiology and disease. Vienna, Austria.

Chloride physiology in β -cells and insulin secretion. Boonshoft School of Medicine Central Research Forum. Wright State University

Dr. Khalid Elased

Presentations of two posters at the American Nephrology Association Annual Meeting.

Presentations of two posters at the American Heart Association Annual Meeting.

Dr. Mike Kemp

North Carolina State University Toxicology Program, Raleigh, NC, September 2018.

49th Annual Meeting of the Environmental Mutagenesis and Genomic Society 2018. San Antonio, TX (Symposium on UV carcinogenesis), September 2018.

Florida International University Biomolecular Sciences Institute, Miami, FL, April 2019.

Dr. Terry Oroszi

National:

Oroszi, T. (June 2019) National Homeland Security Conference Speaker, Phoenix, AZ (Terrorism in the US)

Oroszi, T. (May 2019) Michigan Infragard Annual Meeting Guest Speaker, Detroit, MI

Oroszi, T. (Aug. 2018) Edgewood/Aberdeen Proving Ground (MD) DoD Toxicology Initiative

Regional:

Oroszi, T. (June. 2019) Intelligence Analysis Career Training (IACT) Program - 4/5/6 Power Platform Workshop

Oroszi, T. (June. 2019) Intelligence Analysis Career Training (IACT) Program - The American Terrorist Workshop

Oroszi, T. (April 2019) The American Terrorist Talk and Book signing, The Dayton Club.

Oroszi, T. (Mar. 2019) The American Terrorist. Beaver Creek Rotary Club.

Oroszi, T. (Feb. 2019) The American Terrorist. Department Seminar, Pharmacology & Toxicology, BSOM.

Oroszi, T. (Jan. 2019) The American Terrorist. InfraGard, Dayton Chapter.

Oroszi, T. (Nov. 2018) The Ohio American Terrorist. Centerville Optimist Club.

Oroszi, T. (Oct. 2018) Intelligence Analysis Career Training (IACT) Program - 4/5/6 Power Platform
Oroszi, T. (Oct. 2018) Intelligence Analysis Career Training (IACT) Program - The American Terrorist: Finding Patterns in the Data.
Oroszi, T. (Sept. 2018) Kettering Optimist Club (9/11 talk on Terrorism)
Oroszi, T. (Aug. 2018) Tri-Service Toxicology Conference (WPAFB) Toxicology & Health Risk Assessment Information Network
Oroszi, T. (July 2018) Profile of an American Terrorist. Centerville Optimist Club.

Dr. Ravi Sahu

Anita Thyagarajan, Sayali Kadam, Langni Liu, Lisa Kelly, Christine Rapp, Yanfang Chen, Ravi P. Sahu. Platelet-activating factor-receptor dependent pathway mediates gemcitabine chemotherapy-induced microvesicle particles release in pancreatic cancer cells. Presented at EB meeting, 2019.

Dr. Courtney Sulentic

Invited Speaker

A Key Transcriptional Regulator of Antibody Production May be a Significant Toxicological and Therapeutic Target. Department of Pharmacology & Toxicology, Wright State University, Dayton, OH 2018

A Genetic Polymorphism + Chemical Exposure = Autoimmunity?? Department of Biology, Kenyon College, Gambier, OH 2018.

Participant in Panel Discussions

The Career Roundtable: Opportunities in Toxicology Session. Committee on Diversity Initiatives, Society of Toxicology, Baltimore, MD, 2019.

The Career Roundtable: Opportunities in Toxicology Session. Committee on Diversity Initiatives, Society of Toxicology, San Antonio, TX, 2018.

Student poster or platform presentations *trainee presenter from Sulentic lab

*Bhakta, M., Buckner, C., Alhamdan, N., Kashgari, B., Burra, K., Sulentic, C. E. W.: Effect of AhR on IgG production in SKW 6.4 cell line. Ohio Valley Society of Toxicology, University of Louisville, Louisville, KY, 2018.

*Gampala, V., Erukonda, V., Buckner, C., Alhamdan, N., Sulentic, C. E. W.: Role of the AhR in immunoglobulin expression and the antibody isotypic profile in a human B-cell line. Ohio Valley Society of Toxicology, University of Louisville, Louisville, KY, 2018.

* Bhakta, M., Buckner, C., Alhamdan, N., Kashgari, B., Sulentic, C. E. W.: Effect of AhR on IgG production in SKW 6.4 cell line. Central Research Forum, Boonshoft School of Medicine, Wright State University, Dayton, OH, 2018.

Dr. Jeffrey Travers

Department of Neuroscience, Cell Biology & Physiology, Wright State University, Dayton, Ohio. "Platelet-activating factor as an effector for environmental stressors". March, 2018.

Ohio Dermatology Association 2018 Annual State Meeting, Columbus, OH, invited speaker. Dr. Richard Belcher Endowed Lectureship. "How aging predisposes to skin cancer: practical implications for our patients". September, 2018.

Society for Investigative Dermatology 2019 Annual Meeting, Chicago IL, invited speaker for Erwin Blank Forum. "Keratinocyte microvesicles as effectors for environmental stressor responses." May, 2019.

VA Research Brown Bag Talk, Dayton VAMC, Dayton OH. "Dermatology research for fun and profit!" May, 2019.

VA Clinical Grand Rounds, Dayton VAMC, Dayton OH. "A new paradigm for non-melanoma skin cancer: The need to keep old folks in the dark!" June, 2019.

Dr. Yong-jie Xu

Wozniak M.J. and Xu, Y.J. Depletion of the anti-silencing protein Epe1 recuses the DNA replication checkpoint defect in fission yeast lacking the inner nuclear membrane protein Lem2. 21st Midwest DNA Repair Symposium at Washington University School of Medicine in St. Louis, MO. May 5, 2019.

Ahamad N, Khan S, and Xu YJ. Genetic screen of two rqh1 mutants with a compromised Rad3(ATR) kinase signaling in the DNA replication checkpoint of fission yeast. 21st Midwest DNA Repair Symposium at Washington University School of Medicine in St. Louis, MO. May 4-5, 2019.

Consultantships [sponsor activity]

Dr. David Cool

Proteomic Consultant for Dr. Ray Bahado-Singh, OB/GYN Beaumont Health Research Center, MI, 2016-present. Consultant on NIH R21 AR070010, Sulentic/Travers (PI), 2016-2018

Collaborations & Consultants

Dr. Ray Bahado-Singh, Beaumont Health Research Center, MI. Proteomics, 2016- present

Dr. Steven Lindheim OB/GYN Neu(5)GC in Infertility, endometriosis, vulvodynia, 2015- present

Dr. John Bini MVH, Dept.Surgery, Aerosolized Antibiotics in the Treatment of Ventilator Associated Pneumonia 2014- present

Dr. Richard Simman, P&T Dept, Comparison of wound healing using OASIS. 2014-present

Dr Lucille Wrenshall, NCBP Dept, Role of IL2 in cardiovascular system. 2012-present

Dr. Steven Lindheim OB/GYN, Polycystic Ovary Syndrome, 2014- present Dr. Jerry Yaklic, OB/GYN,

Translational research of OB/GYN diseases, 2013-present

Dr. Larry Arlian & Dr. Marge Morgan WSU Biology Dept Scabies: Biology, Culture, Host Specificity and Antigens 2011- present

Dr. Matthew Peterson (Lifespan) Aging, Exercise and diet. 2015- present

Dr James Olson- (Emerg. Med) Biomarkers of Stroke damage. 2007- present

Dr Miryoung Lee- (Lifespan) 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. Mike Hennesy- Dept of Psychology, Wright State University- Stress Markers in animal shelter Animals 2018 - present

Dr. Mike Kemp

Grant editing/consulting, Health Sciences & Services Authority (HSSA) for Shobhan Gaddameedhi, Washington State University, Jan-Feb 2019.

Dr. Jeffrey Travers

Proctor & Gamble. Skin eruptions from Tide Pods 2017-

Eli Lilly, Inc. Member of NCRF Advisory Board regarding Baracitinib use in Skin Diseases 2018-

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

Dr. F. Javier Alvarez-Leefmans

Associate Editor. *Frontiers in Membrane Physiology and Biophysics*. Frontiers Journals. Science Park PSE-D, CH – 1015 Lausanne, Switzerland. Frontiers Journals are part of *Nature* Publishing Group.

Reviewer: Science Scientific Reports, Nature, Journal of Physiology, Cytometry, American Journal of Physiology-cell.

Ad hoc grant reviewer Division Biology and Medicine, Swiss National Science Foundation. CH-3001 Bern, Switzerland

Invited to write a chapter for the book "Role of the Choroid Plexus in Health and Disease" edited by Helle H. Damkier, B. Blazer-Yost and J. Praetorius.

Dr. Ji Bihl

Editorial Board

Oxidative Medicine and Cellular Longevity

Professional Memberships

American Society for Exosomes and Microvesicles (ASEMV)

International Society for Extracellular Vesicles (ISEV)

American Diabetes Association (ADA)

American Heart Association (AHA)

Reviewer for Scientific Conference

International Stroke Conference (ISC)

Reviewer for journals

Cellular and Molecular Neurobiology (5), Molecular brain (1), International Journal of Developmental Neuroscience (1), Biological Chemistry (1), Cellular Physiology and Biochemistry (1), Experimental Cell Research (2), International Journal of Molecular Medicine (1), Molecular Medicine Reports (3), Journal of Cellular Biochemistry (1), Neurochemistry International (2)

Dr. Yanfang Chen

Professional Memberships

International Society for Extracellular Vesicles (ISEV)

American Diabetes Association (ADA)

American Heart Association (AHA)

Reviewer for Scientific Conference

American Heart Association (AHA)

Reviewer for journals

Cellular and Molecular Neurobiology, Cellular Physiology and Biochemistry, Experimental Cell Research

Dr. David Cool

2014- Present- Editorial Board, Interdisciplinary Toxicology

2012- Present- Editorial Board, Journal of Environmental Immunological Toxicology

2018 NIH CounterAct Study Section Member Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U01 & U54 Study Section Reviewer (03/16-17/2018).

Dr. Mauricio Di Fulvio

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

Review Editor, Frontiers in Endocrinology

Review Editor, Frontiers in Neurosciences

Reviewer Scientific Reports

Reviewer American Journal of Physiology

Dr. 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

Dr. Saber Hussain

Editorial Positions

Journal: NANOIMPACT, 2015-present

Professional Memberships and Affiliations

Society of Toxicology

Reviewer For Journals

Reviewer, Toxicological Sciences, 2007-present

Reviewer, Toxicology Letters, 2005-present

Reviewer, Toxicology In Vitro, 2007-present

Reviewer, Journal of Toxicology and Environmental Health, 2007-present

Reviewer, International Journal of Nanomedicine, 2007-present

Reviewer, International Journal of Toxicology, 2007-present

Reviewer, Food Chemical Toxicology, 2007-present

Reviewer, International Journal of Nanomedicine, 2007-present

Reviewer, Langmuir, 2008-present

Reviewer, Nature Nanotechnology, 2008-present

Reviewer, Carbon, 2008-present

Reviewer, Journal of the American Chemical Society, 2008-present

Reviewer, Advanced Materials, Small, 2008-present

Reviewer, PNAS, 2010-present

Dr. Ravi Sahu

Manuscript Reviewer Service: Some selected journals: Antioxidants, Autophagy, BBA Molecular and Cell Biology of Lipids, Biomedical Research International, Biomarkers in Cancers, Cancer Research, Clinical Cancer Research, Carcinogenesis, Cancer Growth and Metastasis, Cancer Management and Research, Cancer Informatics, Food & Function, Internal J of Molecular Sciences, European Journal of Inflammation, Journal of Investigative Dermatology, Mediators of Inflammation, Mini-Reviews in Medicinal Chemistry, Molecular Cancer Research, Oncotarget, Oncogenesis, Oncotarget and Therapy, Oxidative Medicine and Cellular Longevity, Photochemistry and Photobiology, Scientific Reports.

Dr. Courtney Sulentic

External Examiner for Kenyon College Honors Research, M. Wyatt Cole, Biochemistry Honors, Naomi Pang, Biology Honors

Dr. Jeffrey Travers

External Advisor, Christian Doppler Laboratory on Biotechnology of Skin Aging, Vienna Austria, 2013-present

External Advisor, University of Wisconsin NIAMS P30, Skin Disease Research Core Grant, Madison, WI., 2016-
Wapakoneta Ohio High School Alumni Hall of Fame (#23), 2018

Journal Reviewer (2018-2019):

Archives of Dermatology

BMC Infectious Disease

BMC Pulmonary Medicine

British Journal of Dermatology

Cancer Microenvironment

Cell Proliferation

European Journal of Cancer

European Journal of Pharmacology

Free Radical Biology and Experimental Medicine

Inflammation Research

International Journal of Immunopharmacology

IUBMB Life

Journal of American Academy of Dermatology

Journal of Biological Chemistry

Journal of Clinical Investigation
JCI Insight
Journal of Immunology
Journal of Inflammation Research
Journal of Investigative Dermatology
Molecules
Molecular Carcinogenesis
Nature
PLOS-one
Photochemistry and Photobiology
Toxicology and Applied Pharmacology
Translational Research

Editorial Board:

Inflammation & Allergy – Drug Targets
Clinics in Oncology (Melanoma/Skin Cancer section)

International Union of Basic and Clinical Pharmacology Committee on Receptor Nomenclature, PAF-R (Member 2012-)

Grant Reviewer:

National Institutes of Health Review Panels (**50 separate panels served**)

NIAMS Special Emphasis Panels (R03, LRP, SBG), 2004, 2006, 2007, 2008, 2009 (Chair), 2010, 2011, 2013, 2018.

NIAMS RISK grant reviewer 1-2019, 6-2019

Veteran's Administration Review Panels (**14 panels served**)

VA Oncology E Review Panel (chair) 12-2014, 6-2015, 12-2015, 6-2016, 11-2016, 6-2017, 10-2017, 5-2018, 10-2018

VA Promotions Committee (RCSR 1 Workgroup) 10-2016, 5-2017, 10-2017, 5-2018, 11-2018

Other:

External Advisor, NIH/NIAMS-sponsored Skin Disease Research Core (P30) grant, University of Wisconsin Department of Dermatology (2016-18).

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

6

Summary of Service Activities

Student advising

Dr. F. Javier Alvarez-Leefmans

Mentor, Leader Admin students:

Abeer Najjar
Kimberly Thomas
Ram Vallabaneni

Dr. Ji Bihl

Eileen Yang, High School student
Manasi Halurkar, MS, thesis director, 2017-present, expected graduation summer 2019
Venkata Sai Usha Sri Polaki, MS, thesis directory, 2018-present
Qinmao Ye, MS, thesis advisory committee, 2018 graduated
Azeezat Awoyemi, MS, 2018 graduated
Pariksha Thapa, MS, 2019 expected graduation
Othman Eldalal, MS, lab rotation, 2018
Tahani Alshammari, MS, lab rotation 2018, graduated

Dr. Yanfang Chen

Qinmao Ye, MS, thesis director, 2016-2018, graduated
Karthek Pothana, MS, thesis director, 2018-2020
Manasi Halurkar, MS, thesis advisory committee, 2018, expected graduation summer 2019
Langni Liu, BMS PhD, thesis advisory committee, 2014-present
Sri Donepudi, MS, mentor L/A, 2018-2019, graduated

Dr. David Cool

Hima Priya Yenuga, MS, thesis director, 2018-2020
Faten Bin Dayel, MS, mentor L/A, graduated 2018
Ariel Molnar, MS, mentor L/A, proj graduation 2018
Alycia Lewis, MS, mentor L/A, 2017-2019, graduated
Mansour Alghusn, MS, mentor L/A, 2017-2018, graduated
Gousia Begum, MS, thesis advisory committee, graduated
Raisa Siddique, MS, thesis advisory committee, later switched to L/A
Brian Stodgill, BMS/PhD, thesis advisory committee, proj. graduation 2019
Yirong Zhou, BMS/PhD, thesis advisory committee, graduated 2018
Jenny Jurcsisin, BMS/PhD, thesis advisory committee, proj. graduated 2019
Raji Santhanakrishnan, BMS/PhD, thesis advisory committee, graduated 2019
Prithy Martis, BMS/PhD, thesis advisory committee, proj. graduation 2020
Soham Parikh, BMS/PhD, thesis advisory committee, proj. graduation 2020

Dr. Mauricio Di Fulvio

Yakshkumar Rathod, MS, thesis director, 2018-present
Ambika Shoemaker, MS, mentor L/A, 2018-present

Dr. Khalid Elased

Unmesha Thanekar MS, thesis directory, proj graduated 2019
Aparna K. Poluparthi, MS, thesis committee, 2016-2018,
Raisa Siddique, MS, 2017, thesis committee, switched to L/A
Leonid M Yermakov, MD/PhD, thesis committee, 2018-present
Christiana Draper, MD/PhD, thesis committee, 2018-present
Sanjeev Dhakal, MS, mentor L/A, 2018, graduated
Ruby Gill, MS, mentor L/A, 2018, graduated
Dalal Bin Dayel, MS, mentor L/A, 2018-present
Mohammed Alasmari, MS, mentor L/A, 2018-present
Noha Alsharif, MS, mentor L/A, 2018-present

Dr. Saber Hussain

Shar Qureshi, MS, thesis director, graduated 2018
Lt Robert Boehm, MS, thesis director, graduated 2018
Aparna K. Poluparthi, MS, thesis committee, 2016-2018, graduated
Raisa Siddique, MS, thesis committee, switched to L/A track, 2018

Ariel Molnar, MS, mentor L/A, WPAFB, graduated 2018
Madeline DeBrosse, MS, mentor L/A, proj. graduation 2019

Dr. Mike Kemp

Kavya Shaj, PharmD, MS, thesis director, 2017-present, proj. graduation summer 2019
Abdulrahman Alkawar, MS, thesis director, 2018-present
Mariyyak Madkhali, MS, thesis director, 2019-present
Bushra Alharbi, MS, mentor L/A, 2018-present
Rebekah Hutcherson, Honors Undergraduate Research, 2018-present

Dr. Terry Oroszi

Larilynn Yelton, Co-advisor MD/MS, 2015-2018, graduated 2018
Casey Walk, Co-advisor MD/MS, 2015-2018, graduated 2018
Andrew La'Pelusa, Co-advisor MD/MS, 2016-present
Jude Khatib, Co-advisor MD/MS, 2017-present
Jaree Naqvi, Co-advisor MD/MS, 2017-present
Benita Wu, Co-advisor MD/MS, 2017-present
Michael Williams, Co-advisor MD/MS, 2017-present
Roy Chen, Co-advisor MD/MS, 2018-present
Sabina Bashir, Co-advisor MD/MS, 2018-present
Ryan Gabbard, Co-advisor MD/MS, 2018-present
Cameron McGlone, Co-advisor MD/MS, 2018-present
Rob Hoopes, Co-advisor MD/MS, 2018-present
Steven Repas, Co-advisor MD/MS, 2019-present
Zafer Sattouf, Co-advisor MD/MS, 2019-present
Sharlo Bayless, Co-advisor MD/MS, 2019-present
Jacob Dickman, Co-advisor MD/MS, 2019-present
Benjamin Schmeusser, Co-advisor MD/MS, 2019-present
Michele Miller, PhD, 2017-present

Dr. Ravi Sahu

Sayali Kadam, MS, thesis director, proj. graduation 2019, summer switched to L/A
Shreepa Chauhan, MS, thesis director, 2018-present
Mugdha Jaitpal, MS, mentor L/A, proj. graduation 2018
Shorooq Khader, MS, mentor L/A and lab, graduated 2018
Felicia Gooden, PhD student, 2018-present
Abdullah Althaiban, MS, mentor L/A, 2018-present

Dr. Courtney Sulentic

Salina Daniels, Biology MS, non-thesis, 2018
Miliben Bhakata, M&I MS, 2018-present
Siham Abdulla, MS, graduated non-thesis 2018
Clayton Buckner, M&I MS; transitioned to BMS PhD program, 2019-present
Wedad Mudayfin, M&I MS, graduate advisory committee,
Amjed Aljagthmi, BMS representative, graduate advisory committee,
Astha Shakya, BMS representative, graduate advisory committee,
Tahir Sulehria, graduate advisory committee,
Angela Campo, BMS representative, graduate advisory committee,
Alan Cone, BMS representative, recently left program, graduate advisory committee,
Denise Kramer, left program
Amanda Hanes, BMS representative, graduate advisory committee, defended 2018
Harshal Sawant, MS, mentor L/A, 2018-present
Vishwanath Gampala, MS, mentor L/A, 2018-present
Philip Ndoki, MS, mentor L/A, 2018-2019, graduated
Gabriel Crabb, WSU, BioSTAR Trainee
Justine Deeter, WSU, Biology

Dr. Jeffrey Travers

Azzizat Awoye, MS, thesis director, 2016-2018, graduated 2018
Avinash Mahajan, MS, thesis director, 2018-present
Simon Oyebanji, MS, thesis director, 2018-present
Pariksha Thapa, MS, thesis, director, 2018-present
Aparna Poluparthi, MS, thesis advisory committee, proj. graduation 2018
Walid Mari, MS, thesis advisory committee, 2016-2018, graduated 2018
Shreepa Chauhan, MS, thesis advisory committee, 2018-present
Mariyyah Madkhali, MS, thesis advisory committee, 2018-present
Hima Priya Yenuga, MS, thesis advisory committee 2018-present
Kavja Shaj, MS, thesis advisory committee, 2018-present, defended 2019
Larilynn Yelton, Co-advisor MD/MS, 2015-2018, graduated 2018
Casey Walk, Co-advisor MD/MS, 2015-2018, graduated 2018
Andrew La'Pelusa, Co-advisor MD/MS, 2016-present
Jude Khatib, Co-advisor MD/MS, 2017-present
Jaree Naqvi, Co-advisor MD/MS, 2017-present
Benita Wu, Co-advisor MD/MS, 2017-present
Michael Williams, Co-advisor MD/MS, 2017-present
Roy Chen, Co-advisor MD/MS, 2018-present
Sabina Bashir, Co-advisor MD/MS, 2018-present
Ryan Gabbard, Co-advisor MD/MS, 2018-present
Cameron McGlone, Co-advisor MD/MS, 2018-present
Rob Hoopes, Co-advisor MD/MS, 2018-present
Steven Repas, Co-advisor MD/MS, 2019-present
Zafer Sattouf, Co-advisor MD/MS, 2019-present
Sharlo Bayless, Co-advisor MD/MS, 2019-present
Jacob Dickman, Co-advisor MD/MS, 2019-present
Benjamin Schmeusser, Co-advisor MD/MS, 2019-present
Xiao Zhang, M.S. (Yanfang Chen M.D., Ph.D.), 2015-, left program
James Readler (Kate Excoffin, Ph.D.), 2015-2018
Langni Liu, BMS PhD, 2016-present
Ramzi Elased, undergrad/Harvard, May, 2019-present

Dr. Yong-jie Xu

Rittu Samuel, MS, thesis director, proj. graduation 2019
Darlington O Abrefa, MS, M&I, thesis director, 2018
Alaa Mahdi, MS, thesis director, 2018-present
Qassem Ozran, MS, mentor L/A, 2018-present
Yash Jain, MS, mentor L/A, 2018-present
Brittany Hawley, WSU COSM, ASK program
Ishita Haider, PhD, thesis advisory committee, 2018-present
Amanda Myers, PhD, thesis advisory committee, 2018-present

Committee membership/officer [indicate if committee chair]

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

Dr. F. Javier Alvarez-Leefmans

Pharm/Tox Faculty Affairs & Development Committee

Dr. Ji Bihl

Boonshoft School of Medicine Medical Student Scholarly Grant Review committee

Pharm/Tox Master's Program Admission Committee

Dr. Yanfang Chen

Boonshoft School of Medicine Medical Student Scholarly Grant Review committee

Dr. Khalid Elased

Faculty Curriculum Committee
WrightQ Writing Group
BSOM Faculty Promotions and Advancement Committee
Pharm/Tox Faculty Affairs & Development Committee

Dr. Terry Oroszi

BSOM Continuing Medical Education Committee (CME)
Pharm/Tox Master's Program Admission Committee

Dr. Ravi Sahu

P&T Scholarship committee, 2015-present.
Pharm/Tox Admissions Committee, 2015-present

Dr. Courtney Sulentic

Student Promotions Committee, elected member, BSOM, 2017-2021
Faculty Affairs and Development Committee (FADC), Pharm/Tox
Medical Student Research Symposium Poster Judge, 2018, 2019
BSOM Task Force on Research, 2018-present

Dr. Jeffrey Travers

WSU Executive Committee, 2015-present
Dean's Research Chairs Committee, 2015-present
LCME Curriculum Committee, 2015-2018
Academy of Medicine Board of Directors, 2015-present
Bylaws Committee, 2017-present
Scholarship in Medicine, 2017-present
Basic Science Track Committee (Chair), 2018-present

Wright State University

Dr. F. Javier Alvarez-Leefmans

Member of Student Conduct Panels (Conduct Review Panel, Academic Integrity Hearing Panel, University Appeals Panel, Gender Based Harassment and Violence Panel).

Dr. Ji Bihl

Institutional Animal Care and Use Committee (IACUC)
Biomedical Sciences Program (BMS) Admissions Committee

Dr. David Cool

Biomedical Sciences Program (BMS) Academic Policies Committee (appointed), 2017-2018
Biomedical Sciences Program (BMS) Integrative Toxicology Track, 2015- present
Comprehensive MS Program Review Committee, 2015- present

Pharm/Tox Faculty Affairs and Development Committee, 1998- present
Parking Appeals Subcommittee, 2017- present
Building and Grounds Committee, 2017-2019

Dr. Khalid Elased

Laboratory Animal Care & Use Committee

Dr. Terry Oroszi

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

Dr. Ravi Sahu

Institutional Animal Care & Use Committee (IACUC)
Institutional Biosafety Committee (IBC)

Dr. Courtney Sulentic

Women's Peer Mentoring Group, initially supported by the NSF-funded LEADER Program at WSU
Radiation Safety Committee, 2005-present; Chair, 2013-present
Search Committee for Radiation Safety Officer, 2017-present
Core Curriculum committee, BMS PhD program, elected member, 2017-2019
Women in Science Giving Circle member and Women in STEMM Leadership Institute Mentor
Student Grant Review Committee, 2019
Mentoring Committee, 2019

Dr. Jeffrey Travers

Academic Policies Committee, 2015-present

Dr. Yong-jie Xu

Curriculum Committee, BMS/PhD program

Wright State Physicians

Dr. Jeffrey Travers

Laboratory Quality Assessment and Assurance Committee, 2016-present
Professor of Dermatology, Pharmacology & Toxicology (adjunct), 2015-

Hospital or affiliated institution [name]

Dr. David Cool

Miami Valley Hospital OB/GYN
OB/GYN Translational Reproductive Health Research Grant Committee, 2014- present
Judge- MVH Resident Research Day- OB/GYN, 2005-present

Dr. Khalid Elased

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

Dr. Jeffrey Travers

Dayton VA Medical Center, Dayton, Ohio, 2015-present
Medical Licensure: Ohio, 2015-present
Board Certification: Dermatology. 1995-present

Dr. Saber Hussain

Affiliated member for Dayton Area Graduate Studies DAGSI, NCR mentor

Dr. Terry Oroszi

Board Member, Infragard, Dayton Alliance Chapter/FBI
Director, Simman Wound Board
Institute for Operations Research and Management (INFORMS)
Midwest Academy of Management (MAM)

Dr. Terry Oroszi

Adhoc Grant Reviewer, Academic Research Enhancement Awards, Midwestern University, Glendale, AZ.

Dr. Jeffrey Travers

Ohio Academy of Dermatology

National

Dr. Ji Bihl

Reviewer for Scientific Conference, International Stroke Conference (ISC)

Dr. Yanfang Chen

Reviewer for Scientific Conference, American Heart Association (AHA)
Reviewer for Grants, National Institutes of Health (NIH)

Dr. Mauricio Di Fulvio

Advisory Committees. Study sections of 1) Molecular and Cellular Endocrinology, and 2) Membrane Transporters and Receptors. National Agency for the Promotion of Science and Technology, Buenos Aires, Argentina.

Basic cell genetics and epigenetics (GE) 3 Peer Review Study Group, American Heart Association (AHA)

Dr. Khalid Elased

AHA High Blood Pressure Council Conference Review Committee

Appointed delegate of WSU Boonshoft School of Medicine to the United States Pharmacopeia (USP) Convention. Will represent WSU at the upcoming USP Convention in 2020 at Washington, DC.

Scientific Society

American Diabetic 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)

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

Referee of scientific journals:

Member of the Editorial Board:

Journal of Diabetes Research
Journal of Nephrology Research
World Journal of Hypertension (WJH)
World Journal of Cardiology (WJC)
SAJ Pharmacy & Pharmacology

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
Kidney and Blood Pressure Research
Life Sciences
Metabolism- Clinical and Experimental
Microbial Pathogenesis
Molecular Psychiatry
Nephron Physiology
PLoS One
Regulatory Peptides

Research Peer Review:

National American Heart Association (AHA) Cardiac Biology Study Group.

Abstract Reviewers for The AHA Hypertension Annual Meetings (20018 & 2019) at Chicago & New Orleans.

NIH/NIDDK: Special Emphasis Panel/Scientific Review Group **2019/08 ZHL1 CSR-C (S1)**

"Maximizing the Scientific Value of the NHLBI Biorepository: Scientific Opportunities for Exploratory Research (R21)

Dr. Saber Hussain

Established: 1) Nanocharacterization Laboratory to identify distinctive physicochemical properties of advanced materials; and 2) Fundamental Research Program focused on biomolecular interactions of advanced materials (AM) in order to understand biophysicochemical interactions at the nano-bio interface.

Developed: 1) Portable Aerosol Exposure Chamber for collecting and characterizing chemical and particulate material hazards in operational environments and 2) Protocols for Systematic Analysis of Silver Nanoparticle Ionic Dissolution by Tangential Flow Filtration to show that dissolution of ions exacerbates toxicological effects. 3) Operational relevant biosignatures and their real-time sensing and monitoring

Expanded: 1) 3D in Vitro and Lung-on-chip Microfluidic Models to more accurately represent human organs and allow for rapid toxicity screening and 2) Application of Gene Editing Technology to identify molecular pathways in response to biomolecular interaction of nanomaterials.

Assisting to bridge strong collaboration with Pharm/Tox dept. and AFRL. Potential to have one or two postdoc to work at WSU under this collaboration.

Long term plan to assist Pharm/tox to establish area of expertise as center of excellence in nanobio/nanomedicine that provide great opportunities for students and young faculty.

Working with Dr Terry Oroszi to establish collaboration between AFRL and WSU through different programs

Discussing with Dr Sulentic for collaborative project – there is potential PhD student may work in this project.

Served on program committee of Society of Toxicology (10,000 members) to review abstracts and workshop proposals.

Dr. Mike Kemp

Member, Honors and Awards Committee, Environmental Mutagenesis and Genomics Society

Grant Proposal Reviewer, University of Iowa Center for Health Effects of Environmental Contamination

Manuscript Reviewer: Nuclei Acids Research; Cancers; Cells; Molecules; International Journal of Molecular Sciences (2)

Dr. Terry Oroszi

Regional

Vice President, Infragard, Dayton Alliance Chapter/FBI
Director, Simman Wound Board
The Dayton Think Tank, Chairperson of the Board
Institute for Operations Research and Management (INFORMS)
Midwest Academy of Management (MAM)

National

Infragard Alliance/FBI
DoD Homeland Defense Information Analysis Center Subject Matter Expert (SME)
Joint Chief CWMD (Countering Weapons of Mass Destruction) Education Consortium, DC
Washington DC NBC Industry Group (NBCIG)
American Council on Education (ACE)

International

Phi Beta Delta International Honors Society
The Association for Medical Education in Europe (AMEE)

Dr. Ravi Sahu

Reviewer/editorial services for various national and international scientific journals.

External examiner: Ms. M. Vinodini, Kongunadu Arts and Science College, India

External examiner: Mr. Kiran George, Annamalai University, India.

Dr. Courtney Sulentic

Elected to the Society of Toxicology Council, Councilor, 2018-2021
Council Liaison

Education Committee and Undergraduate and Graduate subcommittees
Specialty Section Collaboration and Communication

Appointed Subcommittees

Issue Statement Review
Social Networking
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

Mentor Match program, mentor, Society of Toxicology

Dr. Jeffrey Travers

Grant Reviewer:

NIAMS RISK grant reviewer 6-2019

NIAMS P30 Skin Disease Research Core Center Grant Reviewer 11-2018

Veteran's Administration Review Panels

VA Oncology E Review Panel (chair) 5-2018,10-2018

VA Promotions Committee (RCSR 1 Workgroup) 5-2018, 10-2018

Other

Dr. F. Javier Alvarez-Leefmans

Judge, 11th Annual Medical Student Resarcyh Symposium, WSU, April, 2019

Wright Medical Student Education Award, 2019

Graduate Student Award, Pharm/Tox, Hazem Gammoh, 2019

Dr. Ji Bihl

Preclinical Pharmacology Core Director

Dr. Yanfang Chen

Preclinical Pharmacology Core Co-Director

Dr. David Cool

Director of the Proteome Analysis Laboratory, 2004-present

Dr. Mike Kemp

Recipient of 2019 Environmental Mutagenesis Society Newly Independent Investigators Engagement Program.

Dr. Terry Oroszi

I have a significant role in the following grant proposals (inc. salary) status unknown for two, rejected for one.

- 19-0319 CPS: Medium: Collaborative Research: Knowledge-enabled Analysis of Multimodal Cyber-Physical Data for Responding to Emergencies Sheth, Amit. National Science Foundation, Computer Science (CSC55)
- 19-0335 NEXUS; Nowcasting Online Extremism using Contextual Knowledge Enhanced cyber and Social Computing. Sheth, Amit Department of Justice Computer Science (CSC55)
- Submitted IRAD grant as primary, but was not funded.

FBI Citizens Academy

April 2018 – June 2018. The 8-week curriculum is similar to the traditional methods used at the FBI Academy in Quantico, Virginia, but is geared toward non-law enforcement participants. The course included several lectures on select topics, Use of Force training, Fingerprinting, Polygraph, SWAT demo and weapons firing day.

July 2018 – Quantico VA, FBI led training and information sessions: Behavior Analysis Unit (BAU) Lecture on Criminal behaviors and motivations, and mini workshops, including bombs, evidence recovery, lessons learned and best methods.

July 2018 – FBI HQ, DC, Assoc. Deputy Director Paul Abbett, roles and responsibilities as a FBI CA Candidate. Procedures and processes related to emergency events at a HQ level.

“*The American Terrorist: Everything You Need to Know to be a Subject Matter Expert*” was reviewed in the Washington Times on February 2019 and the journal, “*Perspectives in Terrorism*”

Dr. Courtney Sulentic

Poster judge for Ohio Valley Society of Toxicology Annual meeting
Invited Expert, Colgate-Palmolive Luncheon, Society of Toxicology Annual Meeting
Poster Session Chair, Society of Toxicology Annual Meeting
Ad-hoc reviewer for several journals
Career Development Workshops
 Write it up! 8-week writing program, 2019
 How to Avoid Common Submission Errors That Cause IRB Delays, 2019

Dr. Jeffrey Travers

American Society for Clinical Investigation, 2007-present
External Advisor, Christian Doppler Laboratory on Biotechnology of Skin Aging, Vienna Austria
 2013-present
External Advisor, University of Wisconsin NIAMS P30, 2016-present
Member, Advisory Board, Christian Doppler Laboratory on Biotechnology of Skin Aging, Department of Biotechnology, BOKU-University of Natural Resources and Life Sciences, Vienna, Austria, 2014-present.
External Advisor, NIH/NIAMS-sponsored Skin Disease Research Core (P30) grant, University of Wisconsin Department of Dermatology, 2016-present

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Patient Care Summary

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

Dr. Jeffrey Travers

Dermatology Clinics at WSP (2 per week)
Dermatology Clinics at Dayton VAMC (1 per week)

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Honors and awards [Faculty or staff]

Dr. Alvarez-Leefmans- Education Award, BSOM
Dr. Sulentic- Elected Counselor, Society for Toxicology

