Boonshoft
School of Medicine
WRIGHT STATE UNIVERSITY

Department of Pharmacology & Toxicology

Annual Report

2013

Norma Adragna, Ph.D.
Professor and Interim Chair

For the period including
January 1, 2013 — December 31, 2013

1 Statement from the Chair

Dr. Norma Adragna served as Interim Chair. Collaborations are a main focus and several guest speakers were brought in to assist and educate the faculty. Ms. Meghan Sheehan presented information on Technology Transfer and IP. Dr. B. Laurel Elder discussed the IRB append process. Dr. Brenda Roman spoke of the Wright Curriculum and invited faculty to participate and join committees. Dr. David Uddin, Miami Valley Hospital, spoke of Translational Research and the IRB process with the hospital. Mr. Loren Freidman spoke about CTRA activities and how faculty can be matched with clinical opportunities. Dr. Bill Ayres reviewed the streamlined graduate application process.

Mauricio Di Fulvio, Ph.D., was promoted to Assistant Professor and continues his strong support of students and faculty collaborations.

Nadja Grobe, Ph.D., was promoted to Research Assistant Professor, providing much needed faculty teaching and student advising.

Terry Oroszi, M.S., initiated the CBRN seminar, the Wright State University Weapons of Mass Destruction. The event was sponsored by the Department of Environmental Health and Safety, The Boonshoft School of Medicine Department of Pharmacology and Toxicology, and the WSU School of Professional Psychology. Wright State is one of only 10 universities nationwide hosting the FBI Academic Biosecurity Workshop.

Ji Chen, Ph.D., research associate in pharmacology and toxicology, received an AHA Great Rivers Affiliate (GRA) Postdoctoral Fellowship for cardiovascular and stroke research.

Richard Simman, M.D., FACS, FACCWS, associate professor, was the program director for the Second Annual Symposium on Advancing the Standards in Wound Care.

Nadja Grobe, Ph.D., postdoctoral research fellow, won first place in the poster competition at the Gordon Research Conference on Angiotensin for her paper “Novel insights into renal angiotensin metabolism through molecular imaging.”

Yanfang Chen, Ph.D., associate professor of pharmacology and toxicology, is now on the Associate Editorial Board of the American Journal of Cardiovascular Disease and the Editorial Board at CNS Neuroscience and Therapeutics.

Master’s Program: The P&T Master program continues to expand and garner revenue. The program was reviewed with Dr. Bill Ayers serving as an external resource to the department in a day long retreat in December 2013. Dr. Cool created a questionnaire about the master’s program and distributed it to faculty, staff, and students. Information was collected and each faculty member presented information about their class and the current curriculum was discussed. Conclusion was the program should stay as is.

Training Programs for Minorities and Persons with Disabilities: The BioSTAR program is directed by Dr. Courtney Sulentic, and the U.S.-Brazil exchange program is directed by Dr. Khalid Elased.

Development of research focus in metabolic diseases: There has been an expansion in studies of diabetes which is likely to lead to programmatic activities such as program projects. Drs. Chen, Cool, Di Fulvio, Elased, and Hostetler (Biochem) have interest and funded activities with 4 major grants.

Expansion of Activities for the Proteomic Analysis Lab (PAL): There has been some expansion of the work conducted in the PAL. Cool developed a collaboration with Dr. Krishna at Central State. This project is supported by NIH and may lead to new projects and perhaps development of patentable products. There are several clinical projects underway with Miller (Dayton Children’s), Mckenna and Ventolini (Ob/Gyn) and others. The facility received national recognition with the award of a research award for postdoctoral fellow, Nadja Grobe.

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
Nanotoxicology Research	Saber Hussain, Ph.D.	2010-present
Dilute Chemical Warfare Agent Facility	Jim Lucot, Ph.D.	2010-2013
Therapeutics Curriculum	Mary Jo Trout, Pharm.D.	2013-present
CBRN Certificate Program	Terry Oroszi, M.S.	2013-present
Master's Program	Terry Oroszi, M.S.	2008-present
Training Program	Khalid Elased, Pharm.D., Ph.D.	2013-present
Training Program	Courtney Sulentic, Ph.D.	2013 - present

3 Fully Affiliated Faculty

Name and Academic Position	Clinical Interests	Research Interests
[list fully affiliated faculty, including statement of clinical and research interests]		
Norma Adragna, Ph.D., Professor and Interim Chair		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
Yanfang Chen, M.D., Ph.D., Associate Professor		Cardiovascular disease, cerebrovascular complications
David Cool, Ph.D., Professor	OBGYN Pre-eclamcia, Interstitial cystitis	Translational research, snake venom
Mauricio Di Fulvio, Ph.D., Assistant Professor		Diabetes

Name and Academic Position	Clinical Interests	Research Interests
Khalid Elased, Pharm.D., Ph.D., Assoc. Prof.		Diabetes, cardiovascular
Nadja Grobe, Ph.D., Research Assistant Professor		Diabetes, cardiovascular
Saber Hussain, Ph.D., Professor		Nanoparticles
Tom Lockwood, Ph.D. Associate Professor		Nature invented lysosomes in order to separate the environment of metals, redox and protons from other cell compartments.
Jim Lucot, Ph.D., Professor		Neurobehavioral/neurochemical, diabetes
Richard Simman, M.D.	Wound Care, Plastic Surgery	Wound care treatment
Courtney Sulentic, Ph.D., Associate Professor		Immunology
Mary Jo Trout, Pharm.D., Assistant Professor	Medical teaching, Therapeutics curriculum	

4 Teaching

Baccalaureate

Dr. Cool
Cadre student training
Snake Venom proteomics

Dr. Lucot
Bio 4990 – Special Problems in Biology

Dr. Sulentic
M&I 4260 – Microbiology and Immunology, 19 hours.

Graduate students, including thesis supervision

Dr. Adragna
PTX 9220 – Effective Scientific Writing II

Thesis Director:
Neelima Sharma, BMS student, 2009-present
Nagendra B. Ravilla, Master's student, 2011-2013

Dr. Alvarez-Leefmans
PTX 9120 – Scientific Writing Part I

Jeannie Crum, Year 6 PhD student, BMS

Dr. Chen
No teaching

Jinju Wang, PhD, Thesis advisor
Xiang Xiao, PhD, Thesis advisor

Aboajela Ajena, MS, Thesis advisor
Hala Ammar, MS, Thesis advisor

Dr. Cool
PTX 7400 – Laboratory Management (course director), 60 hours.
PTX 7500 – Research Techniques (course director), 90 hours.
BMS 805 – Intercellular Communication-Hormones; Receptors, 4 hours

MS Student Thesis Advisor:
Venus Ebrahimian, M.S., P&T thesis advisor, Grad- 2013
Kathryn Ibbotson, M.S., P&T thesis advisor, Proj- 2014
Mackenzie Newman, M.S., P&T thesis advisor, Grad- 2013
Bradley Williams, M.S., P&T Co-Advisor thesis, Grad- 2013
Ekta Shah, M.S. P&T thesis advisor, Proj-2014
Shamili Sammohi, M.S. P&T thesis advisor, Proj- 2015
Ashvin Iyer, M.S. P&T thesis advisor, Proj- 2015
Mahesh C. Kodali, M.S. P&T thesis advisor, Proj- 2015

Dr. Di Fulvio
PTX 7300 – Cellular Pharmacology & Toxicology, DNA Damage & Repair (co-director), 16 hours.
PTX 7300 – Cellular Pharmacology & Toxicology, Control of Cell Cycle (co-director), 16 hours.
PTX 7300 – Cellular Pharmacology & Toxicology, Endocrine Disruption (co-director), 8 hours.
PTX 7110 – Journal Club (director)
BIO 4010 – Microbiology & Immunology, Pathogenic Mechanisms, 4 hours.

MS thesis Advisor:
Mohamed Almiahoub, PharmD, MS, Grad 2014
Richa Singh, PharmD. MS, Grad 2013
Mohammed Almutairi, PharmD, MS Grad 2014
Shams Kursan, PharmD, MS Grad 2014

Dr. Elased
PTX 7200 – Biokinetics/Biodynamics, 2 hours.
PTX 8300 – Integrative Pharmacology & Toxicology Methods
PTX 7300 – Cellular Molecular Toxicology: Lectures on Cardiovascular
PTX 7300 – Cellular Molecular Toxicology: Lectures on Obesity & Diabetes
PTX 9220 – Scientific Writing, co-director
PTX 9100 – Pharmacology Graduate Research
BMS 9980 – Laboratory Rotation

MS Thesis Advisor:
Esam Salem, MD, Graduated 2013
Hari Krishna Somineni, B. Pharm., Graduated in May, 2013.
Nada F. Kashkari, BS (2nd year).
Laale F Alawi, BS (2nd year).
Sridevi Gutta, B.Pharm (2nd year).
Sana Emberesh, MD (2nd year).

Dr. Grobe
PTX 7120 – Current Trends in Biomedical Sciences (director)
PHA 800 – Principles of Biomedical Research, guest lecturer
PTX 7120 – Thesis Proposal Preparation Class (director)

Dr. Lucot
PTX 7200 – Biokinetics & Biodynamics (co-director), 12 hours.
PTX 7300 – Cellular Pharmacology & Toxicology, 10 hours
PTX 9220 – Scientific Writing II

Terry Oroszi
PTX 9000 – Pharmacology Research
PTX 7110 – Pharmacology & Toxicology Laboratory Safety
PTX 8120 – Case Studies, Biological & Medical Defense

PTX 8200 – Communications in Science

Dr. Sulentic
ES 7120 Environmental Biology: Genes, Organisms & Ecosystems (1.5 hr)
PTX 7200 Biokinetics/Biodynamics, Lecturer (2 hr)
PTX 7300 Cellular Pharmacology & Toxicology, Director, Lecturer (16 hr), Faculty Facilitator (30 hr)
M&I 7260 Microbiology and Immunology, Lecturer (19 hr),
M&I 7260 Microbiology and Immunology Seminar Course, co-director (28 hr)
BMS 8050 Intercellular Communication, Lecturer (4.5 hr)
BMS Introduction to Research, Lecturer (1.5 hr)

MS Thesis Advisor:
Michael Wourms, Pharm/Tox M.S., defended December 2013
Jayharsh Panchal, Pharm/Tox M.S. 3rd year; converted to non-thesis and graduated January 2013

Undergraduate medical education

Dr. Cool
SMD 535 – Hypersensitivity Lecture, 2nd yr. SOM online lecture, 4.5 hours.
SMD 521 – CATO Hormone Synthesis 1st yr. SOM, 3 hours.
SMD 561 – Reproduction-Teratogens in Pregnancy 2nd yr. SOM, 1 hour.

Dr. Elased
SMD535 -Pathobiology & Therapeutics Course for 2nd Medical students, taught: Pharmacokinetics, Drug Metabolism and Excretion. Drug Discovery and Factors Influencing the Safety and Effectiveness of Drugs.
Peer Instruction: Interactive learning on Autonomic Nervous System (2 hours)
Lecture on Pharmacokinetics: Drug Excretion & Metabolism and Drug Toxicity (2 hours).
Team Base Learning 2 – Pharmacokinetics and Pharmacodynamics (3 hours)
Lecture on Principles of Drug Action: Drug Discovery and Factors Influencing the Safety and Effectiveness of Drugs (1 hour).
Peer Instruction: Interactive learning on Drug Discovery & Factors Infl. Safety & Effectiveness of Drugs – Clinical Toxicology – Herbal, Supplement, & Vitamin Therapy (2 hours).

Dr. Lucot
SMD 560 – Neuroscience, 4 hours.
SMD 562 – The Mind, 5 hours.

Dr. Sulentic
Pathobiology and Therapeutics, Lecturer (4 hrs. online), Active learning modules, Faculty Facilitator (5 hrs.)

Dr. Trout
SMD 535 – Pathobiology & Therapeutics (co-course director), 3 hours + other.
SMD 560 – Medical Neuroscience, 2 hours + other.
SMD 562 – The Mind, 3 hours + other.
SMD 551 – Hematology, 3 hours + other.

Graduate medical education

Dr. Simman
Resident training – 5 residents

Dr. Trout
Geriatric Resident/Fellow Didactics lectures and case discussions, 4.5 hours.
Pharmacotherapy Input/Education

Literature support for Vitamin D & Cognition, Compounded Creams for Pain Management, Memantine & Nitroglycerin Combination.

Continuing medical education [grand rounds, seminars]

Terry Oroszi
Approved Pharmacology and Toxicology Continuing Medical Education (CME), Committee member.

Dr. Trout

Co-presenter at Dimensions of Dementia Professional Symposium, Dayton Alzheimer's Association, "Enhancing Care, Reduce Antitpyschotic Medications".

Other

Dr. Adragna
Attended Distance Learning Student Admission and Enrollment Requirements workshop to assess feasibility of establishing distance learning courses for the P&T MSP, 8/1/13

Dr. Di Fulvio
Short-term Training Program to Increase Diversity in Health-Related Research (STREAMS). Hector Nieves: Gene expression profiling using RT-PCR: impact of primer design and annealing temperature. (grant program student).

USA-Brazil Consortium: Biomedical Sciences Exchange Program. Romario Andrade: Role of NKCCs in glucose Homeostatis (grant program student).

Terry Oroszi
Created the certificate program, approved by Pharmacology & Toxicology, revenue generated $25,380

5 Scholarly Activity

Funded grants

Harvard Medical School. PI, Functional, molecular characterization and regulation of ion transporters in isogenic human epithelial cell lines (IHECLs) with inducible expression of KCC3., $50,000. **Drs. Norma Adragna and Peter Lauf.**

NIH RO1 (HL098637): "Balance of Angiotensin II/Angiotensin (1-7): A Target in Ischemic Stroke", 2010-2014, PI, $1,009,068 Direct Costs. **Dr. Yanfang Chen**

NIH RO1 (HL093567): "ACE Balance in the Cardiovascular Complication of Diabetes", 2008-2013, **Dr. Yanfang Chen, Co-PI, Dr. Mariana Morris, PI**

American Heart Association (13POST14780018): "Role of angiotensin II/angiotensin (1-7) in intracerebral hemorrhagic stroke", 2013-2014, **Dr. Yanfang Chen, Mentor, Dr. Ji Chen, PI.**

DAGMEC, (Co-I) Boivin (PI). N-Linked glycation in tendons of diabetic mice. $2500, 2012-2013. **Dr. David Cool**

NIH- R21NS072103-01, PI. Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor. $250,000, 2010-2013. **Dr. David Cool**

NIH-1P20MD003350-01, Collaborator. CADRE - Center for allaying health disparities through research and education studies on effects of snake venom and their components on prostate cancer cell growth, $13,000 2008-2013. **Dr. David Cool.**

Ohio Peptide- Contract for quality control mass spectrometry of peptides- $10/Peptide 2011-present. **Dr. David Cool.**

Department of Education P116M100027, PI, Translational Biomedical Training for Underrepresented Minorities, $238,048, 2010-2014. **Dr. Khalid Elased.**

BSOM Emerging Science Seed Grant, PI, Urinary ACE2 is a biomarker of diabetic nephropathy, 2013-2014, $12,500, **Dr. Khalid Elased, PI, Dr. Nadja Grobe Co-PI.**

DHHS, NIH R01, Angiotensin Converting Enzyme Balance in the Cardiovascular Complication of Diabetes, $1.873
million, 2008-2014. **Dr. Khalid Elased Co-PI, Dr. Mariana Morris, PI.**

F32DK093226 NIH/NIDDK Ruth L. Kirschstein NRSA Postdoctoral Fellowship, PI, Molecular Imaging of the tissue renin angiotensin system. Examining how local peptide hormones are formed to regulate kidney/cardiovascular function. $150,234, 09/01/2011-08/31/2014. **Dr. Nadja Grobe, Dr. Khalid Elased (mentor).**

R15HL113905 NIH/NIHLB Academic Research Enhancement Award (Parent R15), subcontractor (RC Speth, PI). Development of a radioligand for assay of angiotensin-converting enzyme-2 (ACE-2). Develop a tool to study an enzyme that can lower blood pressure and improve cardiovascular health. $25,000, 09/2014. **Dr. Nadja Grobe.**

AF/SGRS, $1,032,000, **Dr. Saber Hussain.**

NIH, Co-I, Protection against sarin-induced neurotoxicity via an in vivo caspase inhibitor, $703,237, 9/06-9/13. **Dr. Jim Lucot.**

Contract for analytical services, $7,200. **Dr. Jim Lucot.**

Smith & Nephew, Effect of Oasis Ultra Tri-Layer Matrix on State III and IV trunk pressure wounds treated with Negative Pressure Wound Therapy (NPWT), $56,600. 2013, **Dr. Simman.**

5R25GM090122 National Institute of general Medical Sciences, PI 3/11/13-present. Biomedical Scholars Program (BioSTAR), Initiative for Maximizing Student Development (IMSD), $1.2 million, 08/01/2011-06/30/2016.
Dr. Courtney Sulentic.

Emerging Science Seed grant program, WSU, PI. “Effect of specific genetic and environmental factors on Ig heavy
chain expression”, $12,500. **Dr. Courtney Sulentic.**

Proteomic Seed grant program, WSU, PI, “Identification of a novel caspase cleavage product of IκBα”; $4,700. **Dr. Courtney Sulentic.**

Seed grant-Proteomics Program, BSOM. How choroid plexus epithelial cells regulate cerebrospinal fluid potassium
levels? $15,000. **Dr. Alvarez-Leefmans.**

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. Adragna
Canonical Bcl-2 Motifs of the Na/K Pump Revealed by the BH3 mimetic Chelerythrine:Early Signal Transducers in Apoptosis? P. K. Lauf, J Heiny, J Meller, MA Lepera, L Koikov, G M Alter. TL Brown and **NC Adragna**. Cell Physiol.Biochem. 31:257-276, 2013

Surface-enhanced Raman Spectroscopy (SERS)-based tracking of chelerythrine, a Na+/K+ pump inhibitor, into

cytosol and plasma membrane fractions of lens epithelial cells. K. M. Dorney, I. E. P. Sizemore, **N. C. Adragna** and
P. K. Lauf. Cell Physiol. Biochem. 32: 156-167, 2013.

Sea Water Acidification Affects Osmotic Swelling, Regulatory Volume Decrease and Discharge in Nematocytes of the Jellyfish Pelagia noctiluca. Rossana Morabito, Angela Marino, Peter K. Lauf, **Norma C. Adragna**, Giuseppa La
Spada. Cell Physiol Biochem 2013, 32: 77-85.

Dr. Alvarez-Leefmans
Blanco VM, Márquez MS, **Alvarez-Leefmans FJ**. Parallel changes in intracellular water volume and pH induced by
NH3 /NH4+ exposure in single neuroblastoma cells. Cell Physiol Biochem. 2013; 32(7):57-76.

Dr. Chen
Zhao YH, Yuan B, Chen J, Feng DH, Zhao B, Qin C, **Chen YF.** Endothelial progenitor cells: therapeutic perspective for ischemic stroke. CNS Neurosci Ther. 2013;19(2): 67–75

Chen J, Xiao X, Chen S, Zhang C, Chen J, Yi D, Shenoy V, Raizada MK, Zhao B, **Chen Y.** Angiotensin converting enzyme 2 priming enhances the function of endothelial progenitor cells and their therapeutic efficacy. Hypertension 2013;61(3):681-9

Zhu J, Chen S, Wang J, Zhang C, Zhang W, Liu P, Ma R, **Chen Y**, Yao Z. Splenectomy increases the survival time of heart allograft via developing immune tolerance. J Cardiothorac Surg. 2013; 8(1):129

Wang J, Chen S, Ma X, Cheng C, Xiao X, Chen J, Liu S, Zhao B, **Chen Y**. Effects of endothelial progenitor cell-derived microvesicles on hypoxia-reoxygenation induced endothelial dysfunction and apoptosis. Oxidative Medicine and Cellular Longevity 2013; 2013:572729

Ma X, Zhang H, Pan Q, Zhao Y, Chen J, Zhao B, **Chen Y**. Hypoxia/Aglycemia-induced endothelial barrier dysfunction and tight junction protein down regulation can be ameliorated by citicoline. PloS ONE 2013; 8(12):e82604

Dr. Cool
Rutherford, C.M. ,Grunwald, Jr., W. C., Garrett, C.M., **Cool, D.R.**, Cutaneous effect of chlorpyrifos on acetylcholinesterase and endocrine tissues in rats. (In Press J. Env. Imm. Toxicol. 2013).

Ventolini, G., Gigax, S.E. Adelson, M.E., **Cool, D.R.**, Vulvodynia And Fungal Association: A Preliminary Report, Medical Hypotheses, Medical Hypotheses 81 (2013) 228–230

Wrenshall, LE, Clabaugh, SE, **Cool, DR**, Arumugam, P, Grunwald, Jr., WC, Smith, DR, Liu, G, and Miller, JD, A Dimeric Form of Interleukin-2 is Present in Murine Tissues and Cytotoxic to IL-2 Receptor-Bearing Cells. (Submitted PlosOne 2013).

Dr. Di Fulvio
A molecular analysis of Na+-independent cation-chloride cotransporters. Gagnon KBE and **Di Fulvio M** (2013) Cell
Physiol Biochem 32(suppl 1):14-31

Alshahrani S, **Alvarez-Leefmans FJ, Di Fulvio M.** Expression of the Slc12a1 gene in pancreatic β-cells: molecular
characterization and in silico analysis. Cell Physiol Biochem. 2012;30(1):95-112. doi: 10.1159/000339050. Epub 2012 Jun 12. Erratum in: Cell Physiol Biochem. 2013;31(2-3):486. Alvarez-Leefmans, Francisco J [added]. PMID:22759959 [PubMed - indexed for MEDLINE]

Dr. Elased
Chodavarapu H, **Grobe N**, Salem ES, Somineni HK, Madhu MN, **Elased KM** (2013). Rosiglitazone treatment of type 2 diabetic db/db mice attenuates urinary albumin and angiotensin converting enzyme 2. PLoS One. 8(4): e62833. PMID: 23646149.

Dixit TS, Sharma AN, **Lucot JB, Elased KM** (2013). Antipsychotic-like effect of GLP-1 agonist liraglutide but not DPP-IV inhibitor sitagliptin in mouse model for psychosis. Physiol Behavior 114-115: 38-41. PMID: 23523479.

Alghamri M, Weir N, Anstadt M, **Elased KM**, Gurley SB, Morris M (2013). Enhanced Angiotensin II-Induced Cardiac
and Aortic Remodeling in ACE2 Knockout Mice. J Cardiovasc Pharmacol Ther. 18(2): 138-51. PMID: 23043153.

Ernst A, Sharma AN, **Elased KM**, Guest P, Rahmoune H, Bahn S (2013). Diabetic db/db mice exhibit central and peripheral molecular alterations as observed in neurological disorders. Transl Psychiatry. 3(5): e263. PMID: 23715298.

Dr. Grobe

Grobe N, Weir NM, Leiva O, Ong FS, Bernstein KE, Schmaier AH, Morris M, **Elased KM** (2013) Identification of prolyl carboxypeptidase as an alternative enzyme for processing of renal angiotensin II using mass spectrometry. Am J Physiol Cell Physiol 304 (10): C945-53. This article was featured in an Editorial Focus written by Velez JC (2013). Prolyl carboxypeptidase: a forgotten kidney angiotensinase. Am J Physiol Cell Physiol 304 (10): C939-40.

Chodavarapu H, **Grobe N**, Somineni HK, Salem ESB, Madhu M, **Elased KM** (2013) Rosiglitazone treatment of diabetic db/db mice attenuates urinary albumin and angiotensin converting enzyme 2 excretion. PLOS ONE 8 (4): e62833.

Fang C, Stavrou E, Schmaier AA, **Grobe N**, Morris M, Chen A, Nieman MT, Adams GN, LaRusch G, Zhou Y, Bilodeau ML, Mahdi F, Warnock M, Schmaier AH (2013). Angiotensin-(1-7) and Mas Decrease Thrombosis in Bradykinin B2 Receptor Knockout Mice by Increasing NO and Prostacyclin to Reduce Platelet Activation. Blood 121 (15): 3023-3032.

Dr. Hussain

Grabinski CM, Salaklang J, Garrett CM, Schrand AM, Petrie-Fink A, Hofmann H, and **Hussain SM**. (2013) Multi-Functionalized Spions for Nuclear Targeting: Cell Uptake and Gene Expression. Nano. Online Only

Grabinski CM, Schlager JJ, **Hussain SM**. (2013) Hyperspectral microscopy for characterization of gold nanoparticles in biological media and cells for toxicity assessment. Methods Mol Biol. 1025:167-78.

Braun NJ, Comfort KK, Schlager JJ, and **Hussain SM**. (2013) Partial Recovery of Silver Nanoparticle-Induced Neural Cytotoxicity through the Application of a Static Magnetic Field BioNanoScience 1-11 doi 10.1007/s12668-013-0109-2

Maurer EI, Sharma M, Schlager JJ, **Hussain SM**. (2013) Systematic analysis of silver nanoparticle ionic dissolution
by tangential flow filtration: toxicological implications. Nanotoxicology doi:10.3109/17435390.2013.824127.

Untener EA, Comfort KK, Maurer EI, Grabinski CM, Comfort DA, **Hussain SM**. (2013) Tannic Acid Coated Gold Nanorods Demonstrate a Distinctive Form of Endosomal Uptake and Unique Distribution within Cells. ACS Appl Mater Interfaces. 11; 5(17): 8366-73.

Debrosse MC, Comfort KK, Untener EA, Comfort DA, **Hussain SM**. (2013) High aspect ratio gold nanorods displayed augmented cellular internalization and surface chemistry mediated cytotoxicity. Mater Sci Eng C. Mater Biol Appl. 33(7): 4094-100.

Comfort KK, Maurer EI, and **Hussain SM** (2013) The Biological Impact of Concurrent Exposure to Metallic Nanoparticles and a Static Magnetic Field" Bioelectromagnetics 34(7): 500-511

Stacy B, Comfort KK, Comfort D, **Hussain SM** (2013). In Vitro Identification of Gold Nanorods through Hyperspectral Imaging. Plasmonics 1-6

Afrooz AR, Khan IA, **Hussain SM**, Saleh NB. (2013) Mechanistic heteroaggregation of gold nanoparticles in a wide
range of solution chemistry. Environ Sci Technol. 47(4):1853-60.

Afrooz AR, Sivalapalan ST, Murphy CJ, **Hussain SM**, Schlager JJ, Saleh NB. (2013) Spheres vs. rods: The shape
of gold nanoparticles influences aggregation and deposition behavior. Chemosphere. 91(1):93-8.

Zhang Y, Ferguson S.A, Watanabe F, Jones Y, Xu Y, Biris AS, **Hussain SM**, and Ali SF. (2013) Silver

Nanoparticles Decrease Body Weight and Locomotor Activity in Adult Male Rats. Small. 9: 1715–1720.

Dr. Lucot

Ajay Sharma**, Khalid Elased, J.B. Lucot**, Antipsychotic-like effect of GLP-1 agonist liraglutide but not DPP-IV inhibitor sitagliptin in mouse model for psychosis, Physiology Behavior, 114-115; 38-41, 2013

Oswal, D.O., T.L. Garrett, M.Morris, **J.B. Lucot**. Low-dose sarin exposure produces long term changes in brain neurochemistry of mice. Neurochem. Res. 38:108-16, 2013

Garrett, T.L, Joshi, K., C.R. Rapp, M. .Chapleau, **D.R. Cool**, J.J. Schlager and **J.B. Lucot**. The effect of 8-OH-DPAT on neurodegeneration after sarin exposure. Toxicology, 319; 22-28, 2013

Joshi, K., Rapp, C.R., Garrett, T.L., Schlager, J.T., Davidson, M.B., **Cool, D.R., Lucot. J.B.**, The effects of 8-OH-DPAT on neurodegeneration after sarin exposure. Toxicology. 2013 Aug 9; 310:22-8.

Dr. Simman

Caprini J, Partsch R, **Simman R**. Venus Ulcers. Journal of the American College of Clinical Wound Specialists. December 2013.

Simman R. (August 2013). Letter from the Editor. Journal of the American College of Clinical Wound Specialists.4(2): 21.

Simman R, Hoffman A, Hoing J, Newman M. (August 2013). Role of Hyaluronic Acid Treatment in the Prevention of
Keloid Scarring. Journal of the American College of Clinical Wound Specialists. 4(2)23-31.

Simman R, Reynolds D, Saad S. (August 2013). Bedside Bleeding Control, Review Paper and Proposed Algorithm.
Journal of the American College of Clinical Wound Specialists. 4(2): 40-44.

Simman R, Phavixay L (June 2013). Bilateral Toes Necrosis Resulting from Norepinephrine Bitartrate Usage. Advances in Skin & Wound Care. 26(6):254-256.

Simman R, Reynolds D. (2013). Skin Hypersensitivity to Sun Light Due to Doxycycline Ingestion Causing Hand Partial-Thickness Burn. Journal of the American College of Clinical Wound Specialists. 4(1):16-17.

Simman R, Phavixay L, Reynolds D. (2013). Non AIDS Kaposi's Sarcoma Leading to Lower Extremities Wounds, Case Presentations and Discussion. Journal of the American College of Clinical Wound Specialists. 4(1):13-15.

Dr. Sulentic

Sharma, M., Salisbury, R., **Hussain, S., Sulentic, C. E. W**.: Gold nanoparticles induce transcriptional activity of NF-
κB in a B-lymphocyte cell line. Nanoscale, 5:3747 (2013)

Sharma M, Salisbury R, Maurer E, **Hussain SM, and Sulentic C** (2013) Gold nanoparticles induce transcriptional activity of NF-κB in a B-lymphocyte cell line. Nanoscale 5, 3747-3756.

Books, chapters, reviews

Dr. Adragna

Synopsis of the 48th Annual Meeting of the Lake Cumberland Biological Transport Group and the Second Biannual Meeting of the Pendrin Consortium, Silvia Dossena, Charity Nofzigera, Morabito Rossana, Norma Adragna, Markus Paulmichl, Cell Physiol Biochem;32(suppl 1):1-13, 2013.

Dr. Di Fulvio

A molecular analysis of Na+-independent cation-chloride cotransporters. Gagnon KBE and Di Fulvio M, Cell Physiol
Biochem 32(suppl 1):14-31, 2013.

Chloride channels and transporters in b-cell Physiology. Di Fulvio M, Lydia Aguilar-Bryan and Peter Brown. In: The

Islets of Langerhans. Ed. Md. Shahidul Islam M.D., Ph.D. Springer Netherlands. http://isletbook.islets.se/#home

Dr. Hussain
Braydich-Stolle LK, Schaeublin NM, and Hussain SM, In vitro toxicity assessment of metallic nanoparticles. In: Towards efficient designing of safe nanomaterials: Innovative Merge of Computuational Approaches and Experimental Techniques. Puzyn T and Leszczynski J, The Royal Society of Chemistry, 27-43, 2013.

Terry Oroszi
Co-editor of book, "Weapons of Mass Psychological Destruction"

Dr. Sulentic
Kaplan, B. L. F., Sulentic, C. E. W., Holsapple, M.P., Kaminski, N.E.: Chapter 12P Toxic Responses of the Immune
System. In: Casarett & Doull's Toxicology, The Basic Science of Poisons (ed. C.D. Klaassen), 8th edition, McGraw- Hill, USA, 2013.

Published abstracts

Dr. Adragna
The K-Cl cotransporter KCC3 is a catalytic switch of cellular K and volume homeostasis. **Norma C Adragna**, Nagendra Ravilla, Peter K Lauf and Kristopher T Kahle. Faseb J. 2013

Rb influx in K-Cl Cotransporter (KCC3)-transfected human embryonic kidney (HEK293) cells and effect of external Na. Nagendra Ravilla, Peter K Lauf, Kristopher T Kahle, **Norma C Adragna**. Faseb J. 2013.

Apelin regulation of potassium chloride cotransport (KCC) in vascular smooth muscle cells: relation to cardiovascular disease. Neelima Sharma, Peter K Lauf, **Norma C Adragna**. Faseb J. 2013.

Novel mechanism of Na/K pump inhibition by chelerythrine, a protein kinase inhibitor, uncovers potential early signal transduction of apoptosis. Peter K Lauf, Judith Heiny, Gerald M Alter, Jarek Meller, Thomas L Brown and **Norma C Adragna**. Faseb J. 2013

Williams, B.**, Cool D.R., Adragna, N.** Grunwald, Jr., W. Lauf, P.K., Tracking CET in the plasma membrane and cytosol of human lens epithelial cells. OVSOT, Sept 23, 2013

Sea Water Acidification Affects Osmotic Swelling, Regulatory Volume Decrease and Discharge in Nematocytes of the Jellyfish Pelagia noctiluca. Rossana Morabito, Angela Marino, Peter K. Lauf, **Norma C. Adragna**, Giuseppa La Spada, Cell Physiol Biochem;32(suppl 1):77-85, 2013.

Dr. Alvarez-Leefmans
Cha, D., Crum, J.M., & **Alvarez-Leefmans, F.J**. Expression of water channels, Na+/K+ pump, and Na+-K+-2Cl-cptransporters in mouse choroid plexus. Boonshoft SOM Central Research Forum, Dayton, OH. Thurs, 10/24/2013, Abstract 49

Dr. Di Fulvio
Genotyping mice DNA isolated using cross-linked iminodiacetate styrene divinylbenzene copolymer beads (Chelex). Boivin GP, Otaño-Rivera V, Boayke A, **Grobe N and Di Fulvio M**. 64th AALAS National Meeting. Baltimore, Maryland October 27-31, 2013.

NKCC1 localization and intracellular trafficking: Role of N-glycosylation. Singh R & **Di Fulvio M**. Experimental Biology 2013.

Dr. Elased
Elased KM, Gutta S, Alawi LF, Somineni HK, Boivin GP. Urinary Neprilysin protein expression in db/db diabetic mice.
Conference: 49th Annual Meeting of the European Association for the Study of Diabetes (EASD).
Location: Barcelona, SPAIN Date: SEP 23-27, 2013, Sponsor(s): European Association Study of Diabetes.
Diabetologia Volume: 56 Supplement: 1 Pages: S308-S308, Meeting Abstract: 765 Published: SEP 2013

Di Fulvio M, Kashkari NF, Shah EJ, Somineni H, Chodavarapu H, Almiahoub M, Singh R, **Grobe N, Elased KM.** Silencing of a Disintegrin and Metalloproteinase (ADAM) 17 enhances ACE2 Protein Expression and Activity in COS7 cells. Conference: 49th Annual Meeting of the European-Association-for-the-Study-of-Diabetes (EASD). Location: Barcelona, SPAIN Date: SEP 23-27, 2013. Sponsor(s): European Association Study of Diabetes. Diabetologia Volume: 56 Supplement: 1 Pages: S482-S482. Meeting Abstract: 1202, Published: SEP 2013.

Alghamri M, **Grobe N, Elased KM**, Meszaros G, Luther D, Morris M. Novel role of Aminopeptidase A enzyme in Ang-(1-7) metabolism Post Myocardial Infarction. Hypertension 60: 62, 2013. Conference: Annual Meeting of the American Heart Association-HBPC. Location: New Orleans, LA Date: SEP 11-14, 2013.
Sponsor(s): AHA Council for High Blood Pressure Research and the Council on Kidney in Cardiovascular Disease.
Hypertension 60: 62, Published: SEP 2013

Salem ES, Somineni H, **Elased KM.** Insulin Treatment Down regulates Renal ADAM17 Protein Expression and ACE2 Shedding in Akita Diabetic Mice. Diabetes 62: 2013. Conference: 49th Annual Meeting of the European-Association-for-the-Study-of-Diabetes (EASD). Location: Barcelona, SPAIN Date: SEP 23-27, 2013. Sponsor(s): European Association Study of Diabetes. Diabetes Volume: 62 Supplement: 1 Pages: S482-S482. Meeting Abstract: 1202, Published: SEP 2013

Somineni H, Salem ES, Boivin GP, **Elased KM**. Physical Exercise Training and Metformin Treatment Attenuated Albuminuria and Shedding of ACE2 in db/db Mice. Diabetes 62: 2013. Conference: 49th Annual Meeting of the European-Association-for-the-Study-of-Diabetes (EASD). Location: Barcelona, SPAIN Date: SEP 23-27, 2013 . Sponsor(s): European Association Study of Diabetes. Diabetes Volume: 62 Supplement: 1 Pages: S482-S482. Meeting Abstract: 1202, Published: SEP 2013.

Kashkari N, Chodavarapu H, **Grobe N, Salem E, Elased KM** Regulation of ADAM17 and ACE2 in db/db Mice Treated with Rosiglitazone. 28th Meeting of the Ohio Physiological Society held in Northeastern Ohio Medical University (NEOMED), Rootstown, OH, October 17-18, 2013.

Gutta S, Somineni HK, Boivin, GP, **Elased KM**. Role of Physical Exercise Training on Renal and Urinary Neprilysin Protein Expression in db/db mice. 28th Meeting of the Ohio Physiological Society held in Northeastern Ohio Medical University (NEOMED), Rootstown, OH, October 17-18, 2013

Alawi L, Chodavarapu H, **Grobe N, Elased KM**. Rosiglitazone normalized Hyperglycemia and increased renal neprilysin protein expression in db/db diabetic mice. 28th Meeting of the Ohio Physiological Society held in Northeastern Ohio Medical University (NEOMED), Rootstown, OH, October 17-18, 2013.

Hicham Ismail, Adrienne Stolfi, Adrian Corbett, **Khalid Elased**, Nicole Borges, Dean Parmelee, Paul Koles. How Does Participation in Team-Based Learning Affect Medical Students' Longer-Term Learning? Boonshoft School of Medicine, Wright State University. Central Research Forum, Dayton, OH, USA, October 2013.

Sridevi Gutta, Hari Somineni, Gregory Boivin, **Khalid Elased**. Role of Physical Exercise Training on Renal and Urinary Neprilysin Protein Expression in db/db mice. Boonshoft School of Medicine, Wright State University. Central Research Forum, Dayton, OH, USA, October 2013

Laale Alawi, Harshita Chodavarapu, **Nadja Grobe, Khalid Elased**. Rosiglitazone normalized Hyperglycemia and increased renal neprilysin protein expression in db/db diabetic mice. Boonshoft School of Medicine, Wright State University. Central Research Forum, Dayton, OH, USA, October 2013.

Nada Kashkari, Harshita Chodavarapu, **Nadja Grobe**, Esam Salem, Hari Somineni, **Khalid Elased**. Regulation of ADAM17 and ACE2 in db/db Mice Treated with Rosiglitazone. Boonshoft School of Medicine, Wright State University. Central Research Forum, Dayton, OH, USA, October 2013

Dr. Grobe

Alhajoj AM, Alghamri MS, Pohlman RL, **Grobe N**, Nakamoto D, Morris M. Role of AT1a receptor in cardiac function and acid base homeostasis during exercise endurance. Hypertension 2013, 62:A205.

Leiva O, **Elased KM**, Morris M, **Grobe N**. Loss of renal prolyl carboxypeptidase in mice with chronic kidney disease. Hypertension 2013, 62:A188.

Grobe N, Elased KM, Salem ESB, Gurley SB, Ong FS, Bernstein KE, Schmaier AH, Morris M. Discovery of new renal Ang II processing enzyme activity using mass spectrometry and gene deletion mouse models. FASEB J 2013, 27:1120.2.

Nadja Grobe N, Elased KM, Salem ES, Susan B Gurley SB, Ong FS, Bernstein KE, Alvin H Schmaier AH, Morris M. Discovery of new renal Ang II processing enzyme activity using mass spectrometry and gene deletion mouse models.
Conference: Joint Annual Meeting of the ASPET/BPS at Experimental Biology (EB). Location: Boston, MA Date: APR 20-24, 2013. Sponsor(s): ASPET; British Pharmacological Society (BPS). FASEB JOURNAL Volume: 27 Meeting Abstract: 1165.18 Published: APR 2013.

Dr. Hussain
Total of 20 (on file with Dr. Hussain)

Dr. Lucot
Smith, E.A., A.L.Schwartz, T.L.Garrett, **J.B. Lucot.** Measurement of urinary catecholamines for mice. EB, Boston, 2013.

Helton, D.R., **J.B. Lucot**. TI-385, a 50HT1a/d agonist, shows efficacy as an anti-emetic devoid of anxiogenic activity. Biology and Control of nausea and Vomiting, Pittsburgh, PA, 2013.

Lucot, J.B., R. Brame, D.R. Helton. Broad-spectrum antiemetic effects of ETI-385 in Suncus. Biology and Control of nausea and Vomiting, Pittsburgh, PA, 2013.

Dr. Sulentic
Sulentic, C. E. W. and Kaplan, B. L. F.: From new submissions to competitive renewals: different phases of grant writing. Toxicological Sciences, the Toxicologist, 132:378, 2013.

Sulentic, C. E. W. and Ponce, R.: K-12 Toxicology outreach activities: regional chapter successes and resources. Toxicological Sciences, the Toxicologist, 132:1666, 2013.

Johnson, B., Liu, J., **Sulentic, C. E. W**.: TCDD-induced modulation of Ig expression in a human B lymphocyte cell line. Toxicological Sciences, the Toxicologist, 132:2086, 2013.

Sharma, M., **Sulentic, C. E. W**., Schlager, **J., Hussain,** S.: Neurotoxicity of Au-NPs in an In Vitro blood brain barrier (BBB) model. Toxicological Sciences, the Toxicologist, 132:1776, 2013.

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

Dr. Adragna
Functional expression of a constitutively active double alanine KCC3 mutant (AA) in HEK293 cells. Lake Cumberland Biological Transport Group 2013, Kentucky.

The K-Cl cotransporter KCC3 is a catalytic switch of cellular K and volume homeostasis. Norma C Adragna, Nagendra Ravilla, Peter K Lauf and Kristopher T Kahle. Experim. Biol. Mtg., Boston, MA, April 20-24, 2013.

Rb influx in K-Cl Cotransporter (KCC3)-transfected human embryonic kidney (HEK293) cells and effect of external Na. Nagendra Ravilla, Peter K Lauf, Kristopher T Kahle, Norma C Adragna. Experim. Biol. Mtg., Boston, MA, April 20-24, 2013.

Apelin regulation of potassium chloride cotransport (KCC) in vascular smooth muscle cells: relation to cardiovascular disease. Neelima Sharma, Peter K Lauf, Norma C Adragna. Experim. Biol. Mtg., Boston, MA, April 20-24, 2013.

Novel mechanism of Na/K pump inhibition by chelerythrine, a protein kinase inhibitor, uncovers potential early signal transduction of apoptosis. Peter K Lauf, Judith Heiny, Gerald M Alter, Jarek Meller, Thomas L Brown and Norma C Adragna. Experim. Biol. Mtg., Boston, MA, April 20-24, 2013.

Functional expression of a constitutively active double alanine KCC3 mutant (AA) in HEK293 cells. 48th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 17-19, 2013Lake Cumberland Biological Transport Group 2013, Kentucky.

Functional expression of transfected KCC3 wild type (WT) in HEK293 cells.Nagendra B. Ravilla, Peter K. Lauf, Kristopher T. Khale and Norma C. Adragna, 48th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 17-19, 2013

Surface-enhanced Raman Spectrophotometric (SERS) tracking of chelerythrine, a Na+/K+ pump inhibitor, into cytosol and membrane fractions of lens epithelial cells.Kevin M. Dorney, Ioana Pavel-Sizemore, Norma C. Adragna and Peter K. Lauf, 48th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 17-19, 2013

Dr. Alvarez-Leefmans
Symposium Chair and Speaker of the Cell and Molecular Section of the American Physiological Society (CaMPS), at the Experimental Biology Meeting 2013. The symposium and the presentation were held in Boston, MA, on 4/21/2013. Symposium title: "Physiology and Pathology of Chloride Transporters in CNS" Talk title: Molecular Physiology of CSF potassium regulation by cation-coupled chloride cotransporters expressed in choroid plexus epithelial cells. The Symposium was financially supported by the CaMPS of the American Physiological Society.

Invited Speaker in the symposium "Brain and Freedom. Talk title: "Free will and decision making, a neurobiological perspective" Fondo de Cultura Económica. Mexico City, Mexico 8/15/2013

Dr. Chen
"Cell-released Microvesicles and Exosomes: Implications in Vascular Diseases". Invited Presentation in the Department of Biochemistry and Molecular Biology, Wayne State University School of Medicine on Oct 22, 2013.

"Extracellular microvesicles: updates in basic and clinical studies". Invited Presentation in Guangzhou Medical University on April 10, 2013.

Dr. Di Fulvio
Chloride, Dogmas, and Insulin Secretion. Pacific Northwest Research Institute. Seattle WA. 2013

Role of NKCCs in insulin secretion. Annual Lake Cumberland Biological Transport Group Meeting, Jamestown, KY

Mechanisms of Insulin secretion. Dept. of Pharmacology & Toxicology, Boonshoft School of Medicine, Wright State University

Dr. Elased
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. Grobe
"Novel role of Aminopeptidase A enzyme in Ang-(1-7) metabolism post myocardial infarction" September 10, International Society of Hypertension New Investigator's Symposium, New Orleans, LA

"Discovery of new renal Ang II processing enzyme activity using mass spectrometry and gene deletion mouse models" April 22, EB meeting, Boston, MA

"Mass spectrometric imaging of renal angiotensin metabolism" March 14, Medical University of South Carolina, Department of Nephrology, Charleston, SC

"Angiotensin II processing enzymes: renoprotection and disease biomarker" Jan 14, WSU, Department of Pharmacology and Toxicology, Dayton, OH

Dr. Lucot
Serotonergic mechanisms of neuroprotection from sarin-status epilepticus. CBRN, AFIT, WPAFB, Dayton, OH, 2013

"Emetic mechanisms". SMT. Kashibai Navale College of Pharmacy, Pune, India, 2013.

Terry Oroszi
Co-chaired the FBI/WMD day-long symposium

Dr. Simman
"Atypical Wounds, Diagnosis and Treatment." Third Annual Wound Care Symposium, Advancing the Standards in Wound Care. Marriott of Dayton. Dayton,Ohio. Oct 11, 2013.

"Back to Basics Introductory Course to Wound Care." Wright State University, student union. Dayton,Ohio. Oct 12, 2013.

"Introduction to Clinical Research." Faculty meeting at Pharmacology and Toxicology Department. Wright State University. Oct 4, 2013.

"Wound Closure and the Reconstructive Ladder in Plastic Surgery." 2013 Wound Care & Hyperbaric Symposium, University of Toledo. Nov, 8 2013.

Dr. Sulentic
Transcriptional Regulation of the Immunoglobulin Heavy Chain Gene: A Novel Target of Exogenous Chemicals? Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Little Rock, AR 2013.

Workshop Chair and Organizer
From New Submissions to Competitive Renewals: Different Phases of Grant Writing. Society of Toxicology, San Antonio, TX, 2013.

K-12 Toxicology Outreach Activities: Regional Chapter Successes and Resources. Society of Toxicology, San Antonio, TX, 2013.

Student Oral Presentations (*trainee presenter from Sulentic lab)
*Johnson, B., Sulentic, C. E. W.: TCDD alters IgM and IgG secretion in a human B cell line. Celebration of Research, Scholarship, and Creative Activities, Wright State University, Dayton, OH, 2013.

Poster Presentations
*Sharma, M., Sulentic, C. E. W., Schlager, J., Hussain, S.: Neurotoxicity of Au-NPs in an In Vitro blood brain barrier (BBB) model. Toxicological Sciences, the Toxicologist, 132:1776, 2013.

Johnson, B., Liu, J., Sulentic, C. E. W.: TCDD-induced modulation of Ig expression in a human B lymphocyte cell line. Toxicological Sciences, the Toxicologist, 132:2086, 2013.

*Freiwan, A., Johnson, B., Sulentic, C. E. W.: TCDD-induced modulaton of Ig expression in a human B lymphocyte cell line. Celebration of Research, Scholarship, and Creative Activities, Wright State University, Dayton, OH, 2013.

*Snyder, A., Ochs, S., Johnson, B., Sulentic, C. E. W.: TCDD-induced activation of the human immunoglobulin hs1,2 enhancer is not altered by mutation of transcription factor binding sites within the polymorphic region. Ohio Valley Society of Toxicology, Louisville, KY, 2013.

*Freiwan, A., Johnson, B., Sulentic, C. E. W.: Elucidating the role of the polymorphic human hs1,2 enhancer in the effects of TCDD. Ohio Valley Society of Toxicology, Louisville, KY, 2013.

Consultantships [sponsor activity]

Dr. Cool
NIH, Arlian (PI) Funded Consultant, Scabies: Biology, Culture, Host Specificity and Antigens, 2011-2014.

NSF, Hennessy (PI) Funded Consultant, Mechanisms mediating social buffering of hypothalamic-pituitary-adrenal responses, 2011-2014

Dr. Simman
Medical Director, Wound Care Program and Surgical Services at Kindred Hospital

Wound Care Program Director, Laurels of West Carrollton, Aug 2013-present
Wound Care Program Director, Elm Creek of West Carrollton, Jan 2013-July 2013

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

Dr. Adragna
Editorial Board, Journal of Cellular Physiology and Biochemistry, 2000-present.

Regular reviewer of > 25 scientific journals

Dr. 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

Dr. Chen
Guest Editor, Oxidative Medicine and Cellular Longevity
The State Natural Science Award of the People's Republic of China

Dr. Cool
2013-present: Editorial Board Journal of Environmental Immunology and Toxicology
2013 NIH Counter Act Study Section Member Molecular, Cellular & Developmental Neurosciences Integrated Review Group. R21 Study Section Reviewer (06/09/2013)

Dr. Di Fulvio
Grant reviewer for the American Heart Association.
Grant reviewer for National Agency for the Promotion of Science and Technology (Argentina)

Dr. Elased
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. Grobe
Reviewer for Plos One

Dr. Hussain
Editorial Positions
Toxicological Sciences (ASSOCIATE EDITOR)
2009-2012: NeuroToxicology (Editorial Member)

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

Dr. Sulentic
Student Award, BioSTAR Fellow, National Institution of General Medical Sciences (NIGMS)
Travel award for national SOT meeting from the SOT Education Committee

6 Summary of Service Activities

Student advising

Dr. Adragna
Wedad Zaqar, MS student, graduating May 2014
Bradley Williams, MS student, graduated December 2013
Tariq Alqahtani, MS student
Mohamed Almiahoub, PhramD. MS WSU 2012. Expected to graduate in 2014
Richa Singh, PharmD. MS WSU 2012. Graduated in 2013
Mohammed Almutairi, PharmD. MS WSU 2012. Expected to graduate in 2014
Shams Kursan, PharmD. MS WSU 2013. Expected to graduate in 2014
Hala Ammar, P&T MS thesis committee, Grad 2014

Lab Rotations:
Lab Rotations:
Mahesh Kodali, P&T MS
Jasser Alzhrani, P&T MS
Kavya Annu, P&T MS
Pankaj Patyal, P&T MS
Walid Mari, P&T MS

Review Writing:
Ahmed M. Hegazy, P&T MS
Ibrahim Dukali, P&T MS
Basher I. Emtebakh, P&T MS

Dr. Alvarez-Leefmans

Ph.D. Student Committees:
Ahmed Obeidate, graduated May 2013, BMS PhD, advisory committee
Andy Koesters, Year 3 BMS PhD, advisory committee

MS Student Committees from other departments:
Allolo Aldreiwish, graduated December 2013, M&I MS
Noura Shaklawoon, M&I MS
David Dixon, M&I MS

Dr. Chen
Dan Yi, MS, Thesis committee
Mounika Nomula, MS, Thesis committee
Ji Chen, post-doctoral fellow
Bin Yuan, visiting scholar
Luilian Ma, visiting scholar
Jiaolin Zheng, visiting PhD student
Deekshith Vanamala, MS lab rotation
Langni Liu, MS lab rotation
Yirong Zhou, MS lab rotation

Dr. Cool

M.S. Committee Member:
Pavani Beesetty, M.S., Committee Member, P&T, Grad- 2013
Dan Yi, M.S., Committee Member P&T, Grad- 2013
Hala Mustafa Ammar, M.S., Committee Member P&T, Proj- 2014
Xiang Xiao, M.S., Committee Member P&T, Grad- 2013
Mohammed Altuuri, M.S., Committee Member P&T, Proj- 2014

Ph.D. Student Committees:
Richard Salisbury, Ph.D., Committee Member ES (P&T), Proj- 2014
Curt Grigbsy, Ph.D., Advisor BMS (P&T), Grad- 2013
Amanda Freeman, MD/PhD, Committee Member P&T, Grad- 2013
Ryan Yoakum, Ph.D., Committee Member BMS (BMB), Proj- 2014
David Ellis, Ph.D., Committee Member BMS, Proj- 2014
Eric Romer, Ph.D. Committee Member BMS, Grad- 2014
Dawahl Oswal, Ph.D., BMS Representative BMS, Proj- 2014
Neelima Sharma, Ph.D., BMS Representative BMS, Proj- 2014
Prakash Arumagam, Ph.D., Committee Member BMS (NCBP), Proj- 2015
Jinju Wang, Ph.D., Committee Member BMS (P&T), Proj- 2016
Anthony Polito, Ph.D., Co-Advisor BMS (P&T), Proj- 2015
Stogsdill, Brian, Ph.D. Committee Member BMS (Bio), Proj- 2016

Dr. Di Fulvio
Romario Andrade, USA-Brasil Consortium: Biomedical Sciences Exchange Program 2013

Advisor for Graduate students (Master's Program):
Mohamed Almiahoub, PhramD. MS WSU 2012. Expected to graduate in 2014
Richa Singh, PharmD. MS WSU 2012. Graduated in 2013
Mohammed Almutairi, PharmD. MS WSU 2012. Expected to graduate in 2014
Shams Kursan, PharmD. MS WSU 2013. Expected to graduate in 2014

Dr. Elased
Lesan Mattis, Wright State University's Grad-Prep Scholar Training Program to Increase Diversity in Health-Related I.
Teresa Fennell. Undergraduate honor student, Wright State University
Dhawal Oswald (4th yr BMS), Thesis Advisory Committee Member
Venus Ebrahimian, Thesis Advisory Committee Member
Richa Singhm Thesis Advisory Committee Member

Dr. Grobe
Sana Elhagi Emberesh, 2012-present, Master's student, Thesis supervision
Sridevi Gutta, 2012-present, Master's student, Thesis supervision
Nada Faisal Kashkari, 2012-present, Master's student, Thesis supervision
Laale Fakhri Alawi, 2012-present, Master's student, Thesis supervision
Najat Khalifa Ali Al Mahroug, 2011-2013, Master's student, Thesis supervision
Lesan Mattis, GRAD-PREP Scholar, mentor
Mahmoud Alghamri, Master's student, Fulbright Fellow

Dr. Hussain
Monita Sharma, BMS Ph.D. student
Dave Ellis, BMS Ph.D. student
Eric Romer, Ph.D. thesis committee

Dr. Lucot
Christopher Ruark, BMS Ph.D. committee
Pavaani Beetsy, M.S. student committee
Amber Braddock, M.S. student committee
Ekta Shah, M.S. student committee
STREAMS summer program student mentor
BioSTAR student mentor (2)
GradPrep student mentor

Terry Oroszi

Student Advising:
Samera Al Acrouk
Elham Elhshik
Khaled Elzergani
Maison Embirsh
Alexandros Karabinis
Fatma Mohamed
Ramzi Mohsen
Ibrahim Dukali
Heather Booth
Tara Taylor
Amira Aburagaya
Basher Emtebakh
Ahmed Hagezy
Taofik Nasrat
Mohamad Almiahuob
Mohamad Zwaitt
Nabil Murghum
Jacob Heitzman
Samia Mohamed
Mounika Nomula
Amruta Pradhan
Brenda Owuor
Cierra Bell
Hala Rbie Alsheikh
Hector Nava
Joshua Buck
Muna Osman
Musieba Ibrahim
Majdi Abulmaula

Dr. Simman
Adbelfatah Abou Issa, M.S. student committee
Mackenzie Newman, M.S. student committee
Dan Yi, M.S. student committee

Dr. Sulentic

Graduate Research Trainees:
Andrew Snyder, BMS Ph.D.
David Ellis, BMS Ph.D., (co-advisor with Dr. Hussain Saber, WPAFB)
Richard Salisbury, ES Ph.D. (working full time and writing thesis)
Eric Romer, BMS Ph.D., defended October 2013
Monita Sharma, BMS Ph.D., (co-advisor with Dr. Hussain Saber, WPAFB) defended December 2013
Naga Lakshmi Kaulini Burra, Pharm/Tox M.S.
Bassam Kashgari, Microbiology/Immunology M.S.
Abdulla Freiwan, Microbiology/Immunology M.S.

Graduate Advisory Committees:
Sumeet Poudel, BMS Ph.D.
Anthony Polito, BMS Ph.D. (BMS representative)
Todd Lewis, BMS Ph.D. (BMS representative)
Joanna Barthelemy, BMS Ph.D.
Shannon Romer, BMS Ph.D.
Adam Deardorff, BMS Ph.D. (BMS representative)
Ekta Shah, Pharm/Tox M.S.
Kathryn Ibbotson, Pharm/Tox M.S.
Hari Krishna Somineni, Pharm/Tox M.S. defended
Renee Albers, Microbiology/Immunology M.S. defended

Dr. Trout
Provided unofficial advising to 2nd yr BSOM students regarding approaches to learning pharmacology/therapeutics

Committee membership/officer [indicate if committee chair]

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

Dr. Adragna
FADC committee chair, 2000-March 2013 when appointed Interim Chair of Pharmacology & Toxicology
Vice-Chair, Lake Cumberland Biological Transport Group
Member, Pharmacology & Toxicology Scholarships Committee
Nominating Committee, BSOM Chair

Dr. Alvarez-Leefmans
Member of the Pharmacology & Toxicology Faculty Affairs and Development Committee.
Senator representing the Boonshoft School of Medicine Constituency- 2013-2014 Faculty Senate.
Organizer and co-chair of the retreat to discuss the Pharmacology and Toxicology Master's Program.

Dr. Chen
Member, Admission Committee, BMS PhD program
Member, Admission Committee, Pharmacology & Toxicology M.S. program

Dr. Cool
Research Challenge-Seed Grant Review Committee- Proteomics, 2012- present

BioMedical Sciences Program (BMS):
Nominating Committee, 2013-2015
Recruiting Committee, 2013
Academic Policies Committee, 2011-2015

Pharmacology & Toxicology:
Chair- Faculty Affairs Development Committee, 5/2013-present
Acting Chair when Dr. Adragna is traveling, 2013-present
Chair- Assistant Professor Search Committee, 2013
Strategic Planning Committee P&T Dept, 2013
Director- Proteome Analysis Laboratory, 2004- present
Faculty Affairs Development Committee, 2005- present

Dr. Di Fulvio
Member of the Pharmacology & Toxicology Students' Admissions Committee.
Member of the Pharmacology & Toxicology Scholarships Committee.

Dr. Elased
Member of the Pharmacology & Toxicology Master Program Advisory Committee.
Member of the BSOM Research Committee.
Member of the search committee for director of BSOM therapeutics curriculum.

Dr. Lucot
Faculty Affairs Development Committee, Pharmacology & Toxicology
Master's Admissions Committee, Pharmacology & Toxicology

Terry Oroszi
Master's Admissions Committee, Pharmacology & Toxicology
Master's Advisory Committee, Pharmacology & Toxicology
Master's Curriculum Committee, Pharmacology & Toxicology
Master's Scholarship Committee, Pharmacology & Toxicology

Dr. Sulentic
Faculty Curriculum Committee, BSOM, 2013-2016
BSOM Strategic Plan – Focus Committee for Research, 2013
Nominating Committee, BSOM, 2012-2014
Pathobiology and Therapeutics Steering Committee, BSOM, 2009-2014
Director of Seminar Series for the Department of Pharm/Tox, 2004-present
Chair Review Committee, Pharm/Tox, 2013
Faculty Affairs and Development Committee (FADC), Pharm/Tox, 2013-present

Wright State University

Dr. Alvarez-Leefmans
Alternate member, Laboratory Animal Care and Use Committee

Dr. Chen
Member, Honors Program WSU
Member, Parking Committee, WSU

Dr. Cool
Faculty Senate Information Technology Committee, 2012-2014
Graduate Council, 2011-2014

Dr. Grobe
Member of the Executive Leadership Team for the Dayton Heart Ball, WSU
Member Fundraising and Bylaws Committees, Women in Science Giving Circle, WSU
Facilitator, Inclusion Training of Search Committees, WSU

Terry Oroszi
Co-Chair, Advisory Board Emergency Management Disaster Preparedness M.S. degree program

Dr. Sulentic
Women's Peer Mentoring Group, supported by the NSF-funded LEADER Program at WSU, 2013-present
BMS Admissions Committee, 2013-2014
Nominating Committee, elected member, BMS, College of Science and Math and BSOM, 2011-2013
Core Curriculum Committee, BMS Ph.D. Program, elected member, 2012-2014
Radiation Safety Committee, 2005-present; Chair, 2013-present; Review of Radiation Safety Program,
Sigma Xi President, Wright State University chapter, 2008-present

Dr. Trout
BSOM Biennium I Committee (voting member)
BSOM Biennium II Committee (non-voting member)
BSOM Faculty Curriculum Committee
Co-Chair of Advanced Doctoring Subcommittee (appointed November 2013)
Steering Committees for the following courses: Principles of Disease, Pathobiology & Therapeutics, Medical Neuroscience, The Mind, Hematology, Cardiovascular, Respiratory, Renal, Endocrine, Reproduction and Digestive

Wright State Physicians

N/A

Hospital or affiliated institution [name]

Dr. Cool
Judge, MVH Resident Research Day – OB/GYN

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

Collaboration with VA Hospital

State

Dr. Adragna
Poster Judge, Ohio Physiological Society: 28th Annual Meeting, Northeast Ohio Medical University, Rootstown, OH, October 17-18, 2013.

National

Dr. Adragna
Peter K. Lauf Celebration Symposium, Co-Organizer, Experim. Biol. Mtg, Boston, MA, April 20, 2013.

Lake Cumberland Biological Transport Group, Elected Chair and Meeting Organizer, 2013-present.

Session Chair, 48th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 18, 2013.

Session Chair, 48th Annual Lake Cumberland Biological Transport Group, Lake Cumberland, Jamestown, KY, June 19, 2013.

External Collaborator, Doctorate Course in Molecular Microbiology and Virology, Dept. Life Sci. "M. Malpighi", University of Messina, Italy, 2010-present.

Dr. Alvarez-Leefmans
Ad hoc reviewer, National Science Foundation (NFS)

Dr. Chen
Abstract grader for Annual Scientific Conference of American Heart Association
Oversea reviewer, Division of Materia Medica and Pharmacology, National Natural Science Foundation of China

Dr. Cool
Member, Association of Biomolecular Research Facilities (ABRF), 2012-present
Member, American Society for Mass Spectrometry, 2007-present

Dr. 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. Elased
AHA High Blood pressure Council Conference Review Committee
Elected as the delegate of BSOM to the US Pharmacopeia.
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)

Dr. Grobe
2013-present, Chair, Meeting Travel Awards Subcommittee, National Postdoctoral Assoc.
2013-present, Member, Meeting Fundraising Subcommittee, National Postdoctoral Assoc.
2012-2014, Early Career Committee, Council on the Kidney in Cardiovascular Disease, American Heart Assoc.
2012-2013, Vice Chair, Meeting New Member/Networking subcommittee, National Postdoctoral Assoc.

Dr. Lucot
Journal reviewer: Physiology and Behavior, Hormones and Behavior, Metabolic Brain Disease

Dr. Simman

President & Chair, American Board of Wound Medicine and Surgery November, 2011–present
Editor in Chief, Journal of the American College of Certified Wound Specialists, 2009-present
Member, Editorial Board, Annals of Plastic Surgery, 2009 – present

Dr. Sulentic
Past-President, Ohio Valley Society of Toxicology
Chair, Appointed to Career Resource and Development Committee (CRAD), Society of Toxicology (SOT), 2012-2013
Mentor Match program organizer and facilitator, SOT
Regional Chapters Communication and Collaboration Committee, K-12 Education/Outreach Liaison
Invited Expert, Colgate-Palmolive Luncheon, SOT Annual Meeting
Ad-hoc reviewer for the journals of Chemical Research in Toxicology, Environmental, Food and Chemical Toxicology, Histology and Histopathology, International Immunopharmacology, International Journal of Toxicology, Journal of Immunotoxicology, Journal of Pharmacology and Experimental Therapeutics, NeuroToxicology, Toxicological Sciences, Toxicology, Toxicology and Applied Pharmacology, Toxicology in Vitro, Pharmaceutical Research

Other

Dr. Adragna
Director, Cell Biophysics Group, Pharmacology & Toxicology
Chair and organizer, Lake Cumberland Biological Transport Group

Dr. Alvarez-Leefmans
Frequent reviewer (12 papers) for:
J. Neuroscience
J. Neurophysiology
Frontiers in Neuroscience
Frontiers in Membrane Physiology and Biophysics
J. Physiology

Dr. Cool
Self-Evaluation of the M.S. program in Pharmacology & Toxicology
Creation of M.S. program policy for Pharmacology & Toxicology
Director, Proteome Analysis Laboratory, Pharmacology & Toxicology

Dr. Elased
Delegate of the WSU Boonshoft School of Medicine to the United States Pharmacopeia
Referee of scientific journals:
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

Reviewer of the following Journal:
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
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 Proteome Research
Journal of the American Society of Hypertension
Life Sciences
Metabolism- Clinical and Experimental
Microbial Pathogenesis
Molecular Psychiatry
Nephron Physiology
PLoS One

Research Peer Review:
National American Heart Association (AHA) Cardiac Biology Study Group

Dr. Grobe
American Society of Nephrology Professional Development Seminar Travel Award
American Physiological Society Featured Trainee Research Recognition in Physiol. Genomics.
President and Founder of WSU's Postdoctoral Association, 2011-present

Dr. 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

Currently supporting two PhD Students

Plan to consider for 2 MS students from Pharm/Tox. Currently one MS Student (Ms Cooper) is working in my lab as lab rotation. She will continue after lab rotation.

Planning to submit Grants in collaboration with WSU faculty- with NIH, DoD and NSF

Terry Oroszi
Planning Committee, Advancing the Standards in Wound Care
Member, Simman Wound Care Board of Directors

7 Patient Care Summary

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

Dr. Simman
Hospital Privileges:
Kettering Medical Center
Sycamore Hospital
Good Samaritan Hospital
Good Samaritan North Health Center
LifeCare Hospital
Kindred Hospital

Monthly Information:
Sycamore Wound Center - 40 office visits/including bedside debridements

LifeCare - 27 visits/including bedside debridements
Kindred - 31 visits/including bedside debridements
Elm Creek/Laurels (became Laurels in August) - 23 visits
Sycamore Office - 20 office visits
Samaritan North Office - 48 office visits

Scheduled surgeries at Sycamore Hospital and Samaritan North Health Center - 164 for the whole year

The Wound and Hyperbaric Center at Kindred will begin in July 2014

Dr. Trout
Provided clinical pharmacy services for geriatric nurse practitioners and BSOM geriatricians during weekly interdisciplinary team meeting case discussions (June-December 2013).

Provided clinical pharmacy input for the BSOM Geriatric department attending physicians, fellows, and residents for Geriatric Physicians on a consult basis (i.e., review of both home and inpatient patient medication regimens, and recommendations for optimizing pharmacotherapy).

Applied and received Medical Staff Privileges to allow EMR access. Continue to meet credentialing review requirements (6 month chart reviews)

8 Honors and awards [Faculty or staff]

Dr. Grobe
American Society of Nephrology Professional Development Seminar Travel Award
American Physiological Society Featured Trainee Research Recognition in Physiol. Genomics.

Dr. Ji Chen Bihl
The American Heart Association awarded a Great Rivers Affiliate (GRA) Postdoctoral Fellowship for cardiovascular and stroke research. The $93,000 two-year award began Jan. 1, 2013, and ends Dec. 31, 2014.

9 Hosted events [CME, etc.]

Dr. Simman
Chair of the Third Annual Symposium on Wound Care in Dayton, OH.

10 Other information

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

Dr. Adragna

Collaboration with External and International Colleagues:
Kristopher Kahle,), MD. Ph.D., Massachusetts General Hospital, Department of Surgery, Boston, MA.

Giuseppina LaSpada, Ph.D., Associate Professor, Department of Life Sciences "M. Malpighi" Section of General Physiology and Pharmacology, University of Messina, Italy, 2008-present.
Judy Heiny, Ph.D., Department of Molecular Physiology, University of Cincinnati Medical Center, Cincinnati, OH.
Jarek Meller, Ph.D., Department Environmental Health, University of Cincinnati Medical Center, Cincinnati, OH.
Leonid Koikov, Ph.D., Department of Molecular Physiology, University of Cincinnati Medical Center, Cincinnati, OH.
Adam de la Zerda, Ph.D., Departments of Structural Biology, School of Medicine, Stanford University, CA.

Dr. Cool
Collaborative Research-Ongoing in 2013
Dr. Jerry Yaklic, OB/GYN Interstitial Cystitis, Endometriosis and Vulvadynia- Resident Research Projects
Dr. Gary Ventolini, OB/GYN Texas. Identifying Biomarkers of Vulvadynia.
Dr. Chad Reiter, WSRI Treatment of Sepsis with a novel haptoglobin biologic.
Dr. Ali Reiter, LEIDOS (SAIC) Physiological Expertise Assessment System (DARPA)
Dr Lucy Wrenshall- /Dr. John Miller (NCBP) Identification of multimers of IL2
Dr James Olson- (Emerg. Med) Identification of taurine transporter in brain swelling.
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 microparticles
Dr Courtney Sulentic- (P&T) Identification of proteins associated with Ikb.
Dr Jason Retzke- (MVH-OB/GYN) Determination of lipid secretion in dexamethasone treated lung cells
Dr. Kari Rudinsky, M.D. (MVH-OB/GYN MFM Fellow) Pravastatin crossing the placental barrier.
Dr Larry Prochaska- (BMB) Lipid extraction from membrane proteins
Dr Jerry Alter- (BMB) Structural analysis of proteins by limited digestion.
Dr Peter Lauf- (Pathology & P&T) Analysis of protein interactions with PKC inhibitors
Dr Norma Adragna- (P&T) Analysis of jellyfish effects on skin cytokines.

Terry Oroszi
Continue to help grow the Master's program in Pharmacology & Toxicology

Innovative Strategic Planner, Pharmacology & Toxicology:
Created a Laboratory Safety Class (EHS guest lecturer)
Create a six sigma class and risk assessment
Rebranding the Non-Thesis program into Leadership track
Assisting with new concentrations – Ayurvedic Medicine

Dr. Trout
Director of the Therapeutics Curriculum