



Department of Biochemistry and Molecular Biology
Annual Report

2015

Madhavi Kadakia, Ph.D.
Chair

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

1

Statement from the Chair/Associate Dean

I effectively became the chair on Jan 1, 2015.

- In 2015, the ASBMB program goals and objectives were adapted and the program was modified to align with them. In total **seven** new courses were slated for development and **four** courses were modified for undergraduates. Weekly meetings of the curriculum development committee helped to push development forward at a rapid pace. Seven new courses developed include (1) BMB 1000: Freshman Seminar, (2) BMB 1010: Topics in BM, (3) BMB 2000: Careers in BMB, (4) BMB 2100: Introduction to Biochemistry, (5) BMB 3030: Ethics, (6) BMB 3850: Biochemistry Lab, (7) BMB 3900: Scientific Communications, (8) BMB 4000: BMB Seminar, (9) BMB 4020: Research Perspectives, (10) BMB 4100: Senior Reflection, (11) BMB 4870: BMB seminar with Developing Researchers. Several faculty members attended an ASBMB workshop titled "PROMOTING CONCEPT-DRIVEN TEACHING STRATEGIES IN BMB THROUGH CONCEPT ASSESSMENTS" on course and program design. Course development strategies (backwards design) were polished and reinforced. Furthermore, contacts within ASBMB were made to help with our future accreditation application. For all of the following courses backwards design was used as the primary developmental tool.
- In 2015, we finalized developing Biochemistry for pre-medical students and received approved to offer in spring 2016.
- The MS/MD program outline and requirements was finalized after several meetings with other administrators at WSU
- In 2015 BMB faculty received a total of 18 funded grants (national, local and internal) totaling \$1,645,806 (\$1,186, 927 in direct costs and \$458,878 in indirect costs).
- BMB faculty reported a total of 26 manuscripts (20 manuscripts published and 6 in press) in 2015.
- Students and faculty from the department continue to present research at local, national and international meetings as posters and talks.
- In 2015, we had a total of 3 BMB admin staff (2 full time and 1 part time), 16 Ph.D. students, 19 Master's students, 14 undergraduates, 2 post-docs and 7 research associate. Of the 35 graduate students, 10 students graduated by end of 2015 (5 Ph.D. and 5 Master's students).
- In 2015, BMB faculty was involved in several outreach activities. BMB hosted local American Cancer Society reception and Lab Tour Event at WSU. BMB Faculty represented WSU on cancer awareness, discoveries on cancer and personalized medicine initiatives by local media. BMB faculty participated as a judge at the Montgomery County Science Day, Intel International Science and Engineering Fair and at the Hour of Code, computer science education event sponsored by Code.org.
- In 2015 we hired an instructor Dr. Schmidt to help with teaching in BMB in addition to getting actively involved in teaching medical school student (both Wright Q session and trained to teach upcoming course Fall 2016).

2 Programs/Divisions

Name of Division or Program	Director	Dates
BMB M.S. Program	Dr. Paietta	2015

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

Name and Academic Position	Research Interests
Dr. Cambroner	Our laboratory studies the molecular mechanisms underlying cell movement of blood leukocytes and cancer cells. We have a proven track record in the area of cell signaling for 17 years. Our efforts concentrate on the regulation of the signaling molecule phospholipase D (PLD) and we have become leaders in the field. We proved that the enzyme PLD2 is necessary for inflammation and leukocyte chemotaxis in seminal papers (Blood and FASEB J). We were the first group to explain how PLD2 biological activity is regulated, by discovering new molecular associations through SH2 domains with the signaling molecules Grb2, Sos and Rac2 (Oncogene, JMB, JBC and MCB). We have also provided the groundbreaking demonstration (PNAS; Cell Signaling, 2011) that a phospholipase can act as a GTPase exchange factor, GEF, and have mapped the enzymatic catalytic site (JBC, 2012; J Cell Science, 2013). Our team will continue to investigate the intracellular signaling hierarchy that controls chemotaxis. We are using a multi-disciplinary approach to do this, involving contemporary molecular, biochemical, genetic, cellular and physiological tools. Our long-term goal is to find ways (an inhibitor) to prevent the accumulation of leukocytes that cause chronic inflammation and tissue damage in the heart. In a 2nd line of research, we are applying our mechanistic understanding of cell migration to breast cancer cell invasion, with the ultimate goal of finding ways to prevent breast cancer metastasis in the lung (Oncogene, 2013). We have recently demonstrated the role of PLD in specific microRNAs involved in the Epithelial to Mesenchymal transition (EMT) in breast cancer cells (JBC, 2015, MCB, 2015).
Dr. Campbell	This past year I have been the major contributor to the development of a BS in BMB program. Many courses have been submitted and approved by the various university curriculum committees and steps have been taken to get the program approved for the 16-17 academic year. I have also been responsible for teaching in Biochemistry and Molecular Biology I and II and been the course director for BMB

Name and Academic Position	Research Interests
Dr. Kadakia	<p data-bbox="581 254 1581 317">8000 and BMB 9000. Finally I was a co-developer for BMB 3220: Biochemistry for Pre-Meds.</p> <p data-bbox="581 327 1581 783">My research program employs bench-based research that integrates clinical studies with the goal of translating biomedical research findings to the bed-side. My laboratory has focused on three areas of research. The first area is focused on identification of signaling pathways that play a role on cancer and development. We are studying the mechanism by which p53 family members, comprising of both oncogenes and tumor suppressors, are deregulated in non-melanoma skin cancer. Specifically, my laboratory has been studying the role of p53 family of proteins (p53, p63 and p73) either directly or via modulation of other proteins in development and progression of cancer. Regulation of vitamin D receptor (VDR) by p63 and p73 is another major focus in my laboratory. We are studying the feedback mechanisms by which VDR/Vitamin D signaling pathway regulates p63 and thereby affecting cell survival or inhibition of metastases. Other projects in the laboratory are focused on the effect of post-translational modifications of p63 on its biological function.</p> <p data-bbox="581 827 1581 1423">The second area of focus in my laboratory has been to identify biomarkers that can help differentiate different stages of cancer and in long term lead to personalized patient care. Towards this goal I have obtained grant funding to purchase state-of-the art, next-generation sequencing (NGS) tools as well as a high throughput, real time PCR machine which will aid in these studies. Developments in next generation sequencing (NGS) technology have revolutionized our understanding of the complexity of cellular gene expression. NGS provides a better understanding of the molecular mechanisms involved and is the most suitable approach to develop biomarker discovery pipelines. We will compare the differential expression of known microRNAs in tissue and plasma samples from patients with Barrett's esophagus (BE) and Esophageal adenocarcinoma (EAC) in order to identify circulating microRNA biomarkers for early detection of EAC. Endoscopy is currently the only way to diagnose BE and EA, so identification of noninvasive biomarkers is critical for the improvement of current screening tools and for the identification of patients at high risk for progression to cancer who will benefit from surveillance. We have also used NGS to identify microRNAs and mRNAs regulated by both VDR and p63.</p>
Dr. Leffak	<p data-bbox="607 1440 1560 1709">Leffak laboratory: The work in our laboratory is built on our discovery of the human c-myc origin of DNA replication. There are currently two major project directions underway. The first is the identification of proteins that bind to the c-myc replication origin and the mechanism by which they promote the initiation of DNA synthesis. The second is the use of the c-myc replication origin in the design and genetic engineering of human cell models of disease (myotonic dystrophy type 1, Huntington disease, spinocerebellar ataxia type 10, polycystic kidney disease) caused by the instability of short, microsatellite DNA sequences.</p>
Dr. Long	<p data-bbox="581 1726 1581 1789">There are currently five people in the laboratory. We have been actively performing research projects as described below.</p> <ol data-bbox="581 1799 1581 1898" style="list-style-type: none"> <li data-bbox="581 1799 1581 1898">1. Weiwen Long, Ph.D., the Lab PI, has been training and supervising students and postdoctoral fellow on their research projects. In addition, the PI has also been conducting experiments for developing new research projects in the lab.

Name and Academic Position	Research Interests
	<p>2. Cheng Zhang, M.D., Research Assistant 2, joined the lab on April 1, 2015 and has been conducting a project about ERK3 in lung tumorigenesis and a project about ERK3's function in insulin secretion.</p> <p>3. Sreeram Vallabhaneni, a Master student in BMB department, has been conducting a project on investigating the role of ERK3 in lung tumor growth and metastasis utilizing transgenic mouse models.</p> <p>4. Lobna Elkhadragy, a BMS Ph.D. graduate student, has been conducting projects on the molecular regulations of ERK3 gene expression and kinase activity in cancer cells.</p> <p>5. Hadel Mohammed A Alsaran, a Master student in BMB department, has been conducting a project on ERK3 gene mutations in cancer.</p> <p>6. Aldharee, Hitham Abdulrahman, a Master student in BMB department, joined the lab in October, 2015 and has been conducting a project about the interplay between ERK3 and RhoGDI/PAK signaling.</p>
Dr. Markey	<p>My research also involves several projects through my role as Director of the Center for Genomics Research. These include an analysis of NGS data from the laboratory of Labib Rouhana, continued mining of data from a study of how the genes Btf, Son, and Trap control gene expression and influence pre-mRNA splicing, a study looking at the effects of a low-light environment on gene expression in the retina, and collaborative proposals for projects with several other laboratories and small businesses.</p> <p>Additionally, I am working with the Dermatopathology Lab of Central States to identify copy number variations that distinguish melanoma from benign nevi and normal skin samples. We have expanded this study to look at a potential role of ERK3 in melanoma.</p>
Dr. Organisciak	<p>In the Petticrew Laboratory we are investigating the efficacy of natural antioxidants and pharmacological compounds for their ability to prevent photo-oxidative visual cell loss and genetic retinal cell degeneration in preclinical animal models of ocular disease. This work is or has been funded by grants from the National Eye Institute, Alcon Ltd., the International Retina Research Foundation, and the Ohio Lions Eye Research Foundation. A recent finding relates to the ability of zinc, a divalent cation found in antioxidant preparations given for age related macular degeneration, to prevent retinal photoreceptor cell damage from intense visible light. Additional findings indicate that the antioxidants in a natural substance (Rosemary) are exceptionally effective in our light damage animal model, with a protective efficacy better than for more traditional antioxidants. Other studies show that rod and cone photoreceptor cell loss occur simultaneously in both normal rats and in strains of genetically blind animals.</p>
Dr. Paietta	<p>A newly developing area of research in my laboratory is the identification and study of novel gene control elements termed riboswitches. In particular, we are examining the regulation of eukaryotic gene expression by riboswitches. Riboswitches, which are non-coding RNAs that selectively bind target molecules and alter gene expression levels by a variety of mechanisms, offer new opportunities for a variety of medical and biotechnology applications. In addition, we are continuing our work on the molecular genetic study of fungal sulfur metabolism. Our work</p>

Name and Academic Position	Research Interests
Dr. Paliy	<p>involves the study of a complex control network of regulatory proteins that sense the level of sulfur and direct subsequent cellular responses.</p> <p>Areas of Research Interests: Role of intestinal bacteria in human health and in gastrointestinal diseases such as IBD, IBS, and obesity. Metabolic interactions in complex microbial communities. Use of metabolic and mathematical modeling to study biological principles.</p> <p>Methodologies used: Standard microbiology techniques Standard molecular biology methods Gene expression profiling with microarrays and qPCR High-throughput sequencing and data analysis Microbial community analysis by 16S RNA sequencing, phylogenetic microarrays, and FISH Bioinformatics and computational biology Biostatistics and phylogenetic analysis</p>
Dr. Prochaska	<p>Our laboratory studies the molecular mechanism of the transduction of cellular oxidation-reduction linked energy into chemical energy in heart and brain mitochondria and also bacteria. The conservation of chemical energy via ATP synthesis is the driving force for vital processes such as the beating of the heart and brain functioning. Our model system is cytochrome c oxidase which conserves the energy released during its reduction of molecular oxygen into water by simultaneously pumping protons across the mitochondrial inner membrane. This proton gradient is used by the cell to make its energy currency, ATP. We study structure function relationships in this evolutionarily conserved enzyme using state-of-the-art membrane biochemical, biophysical, immunological, and molecular biological techniques, including preparation of artificial membranes or liposomes. The focus of our work involves studying the role of a conserved subunit (III) in the functioning of the enzyme. We have additional research interests in the role of mitochondria in normal and disease states and towards that goal have prepared mutant oxidase enzymes which mimic known mitochondrial respiratory chain diseases. More recently, we have studied the role of mitochondria in the apoptotic pathway of cell death in normal and diseased hearts.</p>
Dr. Reo	<p>In general, my research interest is focused in the development and application of nuclear magnetic resonance (NMR) based metabolomics in biomedical research. Several projects strive to develop this technology as a tool to: (1) assess tissue function/dysfunction; (2) detect exposure to chemical toxicants and assess related health effects; and (3) diagnose health status and disorders of the intestinal tract. Metabolite profiles from blood serum, urine, fecal extracts, or tissue extracts are measured by NMR spectroscopy and correlated with other biological/biochemical indices. Multivariate data analyses and bioinformatics tools are used to help visualize, analyze, and interpret complex data, and relate or correlate this information to disease processes or toxicity.</p>
Dr. Rider	<p>My FTE is <10% but I volunteer many hours beyond that level. My time was divided among four major areas, including 1) A project designed to identify small molecule inhibitors for an unusual type of histone deacetylase from pathogenic microbes</p>

Name and Academic Position	Research Interests
	(malaria, toxoplasmosis, and cryptosporidiosis), 2) Understanding nuclear hormone receptors that also respond to nutrients to alter gene expression, 3) Genome analyses in arthropods, and 4) Assisting as needed in the center for genomics research performing cleaning and maintenance on the next generation sequencing machines. Area 2 is in collaboration with Dr. Hostetler to study human nuclear receptors that are involved in diabetes, immune function, and cancer. Area 3 represents my affiliation with the next generation sequencing machines that were acquired by Dr. Paliy and Dr. Kadakia in 2013.
Dr. Schmidt	Miami University, Oxford, OH May 2012 Ph.D. Chemistry and Biochemistry (Ann Hagerman, advisor) Dissertation Title: ÒTannins in Natural Soil SystemsÓ Edinboro University, Edinboro, PA May 2007 - B.S. Biochemistry
Dr. Xu	Assistant professor in the Department of Biochemistry and Molecular Biology, Wright State University Boonshoft School of Medicine. He obtained his Doctor of Medicine degree from Peking Union Medical College/Chinese Academy of Medical Sciences in Beijing and his PhD degree from the John Hopkins University School of Medicine in Baltimore. Before the PhD training, we was a visiting scholar at Harvard Medical School and a research associate at Harvard School of Public Health. He joined the faculty at Wright State in 2008 after carrying out a successful postdoctoral research at the Memorial Sloan-Kettering Cancer Center in New York City. The research focus of his laboratory is to understand the signaling mechanism of DNA replication checkpoint, a cell signaling process critical for the maintenance of genome integrity under stress in all eukaryotic organisms.

4 Teaching

Dr. Cambronero

Spring 2015

BMB.7530: Molecular Signaling, 7 credit hours, 3 students, 11 total contact hours (8 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: Dr. Hostetler, Lecturer

BMB 8990: Biochemistry Research, 12 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 4990: Undergraduate Research, 12 credit hours, 3 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015,

BMB 9950: BMS Research, 12 credit hours, 3 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015, **BMB 9970:** BMS Lab Rotation Research, 4 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015,

BMB 8990: Biochemistry Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Dr. Campbell

Spring 2015,

4230: Biochemistry and Molecular Biology II, 3 credit hours, 29 students, 11 total contact hours (9 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: Dr. John Paietta, It was my responsibility to teach 9 lectures and two review sessions as well as prepare two in class and two out of class assessments. Two exams were proctored. As a part of this course Learning catalytic software was tested as well as Mastering Chemistry and Dynamic Study Modules all through Pearson.

Fall 2015,

4210-01: Biochemistry and Molecular Biology I - 01, 3 credit hours, 55 students, 28 total contact hours (23 lecture hours, 5 non-contact hours), Team taught, Classroom course, Course Director: Dr. Chad Campbell, It was my responsibility to cover twenty-three lectures, three review sessions and present the students with three in class and three out of class assessments on those lectures. I proctored all four exams for the course. This applies to both sections of the course.

4210-02: Biochemistry and Molecular Biology I - 02, 3 credit hours, 43 students, 28 total contact hours (23 lecture hours, 5 non-contact hours), Team taught, Classroom course, Course Director - It was my responsibility to cover twenty-three lectures, three review sessions and present the students with three in class and three out of class assessments on those lectures. I proctored all four exams for the course. This applies to both sections of the course.

8000: Biochemistry Seminar, 1 credit hour, 16 students, total contact hours (lecture hours, non-contact hours), Seminar

Dr. Kadakia

Spring 2015,

BMB 7520: Molecular Biology II, 3 credit hours, 30 students, 19 total contact hours (13 lecture hours, 6 non-contact hours), Team taught, Classroom course, Course Director: Madhavi Kadakia, Course Director

BMB 8990: Biochemistry Research, 2 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9960: Laboratory Rotation, 5 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation Research, 14 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015, **BMB 8990:** Biochemistry Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation Research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015, **BMB 4990:** Undergraduate Research, 3 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 8990: Biochemistry Research, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9950: Non - Dissertation Research, 9 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation Research, 14 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Dr. Leffak

Spring 2015,

BMS-9990: Dissertation Research, 15 credit hours, 4 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015,

BMB-8990: Biochemistry Research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS-9990: Dissertation Research, 15 credit hours, 4 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS-9900: Grant Proposal seminar, 1 credit hour, 11 students, total contact hours (lecture hours, non-contact hours), Team taught, Seminar

Fall 2015, BMB/BMS 7500: Molecular Biochemistry, 3 credit hours, 44 students, 25 total contact hours (20 lecture hours, 5 non-contact hours), Team taught, Classroom course, Course Director: M. Leffak, course director

8990-01: Biochemistry Research, 15 credit hours, 3 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS-9990: Dissertation Research, 15 credit hours, 3 students, total contact hours (lecture hours, non-contact hours), Laboratory

Dr. Long

Spring 2015,

20010: Molecular Signaling , 3 credit hours, 7 students, 12 total contact hours (10.5 lecture hours, 1.5 non-contact hours), Classroom course, Course Director: Heather Hostetler , My lectures were focused on protein kinase signaling. I taught 7 lectures and gave one exam.

BMS 9950 11202: Non-Dissertation Research - 15, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 8990-01, 13976: Biochemistry Research- , 5 credit hours, 2 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 8990, 40731: Biochemistry Research - C05, 14 credit hours, 2 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990, 42299: Dissertation Research - C15, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015,

BMS 9990, 70349: Dissertation Research-70349 -15, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 8990-05, 73042: Biochemistry Research- , 8 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 7890, 82749: Continuing Registration – 05, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Dr. Markey

Spring 2015

BMB 8990-01: Biochemistry Research, credit hours, 2 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015,

BMB 8990-06: Biochemistry Research, credit hours, 2 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015,

BMB 7020-01: Research Perspectives, 3 credit hours, 7 students, 1 total contact hours (1 lecture hours, 0 non-contact hours), Team taught, Classroom course, Course Director: John Paietta, Taught one lecture of this class.

Dr. Organisciak

Spring 2015,

4230/3230: Biochemistry II, 4 credit hours, 32 students, 12 total contact hours (10 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: J. Paietta, Lipid metabolism 29 students in 4230 and 3 in 3230

Biology 4950: Honors research, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 3230: BMB for Clinical Lab Science, 3 credit hours, 3 students, 16 total contact hours (9 lecture hours, 7 non-contact hours), Team taught, Classroom course, Course Director: John Paietta, Course Director. Lectured primarily on topic of amino acid metabolism

Fall 2015,

4210-01: Biochemistry I, 3 credit hours, 55 students, 12 total contact hours (10 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: C. Campbell, Lectures in section 1 (M/W/F)

4210-02: Biochemistry I, 3 credit hours, 43 students, 12 total contact hours (10 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: C. Campbell, Lectured in Section 2 (T/TH)

Dr. Paietta

Spring 2015,

BMB 4230: Biochemistry II, 3 credit hours, 29 students, 16 total contact hours (9 lecture hours, 7 non-contact hours), Team taught, Classroom course, Course Director: John Paietta, Course director. Taught section primarily on amino acid metabolism.

Fall 2015,

BMB 7020: Research Perspectives, 3 credit hours, 7 students, 11 total contact hours (10 lecture hours, 1 non-contact hours), Classroom course, Course Director: Course Director, Ran course in role of Director of M.S. Program

BMB 8990: Biochemistry Research, credit hours, 7 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 4880: Independent Reading, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Seminar

Dr. Paliy

Spring 2015,

BIO 4010: Pathogenic Microbiology, 3 credit hours, 37 students, 3 total contact hours (3 lecture hours, 0 non-contact hours), Team taught, Classroom course, Course Director: Cheryl Conley, Taught a section on human gut microbiota

BMB 3230: Biochemistry II, 9 credit hours, 3 students, 11 total contact hours (8 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: John Paietta, Taught about a third of the course

BMB 7530: Molecular Signaling, 9 credit hours, 5 students, 9 total contact hours (8 lecture hours, 1 non-contact hour), Team taught, Classroom course, Course Director: H. Hostetler, Taught section on microbial signaling, about 25% of course load.

BMB 4230: Biochemistry II, 9 credit hours, 29 students, 11 total contact hours (8 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: John Paietta, Taught about a third of the course

BMB 8990: Biochemistry Research, 3 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9950: Non-dissertation research, 11 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9970: Laboratory Rotation, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation research, 14 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015,

BMB 8990: Biochemistry Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9950: Non-dissertation research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9950: Non-dissertation research, 7 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015,

BMB 4210-01: Biochemistry I - section I, 8 credit hours, 55 students, 9 total contact hours (7 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: Oleg Paliy, Taught a section on molec biology/genetics

BMB 4210-02: Biochemistry I - section II, 8 credit hours, 43 students, 9 total contact hours (7 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: Oleg Paliy, Taught a section on molec biology/genetics

BMB 8990: Biochemistry Research, .5 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9950: Non-dissertation research, 11 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation research, 14 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation research, 14 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Dr. Prochaska

Spring 2015,

BMS 9900: Seminar, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Seminar

BMB 8000: Seminar, 1 credit hour, 11 students, total contact hours (lecture hours, non-contact hours), Seminar

BIO 4000: Senior Capstone, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015,

BMB 7270: Proteins and Enzymes, 3 credit hours, 4 students, 26 total contact hours (23 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: alter, Prochaska, taught one half of course

BMS 7270: Proteins and Enzymes, 3 credit hours, 4 students, 26 total contact hours (23 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: alter, Prochaska, taught one half of course

Dr. Reo

Spring 2015,

BMB/BMS 7520: Biochemistry & Molecular Biology II, 3 credit hours, 30 students, 14 total contact hours (9 lecture hours, 5 non-contact hours), Team taught, Classroom course, Course Director: M. Kadakia, In addition to lectures I contributed to one HW assignment, 1 recitations, and 2 exams. Thus the non-lecture contact hours include: 1-hr recitation + (2 x 2-hr exams) = 5 hrs.

BMB 8990: BMB Research, 5 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 8990: BMB Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMB 9000: BMB Seminar, 1 credit hour, 7 students, total contact hours (lecture hours, non-contact hours), Seminar

Summer 2015,

BMS 9990: Dissertation Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9950: Laboratory Rotation, 1 credit hour, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

BMS 9990: Dissertation Research, 6 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Dr. Schmidt

Fall 2015,

7500: Molecular Biochemistry 1, 3 credit hours, 44 students, 22 total contact hours (19 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: Michael Leffak, I taught the first half of this course. Covering the introductory information along with the material about proteins and enzymes.

N/A: WrightQ, credit hours, 8 students, 8 total contact hours (7 lecture hours, 1 non-contact hours), Team taught, Classroom course, Course Director: Colleen Hayden, I was trained and conducted WrightQ sessions

Dr. Xu

Spring 2015,

BMS9990: Dissertation Research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Summer 2015,

BMS9990: Dissertation Research, 15 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

Fall 2015,

BMS9990: Dissertation Research, 14 credit hours, 1 students, total contact hours (lecture hours, non-contact hours), Laboratory

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

Dr. Cambronero

Kristine Fite, M.D./Ph.D.

Ramya Ganesan M.S./Ph.D.

Taylor Miller, M.S.

Dr. Kadakia

Andrew Stacy, Ph.D.

Reilly Clark, Ph.D.

Natasha Hill, Ph.D.

Amjad Aljagthmi, M.S.

Suraj Sakaram, M.S.

Amal Albati, M.S.

Dr. Leffak

Joanna Barthelemy, Ph.D.

Todd Lewis, Ph.D.

Sumeet Poudel, Ph.D.

Caitlin Castagno, M.S.

Rujuta Gadgil, M.S.

Tu Danh, M.D.

Dr. Long

Lobna Elkhadragey, Ph.D.

Hadel Mohammed A. Alsaran, M.S.

Hitham Abdulraham Aldharee M.S.

Dr. Markey

Ahmed Mahas, M.S.

Minyi Chen, M.S.

Abdullah Alshaduki, M.S.

Keerti Potluri, M.S.

Dr. Paliy

Richard Agans, Ph.D.

Vijay Shankar, Ph.D.

Alex Gordon, Ph.D.

Denise Kramer, Ph.D.

Jessica Moncivaiz, M.S.

Fallata Gaith, M.S.

Dr. Reo

Angela Campo, Ph.D.

Isaie Sibomana Ph.D.

Urszula Warncke, M.S.

Dr. Xu

Amanpreet Singh, Ph.D.

Graduate Student Committee Member:

Dr. Kadakia

Lobna Elkhadragey, Ph.D.

Jeannette Loyer-Manger, Ph.D.

Sreeram Vallabhaneni, Ph.D.

Amjad Aljagthmi, M.S

Dr. Leffak

Amanpreet Singh, Ph.D.

Dr. Long

Natahsa Hill, Ph.D.

Andrew Stacy, Ph.D.

Rania Al-Mahdi, Ph.D.

Tu T Danh, M.S.

Ahmed Ibrahim H Mahas, M.S.

Emily Erin Delman, M.S.

Suraj Sakaram, M.S.

Dr. Markey

Hima Yalamanchili, Ph.D.

Amal Albati, M.S.

Andrea Klinger, M.S.

Hadel Alsara, M.S.

Ramya Ganesan, M.S.

Nouf Alharbi, M.S.

Dr. Paietta

Tu Dahn, Ph.D.

Kristine Fite, BMS Ph.D.

Keerti Potluri, M.S.

Rujuta Gadgil, M.S.

Urszula Warncke, M.S.

Dr. Reo

Shimpi Bedi, Ph.D.

Marjorie Markopoulos, Ph.D.

Richard Pye, Ph.D.

Vijay Shankar, Ph.D.

Hima Yalamachili, Ph.D.

Ryan Yoakum, Ph.D.

Bradley Gregg, M.S.

Jessica Moncivaiz, M.S.

Scott Holdgreve, M.S.

Dr. Xu

Joanna Barthelemy, Ph.D.

Todd Lewis, Ph.D.

Sumeet Poudel, Ph.D.

Amal Albati, M.S.

Keerti Potluri, M.S.

Marcus T. Grant, M.S.

Undergraduate medical education [medical school]

Dr. Cambroner

SMD-521 : CTOS, 5 credit hours, 109 students, 9 total contact hours (6 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: Dr. Larry Ream, lecturer

SMD551: Hematology, 3 credit hours, 108 students, 20 total contact hours (0 lecture hours, 20 non-contact hours), Team taught, Classroom course, Course Director: Julian G. Cambroner, Director, January-August 2015: preparing program, meeting with Steering Committee, and securing teachers; then Dr. Parmelee relieved me as Lecturer and Director for the remaining of the year, as I was in Sabbatical at Harvard.

Dr. Organisciak

SMD 571: Molecular Basis of Medicine, 10 credit hours, 110 students, 20 total contact hours (16 lecture hours, 4 non-contact hours), Team taught classroom course, Course Director: Lawrence Prochaska, Lipid metabolism/cholesterol metabolism/summary of metabolic pathways

Dr. Paietta

SMD 571: Molecular Basis of Medicine, 10 credit hours, 116 students, 27 total contact hours (24 lecture hours, 3 non-contact hours), Team taught, Classroom course, Course Director: Lawrence Prochaska, Lecturer on amino acid metabolism, heme synthesis, jaundice, nucleotide metabolism, DNA structure, DNA replication, RNA structure, transcription, gene regulation, protein synthesis, DNA repair/mutation, genome rearrangements, recombinant DNA and clinical molecular genetics. Also, assisted with MBM remediation (taught review session) in Spring 2015.

Dr. Prochaska

SMD 571: Molecular Basis of Medicine, 7 credit hours, 116 students, 37 total contact hours (20 lecture hours, 17 non-contact hours), Team taught, Classroom course, Course Director: Prochaska, 20 hrs contact; of those 4 in peer instruction 3 in review. course director.

Dr. Reo

SMD 571: Molecular Basis of Medicine - Remediation, 10 credit hours, 6 students, 2 total contact hours (2 lecture hours, 0 non-contact hours), Team taught, Classroom course, Course Director: Lawrence Prochaska, Conducted a 2.0 hr review class for students who needed to remediate the course. Then I submitted questions for a remediation exam that was given in June, 2015.

SMD 571: Molecular Basis of Medicine, 10 credit hours, 116 students, 20 total contact hours (18 lecture hours, 2 non-contact hours), Team taught, Classroom course, Course Director: Lawrence Prochaska,

- (1) Attended 2 meetings to help prepare for TBL sessions and IRAT exams
- (2) Provided written notes and practice problem sets
- (3) Continued to two IRAT quizzes and two exams (Including the final exam)
- (4) Conducted two 1-hr review sessions (Listed as non-lecture hours)
- (5) Prepared and conducted 3 Peer-Instruction sessions (2 @ 60min/ea + 1 @ 80min)
- (6) Prepared and conducted 6 clicker sessions to aid in review of materials
- (7) Prepared 2 video lectures for on-line viewing

Graduate medical education [residents, fellows]

N/A

Continuing medical education [grand rounds, seminars]

N/A

Other

N/A

5

Scholarly Activity Funded grants [List PI(s), grant title, funding source, amount

of award, and dates of award. Please list each grant only once. Identify student & resident authors, i.e., *=student author **=resident/fellow]

Extramural Grants Active

Dr. Cambroner

American Heart Association, GTPase activation and reactive oxygen production in ischemic/reperfusion injury, P.I. Julian G. Cambroner, (1/1/2015 to 7/31/2015) Total \$125000, Direct Current Year \$120000, Indirect Current Year \$5000, Total cost for entire grant period \$250000.

NIH, Mechanism of PLD activation: Role on phagocyte chemotaxis, P.I. Julian G. Cambroner, (1/1/2015 to 12/31/2015) Total \$355803, Direct Current Year \$253484, Indirect Current Year \$102319, Total cost for entire grant period \$355803, 20% salary for Dr. Cambroner

Dr. Kadakia

NIH R01, Role of Dnp63alpha in Vitamin D mediated cell survival in skin cancer, P.I. Madhavi Kadakia, (4/1/2012 to 3/31/2017) Total \$272655, Direct Current Year \$186750, Indirect Current Year \$85905, Total cost for entire grant period \$1382833, 17% salary for Dr. Kadakia.

Dr. Long

NCI 1R01CA193264-01, ERK3 Kinase Signaling in Lung Cancer , P.I. Weiwen Long, (06/01/2015 to 05/31/2020) Total \$236985, Direct Current Year \$160125, Indirect Current Year \$76860, Total cost for entire grant period \$1692750, 84.21% salary for Dr. Long.

Dr. Markey

NIH, Mechanisms underlying excitability regulation of motoneuron types in ALS, P.I. Sherif Elbasiouny, (4/1/2015 to 4/1/2020) Total \$64750, Direct Current Year \$34513, Indirect Current Year \$30237, Total cost for entire grant period \$323750.

National Science Foundation, MRI: Acquisition of a High Performance Computer Cluster for Multidisciplinary Computational Research and Education, P.I. Amit Sharma, (7/10/2015 to 7/10/2016) Total \$125000, Direct Current Year \$109789, Indirect Current Year \$15211, Total cost for entire grant period \$214286.

NIH, Pre-mRNA processing factors maintain normal mitosis, P.I. Paula Bubulya, (9/22/2015 to 8/31/2018) Total \$125796, Direct Current Year \$67049, Indirect Current Year \$58747, Total cost for entire grant period \$377388.

Dr. Organisciak

Ohio Lions Eye Research Foundation, Antioxidants and Retinal Gene Expression, P.I. Daniel Organisciak, (9-1-2015 to 6-30-2016) Total \$13700, Direct Current Year \$13700, Indirect Current Year \$0, Total cost for entire grant period \$18500.

Eyepex LLC., Testing Antioxidant Efficacy, P.I. Daniel Organisciak, (8-1-2015 to 7-31-2016) Total \$13033, Direct Current Year \$11333, Indirect Current Year \$1700, Total cost for entire grant period \$34000, 10% salary for Dr. Organisciak.

Dr. Paliy

DAGSI, Biomolecular interaction of nanoparticles and other aerospace chemicals with gut microbial and metabolite profiles, P.I. Oleg Paliy, (06/01/2015 to 05/30/2015) Total \$29750, Direct Current Year \$23611, Indirect Current Year \$6139, Total cost for entire grant period \$51000, 8% salary for Dr. Paliy.

Procter & Gamble, Human microbiome research, P.I. Oleg Paliy, (9/1/2011 to 8/30/2016) Total \$7565, Direct Current Year \$7565, Indirect Current Year \$0, Total cost for entire grant period \$37825.

NIH NIDDK, Intestinal epithelial cell regulation of allergic inflammation at distant sites, P.I. Prosper Boyaka, (07/01/2015 to 04/30/2020) Total \$12826, Direct Current Year \$8666, Indirect Current Year \$4160, Total cost for entire grant period \$123977, 5% salary for Dr. Paliy.

NSF MRI, MRI: Acquisition of High Performance Computer Cluster for Multidisciplinary Computational Research and Education, P.I. Amit Sharma, WSU, (9/1/2015 to 8/30/2018) Total \$1667, Direct Current Year \$1667, Indirect Current Year \$0, Total cost for entire grant period \$150000.

NSF MRI, MRI: Acquisition of Ion Torrent Personal Genome Machine to establish high-throughput sequencing capability for ecological and environmental biology, P.I. Oleg Paliy, (9/1/2013 to 8/30/2016) Total \$58714, Direct Current Year \$58714, Indirect Current Year \$0, Total cost for entire grant period \$176143.

Dr. Reo

DoD, Consortium Research Fellows Program, Graduate Student Fellowship for US Air Force Relevant Research, P.I. Nicholas J. DelRaso, (11/1/2014 to 8/31/2016) Total \$20000, Direct Current Year \$20000, Indirect Current Year \$0, Total cost for entire grant period \$20000.

Intestinal Epithelial Cell Regulation of Allergic Inflammation at Distant Sites, P.I. P.N. Boyaka, (7/1/2015 to 4/30/2020) Total \$0, Direct Current Year \$0, Indirect Current Year \$0, Total cost for entire grant period \$29909, 2.5% salary for Dr. Reo

DoD, Henry Jackson Foundation for the Advancement of Military Medicine, Mechanistic Interpretations of Hypobaric and Hyperoxic Using Metabolomics and Proteomics, P.I. Nicholas V. Reo, (11/1/2015 to 10/31/2016) Total \$17289, Direct Current Year \$11682, Indirect Current Year \$5607, Total cost for entire grant period \$103735, 10% salary for Dr. Reo.

DoD, Henry Jackson Foundation for the Advancement of Military Medicine, NMR-based metabolomics analysis of sera samples in an animal model of sleep deprivation (Phase 2), P.I. Nicholas V. Reo, (12/1/2014 to 3/31/2015) Total \$14730, Direct Current Year \$9953, Indirect Current Year \$4777, Total cost for entire grant period \$19639, 8% salary for Dr. Reo.

DoD, Henry Jackson Foundation for the Advancement of Military Medicine, NMR-based metabolomics for detection and assessment of jet fuel exposure in a rat model, P.I. Nicholas V. Reo, (12/1/2014 to 3/31/2015) Total \$34093, Direct Current Year \$23036, Indirect Current Year \$11057, Total cost for entire grant period \$45458, 15% salary for Dr. Reo.

DoD, Henry Jackson Foundation for the Advancement of Military Medicine, NMR-based urinary metabolomics in rats exposed to burn pit emissions and respirable sand, P.I. Nicholas V. Reo, (11/1/2015 to 4/30/2017) Total \$26723, Direct Current Year \$18056, Indirect Current Year \$8667, Total cost for entire grant period \$240504, 15% salary for Dr. Reo.

Dr. Xu

Institute of General Medical Sciences, NIH, Signaling Mechanism of the DNA Replication Checkpoint, P.I. Yong-jie Xu, (2/1/2015 to 1/30/2020) Total \$259000, Direct Current Year \$175000, Indirect Current Year \$84000, Total cost for entire grant period \$1295000, 25% salary for Dr. Xu.

Internal Grants Active

Dr. Kadakia

Boonshoft School of Medicine and Dayton VA hospital, Circulating microRNAs as biomarkers for early detection of esophageal adenocarcinoma in patients with Barrett's esophagus., P.I. Madhavi Kadakia, (8/1/2013 to 7/31/2015) Total \$8333, Direct Current Year \$8333, Indirect Current Year \$0, Total cost for entire grant period \$25000.

Dr. Paliy

WSU GSA, Assessment of microbial abundances through the use of fluorescent in situ hybridization, P.I. Alex Gordon, (05/01/2015 to 04/30/2016) Total \$500, Direct Current Year \$500, Indirect Current Year \$0, Total cost for entire grant period \$750.

Dr. Prochaska

Unaizah College of Medicine -BSOM contract, UCM-BSOM Curriculum Contract, P.I. Parmelee, (1/1/2013 to 1/1/2016) Total \$24000, Direct Current Year \$24000, Indirect Current Year \$0, 15% salary for Dr. Prochaska.

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. Cambroner

Dr. Cambroner, Ganesan R, Mallets E, Gómez-Cambroner J. , 'The transcription factors Slug (SNAI2) and Snail (SNAI1) regulate phospholipase D (PLD) promoter in opposite ways towards cancer cell invasion.', *Mol Oncol.*, doi: 10.1016/j.molonc.2015.12.006, 2015.

Dr. Cambroner, Ganesan R, Mahankali M, Alter G, Gómez-Cambroner J. , 'Two sites of action for PLD2 inhibitors: The enzyme catalytic center and an allosteric, phosphoinositide binding pocket.', *Biochim Biophys Acta.* , 1851, 261-272, 2015.

Dr. Cambroner, Gomez-Cambroner J. , 'FASEB Science Research Conference on phospholipid cell signaling and metabolism in inflammation and cancer. ', *FASEB J.*, 29, 5-10, 2015.

Dr. Cambroner, Hatton N, Lintz E, Mahankali M, Henkels KM, Gómez-Cambroner J. , 'Phosphatidic Acid Increases Epidermal Growth Factor Receptor Expression by Stabilizing mRNA Decay and by Inhibiting Lysosomal and Proteasomal Degradation of the Internalized Receptor. ', *Mol Cell Biol.*, 35, 3131-3144, 2015.

Dr. Cambroner, Henkels KM, Mallets ER, Dennis PB, Gómez-Cambroner J. , 'S6K is a morphogenic protein with a mechanism involving Filamin-A phosphorylation and phosphatidic acid binding.', *FASEB J.* , 29, 1299-1313, 2015.

Dr. Cambroner, Kotha PL, Sharma P, Kolawole AO, Yan R, Alghamri MS, Brockman TL, Gómez-Cambroner J, Excoffon KJ. , 'Adenovirus entry from the apical surface of polarized epithelia is facilitated by the host innate immune response.' *PLoS Pathog.* , 11, (3):e1004696. , 2015.

Dr. Cambroner, Mahankali M, Alter G, Gómez-Cambroner J. , 'Mechanism of enzymatic reaction and protein-protein interactions of PLD from a 3D structural model. ', *Cell Signal.* 27, 69-81, 2015.

Dr. Cambroner, Mahankali M, Farkaly T, Bedi S, Hostetler HA, Gómez-Cambroner J. , 'Phosphatidic Acid (PA) can Displace PPAR /LXR Binding to The EGFR Promoter Causing its Transrepression in Luminal Cancer Cells.', *Sci Rep.* , 5, 15379, 2015.

Dr. Cambroner, Mahankali M, Henkels KM, Speranza F, Gómez-Cambroner J. , 'A non-mitotic role for Aurora kinase A as a direct activator of cell migration upon interaction with PLD, FAK and Src. ', *J Cell Sci.* ,128, 516-526, 2015.

Dr. Craig

Dr. Craig, MP Craig, V Grajevskaja, J Balciuniene, D Balciunas, JS Park and S Sumanas, 'Etv2 and Fli1b function together as key regulators of vasculogenesis and angiogenesis.', *Atherosclerosis, Thrombosis and Vascular Biology*, 35(4), 865-876, 2015.

Dr. Craig, SP Desai, MS Rost, JA Schumacher, QV Ton, MP Craig, K Baltrunaite, AK Koenig, J Wang, KD Poss, NC Chi, DYR Stainier and S Sumanas, 'Myocardium and BMP Signaling are Required for Endocardial Differentiation', *Development*, Jul 1:142(13), 2304-2315, 2015.

Dr. Kadakia

Dr. Kadakia, Hill NT, Zhang J, Leonard MK, Lee M, Shamma HN, Kadakia MP, '1 α -25 Dihydroxyvitamin D3 and the vitamin D receptor regulates DNP63a levels and cell proliferation.', *Cell Death Dis* doi: , 6:e1781.10.1038/cddis., 2015.

Dr. Leffak

Dr. Leffak, Virts, E. L., Lewis, T., Leffak, M., Farlow, J. L., Hanenberg, H. et al., 'AluY-mediated germline deletion, duplication and somatic stem cell reversion in UBE2T defines a new subtype of Fanconi anemia', *Human Molecular Genetics*, 24, 5093-5108, 2015.

Dr. Long

Dr. Long, Bian K, Muppani NR, Elkhadragey L, Wang W, Zhang C, Chen T, Jung S, Seternes OM, Long, 'ERK3 regulates TDP2-mediated DNA damage response and chemoresistance in lung cancer cells, *Oncotarget*, December 19, 2015.

Dr. Long, Dasgupta S, Putluri N, Long W, Zhang B, Wang J, Kaushik AK, Arnold JM, Bhowmik SK, Stashi E, Brennan CA, Rajapakshe K, Coarfa C, Mitsiades N, Ittmann MM, Chinnaiyan AM, Sreekumar A, O'Malley BW, 'Coactivator SRC-2-dependent metabolic reprogramming mediates prostate cancer survival and metastasis', *Journal of Clinical Investigation*, 125, 1174-88, 2015.

Dr. Long, Hartig SM, Bader DA, Abadie KV, Motamed M, Hamilton MP, Long W, York B, Mueller M, Wagner M, Trauner M, Chan L, Bajaj M, Moore DD, Mancini MA, McGuire SE, 'Ubc9 Impairs Activation of the Brown Fat Energy Metabolism Program in Human White Adipocytes', *Molecular Endocrinology*, 29, 1320-33, 2015.

Dr. Long, Liu J, Cho SN, Akkanti B, Jin N, Mao J, Long W, Chen T, Zhang Y, Tang X, Wistub II, Creighton CJ, Kheradmand F, DeMayo FJ, 'ErbB2 Pathway Activation upon Smad4 Loss Promotes Lung Tumor Growth and Metastasis', *Cell Reports*, 10, 1599-1613, 2015.

Dr. Markey

Dr. Markey, K. Potluri, A. Mahas, M.N. Kent, M. Markey, 'Genomic DNA extraction methods using formalin-fixed paraffin-embedded tissue.', *Analytical Biochemistry*, 486, 17-23, 2015.

Dr. Paietta

J. V. Paietta, 'Regulation of Sulfur Metabolism in Filamentous Fungi', *The Mycota. III. Biochemistry and Molecular Biology*.

Dr. Paietta, J.V. Paietta, 'Regulation of Sulphur Amino Acid Metabolism in Fungi', *The Handbook of Microbial Metabolism of Amino Acids*, 2015.

Dr. Paliy

Dr. Paliy, S. Michail, M. Lin, M.R. Frey, R. Fanter, O. Paliy, B. Hillbush, and N.V. Reo, 'Altered gut microbial energy and metabolism in children with non-alcoholic fatty liver disease', *FEMS Microbiol Ecol*, 91, 1-9, 2015.

Dr. Paliy, V. Shankar, D. Homer, L. Rigsbee, H.J. Khamis, S. Michail, M. Raymer, N.V. Reo, and O. Paliy, 'The networks of human gut microbe-metabolite associations are different between health and irritable bowel syndrome', *ISME J*, 9, 1899-903, 2015.

Dr. Paliy, V. Shankar, N. Reo, and O. Paliy, 'Simultaneous fecal microbial and metabolite profiling enables accurate classification of pediatric irritable bowel syndrome', *Microbiome*, 3, 73, 2015.

Dr. Paliy, O. Paliy and V. Shankar, 'The application of multivariate statistical techniques in microbial ecology', *Molecular Ecology*.

Dr. Prochaska

Dr. Prochaska, k.s.Alnajjar, T. Cvetkov, and L. J. Prochaska, 'The Role of Phospholipids of Subunit III in the Regulation of Structural Rearrangements in Cytochrome c Oxidase of *Rhodobacter sphaeroides*', *Biochemistry*, 54, 1053-1063, 2015.

Dr. Reo

Dr. Reo, S. Michail, M. Lin, M. Frey, O. Paliy, B. Hillbush, R. Fanter and N.V. Reo, 'Altered Gut Microbial Energy and Metabolism in Children with Non Alcoholic Fatty Liver Disease', *FEMS Microbiology Ecology*, 91, 1-9, 2015.

Dr. Reo, V. Shankar, D. Homer, L. Rigsbee, H.J. Khamis, M. Raymer, S. Michail, N.V. Reo and O. Paliy, 'The Network of Human Gut Microbe-metabolite Associations are Different Between Health and Irritable Bowel Syndrome', *The International Society for Microbial Ecology (ISME) Journal*, 9, 1899-1903, 2015.

Dr. Reo, V. Shankar, N.V. Reo and O. Paliy, 'Simultaneous Fecal Microbial and Metabolite Profiling Enables Accurate Classification of Pediatric Irritable Bowel Syndrome', *Microbiome*, 3, 73, 2015.

Dr. Reo, L.J. Prochaska, F. Elmigdadi, H. Khader, K.M. Mohany, W. Fadda, R.E., Aboukhalil, J. Paietta, N.V., Reo, M. Miller, G. Onady, J. Donnelly, D. Organisciak, A. Altwairgi, A. Alkdai, S. Aldamegh and D. Parmelee, 'Curriculum Transfer and Implementation from Boonshoft School of Medicine (BSOM), Wright State University to Unaizah College of Medicine (UCM), Qassim University, Saudi Arabia: Analysis of Results from the Molecular Basis of Medicine Course 2014-15', *MedEdPORTAL*.

Dr. Reo, N.J. DelRaso, D.L. Harville, M.L. Chamberlain, P.E. Anderson, I. Sibomana, M.L. Raymer and N.V. Reo, 'Urinary Metabolite Profiles May be Predictive of Cognitive Performance Under Conditions of Acute Sleep Deprivation', *Current Metabolomics*.

Dr. Schmidt

Dr. Schmidt, Halvorson, J.J.; Schmidt, M.A.; Gonzalez, J.M.; Hagerman, A.E., 'Reduction of soluble nitrogen and mobilization of plant nutrients in soils from U.S. northern Great Plains agroecosystem by phenolic compounds', *Soil Biology and Biochemistry*.

Dr. Xu

Dr. Xu, Y.J. Xu, 'Inner nuclear membrane protein Lem2 facilitates Rad3-mediated checkpoint signaling under the replication stress induced by nucleotide depletion in fission yeast.', *Cell. Signal*. V28, p235-245, 2016.

Adjunct/Voluntary Faculty Published Articles

Books, chapters, reviews

Ad Hoc Reviewer

Dr. Cambronero

Analytical Biochemistry (2)

Blood (2)

Cancer Letters (1)

J Leukocyte Biol (3)

Oncotarget (1)

PLoS ONE (1)

Science Signaling (1)

Cell Biology Education (CBE) Lifesciences (5)

Dr. Campbell

Cell Biology Education (CBE) Lifesciences (5)

Science and Education (2)

Society for Advancement of Biology Education Research (SABER) Abstract reviewer (9)

Dr. Craig

Oncotarget (1)

Dr. Kadakia

Cell Death and Disease (1)

Oncotarget (1)

PLoS One (4)

Dr. Leffak

Nucleic Acids Research (5)

AAAS (9)

Dr. Long

Anti-Cancer Drugs (1)

IUBMB Life (1)

Medical Science Monitor (1)

Molecular and Clinical Oncology (1)

Oncotarget (1)

Scientific Reports (1)

Dr. Markey

African Journal of Biotechnology (1)

Dr. Organisciak

Clinical Cytology and Pathology (2)

Environmental Health Perspectives (1)

Experimental Eye Research (1)

Photochemical and Photobiological Science (2)

Dr. Paliy

Molecules (1)

PLOS One (1)

Journal of Developmental Origins of Health and Disease (1)

Dr. Prochaska

Biochemistry (4)

Biochimie (1)

Editorial board of Frontiers in mitochondrial physiology (1)

Dr. Xu

Biomolecules (1)

Published abstracts

Abstracts/Presentations at Conferences

Dr. Cambronero

Ganesan R and Gomez-Cambronero J, Orthosteric and allosteric sites in PLD, AAI, New Orleans, LA. 8/12/2015 - 8/15/2015 (Poster).

Fite K and Gomez-Cambronero J, A Repertoire of Micro-RNAs That Target PLD-3'UTR and Change the Cell-Invasion Phenotype of Basal Breast Cancer Cells. , Medical Student Research Symposium, WSU, Dayton, OH. 9/15/2015 - 9/15/2015 (Poster).

Gomez-Cambronero J and Fite K, EMT regulated by a repertoire of miRs in PLD cancer cell invasion, Harvard Medical Institutes Annual Conference, Boston, MA. 11/12/2015 - 11/12/2015 (Poster).

Gomez-Cambronero J and Henkels K, PLD knockouts in ischemia/reperfusion injury, Harvard Medical Institutes Annual Conference, Boston, MA. 11/12/2015 - 11/12/2015 (Poster).

Gomez-Cambronero J and Ganesan R, Transcription factors Slug and Snail in PLD-driven cancer cell invasion., Harvard Medical Institutes Annual Conference, Boston, MA 11/12/2015 - 11/12/2015 (Poster).

Gomez-Cambronero J, Regulation of cell migration, ASBMB/Experimental Biology, Boston, MA. 4/2/2015 - 4/6/2015 (Poster).

Miller T and Gomez-Cambronero J, Poly(A)-specific Ribonuclease (PARN), regulation by phosphatidic acid., Central Research Forum, Wright State University, Dayton, OH 9/20/2016 - 9/20/2016 (Poster).

Miller T and Gomez-Cambronero, A New Way of Controlling mRNA Deadenylation and Stability: Activation of PARN Ribonuclease by Phosphatidic Acid (PA), Biochemistry and Molecular Biology Research Retreat, WSU, Dayton 9/25/2016 - 9/25/2016 (Platform).

Fite K and Gomez-Cambronero J, Downregulation of miRs 203, 887, 3619, and 182 prevent vimentin-triggered, phospholipase D (PLD)-mediated cancer cell invasion., Biochemistry and Molecular Biology Research Retreat, WSU, Dayton 9/26/2016 - 9/26/2016 (Platform).

C. Campbell, Designing and Assessing Active Learning Pedagogies in Biochemistry and Molecular Biology Undergraduate Major, Wright State Student Success Symposium, Wright State University Student Success Center - (Poster).

Dr. Kadakia

Clark RJ, Hill, NT, Zhang J, Agrawal S, Kadakia MP, Differential microRNA Expression in Esophageal Cancers., Central Research Forum, Wright State University 10/22/2015 - 10/22/2015 (Poster).

Hill NT, Zhang J, Stacy AJ, Sakaram S, Kadakia MP, Novel Np63a regulated miRNA biomarkers involved in EMT., Central Research Forum, Wright State University 10/18/2015 - 10/22/2015 (Poster).

Hill NT, Zhang J, Stacy AJ, Sakaram S, Kadakia MP, Novel Np63a regulated miRNA biomarkers involved in EMT., Human Health and Performance Research Summit, Dayton, OH 4/15/2015 - 4/15/2015 (Poster).

Hill NT, Zhang J, Leonard MK, Kadakia MP, Differential Effects of 1 α 25-dihydroxyvitamin D3 Dose on Keratinocyte Proliferation and Np63a Stabilization. American Association for Cancer Research, Philadelphia, PA. 4/18/2015 - 4/22/2015 (Poster).

Hill NT, Kadakia MP, Novel Np63a regulated miRNA involved in EMT, Celebration of Research, Wright State University 10/22/2015 - 10/22/2015 (Platform).

Sakaram S, Grant ED, Whitlatch AJ, Kadakia MP, Regulation of Np63 by JNK., Central Research Forum, Wright State University 10/22/2015 - 10/22/2015 (Platform).

Sakaram S, Kadakia MP, Bioinformatics: The bottleneck for new genomics discoveries. , BMB Retreat, Wright State University 9/21/2015 - 9/24/2015 (Platform).

Stacy AJ, Hill NT, Smith ZJ, Kadakia MP, Regulation of DNp63a by Tip60, Celebration of Research, Dayton, OH 4/10/2015 - 4/10/2015 (Poster).

Stacy AJ, Hill NT, Smith ZJ, Kadakia MP, Regulation of DNp63a by Tip60, AACR, Philadelphia, PA. 4/18/2015 - 4/22/2015 (Platform).

Stacy AJ, Hill NT, Smith ZJ, Kadakia MP, Regulation of DNp63a by Tip60, Central Research Forum, Dayton, OH 10/22/2015 - 10/22/2015 (Platform).

Stacy AJ, Post-Translational regulation of DNp63a by Tip60, BMS Retreat, Dayton, OH 8/27/2015 - 8/27/2015 (Platform).

Dr. Leffak

Barthelemy, J., Hanenberg, H., and Leffak, M., FANCI IS ESSENTIAL FOR GENOME-WIDE MICROSATELLITE STABILITY DURING REPLICATION STRESS, 19th Annual Buffalo DNA Replication & Repair Symposium, Buffalo, N.Y. 6/19/2015 - 6/20/2015 (Platform).

Barthelemy, J., Hanenberg, H., and Leffak, M., FANCI IS ESSENTIAL FOR GENOME-WIDE MICROSATELLITE STABILITY DURING REPLICATION STRESS, 17th Annual Midwest DNA Repair Symposium, Bloomington, IN 6/6/2015 - 6/7/2015 (Platform).

Barthelemy, J., Hanenberg, H., and Leffak, M., FANCI IS ESSENTIAL FOR GENOME-WIDE MICROSATELLITE STABILITY DURING REPLICATION STRESS, EUKARYOTIC DNA REPLICATION & GENOME , 9/1/2015 - 9/5/2015 (Platform).

Dr. Long

Lona Elkhadragey, Minyi Chen, , Michael Markey, Weiwen Long, Upregulation of an atypical MAPK (ERK3) signaling by oncogenic mutations of the classic MAPK cascade, Ras Initiative Symposium, Frederick, MD - (Poster).

Dr. Markey

H. Yalamanchili, A. Mahas, M. Markey, M.L. Raymer, Application of Semi-Supervised Learning in Genome-wide Association Studies (GWAS) for Melanoma, Great Lakes Bioinformatics Conference, Lafayette, Indiana - (Poster).

A. Mahas, K. Potluri, S. Naik, M. Kent, M. Markey, Distinguishing Melanocytic Nevi from Melanoma by DNA Copy Number Changes: Array Comparative Genomic Hybridization as a Research Tool, Celebration of Research, Scholarship and Creative Activities, Dayton, OH 4/10/2015 - 4/10/2015 (Poster).

M. Chen, W. Long, M. Kent, M. Markey, Upregulation of ERK3 Signaling by Oncogenic BRAF Mutation in Melanoma, Central Research Forum, Dayton, OH 10/22/2015 - 10/22/2015 (Platform).

Dr. Organisciak

L. J. Prochaska1*, F. Elmigdad2*, H. Khader2, K. M. Mohany2, W. Fadda2, R. E. Aboukhalil2, J. Paietta1, N. Reo1, M. Miller1, G. Onady1, J. Donnelly1, D. Organisciak1, A. Altwairgi2, A. Alkadi2, S. Aldamegh2,

and D. Parmelee¹. ¹Boonshoft School of Medicine, Wright State University, Dayton, OH and ² Unaizah College of Medicine, Qassim University, Saudi Arabia, *Equal Contributors.

, Curriculum transfer and implementation from Boonshoft School of Medicine to Unaizah College of Medicine (UCM) Qassim University, Saudi Arabia: Analysis of results from the molecular basis of medicine, ASBMB meeting, Santa Fe, NM. 5/5/2015 - (Poster).

Dr. Paliy

R. Agans, L. Rigsbee, O. Paliy, Human gut microbiota is efficient in utilizing dietary fats for growth as revealed by long-term community maintenance in the in vitro gut simulator, Microbiome Symposium, Ann Arbor, MI 09/10/2015 - 09/10/2015 (Poster).

V. Shankar, D. Homer, L. Rigsbee, M. Raymer, N. V. Reo, O. Paliy, Simultaneous interrogation of fecal metabolites and microbes reveals differences in the gut environment between health and irritable bowel syndrome., Microbiome Symposium, Ann Arbor, MI 09/10/2015 - 09/10/2015 (Poster).

L. Sooy, R. Agans, D. Kramer, and O. Paliy, Application of LC-MS to Assess Gut Microbial Metabolites, Annual Biomedical Research Conference for Minority Students 2015, Seattle, WA 11/11/2015 - 11/14/2015 (Poster).

Dr. Prochaska

Prochaska, L.J. and Alnajjar, K. S., Phospholipids in Subunit III Regulate Structural Rearrangements in Cytochrome c Oxidase of *Rhodobacter sphaeroides*, Amer. Soc. Biochem. and Mol. Biol., Boston, MA, (2015), Phospholipids in Subunit III Regulate Structural Rearrangements in Cytochrome c Oxidase of *Rhodobacter sphaeroides*, ASBMB National Meeting, Boston, MA 4/3/2015 - 4/9/2015 (Poster).

Prochaska, L.J. Elmigdadi, F., Khader, H., Mohany, K., Fadd, W., Aboukhalil, R.E., Paietta, J., Reo, N., Miller, M., Onady, G., Donnelly, J., Organisciak, D., Altwairgi, A., Alkadi, A., Aldamegh, S., and Parmelee, D. , Curriculum Transfer and Implementation from Boonshoft School of Medicine, Wright State University to Unaizah College of Medicine, Qassim University, Saudi Arabia: Analysis of Results from the Molecular Basis of Medicine Course 2014-2015., 5th International Conference of the Association of Biochemistry Course Directors (ABCD, Santa Fe, NM 5/1/2015 - 5/5/2015 (Poster).

Dr. Reo

N.J. DelRaso, D.L. Harville, M.L. Chamberlain, P.E. Anderson, I. Sibomana, M.L. Raymer and N.V. Reo, Isolation of Urinary Markers of Cognitive Performance Under Conditions of Sleep Deprivation-Induced Fatigue Using Metabolomics, 86th Annual Scientific Meeting of the Aerospace Medical Association, Walt Disney World Swan & Dolphin Resort, Lake Buena Vista, FL 5/10/2015 - 5/14/2015 (Poster).

D.A. Mahle, M. Meade, N.V. Reo, J.M. Gearhart, A. Hoffman and D.K. Ott, Proteomics and Metabolomic Studies in a Rat Hypobaric Exposure Model, 86th Annual Scientific Meeting of the Aerospace Medical Association, Walt Disney World Swan & Dolphin Resort, Lake Buena Vista, FL 5/10/2015 - 5/14/2015 (Poster).

I. Sibomana, N.J. DelRaso, D.L. Harville, M.L. Raymer and N.V. Reo, Metabolomics Approach for Identifying Urinary Markers of Cognitive Performance Under Conditions of Sleep Deprivation-Induced Fatigue, Health & Human Performance Research Summit, Dayton Convention Center, Dayton, OH 4/28/2015 - 4/30/2015 (Poster).

L. J. Prochaska, F. Elmigdadi, H. Khader, K. M. Mohany, W. Fadda, R. E. Aboukhalil, J. Paietta, N. Reo, M. Miller, G. Onady, J. Donnelly, D. Organisciak, A. Altwairgi, A. Alkadi, S. Aldamegh and D. Parmelee, Curriculum Transfer and Implementation from Boonshoft School of Medicine (BSOM), Wright State University to Unaizah College of Medicine (UCM), Qassim University, Saudi Arabia: Analysis of Results from the Molecular Basis of Medicine Course 2014-2015, 5th International Association of Biochemistry Course Directors Conference, Santa Fe, NM 5/3/2015 - 5/7/2015 (Poster).

V. Shankar, M. Gouda, A. Gordon, J. Moncivaiz, N. Reo, L. Hussein, O. Paliy, Distal Gut Microbiota Structural, Functional, and Metabolite Profiles Differ Between Healthy Adolescents from Egypt and USA, Central Research Forum, Boonshoft School of Medicine, WSU 10/22/2015 - 10/22/2015 (Poster).

I. Sibomana, N.J. DelRaso, J.E. Olson and N.V. Reo, Myo-inositol Increases Ethanolamine Plasmalogen in Neuro-2A Cells and Protects Against Oxidative Stress, Central Research Forum, Boonshoft School of Medicine, WSU 10/22/2015 - 10/22/2015 (Poster).

Dr. Xu

A. Singh, and Y.J. Xu, A novel mechanism of hydroxyurea-induced cell death in fission yeast, 17th Annual Midwest DNA repair Symposium, Indiana University, Bloomington, Indianan 6/6/2015 - 6/7/2015 (Poster).

Y.J. Xu, The inner nuclear membrane protein Lem2 regulates Rad3-mediated checkpoint signaling under replication stress induced by nucleotide depletion, Eukaryotic DNA Replication & Genome Maintenance, Cold Spring Harbor Laboratory, 9/1/2015 - 9/5/2015 (Poster).

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

Dr. Cambronero

PLD elicits macrophage switch polarity class, Harvard Institutes of Medicine, Boston, MA, 10/2/2015.

PLD signaling in Cancer metastasis, inflammation and Ischemia Reperfusion Injury, Harvard Medical School-Brigham and Women Hospital, Boston, MA, 12/21/2015.

Writing your first Grant (for junior faculty), SLB Professional Development Workshop, Raleigh, NC, 9/27/2015 - 9/29/2015.

Dr. Craig

Transcriptional Regulation of Tumor-Induced Angiogenesis, Cincinnati Children's Hospital Medical Center Vascular Biology Working Group Meeting, Cincinnati, OH, 04/15/2015.

Dr. Long

ERK3 Kinase Signaling in Lung Cancer progression and metastasis, Department of Biochemistry and Molecular Biology, Mayo Clinic, Rochester, MN, 05/04/2015 - 05/05/2015.

Dr. Markey

CGR Update, BMB Faculty Retreat, Dayton, OH, 8/26/2015.

ERK3 in Melanoma, BMB Research Retreat, Dayton, OH, 9/21/2015.

The Markey Lab, BMB MS Student Orientation, Dayton, OH, 8/28/2015.

Dr. Organisciak

Testing AREDS components in an animal model of retinal degeneration, Ohio Lions Club, Beavercreek OH, 10-12-2015.

Consultantships [sponsor activity]

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

Dr. Cambroner

Sponsored two Grad Students to Harvard Medical School during sabbatical
Sponsored a BSOM Medical Student (Ramanjot Kang) for an American Society for Hematology (ASH) Minority Medical Student Award Program (MMSAP), at Memorial Sloan Kettering Cancer Center, New York, that resulted in a publication in BLOOD: Alloimmune Neutropenia.

6 Summary of Service Activities

Student advising

- N/A

Committee membership/officer [indicate if committee chair]

Wright State University (Biochemistry Molecular Biology Department)

Dr. Cambroner

Faculty Search Committee (for 3 new faculty positions)

Promotion and Tenure

Dr. Campbell

BMB Undergraduate Lab Development
BS in BMB Program Development Committee
New Instructor Hire

Dr. Kadakia

Chair for BMB 2015

Faculty Search Committee

Undergraduate Curriculum Committee for development of new degree program in BMB.

Dr. Leffak

BMB B.S. Undergraduate Program Design Committee
BMB Faculty Development Committee

Dr. Long

New Faculty search committee member

Dr. Markey

MS Admissions Committee

Dr. Organisciak

Faculty Development Committee

Dr. Paily

BMB Curriculum Development Committee
Systems Biology Course Development Committee

Dr. Prochaska

BMB graduate admissions committee
BS/MS Curriculum Committee, Chair
Faculty Development Committee

Dr. Reo

BMB Undergraduate Curriculum Committee
BMB, Faculty Search Committee, Chair

Dr. Xu

Member of the Admission Committee of BMB Master's Program.

Wright State University (Boonshoft School of Medicine)

Dr. Cambronero

Bylaws Committee

Dr. Kadakia

Associate Director for Center of Genomics Research
Member of the Faculty development committee.
Member of the Student Promotion committee

Dr. Leffak

Faculty Curriculum Committee

Dr. Long

Nominating committee of BMS program

Dr. Markey

BMS Admissions Committee
BMS Nominating Committee

Dr. Organisciak

Chair search committee for Psychiatry
Research Committee Boonshoft School of Medicine

Dr. Paietta

Foundations Leadership Committee
Module 1 Leadership Team
WCSC (Wright Curriculum Steering Committee)
BMS Curriculum Committee

Dr. Paliy

BMS Curriculum Committee

Dr. Prochaska

Academic Appeals Committee
Biennium 1 subcommittee
BSOM curriculum reform task force
BMS Curriculum member

Dr. Reo

BSOM Research Committee
Faculty Advancement & Promotion Committee
Milestones Leadership Committee
Area of Concentration Recruiter for Integrative Biology and Toxicology

Steering Committee Member for MBM Course

Wright State University (College of Science and Math)

Dr. Campbell

College of Science and Math Teaching Awards Committee

College of Science and Math Undergraduate Curriculum Committee

Dr. Kadakia

Member of the BMS Academics Policies Committee

Dr. Leffak

Undergraduate Student Petitions Committee

Dr. Long

Equity Fellow Committee

Dr. Markey

COSM Program Review Committee

Dr. Organisciak

Academic Mediation Committee

College Promotions and Tenure Committee

Dr. Paietta

Graduate Studies Committee

Dr. Prochaska

Diversity committee chair

Equity advisor for COSM

Dr. Reo

Undergraduate Curriculum Committee

Dr. Xu

Member of the Academic Mediation Committee

Wright State University

Dr. Long

IACUC member

Dr. Markey

University, Graduate Council BSOM faculty representative

Dr. Paliy

WSU Institutional Biosafety committee

Dr. Prochaska

Athletics Council, gender equity subcommittee member

Athletics Council, immediate past chair

Chair, University Equity Fellows Committee

Treasurer, AAUP

Wright State Physicians

N/A

Hospital or affiliated institution [name]

N/A

State

N/A

National

N/A

Other

N/A

7

Patient Care Summary

N/A

8

Honors and awards [Faculty or staff]

Dr. Cambronero

Travel to AAI Annual Meeting, received by Ramya Ganesan

Travel to Harvard Medical School, received by Kristen Fite

Travel to Harvard Medical School, received by Ramya Ganesan

Dr. Markey

Graduate Student Excellence Award, received by Ahmed Mahas.

Dr. Organisciak

Recognition of 40 years of service at WSU, received by Dr. Organisciak.

Dr. Paliy

GSA Original Work Grant 2015, received by Alex Gordon.

Dr. Markey

American Cancer Society Lab Tour Event, 11/5/2015, This program is located at WSU.

The Hour of Code (I volunteered during this computer science education event sponsored by Code.org.), 12/8/2015, This program is located at Lebanon, OH.

Montgomery County Science Day, Intel International Science and Engineering Fair (I judged science fair projects for ISEF.), 3/7/2015, This program is located at Dayton, OH.

Dr. Organisciak

My lecture for the local Ohio Lions Club might also be considered outreach, 10-12-15, This program is located at Beavercreek OH.

Dr. Reo

BSOM Faculty Leadership Academy (I was invited to participate in this 9 month workshop to develop leadership skills), Sept 2015 thru May 2016, This program is located at WSU.

Dr. Long

Morten Seternes in the department of Pharmacy at University of Tromsøe.

9

Hosted events [CME, etc.]

Departmental Seminar Series

Spring Semester 2015:

Dr. Long, Qu -Department of Mathematics - Wright State University

Dr. Sameek Roychowdhury - College of Medicine - The Ohio State University

Dr. Binhua P. Zhou -Department of Molecular & Cellular Biochemistry - University of Kentucky

Dr. Moray Campbell - Department of Pharmacology & Therapeutics - Roswell Park Cancer Institute
Dr. Keiichiro Susuki - Department of Neuroscience, Cell Biology & Physiology - Wright State University
Dr. Danny Manor - Department of Nutrition - Case Western Reserve University
Dr. Jian-Qiu Wu - Department of Molecular Genetics - The Ohio State University
Dr. David Orren - Graduate Center for Toxicology - University of Kentucky
Dr. Shulin Ju - Department of Biological Sciences - Wright State University
Dr. William Muir - Department of Animal Sciences - Purdue University
Dr. Debra Mayes - Department of Neuroscience, Cell Biology & Physiology - Wright State University

Fall Semester 2015:

Dr. Hongmei Ren - Internal Medicine & Cardiovascular Research Center - University of Kentucky College of Medicine

Dr. Zhaokang Cheng - Department of Pathology & Laboratory Medicine - University of North Carolina

Dr. Zhenbang Chen - Dept. of Biochemistry and Cancer Biology - Meharry Medical College

Dr. Rhett Koval - Dept. of Molecular Genetics - University of Cincinnati

Dr. Ronald Bush - National Institute of Deafness and Other Communication Disorders - NIH

Dr. Xiaolan Zhao - Dept. of Molecular Biology Memorial - Sloan Kettering Cancer Center

Dr. Christian Hong - Dept. of Molecular and Cell Physiology - University of Cincinnati

Dr. Kara Bernstein - Dept. of Microbiology and Molecular Genetics - University of Pittsburgh

Dr. Janaiah Kota - Dept. of Medical and Molecular Genetics - Indiana University

10

Other information

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

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