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
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

<table>
<thead>
<tr>
<th>Name of Division or Program</th>
<th>Director</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Biophysics</td>
<td>Norma Adragna, PhD</td>
<td>2003-present</td>
</tr>
<tr>
<td>Proteome Analysis Laboratory</td>
<td>David Cool, PhD</td>
<td>2004-present</td>
</tr>
<tr>
<td>Master’s Program</td>
<td>Terry Oroszi, EdD</td>
<td>2008-present</td>
</tr>
<tr>
<td>Nanotoxicology Research</td>
<td>Saber Hussain, PhD</td>
<td>2010-present</td>
</tr>
<tr>
<td>CBRN Certificate Program</td>
<td>Terry Oroszi, EdD</td>
<td>2013-present</td>
</tr>
<tr>
<td>Training Program (BioSTAR, GradPrep)</td>
<td>Courtney Sulentic, PhD</td>
<td>2015-present</td>
</tr>
<tr>
<td>Preclinical Pharmacology Core</td>
<td>Yanfang Chen, MD, PhD</td>
<td>2015-present</td>
</tr>
<tr>
<td>Pharmacology Translation Unit (PTU)</td>
<td>Jeffrey Travers, MD, PhD</td>
<td>2015-present</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Name and Academic Position</th>
<th>Clinical Interests</th>
<th>Research Interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norma Adragna, PhD, Professor</td>
<td></td>
<td>Cardiovascular, ion transport, cell signaling, cellular physiology, membrane transport, cancer biology</td>
</tr>
<tr>
<td>F. Javier Alvarez-Leefmans, MD, PhD, Professor</td>
<td></td>
<td>Neuroscience, molecular physiology &amp; pharmacology, clinical neurology</td>
</tr>
<tr>
<td>Ji Bihl, MD, PhD, Assistant Professor</td>
<td></td>
<td>Cerebrovascular diseases and diabetes, specifically in developing novel predictive and therapeutic avenues for hemorrhagic stroke and vascular complications of diabetes</td>
</tr>
<tr>
<td>Yanfang Chen, MD, PhD, Professor</td>
<td></td>
<td>Cardiovascular disease, cerebrovascular</td>
</tr>
<tr>
<td>Name and Academic Position</td>
<td>Clinical Interests</td>
<td>Research Interests</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>David Cool, PhD, Professor, Director, Proteome Laboratory</td>
<td></td>
<td>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</td>
</tr>
<tr>
<td>Mauricio Di Fulvio, PhD, Associate Professor</td>
<td></td>
<td>Diabetes</td>
</tr>
<tr>
<td>Khalid Elased, PhD, PharmD, Professor</td>
<td></td>
<td>Diabetes, cardiovascular</td>
</tr>
<tr>
<td>Saber Hussain, PhD, Professor</td>
<td></td>
<td>Nanoparticles</td>
</tr>
<tr>
<td>Mike Kemp, PhD, Research Assistant Professor</td>
<td></td>
<td>How human cells maintain the integrity of their genomic DNA, particularly in response to environmental genotoxins such as ultraviolet (UV) light</td>
</tr>
<tr>
<td>Terry Oroszi, EdD, Assistant Professor</td>
<td></td>
<td>Healthcare and Homeland Security (Terrorism/CBRN/Crisis Decision making)</td>
</tr>
<tr>
<td>Ravi Sahu, PhD, Assistant Professor</td>
<td></td>
<td>Cancer pharmacology</td>
</tr>
<tr>
<td>Courtney Sulentic, PhD, Associate Professor</td>
<td></td>
<td>Immunology</td>
</tr>
<tr>
<td>Jeffrey Travers, MD, PhD, Professor and Chair Professor of Dermatology Staff Physician, Dayton VA Medical Center</td>
<td></td>
<td>Translational medicine Skin inflammation/cancer, lipid pharmacology</td>
</tr>
<tr>
<td>Yong-jie Xu, MD, PhD, Associate Professor</td>
<td></td>
<td>Genome integrity, signaling mechanism of replicator checkpoint</td>
</tr>
</tbody>
</table>

### 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, 2018-2019
Mentor, Leader/Admin Students:
Lavanya Kandur, MS 2018-present
Anhar Hosawi, 2018-present
Bissan Hassan, 2018-2019, graduated
Unmesh 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
Karthikey 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 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
Asth 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:
Azzezat 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 Enukonda, Beavercreek 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)™. MER is widely-recognized as one of the leading providers of high-quality continuing medical education symposia and educational materials for physicians.
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)


**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, multcenter 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 Phase2, Randomized, Double-Blind, Vehicle-Controlled, Parallel-Group Study to Evaluate the Safety and Efficacy of ALX-101 Topical Gel Administered Twice Daily in Adults and Adolescents with Moderate Atopic Dermatitis. 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
Korman, Neil PI (Travers co-Investigator)
05/1/2018 to 09/1/2020
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
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
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 (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

Dr. Ji Bihl


Dr. David Cool


Dr. Khalid Elased


Dr. Saber Hussain

DH Ellis, El 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


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


Dr. Terry Oroszi


Dr. Ravi Sahu


Dr. Jeffrey Travers
La'Pelusa 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.


Books, chapters, reviews

Dr. Mike Kemp


Dr. Terry Orozsi


Dr. Ravi Sahu


Dr. Courtney Sulentic


Dr. Travers


Published abstracts

Dr. Ji Bihl


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


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


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


Dr. Terry Oroszi
Dr. Ravi Sahu


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


Dr. Travers


**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 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.


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

**Dr. Terry Oroszi**

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

Regional:
Oroszi, T. (Sept. 2018) Kettering Optimist Club (9/11 talk on Terrorism)

Dr. Ravi Sahu

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


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.


**Dr. Yong-jie Xu**

Wozniak M.J. and Xu, Y.J. Depletion of the anti-silencing protein Epe1 rescues 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.

Ahmad 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 Miryong 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 2011- 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**


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**


**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

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
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 director, 2018-present
Qinmao Ye, MS, thesis advisory committee, 2018 graduated
Azeezat Awoyemi, MS, 2018 graduated
Paniksha 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
Kartheek 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
Prihy 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 Jaipal, MS, mentor L/A, proj. graduation 2018
Shoroq 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 Muyadayin, M&I MS, graduate advisory committee,
Amjed Aljaqthmi, BMS representative, graduate advisory committee,
Asth Shahyka, 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 Crab, WSU, BioSTAR Trainee
Justine Deeter, WSU, Biology
Dr. Jeffrey Travers

Azzezat Awoye, MS, thesis director, 2016-2018, graduated 2018
Avinash Mahajan, MS, thesis director, 2018-present
Simon Oyebanji, MS, thesis director, 2018-present
Panksha 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
Mariyiah Madkhali, MS, thesis advisory committee, 2018-present
Hima Priya Yenuga, MS, thesis advisory committee2018-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 STEM 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**
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.


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


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

7

**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)

8

**Honors and awards** [Faculty or staff]

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