



Department of/Office of Pharmacology &
Toxicology

Annual Report

2015

Jeffrey Travers, MD, PhD
Professor and Chair

For the period including
January 1, 2015 — December 31, 2015

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Statement from the Chair/Associate Dean

[Highlights of the year limited to 500 words]

2015 was a year of transition for the Department of Pharmacology & Toxicology. In February, new chair Dr. Jeffrey Travers started. Many accomplishments of the faculty, staff and students of the Department took place, some of which are detailed below.

Faculty. Drs. Thomas Lockwood and James Lucot retired from the Department and have returned as Emeritus faculty. Both are involved in teaching and research/writing and continue their contributions. New Assistant Professors Drs. Ravi Sahu and Yong-jie Xu were recruited as Assistant Professors. Both brought NIH funding with them (Dr. Sahu a K22 grant, Dr. Xu, an R01 grant). Dr. Peter Lauf (Emeritus Professor) was honored as he was appointed as Chair for the Distinguished Physiological Committee for a three-year term. Drs. Yanfang Chen and Khalid Elased were both promoted to Professor. Dr. Mauricio Di Fulvio received the Boonshoft Academy of Medicine Excellence in Medical Education and Research Award (junior faculty). Dr. Di Fulvio was selected by his peers. The Faculty participated in a retreat in the Fall which was centered around work standards. An incentive award policy was developed to compensate faculty who are high performers in the educational, service and mentoring missions of the Department. Departmental tee shirts with the motto, *Pharmacology & Toxicology: Advancing Research from Molecule to Man* were unveiled.

Research. Dr. Travers was successful in transferring his NIH and VA Merit grants. Additionally, he renewed long-running NIH R01 and VA Merit awards. The laser company Cutera donated a resurfacing laser to the Department to allow Dr. Travers to continue his research studies. Research Assistant Professor Dr. Ji Bihl received an Innovative Basic Research Award (American Diabetes Association). Dr. Richard Simman (part-time faculty) received an Award from Nephews Pharmaceutical Company to study burn dressings. Dr. Javier Leefman received a grant from the Dayton Children's Hospital. The Department was able to add new space in the Biological Sciences II Building which was renovated for Drs. Xu and Travers' laboratories. A Pharmacology Translational Unit was established in the Wright State Physicians Building near campus and Faye Hager RN was recruited to direct this clinical and translational trials unit. A melanoma vaccine trial (MAVIS) was initiated and the PTU is in the process of obtaining further pharmaceutical company-sponsored trials.

Education. Under the direction of Terry Oroszi, the Pharmacology & Toxicology Master's Program continued to recruit and train high numbers of students. In addition, an MD-MS program was initiated and two BSOM medical students enrolled. Ms. Oroszi oversaw expansion of the CBRN program, and with a small loan from the BSOM, has established the CBRN as an on-line and nation-wide course.

Service/Other. The Department initiated a new newsletter whose goal is to highlight the various programs and to keep both the local community and our alumni apprised of the Department. The inaugural issue was in the Fall, and featured former interim chair Dr. Norma Adragna in the "Spotlight Section". Ms. Terry Oroszi co-edited (along with Dr. Larry James) a book, "Weapons of Mass Psychological Destruction and Those Who Use Them".

Summary. The Department has emerged from 2015 poised to take advantage of the strong educational enterprise and is developing a strong research portfolio, to include translational human studies. Our plan for 2016 is to continue to strengthen the missions of Education, Research & Service.

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, Ph.D.	2003-present
Proteome Analysis Laboratory	David Cool, Ph.D.	2004-present
Master's Program	Terry Oroszi, M.S.	2008-present
Nanotoxicology Research	Saber Hussain, Ph.D.	2010-present
CBRN Certificate Program	Terry Oroszi, M.S.	2013-present
Training Program (BIOST)	Khalid Elased, PharmD, Ph.D.	2013-present
Therapeutics Curriculum	Mary Jo Trout, PharmD	2013-present
Training Program	Courtney Sulentic, Ph.D.	2013-present
Preclinical Pharmacology Core	Yanfang Chen, M.D., Ph.D.	2015-present
Pharmacology Translational Unit (PTU)	Jeffrey Travers, M.D., 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, Ph.D., Professor		Cardiovascular, ion transport, cell signaling, cellular physiology, membrane transport, cancer biology
Francisco Javier Alvarez-Leefmans, M.D., Ph.D., Professor		Neuroscience, molecular physiology & pharmacology, clinical neurology
Ji Bihl, M.D., Ph.D., Research Assistant Professor		Cerebrovascular diseases and diabetes, specifically in developing novel predictive

Name and Academic Position	Clinical Interests	Research Interests
		and therapeutic avenues for hemorrhagic stroke and vascular complications of diabetes.
Yanfang Chen, M.D., Ph.D., Professor		Cardiovascular disease, cerebrovascular complications
David Cool, Ph.D., Professor	OBGYN- proteomic and inflammatory changes involved in pre-term labor, pre-eclampsia, infertility, vulvodynia	Translational Research- neurodegeneration and neuroinflammation from organophosphate exposure, neuroendocrine and endocrine diseases related to processing and secretion of prohormones
Mauricio Di Fulvio, Ph.D., Assistant Professor		Diabetes
Khalid Elased, PharmD, Ph.D., Professor		Diabetes, cardiovascular
Saber Hussain, Ph.D., Professor		Nanoparticles
Terry Oroszi, M.S., Research Instructor, Graduate Program Director, CBRN Defense Program Director, Co-chair EMDP Advisory Board	Translational medicine	Group decision making and meeting behaviors
Ravi Sahu, Ph.D., Assistant Professor		Cancer Pharmacology
Richard Simman, M.D., Professor	Wound care, plastic surgery	Wound care treatment
Courtney Sulentic, Ph.D., Associate Professor		Immunology
Mary Jo Trout, Pharm.D., Assistant Professor	Medical training, therapeutics curriculum	
Jeffrey Travers, M.D., Ph.D., Chair & Professor	Translational medicine	Skin Inflammation/cancer, Lipid Pharmacology

4 Teaching

Baccalaureate [any course for a bachelor's degree]

Dr. Courtney Sulentic

Undergraduate Research Trainees

Aubrey Morris, Lab Assistant

Gabriel Crabb, BioSTAR Trainee

Courses

M&I 4260 Microbiology and Immunology, Lecturer (17 hrs)

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

Dr. Norma Adragna

Students

Thesis Director:

Jasser Alzhrani, MS student, 2013-2015, graduated April 2015
Kranthi K. Chougoni, MS student, 2014-2015
Praveen Alla, MS student, 2014-present
Silpika Kovvali, MS student, 2014-2015
Vamsi Anil Krishnai Chandu, MS student, 2015-present
Josh Stricker, MS student, 2015
Nedu C. Ihezurike, MS student, 2015-present
Sami Alsabri, MS student, summer-fall 2015

Thesis Co-Director:

Chandra Maharjan, MS Student, 2014-present
Ravina Ashteputre, MS Student, 2014-2015
Lamai Abdulrahman Alsulaiman, MS student, 2015-2016

Thesis Committee Member:

Langni Liu, MS committee member, 2014-2015
Arathi Sesha Lakshmi Paluri, BMS student, 2012-present

Courses

PTX 9220 – Effective Scientific Writing: Part 1 & 2, Co-Director, Director respectively

Dr. F. Javier Alvarez-Leefmans

Jeannine Crum, Year 7 BMS PhD student
Pankay Patyal, MS thesis
Jacob Adam Vincent, 4th year MD/PhD student, Thesis committee
Adam Deardorff, BMS PhD thesis advisory, expected graduation 2015
Pavani Beesetty, BMS PhD program, thesis advisory committee
Sarah Saad Alsharif, M&I master's program, thesis advisory, graduated April 2015

Courses

Effective Scientific Writing: Part 1, Course Director
BMS 8750 Neuroscience & Physiology, (2) lectures
Effective Scientific Writing: Part 2, Instructor

Dr. Ji Bihl

Courses

PTX 8000 Spring Cell Culture, course director
PTX 8000 Summer Cell Culture, course director
PTX8000 Fall Cell Culture, course director
PTX 8000 Spring Journal club, course director
PTX 7102 Summer Journal club, course director
PTX 7110 Fall Journal club, course director

Dr. Yanfang Chen

Langni Liu, P&T MS student
Nomula Mounica, MS student
Deekshith Vanamala, P&T MS student
Apri Arnold Daubenspeck, PhD committee member
Abdelfatah Abou Issa, P&T MS student
Jinju Wang, BMS PhD student (formally P&T student)
Xiang Xiao, BMS PhD student (formally P&T student)
Yue Wang, MD visiting scholar

Dr. David Cool**M.S. Thesis Advisor**

Shamili Samohi, MS Advisor, graduated 2015
Ashvin Iyer, MS Advisor, graduated 2015
Mahesh Kodali, MS Advisor, graduated 2015

M.S. Committee Member

Kaulini Burra, P&T committee member, graduated 2015
Pankaj Patyal, P&T committee member, graduated 2015
Abdefateh Abou Issa, P&T committee member, expected graduation 2016
Walid Mari, P&T committee member, expected graduation 2016
Siham Abdul, P&T committee member, expected graduation 2016

Ph.D. Co-Advisor

Anthony Politio, BMS PhD Co-Advisor, graduated 2015
Prakash Arumagam, BMS PhD Co-Advisor, expected graduation 2016
Ravina Ashtaputre, P&T advisor, expected graduation 2016

Ph.D. Committee Member

Ryan Yoakum, BMS PhD committee member, graduated 2016
David Ellis, BMS PhD committee member, graduated 2015
Jinju Wang, BMS PhD committee member, expected graduation 2016
Brian Stogsdill, BMS PhD committee member, expected graduation 2017
Mahmoud Alghamri, BMS PhD committee member, expected graduation 2016
April Daubenspeck, BMS PhD committee member, expected graduation 2018
Yirong Zhou, BMS PhD committee member, expected graduation 2018

Ming Zhou, MD, OB/GYN Miami Valley Resident Research Fellow
Jason Retzke, MD, OB/GYN Miami Valley Resident Research Fellow
Kari Rudinsky, MD, Fellow
Ziad Hadar, MD, Fellow
Amol Moilshe, MD Fellow

Courses

PTX 7020 Spring 2015 Laboratory Management, course director
PTX 7020 Fall 2015 Laboratory Management (online course), course director
PTX 7500 Research Techniques, course director
BMS 805 Intercellular Communication

Dr. Mauricio Di Fulvio

Andrew Snyder, BMS PhD thesis committee
Kavia Annu, MS thesis committee
Kaulini Burra, MS thesis committee

Courses

PTX 7001 DNA Damage & Repair, co-director
PTX 7300 – Control of Cell Cycle, co-director
PTX 7300 – Endocrine Disruption, co-director
PTX 7110 – Journal Club

Dr. Khalid Elased

Laale Alawi, MS Advisor, graduated 2015
Sana Emberesh, MS Advisor, graduated 2015
Brenda Owuor, MS Advisor, graduated 2015
Xiang Xiao, BMS PhD thesis advisory

Courses

PTX 7300 Cellular Molecular Toxicology, Cardiovascular lectures
PTX 7300 Cellular Molecular Toxicology, Obesity & Diabetes lectures
PTX 9220 Scientific Writing 1, co-director
PTX 9220 Scientific Writing 2, co-director

Dr. Saber Hussain

David Ellis, BMS PhD thesis advisory, graduated 2015
Anthony Polito, BMS PhD thesis advisory, graduated 2015
Rose Cooper, P&T MS thesis advisory, graduated 2015

Courses

PTX 8130: NanoMedicine, course director

Terry Oroszi

Leadership advising, P&T MS students:

Eman Alabdrabalnabi
Yusra Andijani
Aiman Khan
Tahani Momenah
Sachchida Subedi
Fahdah Almutairi
Srinivasula Chinnapareddy
Paulet Egbai
Matthew Greene
Nedu Ihezurike
Bala Karri
Sara Kassem
Meenasri Kumbaji
Rebecca Law
Sarah Law
Rajitha Motharapu
Ebru Sen
Shriya Sharma
Suhasini Shella
Najib Tabal
Muralikrishna Timmisetty
Amanda Tosun
Marwa Younes
Cheng Zhang

Courses

PTX 9120 Scientific Writing 1 (online), spring 2015

PTX 8000 Advanced Science Writing, summer 2015

PTX 8200 Communications in Science, summer 2015

PTX 9120 Effective Science Writing Part 1 (online), summer 2015

PTX 9120 Effective Science Writing Part 2 (online), summer 2015

PTX 8000 Human Studies Research, summer 2015

PTX 8120 Case Studies for Chemical, Biological, Radiological Defense, summer 2015

PTX 8000 Human Studies Research, fall 2015

PTX 8120 Case Studies for Chemical Biological Radiological Defense, fall 2015

PTX 8210 Applications to Medical Biological Defense, Principles of Toxicology, fall 2015

PTX 9000 Introduction to Research, fall 2015

PTX 9200 Pharmacology Clinical Research (1 & 3 credit), 2015

PTX 9220 Effective Scientific Writing: Part 2 (online)

Dr. Ravi Sahu

Jeremiah Saylae, P&T master's student

Bishal Marasini, P&T master's student

Rotations

Kushboo Patel, P&T master's student

Suhasini Shobana, P&T master's student

Ebru Sen, P&T master's student

Dr. Richard Simman

Adbelfatah Issa, MS Advisor, graduated 2015
Walid Mari, MS Advisor, expected graduation 2016

Course

PTX 8080: Wound Healing

Dr. Courtney Sulentic

Graduate Research Trainees:

Andrew Snyder, Biomedical Sciences (BMS) Ph.D.
David Ellis, BMS Ph.D., (co-advisor with Dr. Hussain Saber, WPAFB), defended December 2015
Rebecca Law, Pharm/Tox M.S., non-thesis research project
Nicole Panstingel, Pharm/Tox M.S.
Siham Abdulla, Pharm/Tox M.S.
Maher Alwethaynani, Microbiology/Immunology M.S.
Zahra Jassim Alfaheeda, Microbiology/Immunology M.S.
Naga Lakshmi Kaulini Burra, Pharm/Tox M.S., defended September 2015
Bassam Kashgari, Microbiology/Immunology M.S., defended August 2015

Graduate Advisory Committees:

Amanda Hanes (BMS representative), BMS, Ph.D.
Sumeet Poudel, BMS, Ph.D.
Kevin Novak, (BMS representative), BMS Ph.D.
Tu Thien Danh, BMS Ph.D.
Sumeet Poudel, BMS Ph.D.
Anthony Polito, BMS Ph.D. (BMS representative), defended 2015
Todd Lewis, BMS Ph.D. (BMS representative)
Joanna Barthelemy, BMS Ph.D., defended 2015
Shannon Romer, BMS Ph.D., defended 2015
Adam Deardorff, BMS Ph.D. (BMS representative), defended 2015
Dima Sbenaty, Microbiology/Immunology M.S., defended 2015
Kelley Williams, Microbiology/Immunology M.S., defended 2015
Bradley Gregg, Microbiology/Immunology M.S.
Rose Cooper, Pharm/Tox M.S., defended 2015

Courses

ES 7120 Environmental Biology: Genes, Organisms and Ecosystems, Lecturer (1.5 hr)
M&I 7260 Microbiology and Immunology, Lecturer (17 hr)
M&I 7260 Microbiology and Immunology Seminar Course, co-director (28 hr)
PTX 7300 Cellular Pharmacology & Toxicology, Director, Lecturer (16 hr), Faculty Facilitator (38 hr)
BMS 8050 Intercellular Communication, Lecturer (4.5 hr)

Dr. Jeffrey Travers

Nicole Panstingel, MS thesis committee, expected graduation 2016
Sami Alsabri, MS student, expected graduation 2016
Walid Mari, MS thesis committee, expected graduation 2016
Katherine Fahy, MS thesis committee, expected graduation 2017
Xiang Xiao, BMS PhD thesis committee, expected graduation 2016
Prakash Arumugan, BMS PhD thesis committee, expected graduation 2016
Langni Liu, BMS PhD thesis committee, expected graduation 2018
Behzad Sharitak, PhD thesis committee, Indiana University-Purdue University, expected graduation 2016
Olufolakemi Olaiya Awe, PhD thesis committee, Indiana University-Purdue University, expected graduation 2016
Jesus Ocana, PhD thesis committee, Indiana University-Purdue University, expected graduation 2016
Jonathan Weyerbacher, M.D., research fellow, Indiana University-Purdue University, 2014-2016
Ann Collier, Dissertation committee, Indiana University-Purdue University, Dept of Pharmacology, 2013-present
Olufolakemi Olaiya Awe, Dissertation committee, Indiana University-Purdue University, Dept of Medical Biology, 2011-15
Jasser Ali, MS thesis committee, 2015
James Readler, BMS PhD Dissertation Committee, 2015-

Undergraduate medical education [medical school]

Dr. Norma Adragna

We'am Hussain, medical student, 2014-present

Dr. F. Javier Alvarez-Leefmans

Lecture on back pain with Dr. M. Rich, 1 lecture

Dr. David Cool

SMD 535 Hypersensitivity Lecture 2nd yr SOM, online lecture 3 TBL

SMD 521 CATO Hormone Synthesis 1st yr SOM, 2 hours

SMD 561 Reproduction Teratogens in Preg., 2nd yr SOM, 1 hour

Dr. Khalid Elased

SMD 535 Pathobiology & Therapeutics for 2nd year SOM

SMD 553 Digestive course for 2nd year medical students/WrightQ

SMD 580 Staying Alive course for 2nd year medical students/WrightQ

Dr. Courtney Sulentic

Principles of Disease, Lecturer (7.5 hr); Engaged Learning Modules - Faculty Facilitator (4.5 hr)

Pathobiology and Therapeutics, Engaged Learning Modules - Faculty Facilitator (5 hr)

Wright Q Facilitator (18 hr)

Dr. Jeffrey Travers

Larrilyn Yelton, MD/MS student, research/clinical mentor

Casey Walk, MD/MS student, research/clinical mentor

John Sullenbarger, MD student, clinical mentor

Graduate medical education [residents, fellows]

Dr. David Cool

Miami Valley Hospital- Translational Research Training:

OB/GYN Miami Valley Hospital Resident Research Fellowship Program, 2008-2015

Ming Zhou, M.D., Proteomic Research Project. OB/GYN Miami Valley Hospital Resident Research Fellowship Program 2009-2012.

Jason Retzke, M.D., Proteomic Research Project- Jason took the PTX700 Research Techniques course taught by me. Finished PCRs in the summer of 2015.

Ziad Hadar, M.D., Effect of tocolytics on surfactant production and secretion from NCI-HC441 lung cells. Manuscript Accepted 12/2015.

OB/GYN Residents: I began working with Dr. Jerry Yaklic and Dr. Steve Lindheim in OB/GYN and the OB/GYN Residents to develop translational research projects; Polycystic ovary syndrome, Interstitial Cystitis, Vulvodynia, and Endometriosis.

Dr. Richard Simman

Ed Glack, MD

Dr. Gabbard, MD

Dr. Jeffrey Travers

Nathan Weir, MD/PhD, resident, WSP Dermatology

Danielle Petite, MD, resident, WSP Dermatology

Scarlett Boulous, MD, resident, WSP Dermatology

Keren Weltman, MD, resident, WSP Dermatology

Continuing medical education [grand rounds, seminars]

Dr. Jeffrey Travers

Monthly grand rounds, Department of Dermatology

Other

Dr. F. Javier Alvarez-Leefmans

Judge, poster competition, 7th Annual Medical Student Research Symposium, BSOM

Dr. Mauricio Di Fulvio

Reviewer Editor Frontiers in Endocrinology

Dr. Courtney Sulentic

Mentor Match program mentor, SOT: Alicia Taylor, PhD, Post-doc at University of California, Berkeley

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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. Norma Adragna

NSF/EHS. Collaborative proposal: Developing a battery of methods for the study of the trafficking mechanisms and transformations of silver and gold nanomaterials in human cells Co-P.I., \$ 300,000 (WSU & Stanford) 2014-2017.

Dr. Ji Bihl

AHA Scientist Development Grant (16SDG26420078), PI, 1/1/2016-12/31/2019, ROLE OF ACE2 OVER-EXPRESSING ENDOTHELIAL PROGENITOR CELLS IN CEREBRAL HEMORRHAGE

The major goal of this project is to determine the preventive and therapeutic role of ACE2 over-expressing endothelial progenitor cells (ACE2-EPCs) in hemorrhagic stroke animal model and determine the underlying mechanisms.

Dr. Yanfang Chen

NIH RO1 (HL098637): "Balance of Angiotensin II/Angiotensin (1-7): A Target in Ischemic Stroke", 2010-2015, PI, \$1,442,822

Emergency Medicine Foundation, "The neuroprotective effects of cerium oxide nanoparticles in Acute Stroke", 2014-2015, Co-I (PI, John Trentini), \$5,000

Dr. David Cool

NIH Arlian (PI), Cool (Consultant), 2011-2016, Scabies: Biology, Culture, Host Specificity and Antigens

Dr. Khalid Elased

Department of Education P116M100027, 2010-2015, Translational Biomedical Training for Under-represented Minorities, PI, \$ 238,048

American Society of Nephrology, Carl W. Gottschalk Research Scholar Grant.2015-2017, \$ 200,000

"Molecular Imaging of RAS for the Discovery of Novel Biomarkers in Chronic Kidney Disease"

Role: Co-Principal Investigator (Grobe, PI)

Total amount of Fund

Dr. Saber Hussain

226136 Research Incentive Fund (\$5000) from WSU- to support Ms. Rose Cooper
Procured several in-house grants at my current employment- (US\$1M)
Biomolecular Interaction of engineered nanomaterials, Saber Hussain (PI), 2013-2017,
In-house Grant (AFRL/RHDJ), Saber Hussain (PI),

Dr. Ravi Sahu

NIH/NIEHS 7K22ES023850-02, (P.I. Sahu), \$487,551, 07/2014-06/2017

9 Calendar months effort (6 academic + 3 summer)

Environmental Pro-oxidative Stressors and immunosuppression

The main objectives of this project are to investigate effects of UVB-PAF-R agonists against the immune enhancing effects of anti-CTLA-4/anti-PD-1 therapy in murine melanoma models, and to determine the impact of therapeutic doses of UVB (phototherapy) on oxidized PAF-R agonists generation in human subjects.

European Organization for Research and Treatment of Cancer (EORTC) (P.I. Sahu) 08/2015

This is an Early Career Oncologist/Scientist (ECOS) Grant on the development of markers in Cancer Diagnostic. EORTC partners with the National Cancer Institute (NCI) and American Society of Clinical Oncology (ASCO) in the selection of the ECOS grant applications. Total 25 grants were awarded to candidates from US/Canada (5) and Europe (20).

Dr. Richard Simman

Effect of Oasis Ultra Tri-Layer Matrix on Stage III and IV trunk pressure wounds treated with Negative Pressure Wound Therapy (NPWT). Smith & Nephew, Medical Director, Wound Care Program and Surgical Services at Kindred Hospital Wound Care Program Director, The Oaks of West Kettering, Aug 2014-present, \$56,000

Dr. Courtney Sulentic

5R25GM090122, National Institute of general Medical Sciences (08/01/2011-06/30/2016) Biomedical Scholars Program (BioSTAR), Initiative for Maximizing Student Development (IMSD), Program Director

Dr. Jeffrey Travers

MAVIS Melanoma Vaccine in Stage IIb, IIc and III Melanoma Patients Polynoma LLC (Travers), 10/01/15 to 9/30/19. The goal of this multicenter double-blinded placebo-controlled Phase III study is to test a polyvalent melanoma vaccine in high-risk melanoma patients. Our Pharmacology Translational Unit at Wright State University is one of the sites.

NIH/NHLB R01 HL062996 (Travers), 07/01/1999 - 9/30/2020, 25% effort, \$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.

NIH/NIEHS R01 ES020866 (Spandau/Travers-co-PI's), 09/01/2012 - 5/31/2017, 15% effort, \$225,000 direct costs/year, Mechanisms of photocarcinogenesis in geriatric skin.

The objectives of this project are to define the lasting effects of dermal rejuvenation by dermabrasion or fractionated laser resurfacing techniques to increase dermal IGF-1 levels and correct the abnormal acute UVB response in geriatric subjects. IGF-1R signaling pathways that result in keratinocyte senescence will be defined by creating skin equivalents with keratinocytes expressing dominant-negative and overexpressing P38 MAPK and p53 proteins. These skin equivalents will be tested in vitro and in vivo for UVB-mediated pro-carcinogenic responses. This grant will remain at Indiana University and I will subcontract to perform clinical studies.

Basic Science VA Merit Award, 510BX000853, (Travers), 10/01/2010 - 09/30/2019, 20% effort, \$146,000 direct costs/year, Oxidized lipids and UV immunosuppression.

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

Clinical VA Merit Award 1101CX000809 (Travers), 7/01/2014 – 3/31/2017, 20% effort, \$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 pro-carcinogenic effects of UVB on human skin xenografted onto immunodeficient mice will be defined.

R01 AG048946-01A1 (Travers/Spandau-co-PIs), 09/01/2014 – 08/30/2019, 20% effort, 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.

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

Papers in refereed journals

Dr. Norma Adragna

Regulated phosphorylation of the K-Cl cotransporter KCC3 is a molecular switch of intracellular potassium content and cell volume homeostasis. Adragna NC, Ravilla NB, Lauf PK, Begum G, Khanna AR, Sun D, Kahle KT., *Front Cell Neurosci.* 9 (2015): 255. PMC. Web. 15 Dec. 2015.

Dr. Ji Bihl

Bihl J, Zhang C, Zhao Y, Xiao X, Ma X, Chen Y, Chen S, Zhao B, Chen Y (2015) "Angiotensin-(1-7) counteracts the effects of Ang II on vascular smooth muscle cells, vascular remodeling and hemorrhagic stroke: role of NFκB inflammation pathway," *Vascul Pharmacol*, 73: 115-23.

Chen Y, Xiao Y, Lin Z, Xiao, X, He C, Bihl J, Zhao B, Ma X, Chen Y (2015) "The role of circulating platelets microparticles and platelet parameters in acute ischemic stroke patients," *J Stroke Cerebrovasc Dis*, 24 (10): 2313-20.

Xiao X, Ma X, Miao H, Zhang C, Wang J, Liu L, Chen S, Zeng R, Chen Y, Bihl J (2015) "Angiotensin-(1-7) counteracts angiotensin II-induced dysfunction and apoptosis in cerebral endothelial cells via modulating Nox2/ROS and PI3K/NO pathways," *Experimental Cell Research*, 336: 58-65.

Xiao X, Bi K, Liu Y, Fan R, Zhao Y, Ma X, Wang J, Zhao B, Chen Y, Bihl J (2015) "Cellular membrane microparticles: potential targets of combinational therapy for vascular disease," *Curr Vasc Pharmacol*, 4(13) :449-58.

Dr. Yanfang Chen

Bihl JC*, Zhang C, Zhao Y, Xiao X, Ma X, Chen Y, Chen S, Zhao B, Chen Y*. Angiotensin-(1-7) counteracts the effects of Ang II on vascular smooth muscle cells, vascular remodeling and hemorrhagic stroke: role of the NFκB inflammatory pathway. *Vascul Pharmacol.* 2015;73:115-23.

Yusen Chen, Yun Xiao, Zhijun Lin, Xiang Xiao, Caixia He, Ji C. Bihl, Bin Zhao, Xiaotang Ma, Yanfang Chen*. The role of circulating platelets microparticles and platelet parameters in acute ischemic stroke patients. *Journal of Stroke and Cerebrovascular Diseases* 2015; 24(10):2313-20.

Xiang Xiao, Cheng Zhang, Xiaotang Ma, Huilai Miao, Jinju Wang, Langni Liu, Shuzhen Chen, Rong Zeng, Yanfang Chen*, Ji C Bihl. Angiotensin-(1-7) counteracts angiotensin II-induced dysfunction in cerebral endothelial cells via modulating Nox2/ROS and PI3K/NO pathways. *Experimental Cell Research* 2015;336(1):58-65.

Xiang Xiao, Xiake Bi, Yingxia Liu, Ray Fan, Xiaotang Ma, Jinju Wang, Bin Zhao, Yanfang Chen*, Ji Chen. Cellular membrane microparticles: potential targets of combinational therapy for vascular disease. *Curr Vasc Pharmacol.* 2015;13(4):449-58.

Yusen Chen, Bing Lu, Jinju Wang, Shuzhen Chen, Zhijun Lin, Xiaotang Ma; Yajing Liu; Bin Zhao, Yanfang Chen*. Circulating CD133+ CD34+ progenitor cells and plasma stromal-derived factor-1 alpha: predictive role in ischemic stroke patients. *Journal of Stroke and Cerebrovascular Diseases* 2015;24(2):319-26

Dr. David Cool

Hadar, Z, Sonek, J., Sammohi, S, McKenna, D, Grunwald, Jr, W.C., Cool, D.R., Effect of Tocolytic Medications on The Synthesis and Secretion of Surfactant Lipids in an in Vitro Human Lung Cell Model, (In Press- AJ Perinatology.) (2015).

Grunwald, Jr., W.C., Morris, M., Kykylo, W., Cool, D.R., Oxytocin Gene and Peptide Analysis in Children With Autism: A Preliminary Case Study. *Med. Res. Arch.*, [S.I.], n. 1:1-11 jan. 2015. ISSN 2375-1924. Available at: <<http://journals.ke-i.org/index.php/mra/article/view/19/8>>. Date accessed: 27 Apr. 2015.

Dr. Mauricio Di Fulvio

Increased Slc12a1 expression in β -cells and improved glucose disposal in Slc12a2 heterozygous mice. Alshahrani S, Almutairi MM, Kursan S, Dias-Junior E, Almiahub MYM, Aguilar-Bryan, L and Di Fulvio, M. (2015) *J Endocrinol* 227:153-65

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Functional and molecular evidence for expression of the renin-angiotensin system (RAS) and a disintegrin and metalloproteinase (ADAM) 17 in COS7 cells. Grobe N, Kashkari N, Chodavarapu H, Somineni HK, Singh R, Di Fulvio M, Elased KM. (2015) *Am J Physiol* 308:C767-77.

Dr. Khalid Elased

Grobe N, Leiva O, Morris M, Elased KM (2015). Loss of prolyl carboxypeptidase in two-kidney, one-clip Goldblatt hypertensive mice. *PLoS One*. 2015 Feb 23; 10(2): e0117899. PMID: 25706121.

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Dr. Saber Hussain

Wildt BE, Celedon A, Maurer EI, Casey BJ, Nagy AM, Hussain SM, & Goering PL. (2015). Intracellular accumulation and dissolution of silver nanoparticles in L-929 fibroblast cells using live cell time-lapse microscopy. *Nanotoxicology*, 1-10. IF-6.411

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Terry Oroszi

Oroszi, T. (2015). Traditional Faculty Meeting Style is not Conducive to Group Decision Making. Manuscript accepted for Midwest Academy of Management Conference Oct, 2015.

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Dr. Richard Simman

Dr. Ravi Sahu

Sahu RP, Harrison KA, Weyerbacher J, Murphy RC, Konger RL, Garrett JE, Chin-Sinex HJ, Johnston II ME, Dynlacht JR, Mendonca M, McMullen K, Li G, Spandau DF, Travers JB. Radiation therapy generates platelet-activating factor agonists. *Oncotarget*. 2016 Mar 3. doi: 0.18632/oncotarget.7878.

Dr. Richard Simman

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Walid Mari. MD, Sara Younes. MD, Sami G. Alsabri,MS, Abdelfatah Abou Issa,,MD, Richard Simman, M.D.(September 26-28, 2015). Correlation Between Wound Healing Rate and Circulating Microvesicles Collected from IV Pressure Wounds Fluid Treated with NPWT Alone Vs NPWT and Oasis Ultra. SAWC, Wound Healing Society Meeting, Caesars Palace, Las Vegas, Nevada.

Abdelfatah Abou Issa MD;Karen Brow,n RN; David Cool, PhD ; Richard Simman MD (September 26-28, 2015). Effect of Porcine Intestinal Sub-Mucosa Matrix on the Healing Rate of Stage IV trunk Pressure Wounds. SAWC, Wound Healing Society Meeting, Caesars Palace, Las Vegas, Nevada.

Abdelfatah Abou Issa MD;Walid Mari ,MD; Richard Simman, MD (August 12-15, 2015). Clinical UsageOutcome of Porcine Intestinal Sub-Mucosa, a Case Series. Amputation Prevention Symposium2015, Hilton Chicago, IL.

Abdelfatah Abou Issa,MD; Richard Simman ,MD ;Julie Gilkeson ,MD (August 12-15, 2015). Coverage ofExposed Lower Extremity Bypass Vascular Graft with Integra and NPWT for Limb Salvage. Amputation Prevention Symposium 2015, Hilton Chicago, IL.

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Effect of Oasis Ultra Tri-Layer Matrix on Stage III and IV trunk pressure wounds treated with Negative Pressure Wound Therapy (NPWT). Smith & Nephew, Medical Director, Wound Care Program and Surgical Services at Kindred Hospital Wound Care Program Director, The Oaks of West Kettering, Aug 2014-present, \$56,000

Dr. Courtney Sulentic

Salisbury, R and Sulentic, C. E. W., Editor's Highlight: The AhR and NF- κ B/Rel proteins mediate the inhibitory effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on the 3' immunoglobulin heavy chain regulatory region. *Toxicological Sciences, Toxicol. Sci.* 2015; 148:443-59. PubMed PMID: 26377645.

Grabinski, C., Sharma, M., Maurer, E., Sulentic, C. E. W., Sankaran, M., Hussain, S.: The effect of shear flow on nanoparticle agglomeration and deposition in in vitro dynamic flow models. *Nanotoxicology*, Ahead of Print. PubMed PMID: 25961858 (2015).

Wourms, M. J. and Sulentic, C. E. W.: The aryl hydrocarbon receptor regulates an essential transcriptional element in the immunoglobulin heavy chain gene. *Cellular Immunology*, 295:60-6 (2015).

Dr. Jeffrey Travers

Ferracini M, Sahu R, Harrison KA, Waeiss RA, Murphy RC, Jancar S, Konger RL, Travers JB. Topical photodynamic therapy induces systemic immunosuppression via generation of platelet-activating factor receptor ligands. *J Invest Dermatol.*135(1): 321-23, 2015. PMID: 25050596. PMC4268233.

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Books, chapters, reviews

Dr. Norma Adragna

K-Cl cotransporters, cell volume homeostasis, and neurological disease. Kahle KT, Khanna AR, Alper SL, Adragna NC, Lauf PK, Sun D, Delpire E. *Trends Mol Med.* 2015 Aug;21(8):513-23. doi: 10.1016/j.molmed.2015.05.008. Epub 2015 Jul 1. Invited Review. PMID: 26142773

Dr. Ji Bihl

Xiao X, Bi K, Liu Y, Fan R, Zhao Y, Ma X, Wang J, Zhao B, Chen Y, Bihl J (2015) "Cellular membrane microparticles: potential targets of combinational therapy for vascular disease," *Curr Vasc Pharmacol*, 4(13) :449-58.

Terry Oroszi

James, L. & Oroszi, T., (Eds.), (2015). *Weapons Of Mass Psychological Destruction And The People That Use Them*, Praeger, Santa Barbara, CA Praeger Publishing, 2015

James, L. & Oroszi, T., (2015). Introduction. In *Weapons of Mass Psychological Destruction and the People That Use Them* (pp. 3-6). Praeger Publishing Praeger Publishing, 2015
James, L. & Oroszi, T., (2015). Defining Weapons of Mass Psychological Destruction. In *Weapons of Mass Psychological Destruction and the People That Use Them* (pp. 8-22). Praeger Publishing Praeger Publishing, 2015

Holman, M., James, L. & Oroszi, T., (2015). Who Becomes a Terrorist. In *Weapons of Mass Psychological Destruction and the People That Use Them* (pp. 23-41). Praeger Publishing Praeger Publishing, 2015

James, L. & Oroszi, T., (2015) Emerging Trends in the Prevention of Management of WMPD. In Weapons of Mass Psychological Destruction and the People That Use Them (pp. 312-322). Praeger Publishing, 2015

Published abstracts

Dr. Norma Adragna

Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells Praveen Kumar Alla, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna. 30th Mt, Ohio Physiol. Soc., Abstract Book, 2015.

Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells Praveen Kumar Alla, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna. Research Forum, Abstract Book, 2015.

Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells Praveen Kumar Alla, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna. 9th Annual Cleveland State Interdisciplinary Research Conference (CSIRC), Abstract Book, 2015.

Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells Praveen Kumar Alla, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna. 33rd Mtg, Ohio valley society of Toxicology Abstract Book, 2015.

Dr. F. Javier Alvarez-Leefmans

Alvarez-Leefmans, F.J. and Mao S. Higher than Equilibrium Intracellular Cl⁻ Concentration in Dorsal Root Ganglion Neurons of NKCC1 Knockout Mice April 2015 The FASEB Journal vol. 29 no. 1 Supplement 845.22

Dr. Ji Bihl

Ammar H, Ma X, Ajena A, Koroscil T, Chen Y, Bihl J (2015) "Circulating Microvesicles from Diabetic Patients Carry less miR-126 and Have Detrimental Effects on Endothelial Progenitor Cells," American Diabetes Association's 75th Scientific Sessions, Boston MA

Dr. David Cool

Morgan, M.S., Rider, Jr, S.D., Arlian, L.G., Grunwald Jr, W.C., Cool, D.R., Proteomic and genomic analysis of *Sarcoptes scabiei*. Am Soc of Tropical Medicine & Hygiene (2015).

Abdelfatah, A.I, Brown, K, Mari, W., Cool, D.R., Simman, R., Effect of porcine instestinal sub-mucosa matrix on the healing rate of Stage IV trunk pressure wounds. Amputation Prevention. Chicago, IL. 2015.

Walid, M., Younes, S., Alsabri, S.G., Abdelfatah, A.I., Oroszi, T., Chen, Y., Cool, D.R., Simman, R., The correlation between wound healing rate and circulating macrovesicles collected from Stage IV pressure wounds fluid treated with NPTWT alone vs. NPWT plus Oasis Ultra. Amputation Prevention. Chicago, IL. 2015.

Dr. Khalid Elased

Alawi L, Emberesh S, Elased KM. Effect of rosiglitazone on renal neprilysin activity and protein expression in db/db diabetic mice. Conference: Scientific Sessions of High Blood Pressure Research.

Location: Washington DC, September 16-20, 2015

Sponsor(s): Council High Blood Pressure Res, Council Kidney Cardiovascular Disease & Inter-American Society of Hypertension. Hypertension 62: 208P, 2015.

Domenig O, Manzel A, Grobe N, Kaltenecker C, Kovarik J, Stegbauer J, Gurley SB, Antlanger M, Elased KM, Saemann M, Linker R, Poglitsch M. The Role of Neprilysin in Angiotensin 1-7 Formation in the Kidney. J Hypertens. Volume 33 Suppl 1 Pages: e114-5. 2015. PMID: 26102692

Conference : 11Th Asia Pacific Congress of Hypertension In Conjunction With 9Th Scientific Meeting Of The Indonesian Society Of Hypertension

Location: Bahi, Indonesia. June 4, 2015.

Sponsor(s): Asia Pacific Congress of Hypertension and The Indonesian Society Of Hypertension.

Dr. Saber Hussain

Total published abstracts: 10 (not listed on report)

Terry Oroszi

Oroszi, T., (2015). Disruptive technology; Don't get caught with your pants down. Technical Symposium Cincinnati-Dayton Chapter of INFORMS.

Mari, M. MD, Younes, S., Simman, R., Oroszi, T., Alsabri, Chen, Y., Cool, D., (2015). The Correlation Between Wound Healing Rate and Circulating Microvesicles Collected from Stage III and IV Pressure Wounds Fluid Treated with NPWT Alone VS NPWT and Oasis Ultra. Society of Thoracic Surgeons, STS 52nd Annual Meeting.

Scott, R. P., Gallimore, J., Burke, B., Benton, N., Carabello, H., Davidson, M., Ingmundson, P., McCoy, S., Graham, C., Oroszi, T., Dominguez, M., (2015). The VA Virtual Medical Center: Implementing a Vision for a Virtual Healthcare Campus for our Veterans, In Interservice/Industry Training, Simulation, and Education Conference (IITSEC).

Mari, M. MD, Younes, S., Alsabri, S.G., Shaban, A., Simman, R., Chen, Y., Cool, D.R., Oroszi, T., (2015). The Correlation Between Wound Healing Rate and Circulating Microvesicles Collected from Stage III and IV Pressure Wounds Fluid Treated with NPWT Alone VS NPWT and Oasis Ultra. The Amputation Prevention Symposium, Chicago, IL.

Dr. Courtney Sulentic

Snyder, A., Freiwan, A. K., Sulentic, C. E. W.: Differential modulation of the human 3'IGH regulatory region enhancers by TCDD and B-cell stimulation in mouse and human B cells. Toxicological Sciences, the Toxicologist, 144:1136, 2015.

Burra, N., Johnson, B., Sulentic, C. E. W.: Effect of TCDD on immunoglobulin expression in human B cells. Toxicological Sciences, the Toxicologist, 144:1137, 2015.

Kashgari, B. F., Snyder, A., Sulentic, C. E. W.: Determining the role of the AhR in Ig expression and class switch recombination. Toxicological Sciences, the Toxicologist, 144:1141, 2015.

Alfaheeda, Z. J. A., Sulentic, C. E. W.: The effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the human 3'IGH regulatory region and immunoglobulin expression. Journal of Immunology, 194:197.22, 2015.

Dr. Jeffrey Travers

Spandau, DF, SS Tholpady, J Weyerbacher, DH Southern, M. Loesch and J.B. Travers. Inhibition of the IGF-1R sensitizes human skin to UVB-induced alterations consistent with actinic keratosis. *J. Invest. Dermatol.* 135:S26, 2015.

Weyerbacher, J., R Sahu, RL Konger, and J.B. Travers. Combining ethanol and UVB results in augmented acute cutaneous and systemic effects via augmented Platelet-activating factor synthesis. *J. Invest. Dermatol.* 135:S101, 2015.

Sahu, R., RL Konger, and JB Travers. Platelet-activating factor agonists generated by radiation therapy thwart host anti-tumor immunity. *J. Invest. Dermatol.* 135:S102, 2015.

Sahu R.P., J.B. Travers. Oxidized lipids in radiation therapy mediated acquired resistance of melanoma. *FASEB J.* 29(1) Suppl. 147.6, 2015.

Thyagarajan-Sahu, A., J.B. Travers and R.P. Sahu. Myeloid derived suppressor cells as mediator of PAF-R dependent systemic immunosuppression and melanoma tumor growth. *FASEB J.* 29(1) Suppl. 147.7, 2015.

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

Dr. Norma Adragna

The Phosphorylation State of KCC3 Encodes a Potent Molecular Switch of Transporter Activity, Cell Volume, and K⁺ Content. Norma C. Adragna, Peter K. Lauf, Nagendra Babu Ravilla, Gulnaz Begum, Arjun Khanna, Dandan Sun, and Kristopher T. Kahle, Experimental Biol. Mtg, March 29, 2015 Boston.

On the Interaction of the Na/K -Pump ATPase (NAKPA) with Pro-Survival and Pro-Apoptotic Bcl-2 Proteins. Peter K Lauf, Tariq Alqahtani, Karin Flues, Chandra Maharjan, and Norma C. Adragna, Experiment Biol. Mtg, March 29, 2015.

K-Cl Cotransporter 3 (KCC3) and the Control of K and Cell Volume Homeostasis in Double-Alanine Mutant HEK 293 Cells, Norma C. Adragna, Nagendra Ravilla, Kristopher Kahle and Peter K. Lauf, Cell Signaling Group Meeting, Wright State University, Dayton, OH, May 20, 2015.

The Na/K Pump ATPase - Bcl-2 Protein Connection. Peter K Lauf and Norma C. Adragna. 50th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 21-24, 2015

Studies on Tuberous Sclerosis Complex Cellular Models Norma. C. Adragna, Jasser Alzhrani, Kristopher Kahle and Peter Lauf, 50th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 21-24, 2015

Alla. P.K, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna, Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells. 2015 Ohio Physiological Society Annual Mtg., Toledo, OH, October 17, 2015.

Alla. P.K, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna, Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells. 2015 Research Forum, Dayton, OH, October 22, 2015.

Alla. P.K, Peter K Lauf, Ioana Pavel Sizemore, Arathi Paluri, Marjorie Markopoulos, and Norma C. Adragna, Silver nanoparticles alter ion transport and hemoglobin spectrum in human red blood cells. 2015 Ohio Valley Society of Toxicology Mtg., Kentucky, OH, and November 13, 2015.

Regulated phosphorylation of the K-Cl cotransporter 3 at dual C-terminal threonines is a potent switch of intracellular potassium content and cell volume homeostasis, Norma C. Adragna, Nagendra Babu Ravilla, Peter K. Lauf, Gulnaz Begum, Arjun R. Khanna, Dandan Sun, and Kristopher T. Kahle, Department of Pharmacology and Toxicology, Boonshoft School of Medicine, Wright State U, Dayton, OH, December 4, 2015.

Dr. F. Javier Alvarez-Leefmans

Alvarez-Leefmans, F.J. Crum, J. Cha, D. Patyal, P. and F. Alvarez. Cation-chloride cotransporters and aquaporins in CSF secretion and K⁺ homeostasis by choroid plexus epithelial cells: the unanswered questions. 50th Lake Cumberland Biological Transport Group Meeting. Jamestown, Kentucky, June 22, 2015.

Invited as Seminar Speaker at University of Pittsburgh School of Medicine. This seminar was co-sponsored by the Neurology Department, and the Renal-Electrolyte Division, under the series "Neurology-Renal Grand Rounds Lectures. Visiting Professor Series." Seminar title: "Cation-chloride cotransporters in choroid plexus epithelial cells: their function in cerebrospinal fluid K⁺ regulation and secretion". November 11, 2015.

Dr. Ji Bihl

Ammar H, Ma X, Ajena A, Koroscil T, Chen Y, Bihl J (2015) "Circulating Microvesicles from Diabetic Patients Carry less miR-126 and Have Detrimental Effects on Endothelial Progenitor Cells," American Diabetes Association's 75th Scientific Sessions, Boston MA

Bihl J. "Endothelial progenitor cells in vascular disease," Marshal Institute for Interdisciplinary Research, Marshall University, September 15, Huntington, WV

Dr. Mauricio Di Fulvio

Chloride physiology and β -cell function. Alberta Diabetes Institute, Edmonton, Alberta. Canada. July 8, 2015

Dr. Khalid Elased

Invited Speaker to the 3rd International Symposium of the Renin Angiotensin System (RAS): Understanding systemic, Intracellular and Tissue RAS. School of Medicine, Universidade Federal de Sao Paulo, Brazil.

Poster presentations at the American Heart Association Annual Meeting.

Poster presentations at the American Diabetes Association Annual Meeting.

Poster presentations at the American Nephrology Association Annual Meeting.

Dr. Saber Hussain

Organized- and Speaker: Continuing Education Course, Society of Toxicology: Is Synthetic Biology is future of toxicology. 4 hours, 03/2015

Terry Oroszi

Oroszi, T., (2015). Americans' Participation in Islamic Extremism. 8 Hour workshop, Advanced Technical Intelligence Center (ATIC), Beavercreek, OH.

Oroszi, T., (2015). A new model for collaborative decision making. VA Simulations Center, VAMC Dayton, OH.

Oroszi, T., (2015). 4-5-6 Power Platform. Midwest Academy of Management Doctoral Consortium. Columbus, OH.

Dr. Richard Simman

Advanced Wound Therapy. First Middle East Wound Care and Diabetic Limb Salvage Conference. May 3-5, 2015. Le Meridian Hotel, Amman, Jordan.

Training to become a wound specialist. First Middle East wound care and Diabetic Limb Salvage Conference. May 3-5, 2015. Le Meridian Hotel, Amman, Jordan.

Atypical Wounds. First Middle East Wound Care and Diabetic Limb Salvage Conference. May 3-5, 2015. Le Meridian Hotel, Amman, Jordan.

Close It Or Let It Heal. First Middle East Wound Care and Diabetic Limb Salvage Conference. May 3-5, 2015. Le Meridian Hotel, Amman, Jordan.

"The Need for Wound Certification in Wound Care". The Amputation Prevention Symposium. August 14, 2015. Hilton Chicago, Chicago, IL.

"Atypical Ulcers, Diagnosis and Management". The Amputation Prevention Symposium. August 14, 2015. Hilton Chicago, Chicago, IL.

"Skin Grafts and Flaps, When to Involve Your Plastic Surgeon". The Amputation Prevention Symposium. August 14, 2015. Hilton Chicago, Chicago, IL.

"Close It or Let It Heal, Which Is Better". The Amputation Prevention Symposium. August 14, 2015. Hilton Chicago, Chicago, IL.

"Pressure Ulcers Management". ACCWS, Back To Basics. The Amputation Prevention Symposium. August 15, 2015. Hilton Chicago, Chicago, IL.

“Advanced Therapies in Wound Healing”. ACCWS, Back To Basics. The Amputation Prevention Symposium. August 15, 2015. Hilton Chicago, Chicago, IL

Co-Conference Director: First Middle East Wound Care and Diabetic Limb Salvage -May 3-5, 2015 Conference. Le Meridian Hotel, Amman, Jordan.

Dr. Courtney Sulentic

Participant in Panel Discussions

Work/Life Balance Panel, BioSTAR and STREAMS summer program

Workshop Chair, Organizer and Speaker

What are the Strengths and Weaknesses of Mice as a Model for Humans in Studies of Immunological Effects of Drugs and Chemicals? Society of Toxicology, San Diego, CA, 2015

Sulentic, C. E. W.: Differences in human and mouse transcriptional regulatory regions within the immunoglobulin heavy chain (IGH) and implications in autoimmune diseases

Student Oral Presentations (*trainee presenter from Sulentic lab)

*Snyder, A., Sulentic, C. E. W.: Determining the function of the immunoglobulin heavy chain 3' regulatory region using CRISPR-mediated genetic editing. Biomedical Sciences Ph.D. Program Research Retreat, Wright State University, Dayton, OH, 2014.

*Burra, N. L. K., Johnson, B., Sulentic, C. E. W.: Effect of TCDD on immunoglobulin expression in human B cells. Celebration of Research, Scholarship, and Creative Activities, Wright State University, Dayton, OH, 2015

*Kashgari, B., Sulentic, C. E. W.: Determining the role of the aryl hydrocarbon receptor in immunoglobulin expression and class switch recombination. Celebration of Research, Scholarship, and Creative Activities, Wright State University, Dayton, OH, 2015.

*Snyder, A., Sulentic, C. E. W.: Utilizing the CRISPR-Cas9 genetic editing system to study immunoglobulin heavy chain regulation. Celebration of Research, Scholarship, and Creative Activities, Wright State University, Dayton, OH, 2015.

*Alfaheeda, Z. J. A., Snyder, A., Sulentic, C. E. W.: Control of the transcriptional activity by human 3'IGHRR enhancers. Celebration of Research, Scholarship, and Creative Activities, Wright State University, Dayton, OH, 2015.

Student Poster Presentations

*Snyder, A., Freiwan, A. K., Sulentic, C. E. W.: Differential modulation of the human 3'IGH regulatory region enhancers by TCDD and B-cell stimulation in mouse and human B cells. Toxicological Sciences, the Toxicologist, 144:1136, 2015.

*Burra, N., Johnson, B., Sulentic, C. E. W.: Effect of TCDD on immunoglobulin expression in human B cells. Toxicological Sciences, the Toxicologist, 144:1137, 2015.

*Kashgari, B. F., Snyder, A., Sulentic, C. E. W.: Determining the role of the AhR in Ig expression and class switch recombination. Toxicological Sciences, the Toxicologist, 144:1141, 2015.

*Alfaheeda, Z. J. A., Sulentic, C. E. W.: The effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin in the human 3'IGH regulatory region and immunoglobulin expression. Journal of Immunology, 194:197.22, 2015

*Abdulla, S., Snyder, A., Sulentic, C. E. W.: Effect of CRISPR-mediated genetic edits of the hs1.2 enhancer on ϵ IGH expression in U266 cells. Ohio Valley Society of Toxicology, Northern Kentucky University, KY, 2015.

*Alfaheeda, Z. J. A., Snyder, A., Sulentic, C. E. W.: The effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on human 3'IGH regulatory region. Ohio Valley Society of Toxicology, Northern Kentucky University, KY, 2015.

*Law, R., Lu, J., Sulentic, C. E. W.: Celiac disease, a case for improved diagnostics. Ohio Valley Society of Toxicology, Northern Kentucky University, KY, 2015.

*Panstingel, N., Kashgari, B., Sulentic, C. E. W.: The role of the AhR in human immunoglobulin expression. Ohio Valley Society of Toxicology, Northern Kentucky University, KY, 2015.

*Snyder, A., Panstingel, N., Abdullah, S., Sulentic, C. E. W.: Reducing the number of hs1.2 invariant sequence repeats in the 3' immunoglobulin heavy chain regulatory region alters Ig expression. Ohio Valley Society of Toxicology, Northern Kentucky University, KY, 2015.

*Alfaheeda, Z. J. A., Sulentic, C. E. W.: The effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on human 3'IGH regulatory region. Biomedical Sciences Ph.D. Program Research Retreat, Wright State University, Dayton, OH, 2015.

*Crabb, G., Sulentic, C. E. W.: Effect of TCDD and AhR antagonist on Cε functional transcript expression in U266 cells. Biomedical Sciences Ph.D. Program Research Retreat, Wright State University, Dayton, OH, 2015.

*Abdulla, S., Sulentic, C. E. W.: Impact of hs1.2 mutation on IgE level and ε functional transcripts in U266 cells. Biomedical Sciences Ph.D. Program Research Retreat, Wright State University, Dayton, OH, 2015.

* Panstingel, N., Sulentic, C. E. W.: The synergistic effect of nanoparticles and bacteria on intact human integument. Biomedical Sciences Ph.D. Program Research Retreat, Wright State University, Dayton, OH, 2015.

Dr. Jeffrey Travers

Henry Ford Hospital Department of Dermatology, Detroit, MI, "Dermal influences on photocarcinogenesis and how cosmetic therapies can be protective", "Clinical-basic science kodachromes-a day in the clinic with me!". April, 2015.

Ohio State University Department of Pathology, Columbus, OH, "The Platelet-activating factor system as the effector for environmental and iatrogenic stressors". July, 2015.

University of Wisconsin Department of Dermatology, Madison Wisconsin, "Platelet-activating Factor and Related Lipid Mediators as Effectors for Environmental and Iatrogenic Stressors", "The Role of Skin Aging in Non-Melanoma Skin Cancer and New Preventative Strategies", September, 2015.

Christian Doppler Laboratory on Biotechnology of Skin Aging, University of Vienna, Vienna Austria. "Platelet-activating Factor System and the Wages of Sin", November, 2015.

University of California, Davis Department of Dermatology. "Dermal senescence and photocarcinogenesis: a new paradigm for non-melanoma skin cancer" December, 2015.

Consultantships [sponsor activity]

Dr. F. Javier Alvarez-Leefmans

Work with Dr. Amol Soin (Chairman, The Ohio Pain Clinic, and Medical Director of the Kettering Innovation Center) on an IP application. The aim is to develop a translational collaboration with Dr. A. Soin, preparing patents and raising funds from private organizations. The aims of this project are: 1) evaluation of pharmacological targets of non-opioid analgesics and/or anti-inflammatory substances. 2) Development of new/improved analgesics/anti-inflammatories/antipruritic drugs, for spinal and peripheral use/administration/delivery, having central and peripheral actions.

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

Dr. Norma Adragna

Editorial Board: Cellular Physiology & Biochemistry, Karger. Switzerland.

Regular reviewer for > 20 scientific journal in my area of expertise.

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.

http://www.frontiersin.org/news/Nature_Publishing_Group_and_Frontiers_form_alliance_to_further_open_science/266

Ad hoc reviewer for the following journals: the British Journal of Pharmacology, Journal of

Dr. Ji Bihl

Reviewer for journals: Cellular and Molecular Neurobiology (8), Toxicology Science (2), Stem Cell International (1), Life Science (1), Medical Science Monitor (1)

Dr. Yanfang Chen

Guest Editor, Stem Cell International

Editorial board: American Journal of Cardiovascular Disease

Editorial board: CNS: Neurosciences and Therapeutics

Editorial board: World Journal of Hypertension

Dr. David Cool

2015 NIH CounterAct Study Section Member Molecular, Cellular & Developmental Neurosciences Integrated Review Group. U01 Study Section Reviewer (03/12/2015).

2014- Present- Editorial Board Interdisciplinary Toxicology

2012- Present- Editorial Board Journal of Environmental Immunological Toxicology

Peer Reviewer for 2 manuscripts to: J. Med. Res. Archives

Peer Reviewer for 1 manuscript to: Life Sciences

Dr. Mauricio Di Fulvio

Grant reviewer for the American Heart Association (AHA) (1) and reviewed 5 papers (American Journal of Physiology, PLoS One, Diabetes, Diabetology and Metabolic Syndrome)

Work was part of the Front page cover in the December issue of the Journal of Endocrinology

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

Toxicological Sciences (ASSOCIATE EDITOR)

2009-2012: Nanotoxicology (Editorial Member)

2015-todate: Journal: NANOIMPACT, Editorial position

Professional Memberships and Affiliations

Italian Society of Nanotoxicology

Society of Toxicology

Association of Government Toxicologists

Reviewer For Journals

2007-present Reviewer, Toxicological Sciences

2005-present Reviewer, Toxicology Letters

2007-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

2008-present Reviewer, Langmuir

2008-present Reviewer, Nature Nanotechnology

2006-present Reviewer, Carbon

2008-present Reviewer, Journal of the American Chemical Society

2008-present Reviewer, Advanced Materials, Small

2010-present Reviewer, PNAS

Honors and Awards

2015- 711 Human Performance Wing- international team award

Dr. Ravi Sahu

Editor for Journal of Natural Products and Biomedical Research (JNPBR), Journal of Heavy Metal and Chelation Therapy, Annals of Clinical Pathology and Insight Medical Publishing Journal.

Review Editor: Frontiers in Non-coding RNA

Associate Editor: International Journal of Forensic Science & Pathology

Editorial Board Member and/or adhoc Reviewer for over 40 scientific journals.

Travel Award: 2nd International Conference on “The New Era of Antibody Research and Therapy”

Dr. Courtney Sulentic

Distinguished Service Award, Ohio Valley Society of Toxicology

Manuscript highlighted in Toxicological Sciences, Salisbury and Sulentic, “The AhR and NF- κ B/Rel Proteins Mediate the Inhibitory Effect of 2,3,7,8-Tetrachlorodibenzo-p-dioxin on the 3’Immunoglobulin Heavy chain Regulatory Region”

Faculty Promotion External Reviewer for Dr. Venkatesh Hegde, University of South Carolina

Grant Review Panels

National Institute of Environmental Health Sciences (NIEHS), Special Emphasis Panel ZES1LWJ-K (R1) for R13/U13 Conference Grants

Natural Sciences and Engineering Research Council of Canada

University of Cincinnati, Center for Environmental Genetics Pilot Project Grant Review

Dr. Jeffrey Travers

Journal Reviewer:

American Journal of Pathology

American Journal of Clinical Dermatology

Archives of Dermatological Research

Archives of Biochemistry & Biophysics

Archives of Dermatology

BMC Pulmonary Medicine

BMC Research Notes

British Journal of Dermatology

Journal Reviewer (continued):

Cancer Microenvironment

Cell Proliferation

Cellular Microbiology

Clinical, Cosmetic and Investigational Dermatology

Colloids and Surfaces B: Biointerfaces

Drug Design, Development and Therapy

European Journal of Cancer

Experimental Dermatology

Free Radical Biology and Experimental Medicine
Human Immunology
Immunology
Inflammation Research
International Journal of Immunopharmacology
IUBMB Life
Journal of American Academy of Dermatology
Journal of Biological Chemistry
Journal of Clinical Investigation
Journal of Dermatological Science
Journal of Experimental Medicine
Journal of Immunology
Journal of Inflammation Research
Journal of Investigative Dermatology
Journal of Leukocyte Biology
Journal of Lipid Research
Journal of Pediatrics
Laboratory Investigations
Life Sciences
Marine Drugs
Nature
Oncotarget
Pediatric Health, Medicine and Therapeutics
PLOS-one
Photochemistry and Photobiology
Prostaglandins, Leukotrienes and Essential Fatty Acids
Scientific Reports
Thrombosis Research.
Translational Research
World Journal of Pediatrics
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-present)

6 Summary of Service Activities

Student advising

Dr. Adragna

Neelima Sharma, BMS student, graduated, June 2014, working on publications
Jasser Alzhrani, MS student, 2013-2015, graduated April 2015
Kranthi K. Chougoni, MS student, 2014-2015
Praveen Alla, MS student, 2014-present
Silpika Kovvali, MS student, 2014-2015
Vamsi Anil Krishnai Chandu, MS student 2015-present
Josh Stricker, MS student 2014-present
Nedu Ihezurika, MS student 2015-present
Lamai Abdulrahman Alsulaiman, MS student, 2015-2016
Sami Alsabri, MS, 2015
Chandra Maharjan, MS Student, 2014-present
Ravina Ashtaputre, MS Student, 2014-2015
Tariq Alqahtani, MS student, graduated 2015
Langni Liu, MS committee member, 2014-2015.
Arathi Sesha Lakshmi Paluri, BMS student, 2012-present.
Britney Caskey, MS student, Spring 2015, MS

Dr. F. Javier Alvarez-Leefmans

Besides investing considerable time in advising the students in my lab, I advised on a regular basis all students in which I served as Member of their Thesis Committee (in prior section).

Dr. Ji Bihl

Abdelfatah S. Abou Issa, master student, thesis committee, 2013-2015
Ravina M. Ashtaputre, MS Student, thesis committee, 2014-2016
Sayali Dharmadhikari, MS Student, thesis committee, 2014-2016

Dr. Yanfang Chen

Langni Liu, P&T MS student
Nomula Mounica, MS student
Deekshith Vanamala, P&T MS student
Apri Arnold Daubenspeck, PhD committee member
Abdelfatah Abou Issa, P&T MS student
Jinju Wang, BMS PhD student (formally P&T student)
Xiang Xiao, BMS PhD student (formally P&T student)
Yue Wang, MD visiting scholar

Dr. David Cool

Shamili Sammohi, P&T M.S. Advisor, Grad- 2015
Ashvin Iyer, P&T M.S., Advisor, Grad- 2015
Mahesh C. Kodali, P&T M.S. Advisor, Grad- 2015
Kaulini Burra, P&T M.S. Committee Member, Grad- 2015
Pankaj Patyal, P&T M.S. Committee Member, Grad- 2015
Abdelfateh Abou Issa, P&T M.S. Committee Member, Proj- 2016
Walid Mari, P&T M.S. Committee Member, Proj- 2016
Ravina Ashtaputre, P&T M.S. Advisor, Proj- 2016
Siham Abdul, P&T M.S. Committee Member, Proj- 2016

Ryan Yoakum BMS Ph.D. Committee Member (BMB), Grad- 2016
David Ellis, BMS Ph.D. Committee Member (P&T), Grad- 2015
Prakash Arumagam, BMS Ph.D. Co-Advisor (NCBP), Proj- 2016

Jinju Wang, BMS Ph.D. Co-Advisor (P&T), Proj- 2016
Anthony Polito, BMS Ph.D. Co-Advisor (P&T), Grad- 2015
Brian Stodgill, BMS Ph.D. Committee Member (Bio), Proj- 2017
Mahmoud Alghamri, BMS Ph.D. Committee Member (Bio), Proj- 2016
April Daubenspeck, BMS Ph.D. Committee Member (NCBP), Proj- 2018
Yirong Zhou, BMS Ph.D. Committee Member (P&T), Proj- 2018

Dr. Mauricio Di Fulvio

Andrew Snyder, BMS PhD, thesis committee member/co-advisor
Kavia Annu, PharmD. MS PTX WSU
Kaulini Burra, PharmD. MS PTX WSU

Dr. Khalid Elased

Laale Alawi, MS Advisor, graduated 2015
Sana Emberesh, MS Advisor, graduated 2015
Brenda Owuor, MS Advisor, graduated 2015
Xiang Xiao, BMS PhD thesis advisory

Dr. Saber Hussain

David Ellis, BMS PhD thesis supervision
Anthony Polito, BMS PhD thesis supervision
Rose Cooper, MS thesis

Terry Oroszi

Leadership advising, P&T MS students:

Eman Alabdrabalnabi
Yusra Andijani
Aiman Khan
Tahani Momenah
Sachchida Subedi
Fahdah Almutairi
Srinivasula Chinnapareddy
Paulet Egbai
Matthew Greene
Nedu Ihezurike
Bala Karri
Sara Kassem
Meenasri Kumbaji
Rebecca Law
Sarah Law
Rajitha Motharapu
Ebru Sen
Shriya Sharma
Suhasini Shella
Najib Tabal
Muralikrishna Timmisetty
Amanda Tosun
Marwa Younes
Cheng Zhang

Dr. Ravi Sahu

Jeremiah Saylae, P&T master's student
Bishal Marasini, P&T master's student
Kushboo Patel, P&T master's student
Suhasini Shobana, P&T master's student
Ebru Sen, P&T master's student

Dr. Richard Simman

Adbelfatah Issa, MS Advisor, graduated 2015

Walid Mari, MS Advisor, expected graduation 2016
Nick Hess, Graduate Medical Resident

Nick Gould, Graduate Medical Resident

Dr. Courtney Sulentic

Graduate Research Trainees:

Andrew Snyder, Biomedical Sciences (BMS) Ph.D.
David Ellis, BMS Ph.D., (co-advisor with Dr. Hussain Saber, WPAFB), defended December 2015
Rebecca Law, Pharm/Tox M.S., non-thesis research project
Nicole Panstingel, Pharm/Tox M.S.
Siham Abdulla, Pharm/Tox M.S.
Maher Alwethaynani, Microbiology/Immunology M.S.
Zahra Jassim Alfaheeda, Microbiology/Immunology M.S.
Naga Lakshmi Kaulini Burra, Pharm/Tox M.S., defended September 2015
Bassam Kashgari, Microbiology/Immunology M.S., defended August 2015

Graduate Advisory Committees:

Amanda Hanes (BMS representative), BMS, Ph.D.
Sumeet Poudel, BMS, Ph.D.
Kevin Novak, (BMS representative), BMS Ph.D.
Tu Thien Danh, BMS Ph.D.
Sumeet Poudel, BMS Ph.D.
Anthony Polito, BMS Ph.D. (BMS representative), defended 2015
Todd Lewis, BMS Ph.D. (BMS representative)
Joanna Barthelemy, BMS Ph.D., defended 2015
Shannon Romer, BMS Ph.D., defended 2015
Adam Deardorff, BMS Ph.D. (BMS representative), defended 2015
Dima Sbenaty, Microbiology/Immunology M.S., defended 2015
Kelley Williams, Microbiology/Immunology M.S., defended 2015
Bradley Gregg, Microbiology/Immunology M.S.
Rose Cooper, Pharm/Tox M.S., defended 2015

Dr. Jeffrey Travers

Nicole Panstingel, MS thesis committee, expected graduation 2016
Sami Alsabri, MS student, expected graduation 2016
Walid Mari, MS thesis committee, expected graduation 2016
Katherine Fahy, MS thesis committee, expected graduation 2017
Xiang Xiao, BMS PhD thesis committee, expected graduation 2016
Prakash Arumugan, BMS PhD thesis committee, expected graduation 2016
Langni Liu, BMS PhD thesis committee, expected graduation 2018
Behzad Sharitak, PhD thesis committee, Indiana University-Purdue University, expected graduation 2016
Olufolakemi Olaiya Awe, PhD thesis committee, Indiana University-Purdue University, expected graduation 2016
Jesus Ocana, PhD thesis committee, Indiana University-Purdue University, expected graduation 2016
Jonathan Weyerbacher, M.D., research fellow, Indiana University-Purdue University, 2014-2016
Ann Collier, Dissertation committee, Indiana University-Purdue University, Dept of Pharmacology, 2013-present
Olufolakemi Olaiya Awe, Dissertation committee, Indiana University-Purdue University, Dept of Medical Biology, 2011-15
Jasser Ali, MS thesis committee, 2015
James Readler, BMS PhD Dissertation Committee, 2015-

Committee membership/officer [indicate if committee chair]

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

Dr. Norma Adragna

Chair, Ad hoc space committee, 2014-2015
Interviewing of most chair candidates for department of BSOM, 2013-Jan 2015
Morris Symposium, organizing committee member, 2014-2015

Dr. F. Javier Alvarez-Leefmans

Member of the Pharmacology & Toxicology Faculty Affairs and Development Committee

Reelected Faculty Senator representing the Boonshoft School of Medicine Constituency for 2015-2017 Academic years. Term expires at the end of Spring Semester 2017.

Member of the Research Committee for the Office of Research Affairs at the Boonshoft School of Medicine.
Elected 2015-2017.

Member Pharm & Tox MS Pharmacology & Toxicology Review Committee.

Dr. David Cool

Pediatric Dept Chair Search Committee, 2015
Faculty Promotion and Advancement Committee (FPAC), 2014-2016
Translational Research Grant Reviewer- ad hoc, 2014- present
Judge- Medical Student Research Symposium 2014- present

Pharmacology & Toxicology

Workload Equity & Merit Committee, 2015- present
Comprehensive MS Program Review Committee, 2015- present
MS Program Policies Committee, 2014- present
Faculty Affairs and Development Committee, 5/2013-2015
Acting Chair when Dr. Adragna is traveling, 4/19/13-02/2015
Director- Proteome Analysis Laboratory, 2004- 2015
Faculty Affairs Development Committee, 2005- present

BioMedical Sciences Program (BMS)

Admissions Committee, 2015- present
Integrative Toxicology Track, 2015- present
Nominating Committee, 2013-2015
Academic Policies Committee, 2011-2015

Dr. Mauricio Di Fulvio

Students Admission's Committee, Pharmacology & Toxicology, BSOM
Scholarship Committee, Pharmacology & Toxicology, BSOM
Nomination Committee, BMS Program

Dr. Khalid Elased

Member, Executive Leadership Team for Dayton Heart Ball, American Heart Association Campaign

Dr. Ravi Sahu

Pharmacology & Toxicology Scholarship Committee
Pharmacology & Toxicology Admissions Committee

Dr. Courtney Sulentic

Research Committee, elected member, BSOM, 2014-2016
Faculty Curriculum Committee, BSOM, 2013-2016
Curriculum Development, Foundations of Clinical Medicine Subcommittee
LCME re-accreditation subcommittee 4, Educational resources and infrastructure and Curricular content, 2015-2016
Executive Committee, elected member, BSOM, 2014-2015
Pathobiology and Therapeutics Steering Committee, BSOM
Principles of Disease Steering Committee, BSOM
Director of Seminar Series for the Department of Pharm/Tox
Faculty Affairs and Development Committee (FADC), Pharm/Tox

Member of the Neuroimmunology Research group

Dr. Jeffrey Travers

WSU Executive Committee, 2015-present
Dean's Research Chairs Committee, 2015-present
LCME Curriculum Committee, 2015-present
Academy of Medicine Board of Directors, 2015-present

Wright State University

Dr. Norma Adragna

Pharmacology and Toxicology Faculty Affairs and Development Committee 2015-present, Chair
Pharmacology and Toxicology Scholarships committee, 2015-present
Women in Sciences Giving Circle Faculty Awards Committee, 2015-present

Dr. F. Javier Alvarez-Leefmans

Alternate Member. Laboratory Animal Care and Use Committee (LACUC)

Member of the IACUC appointed by the Department of Veterans Affairs. Term 01/15/15 through 12/31/17.

Member Course Design Team for developing an Undergraduate Neuroscience Major Program. This entailed active participation in 1hr weekly meetings with the other members of the team.

Member of the Biomedical Sciences PhD Program Admissions Committee. Elected for two years of service (2014-2016).

Dr. Yanfang Chen

Master's Program Scholarship Committee
Master's Program Admissions Committee

Dr. David Cool

Faculty Senate Pre-requisite Check Committee, 2015

Dr. Ravi Sahu

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

Dr. Courtney Sulentic

BioSTAR and STREAMS Career Panel Discussion, Panelist
Women's Peer Mentoring Group, supported by the NSF-funded LEADER Program at WSU
BMS Admissions Committee, 2013-2015
Radiation Safety Committee, 2005-present; Chair, 2013-present

Dr. Jeffrey Travers

Academic Policies Committee, 2015-present

Wright State Physicians

Dr. Jeffrey Travers

Dermatology clinical practice, WSU Department of Dermatology

Hospital or affiliated institution [name]

Dr. F. Javier Alvarez-Leefmans

Jumpstarted a collaboration with the Neurology Department at Dayton Children's Hospital, with Dr. Robert Lober and at WSU Neuroscience Engineering Collaboration (NEC) with N. H. Kashou PhD, Director Image Analysis Lab, Functional Near-Infrared Spectroscopy Lab. Wright State University. Aim: MRI and microscopy image analyses of NKCC1 KO mice. Hypothesis: NKCC1 controls the cell water volume of choroid plexus epithelial cells and determines secretion of CSF. Significance: NKCC1 is target of compounds that can be used in the control of CSF secretion in idiopathic intracranial hypertension and hydrocephalus.

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. Jeffrey Travers

Indiana University Hospital, Indianapolis, IN 1995-2015

Wishard Memorial Hospital, Indianapolis, IN 1995-2015

Roudebush VA Hospital, Indianapolis, IN 1995-2015

Dayton VA Medical Center, Dayton, Ohio 2015-

Medical Licensure:

Indiana, 1995-

Ohio, 2015-

Board Certification:

Dermatology, 1995-, Recertification, 2015

University/Hospital Activities:

Indiana University Medical Center

Medical Scientist (M.D./Ph.D.) Program Committee 1997-2015

-Executive Committee 2001-2015

IU School of Medicine Scientific Advisory Council 2009-2015

State

National

Dr. Norma Adragna

Chair Emeritus, Lake Cumberland Biological Transport Group, 2014-2015

Dr. Yanfang Chen

Study Section, NASA Research Committee

Abstract grader for Annual Scientific Conference of American Heart Association

Oversea Reviewer, Division of Materia Medica and Pharmacology, National Natural Science

Foundation of China (NSFC)

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. Represented WSU at the USP Convention in 2015 at Washington, DC.

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)

Dr. Ravi Sahu

Manuscript reviews and editorial services of various national and international scientific journals.

Dr. Courtney Sulentic

Undergraduate Program Strategy Group, SOT

Mentor Match program organizer, facilitator and mentor, SOT

Alicia Taylor, PhD, Post-doc at University of California, Berkeley

Dr. Jeffrey Travers

Professional Societies:

American Society for Clinical Investigation (ASCI), 2007-present

IU School of Medicine ASCI representative, 2011-15

American Society for Biochemistry and Molecular Biology, 2003-present

Alpha Omega Alpha Medical Honor Society, 1990-present

American Academy of Dermatology, 1996-present

Member, AAD Council on Science and Research, 2011-2015

Indiana Academy of Dermatology, 1996-2015

Sigma Xi, 1990-present

Society for Investigative Dermatology, 1995-present

Annual Meeting Photobiology Abstract reviewer & Symposium chair, 2014, 2015

American Dermatological Association, 2011-present

Other

Dr. Norma Adragna

Pharmacology and Toxicology Interim Chair, January 1st-January 31st, 2015

Member of 10 Scientific Societies.

Reviewer of > 20 Scientific Journals.

Development of new field of research with the aim to attract external funding.

Preparing to develop new courses in my field of expertise, old and newly acquired, with the purpose to increase the student pool, increase revenue and contribute to innovation.

Dr. Courtney Sulentic

Invited Expert, Colgate-Palmolive Luncheon, SOT Annual Meeting

Poster Session Chair, SOT Annual Meeting

Ad-hoc reviewer for several journals

Dr. Jeffrey Travers

Mentor for NIH K08 Awards: OCRL and Glaucoma, Sun, Yang (2012-17).

Mentor of NIH K22 Award: Environmental Pro-oxidative Stressors and Immunosuppression, Sahu, Ravi (2014-17).

National Institutes of Health Review Panels

NIH/NIAMS Loan Repayment Grant Review, 4/2016

Arthritis Connective Tissue, and Skin (ACTS) permanent member 2013-2017

NIAMS SEP (chair) 11-2015

Veteran's Administration Review Panels

VA Oncology E Review Panel (chair) 12-2014, 6-2015, 12-2015

7

Patient Care Summary

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

8

Honors and awards [Faculty or staff]

Dr. Jeffrey Travers

American Society for Clinical Investigation, 2007-

American Dermatology Association, 2011-

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

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.]

Dr. F. Javier Alvarez-Leefmans

Co-organized a seminar with the department of Biological Sciences for the visit of Dr. Ernest Wright, Department of Physiology, David Geffen School of Medicine UCLA.

Dr. Ji Bihl

Submitted grants:

(1) ADA Innovative Basic Science, PI, 2016-2019, "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.

(2) NIH R21, PI, 2016-2018, "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.

(3) NIH RO1, Co-PI, 2015-2020, "BALANCE OF ANGIOTENSIN II/ANGIOTENSIN (1-7): A TARGET IN ISCHEMIC STROKE", The major goals of this project are to investigate the role of Angiotensin II/Angiotensin (1-7) balance in ischemic stroke and examine the underlying mechanisms related to microvesicles.

Submitted papers:

(1). Wu K, Yang Y, Zhong Y, Zhang P, Guo R, Ammar H, Liu H, Cheng C, Ajena A, Koroscil T, Chen Y, Liu S, Bihl J "The effects of circulating microvesicles on endothelial progenitor cells are compromised in type 2 diabetic patients via downregulation of the miR-126/VEGFR2 pathway," submitted to Journal of American Heart Association.

(2). Wang J, Guo R, Yang Y, Jacobs B, Chen S, Iwuchukwu I, Gaines K, Chen Y, Simman R, Lv G, Wu k and Bihl J "The novel methods for analysis of exosomes released from endothelial cells and endothelial progenitor cells," submitted to Stem Cells International.

(3). Wang J, Chen Y, Yang Y, Xiao X, Chen S, Zhang C, Jacobs B, Zhao B, Bihl J, Chen Y "Endothelial Progenitor Cells and Neural Progenitor Cells Synergistically Protect Cerebral Endothelial Cells from Hypoxia/reoxygenation-induced Injury via Activating the PI3K/Akt Pathway," submitted to Molecular Brain.

(4). Wang J, Zhong Y, Ma X, Xiao X, Cheng C, Chen Y, Iwuchukwu I, Gaines K, Zhao B, Liu S, Travers J, Bihl J, Chen Y "Analyses of Endothelial Cells and Endothelial Progenitor Cells Released Microvesicles by Using Microbead and Q-dot Based Nanoparticle Tracking Analysis," submitted to Scientific Report.

Served as the committee of the National Post-doctoral Association (NPA) for the Workshops & Poster session. I reviewed all the submitted proposals and abstracts. I attended the monthly tele-conference for helping organizing the 2016 Annual NPA meeting.

Served as the president of WSU Post-doctoral Association (PDA) which is a society for post-docs, late year Ph.D. students, research staff, and early stage faculty. I recruited new members and updated the PDA list by contacting Department chairs and Human resources. I sent out the job, grant, and conference information/opportunities and organized events for WSU post-docs.

Dr. David Cool

Professional Societies:

Am. Soc. for Pharmacology & Therapeutics (ASPET), 2014- present
Association of Biomolecular Research Facilities (ABRF), 2012- present
American Society for Mass Spectrometry (ASMS), 2007-present

Collaborative Research- Ongoing in 2015:

Dr. Ji Chen-Bihl P&T Dept. Microvesicles and stroke, 2014- present

Dr. John Bini & Dr. Steve Burdette, 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 and vacuum, 2014-present

Dr. Steve Lindheim, OB/GYN Female Reproductive Health Research, 2014 - present

Dr. Jerry Yaklic, OB/GYN Interstitial Cystitis, Endometriosis and Vulvadynia- Resident Research Projects, 2013-present

Dr. Gary Ventolini, OB/GYN Texas. Identifying Biomarkers of Vulvadynia.

Dr Lucy Wrenshall- (NCBP) Identification of multimers of IL2.

Dr. Matthew Peterson (Lifespan) Exercise and diet.

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

Dr Miryoung Lee- (Lifespan) Analysis of biomarkers of dieting

Dr Marge Morgan/Dr Larry Arlian- (Biology) House Dust Mite Proteins

Dr Greg Boivin- (LAR) Glycosylation of tendon proteins in diabetes

Dr Yanfang Chen- (P&T) Identification of proteins in microvesicles

Dr Courtney Sulentic- (P&T) Identification of proteins associated with Ikb.

Dr. Mauricio Di Fulvio

Education: I attended the Foundation for Advanced Education in the Sciences (FAES) TRAC56 RNA-Seq workshop. This week long workshop was held at WSU and was sponsored by NIH.

Student advising: I have been advising, teaching, guiding and directly performing experiments for and with students from different laboratories of the Department of Pharmacology and Toxicology and other departments as well. These experiments are related to molecular techniques such as PCR, RT-PCR, cloning, sub-cloning, nucleic acid purification, sequencing, cell culture for transfection of plasmids, immunohistochemistry, plasma hormone determination, and dynamic tests of glucose homeostasis in mice (glucose, insulin, alanine and pyruvate tolerance tests). I have also been directly teaching them the use of bioinformatic tools for restriction enzyme digestion analysis, DNA primer design, nucleotide alignments and searching in molecular databases (NCBI, GenBank, etc).

Dr. Khalid Elased

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
The Journal of Pathology

Research Peer Review:

National American Heart Association (AHA) Cardiac Biology Study Group,
NIH/NIDDK: Special Emphasis Panel/Scientific Review Group "Biomarkers for Diabetes, Kidney Diseases and Urology (R01)-PAR -13-228".

Reviewer of the abstracts for the American Heart Association, High Blood Pressure Council Annual Meeting at Washington DC, September, 2015.

Dr. Saber Hussain

Defines, leads, and manages multiple branch Nanotoxicology and Nanobioeffects technical activities, programs and personnel in an independent manner.

Supervise and manage 15-member team--DoD pioneers in nanotoxicology (noted through publications) and research

Plan to consider for 2 MS students from Pharm/Tox. Currently one MS Student (Ms Nicole Panstinge) is working in my lab as lab rotation. Collaborative project is under discussion in collaboration with Dr Jeffrey Travers-

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.

Establish collaboration between AFRL and WSU through different programs

Dr. Richard Simman

Co-Conference Director: Amputation Prevention Symposium 2015. Hilton Chicago.

Director of Back to Basic Wound Care Course. The Amputation Prevention Symposium, Chicago, Hilton

Co-Conference Director: First Middle East Wound Care and Diabetic Limb Salvage, Amman, Jordan.

Dr. Courtney Sulentic

I continue to be a very active mentor to my students and consistently strive to facilitate career development opportunities as well as exposure to peers and professionals by facilitating attendance to local and national scientific meetings as evidenced by the number of student presentations highlighted above. In addition to devoting much time to mentoring and teaching, I have also focused the activities in my lab on finalizing experiments and writing and submitting manuscripts for publication. To that end we published three manuscripts in 2015. We have completed experiments for three more papers and are actively preparing these manuscripts for submission. Additionally, through collaboration with Dr. Koles (Pathology, BSOM) and Dr. Saxe (BSOM and Digestive Care), we have analyzed samples collected from Celiac patients for a clinical study directly related to my research goals and have completed the statistical analysis and are in the process of preparing a manuscript based on this work. In addition to the above efforts, my involvement in professional societies, university committees, academic teaching and student mentoring has remained steady.

My goals for 2016 are to focus more of my effort to my research program though I am finding this difficult due to increased involvement in BSOM teaching. I submitted several small and large grants in 2015 and utilized the writing expertise of Lillian Pubols (supported by BSOM). Unfortunately, these grants were not funded; submission of a revised R21 collaborative grant with Dr. Travers received a fundable score. I plan to revise my R01 grant for resubmission this summer. I also continue to direct the NIH BioSTAR grant but unfortunately this grant is independent of my own research efforts and is focused on providing research opportunities for Wright State undergraduate students. Besides submitting manuscripts and revised grants, I will continue my efforts to expand my grant opportunities including collaborative grant opportunities. To this end I have initiated collaborations with experts outside of WSU who are willing to contribute technical and genetic expertise. I am also working on identifying common research goals and potential collaborative activities with other faculty within the Pharm/Tox department; and I will maintain my long-standing collaboration with Saber Hussain from Wright Patterson Airforce Base (we have recently published two papers together) and my clinical collaborations with Paul Koles (BSOM) and Jon Saxe (BSOM and Digestive Care). Additionally, I am looking to collaborate with other physicians at BSOM and have attended the Linking Clinicians and Basic Scientists meetings initiated through BSOM Office of Research to make more connections with clinicians.

Dr. Jeffrey Travers

PENDING:

Samsung Inc. (Travers PI for subcontract; Young Kim is PI at Purdue)
Mesoscopic Bioimager for Optical Diagnosis, 03/01/2016 – 12/31/2016, 10% effort, \$40,000 total costs
The objective of these studies sponsored by Samsung are to build and test a mesoscopic bioimager on human skin. My role is to conduct the clinical studies.

R21 AR070010-01A1 (Travers-Sulentico-PIs), 4/01/2016 – 08/30/2018, 10% effort, \$125-150,000 direct costs/year, Photodynamic Therapy-Induced Immune Modulation: Mechanisms and Influence on Therapeutic Efficacy. The objective of this study is to test the immune effects of PDT in human subjects. This application received an 8% score (below 12% payline) and thus should be funded.

Journal Reviewer:

American Journal of Pathology
American Journal of Clinical Dermatology
Archives of Dermatological Research
Archives of Biochemistry & Biophysics
Archives of Dermatology
BMC Pulmonary Medicine
BMC Research Notes
British Journal of Dermatology
Journal Reviewer (continued):

Cancer Microenvironment
Cell Proliferation
Cellular Microbiology
Clinical, Cosmetic and Investigational Dermatology
Colloids and Surfaces B: Biointerfaces
Drug Design, Development and Therapy
European Journal of Cancer
Experimental Dermatology
Free Radical Biology and Experimental Medicine
Human Immunology
Immunology
Inflammation Research
International Journal of Immunopharmacology
IUBMB Life
Journal of American Academy of Dermatology
Journal of Biological Chemistry
Journal of Clinical Investigation
Journal of Dermatological Science
Journal of Experimental Medicine
Journal of Immunology
Journal of Inflammation Research
Journal of Investigative Dermatology
Journal of Leukocyte Biology
Journal of Lipid Research
Journal of Pediatrics
Laboratory Investigations
Life Sciences
Marine Drugs
Nature
Oncotarget
Pediatric Health, Medicine and Therapeutics
PLOS-one
Photochemistry and Photobiology
Prostaglandins, Leukotrienes and Essential Fatty Acids
Scientific Reports
Thrombosis Research.

Translational Research
World Journal of Pediatrics

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-)