



Department of Neuroscience, Cell Biology and
Physiology

Annual Report

2016

Eric S. Bennett, Ph.D.
Professor and Chair

For the period including
January 1, 2016 — December 31, 2016

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Statement from the Chair/Associate Dean

Neuroscience, Cell Biology, and Physiology (NCBP) is a matrix department within the Boonshoft School of Medicine (BSOM) and the College of Science and Mathematics (CoSM). NCBP faculty and staff are dedicated to the missions of WSU, BSOM, CoSM, and NCBP.

2016 was a year in transition for NCBP, with my arrival as Chair on October 1, 2016. Luckily, NCBP had excellent leadership during the first 9 months of 2016, with Dr. Christopher Wyatt working closely with the outstanding NCBP faculty and staff to keep the department moving forward. Upon my arrival, Chris as well as the NCBP faculty and staff (special mention to Cheryl Little, Alicia Hendricks, and Kim Hagler) were extremely helpful in my transition. I would like to acknowledge and thank them for their hard work and dedication to advancing our missions. I am also grateful to the BSOM and CoSM administration for their advice and support, particularly that of Drs. Dunn and Engisch.

NCBP faculty members were engaged in scholarly activity, education, and service. Specific examples include:

- A. **Research:** NCBP faculty members were very productive in scholarly activity.
 - 1) Published 21 peer-reviewed articles, book chapters, and reviews; gave 45 presentations at scientific meetings.
 - 2) Maintained high level of external funding.
 - 3) Established BioBank housed within NCBP NEC cores through a generous gift by Gala of Hope Foundation. Drs. Lober, Brown, and Mayes, were responsible for acquiring the gift and establishing the collaboration among Dayton Children's Hospital, Wright State Neuroscience Research Institute, Premier Health, BSOM, and NCBP.
 - 4) Began establishing a small animal physiology core to perform functional studies.

- B. **Education:** NCBP faculty members were significantly involved in undergraduate, graduate, and medical student education.
 - 1) Contributed significantly to development and delivery of current and new BSOM curricula by directing several courses related to anatomy, histology, cell biology, physiology, and neurosciences. Dr. Michael Matott was hired (Dec. 1, 2106) expressly to focus on development of the physiology-related aspects of the new curriculum.
 - 2) Delivered MS programs in Anatomy and Neuroscience & Physiology; participated in the BMS Ph.D. program through mentoring students and delivery of core/elective courses.
 - 3) Significant undergraduate and graduate student research advising/mentoring.
 - 4) Directed/delivered courses to >1,000 undergraduate students.
 - 5) Developed a B.S. in Neuroscience program (starting, Fall, 2017); final approval by Wright State BOT and State of Ohio is pending; many thanks to heroic efforts of Drs. Engisch and Sonner.
 - 6) Four faculty members received education/training awards.

- C. **Service and Outreach:** NCBP faculty were very involved in service to their respective disciplines, the community, and at all levels within the University.
 - 1) Nearly all participated in manuscript review; 10 editorial board memberships; 8 scientific review funding panels.
 - 2) Members/leaders in many committees at all levels within the University.
 - 3) Participated and led in professional organizations and committees.
 - 4) Outreach - HAPI Lab, Horizons in Medicine, STEMM: Exploring Human Anatomy an Interactive Anatomy Lab Experience, STREAMS, Women in Science Giving Circle, Destination Imagination, Special Interest Program – Exposing High School to Neuroengineering Research, Developing Neuroscience Outreach Program.

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]		
Neuroscience Institute	Mark M. Rich, M.D., Ph.D.	2015-Present

3 Fully Affiliated Faculty

Name and Academic Position	Clinical Interests	Research Interests
Eric Bennett, Ph.D., Full Professor and Chair		Control and modulation of cardiac and neuronal function by posttranslational modifications
Nancy Bigley, Ph.D., Full Professor		Herpes simplex virus, interferons and signaling pathways
Thomas Brown, Ph.D., Full Professor		Cell death; differential and development
Adrian Corbett, Ph.D., Associate Professor		Excitation-contraction coupling; Sodium channel subtypes; Brain neurogenesis
Andrew Ednie, Ph.D., Research Associate Professor		Understanding the role of post translational modifications in regulating cardiac and neuronal function
Salin El-Amouri, Ph.D., Research Associate Professor		Metabolism in aging and disease
Sherif Elbasiouny, Ph.D., Assistant Professor		Cellular mechanisms regulating neuronal excitability and motor system output
Kathrin Engisch, Ph.D., Associate Professor		Neurotransmitter release
Robert Fyffe, Ph.D., Full Professor		Cellular and synaptic

Name and Academic Position	Clinical Interests	Research Interests
		neuroscience
Melvyn Goldfinger, Ph.D., Associate Professor		Theoretical neuroscience
Dan Halm, Ph.D., Associate Professor		Epithelial physiology; Secretory signal transduction
Luping Huang, M.D., Ph.D., Research Associate Professor		Metabolism in aging and disease
J. Ashot Kozak, Ph.D., Associate Professor		Ion transport pathways in T lymphocytes; Calcium signaling
Barbara Kraszpuska, Ph.D., Associate Professor		Medical and graduate education; Gross Anatomy
Michal Kraszpuski, Ph.D., Instructor		Graduate education; Neuroscience
Michael Mattot, Ph.D. Assistant Professor		Medical and graduate education; Physiology
Debra Mayes, Ph.D., Assistant Professor		Effects of junction proteins on stress, metabolism, and cell proliferation/death in vascular, cancer, and neurodegenerative disease models
Gary Nieder, Ph.D., Full Professor		Medical and graduate education; Educational technology
Robert Putnam, Ph.D., Full Professor		Central respiratory control; Cell signaling; Neuroscience
Larry Ream, Ph.D., Associate Professor		Medical and graduate education; Histology
Mark Rich, M.D., Ph.D., Full Professor	Neurology	Synaptic plasticity; Critical illness myopathy
Nick Ritucci, Ph.D., Lecturer		Undergraduate and medical education; Physiology
Bridgett Severt, M.D., Lecturer		Undergraduate education; Anatomy
Patrick Sonner, Ph.D., Lecturer		Undergraduate and graduate education; Neuroscience
Keiichiro Susuki, M.D., Ph.D., Assistant Professor		Symptoms in a broad range of diseases including multiple sclerosis, traumatic brain injury, and various forms of neuropathy
Dawn Wooley, Ph.D., Associate Professor		Virology HIV-1; AIDS; Biosafety; Biodefense
Christopher Wyatt, Ph.D., Associate Professor		Cellular mechanisms of oxygen sensing

4 Teaching

Baccalaureate [any course for a bachelor's degree]

ANT 2100 Human Anatomy and Physiology I
ANT 2100L Human Anatomy and Physiology I Lab
ANT 2120 Human Anatomy and Physiology II
ANT 2120L Human Anatomy and Physiology II Lab
ANT 3100 Human Structure and Function I
ANT 3100L Human Structure and Function I Lab
ANT 3120 Human Structure and Function II
ANT 3120L Human Structure and Function II Lab
ANT 4340 Biological Safety
ANT 4880 Independent Reading Anatomy
ANT 4990 Selected Topics in Anatomy
ANT 5100 Advanced Human Structure and Function I
ANT 5100L Advanced Human Structure and Function I Lab
ANT 5120 Advanced Human Structure and Function II
ANT 5120L Advanced Human Structure and Function II Lab
BIO 4990 Special Problems in Biology
M&I 4260 Immunology
M&I 4310 Virology
M&I 4750 Pathogenic Mechanisms
NCP 3330 Neuroscience Today
P&N 4420 Introductory Neurophysiology
P&N 4880 Independent Reading in Physiology
P&N 4990 Special Problems in Physiology
PSY 2910 Drugs and Behavior
PSY 4940 Animal Behavior Capstone
SM 1010 Scientific Literacy for the 21st Century

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

ANT 6340 Biological Safety
ANT 6990 Special Problems in Anatomy
ANT 7000 Human Anatomy Instruction
ANT 7010 Selected Topics in Anatomy
ANT 7020 Anatomical Techniques

ANT 7110 Human Gross Anatomy
ANT 7150 Advanced Human Embryology
ANT 7210 Human Microanatomy
ANT 7310 Human Neurobiology
ANT 8000 Anatomy Seminar
ANT 8110 Comprehensive Anatomy
ANT 8500 Scholarly Project
ANT 8600 Principles of Biomedical Research
ANT 8990 Anatomy Research
M&I 6750 Pathogenic Mechanisms
M&I 7260 Immunology
M&I 7310 Virology
M&I 7770 Gene Therapy
M&I 8000 Microbiology and Immunology Seminar
P&N 6100 Human Physiology
P&N 6420 Introductory Neurophysiology
P&N 6500 Glial Cell Physiology
P&N 6690 Quantitative Aspects of Membrane Transport
P&N 6990 Special Problems in Physiology
P&N 7010 Selected Topics in Physiology
P&N 7010 Breakthroughs in Neuroscience and Physiology
P&N 7220 Ion Channels
P&N 7750 Neuroscience and Physiology
P&N 7760 Intercellular Communications
P&N 7920 Mechanisms of Cell Death
P&N 8000 Physiology Seminar
P&N 8080 Neuroscience Seminar
P&N 8600 Principles in Biomedical Research
P&N 8990 Physiology Research
PSY 6940 Animal Behavior Capstone
PTX 7300 Cellular Pharmacology and Toxicology

Undergraduate medical education [medical school]

SMD 510 Human Structure
SMD 543 Cardiovascular
SMD 551 Hematology
SMD 552 Respiratory
SMD 553 Digestive
SMD 554 Renal
SMD 560 Medical Neuroscience

SMD 561 Endocrine

SMD 563 Musculoskeletal/Integument

SMD 572 Cells, Tissue and Organ Systems

SMD 580 Staying Alive

MED 800 Student Initiated Elective (Involved producing multimedia and assembling a web-based tutorial on heart sound)

Graduate medical education [residents, fellows]

Elbasiouny S. Novel Decoder Algorithms for Closed-loop Prosthetic Control, Boonshoft School of Medicine Central Research Forum, Wright State University, Dayton, OH, 10/13/2016.

Putnam, R. Cellular Sensing of CO₂/H⁺ in the Brain, Department of Physiology, Dartmouth Medical School, Hanover, NH, 3/18/2016.

Rich, M. Sensory Loss following Chemotherapy, Ohio State University, Medicine Rounds, Columbus, OH, 8/2/2016.

Rich, M. Treating Myotonia Congenita, University of Kentucky Seminar Series, Lexington, KY, 3/17/2016.

Continuing medical education [grand rounds, seminars]

Brown, T. A Breath of Fresh Air: Placental Oxygen Regulation, Pregnancy-Induced Hypertension and Preeclampsia, Cincinnati Children's Hospital, Muglia Lab-Division of Neonatology, Cincinnati, OH, 2/19/2016.

Other

Brown, T. A Breath of Fresh Air: Pregnancy, Placental Oxygen and Preeclampsia, Springfield-Clark Career Technology Center, Springfield, OH, 3/3/2016.

Brown, T. Hifs, Amps(k), and New Rules for Grants, Wright State University, Cell Signaling Group, Dayton, OH, 7/19/2016.

Brown, T. Science Hierarchy and Biomedical Research, Springfield-Clark Career Technology Center, Springfield, OH, 3/3/2016.

Brown, T. Updated Guidelines for NIH Grants: Premise, Rigor, Authentication, and Sex as a Biological Variable, Wright State University-Research and Sponsored Programs, Dayton, OH, 11/9/2016.

Elbasiouny S. 3D Multi-scale Modeling of Neuro-Muscular Mechanics, International Society of Electrophysiology and Kinesiology, Chicago, IL, 7/5/2016 - 7/8/2016.

Elbasiouny S. Advanced Algorithms for Closed-loop Prosthesis Control, WSRI Research Seminar Series, Wright State Research Institute Dayton, OH, 3/15/2016.

Mayes D. Metabolism Bridging the Gap, Wright Patterson Air Force Base, Dayton, OH, 04/27/2016.

Severt, B. and Sonner, P. Using Your Brain to Learn About the Brain, Education Psychology, Wright State University, Dayton, OH, 03/14/2016.

Sonner, P. How to Prepare and Present a Scientific Poster, Streams/BioSTAR, 140 Health Sciences, 7/11/2016.

Sonner, P. Neuroscience: Conduction Velocity, Yellow Springs High School Anatomy and Physiology class, Yellow Springs High School, Yellow Springs, OH, 5/12/2016.

Sonner, P. Why Would You Want to Pursue Neuroscience Education? Alter High School STEM students, Alter High School, Dayton, OH, 9/20/2016.

Susuki, S. Submembranous Cytoskeleton in Myelinating Glia Stabilizes Nodes of Ranvier, Japan Neuroscience Society Meeting, Yokohama, Japan, 7/21/2016.

Susuki, S. Submembranous Cytoskeleton in Myelinating Glia Stabilizes Nodes of Ranvier, American Society for Neurochemistry meeting, Denver, CO, 3/20/2016 - 3/20/3016.

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Scholarly Activity

Funded grants [List PI(s), grant title, funding source, amount of award, and dates of award. Please list each grant only once. Identify student & resident authors, i.e., *=student author **=resident/fellow]

Extramural - Active, Dr. Bennett, NSF, Collaborative Research: Physical-Statistical Modeling and Optimization of Cardiovascular System, P.I. Hui Yang, (08/01/2013 to 02/28/2017). Total \$96011, Direct Current Year \$63165, Indirect Current Year \$32846, Total cost for entire grant period \$288036.

Extramural - Active, Dr. Bennett, NSF, Regulated sialylation modulates cardiac excitability and conduction, P.I. Eric Bennett, (10/01/2016 to 04/30/2017) Total \$354569, Direct Current Year \$247702, Indirect Current Year \$106867, Total cost for entire grant period \$1059259, 12.5% salary for Dr. Bennett.

Extramural - Active, Dr. Brown and Dr. Mayes, Gala of Hope Foundation, Dayton Collaborative for Childhood Cancer, P.I. Robert Lober, M.D.

Extramural - Active, Dr. Brown, NIH NICHD R01 Supplement, HIF-1 Alpha Regulation of Placental Trophoblast Differentiation in Vivo, P.I. Thomas Brown. Total cost for entire grant period \$134,000.

Extramural - Active, Dr. Elbasiouny, Defense Advanced Research Projects Agency (DARPA), Advanced algorithms for closed-loop prosthesis control, P.I. Sherif Elbasiouny, (03/20/2015 to 03/19/2018) Total \$118799, Direct Current Year \$96085, Indirect Current Year \$22714, Total cost for entire grant period \$356397, 22% salary for Dr. Elbasiouny.

Extramural - Active, Dr. Elbasiouny, United States Air Force, Airman-Machine Teaming and Trust in Automation Research Support, P.I. Sherif Elbasiouny, (11/17/2015 to 08/31/2016) Total \$45978, Direct Current Year \$31066, Indirect Current Year \$14912, Total cost for entire grant period \$60000, 11% salary for Dr. Elbasiouny.

Extramural - Active, Dr. Elbasiouny, United States Air Force, Airman-Machine Teaming and Trust in Automation Research Support, P.I. Sherif Elbasiouny, (10/05/2016 to 10/04/2017) Total \$36623, Direct Current Year \$24745, Indirect Current Year \$11878, Total cost for entire grant period \$146492, 22% salary for Dr. Elbasiouny.

Extramural - Active, Dr. Elbasiouny, National Institute of Neurological Disorders and Stroke, NIH, Mechanisms Underlying Excitability Regulation of Motoneuron Types in ALS, P.I. Sherif Elbasiouny, (02/01/2015 to 01/31/2020) Total \$323750, Direct Current Year \$105000, Indirect Current Year \$218750, Total cost for entire grant period \$1618750, 33% salary for Dr. Elbasiouny.

Extramural - Active, Dr. Kozak, National Institute of General Medical Sciences, BioSTAR Biomedical Scholars Training & Research Program, P.I. Courtney Sulentic, (08/01/2011 to 06/30/2016).

Extramural - Active, Dr. Kozak, National Institute of Allergy and Infectious Diseases, TRPM7 and Cellular pH, P.I. Juliusz Ashot Kozak, (12/10/2015 to 11/30/2016). Total \$370000, Direct Current Year \$250000, Indirect Current Year \$120000, 25% salary for Dr. Kozak.

Extramural - Active, Dr. Ladle, NIH, National Institute of Neurological Disorders and Stroke, Mechanisms of reciprocal inhibition development, P.I. David R. Ladle, (09/01/2011 to 08/31/2016) Total \$319375, Direct Current Year \$218750, Indirect Current Year \$100625, Total cost for entire grant period \$1596875, 33% salary for Dr. Ladle.

Extramural - Active, Dr. Rich, MDA, Developing Therapy for Myotonia Congenita, P.I. Mark Rich, (2/1/2016 to 1/31/2019), 11% salary for Dr. Rich.

Extramural - Active, Dr. Rich, NIH, Reduced Motoneuron Excitability in Sepsis, P.I. Mark Rich, (7/1/2014 to 6/30/2019) Total \$330000, Direct Current Year \$230000, Indirect Current Year \$100000, Total cost for entire grant period \$330000, 11% salary for Dr. Rich.

Extramural - Active, Dr. Rich, NIH, Retrograde trophic signaling through acetylcholine receptors at the neuromuscular junction, P.I. Mark Rich, (09/15/2007 to 4/1/2018) Total \$225000, Direct Current Year \$150000, Indirect Current Year \$75000, Total cost for entire grant period \$25, 11% salary for Dr. Rich.

Internal - Active, Dr. Brown, Wright State University & Premier Health Partners, Biomarker Analysis of Neuroinflammation and Impending Stroke in Humans, P.I. Thomas L. Brown.

Internal - Active, Dr. Brown, Wright State University Obstetrics and Gynecology Translational Research Initiative, Molecular Genetic Analysis Predictive of Preeclampsia and Its Severity in Human Pregnancy, P.I. Thomas Brown.

Internal - Active, Dr. Brown, Wright State University, Promoter specific analysis of M1/M2 class switch, P.I. Thomas L. Brown.

Internal - Active, Dr. Corbett, BSOM Translation Grant, iTRAQ Proteomics to Identify Predictive Biomarkers of Stroke after Subarachnoid Hemorrhage, P.I. Adrian M. Corbett, (07/01/2014 to 06/30/2016) Total \$43582, Direct Current Year \$43582, Indirect Current Year \$0, Total cost for entire grant period \$43582.

Internal - Active, Dr. Mayes, WSU Research Initiation Proposal, The role of N-Acetyl Cysteine in Blood Brain Barrier Modulation, P.I. Debra Mayes, PhD, (04/26/2016 to 04/25/2017) Total \$15500, Direct Current Year \$15500, Indirect Current Year \$0, Total cost for entire grant period \$155600.

Extramural – Active, R01 - Active, Dr. Brown, NIH (NICHD), HIF-1 Alpha Regulation of Trophoblast Differentiation in Vivo, P.I. Thomas L Brown, (06/01/2011 to 03/28/2016) Total \$302895, Direct Current Year \$207462, Indirect Current Year \$95433, Total cost for entire grant period \$302895, 50% salary for Dr. Brown.

Pending – Virtually all research-active faculty members submitted grant applications in 2016, several of which are still pending

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

Bavis RW, Li KY, DeAngelis KJ, March RJ, Wallace JA, Logan S, **Putnam RW**. Ventilatory and chemoreceptor responses to hypercapnia in neonatal rats chronically exposed to moderate hyperoxia. *Respir Physiol Neurobiol*. doi: 10.1016/j.resp.2016.12.008. epub, Dec. 26, 2016

Deng W, **Ednie AR** and **Bennett ES**. Aberrant Sialylation Causes Dilated Cardiomyopathy and Stress-induced Heart Failure, *Basic Research Cardiology*, 111, 57, 2016.

Du D, Yang H, **Ednie AR** and **Bennett ES**. Statistical Metamodeling and Sequential Design of Computer Experiments to Model Glyco-altered Gating of Sodium Channels in Cardiac Myocytes, *IEEE Journal of Biomedical and Health Informatics*, 20, 1439-1452, 2016.

Gibson JN, Beesetty P, Sulentic C and **Kozak JA**. Rapid quantification of mitogen induced blastogenesis in T lymphocytes for identifying immunomodulatory drugs, *Journal of Visualized Experiments*, 118, 2016.

Griggs RB, Yermakov LM and **Susuki K**. Formation and disruption of functional domains in myelinated CNS axons. *Neurosci Res* (In Press).

Grobe M, Bottomley M, Dudley ES, **Wyatt CN** and Boivin GP. Behavioural and histological responses to different CO2 chamber replacement rates in C57BL/6 male mice, *J. Am. Assoc. Lab. Animal. Sci.*, 55(4), 451-461, 2016.

Imai F, **Ladle DR**, Leslie JR, Duan X, Rizvi TA, Ciraolo RA, Zheng Y, and Yoshida Y. Synapse Formation in Monosynaptic Sensory-Motor Connections Is Regulated by Presynaptic Rho GTPase Cdc42, *J Neurosci*, 36, 5724-35, 2016.

Lopes, LT, Patrone LGA, Li KY, Imber AN, Graham CD, Gargaglioni LH, and **Putnam RW**. Anatomical and functional connections between the locus coeruleus and the nucleus tractus solitarius in neonatal rats, *Neuroscience*, 324, 446-468, 2016.

Nardelli P, Vincent JA, Powers R, Cope TC, and **Rich MM**. Reduced motor neuron excitability is an important contributor to weakness in a rat model of sepsis, *Experimental Neurology*, 282, 1-8, 2016.

Otani Y, Yermakov LM, Dupree JL, and **Susuki K**. Chronic peripheral nerve compression disrupts paranodal axoglial junctions. *Muscle Nerve* (In Press).

Schlimgen R, Howard J, **Wooley D**, Thompson M, Baden LR, Yang O, Christiani CD, Mostoslavsky G, Diamond DV, Gilman Duane E, Byers K, Winters T, Gelfand JA, Fujimoto G, Hudson TW, and Vyas JM. Risks Associated

With Lentiviral Vector Exposures and Prevention Strategies, *Journal of Occupational and Environmental Medicine*, 58: 159-1166, 2016.

Selesniemi K, Albers RE, and **Brown TL**. ID2 mediates differentiation of labyrinthine placental progenitor cell line, SM10, *Stem Cells and Development*, 25, 959-974, 2016.

Thompson EL, Ray CJ, Holmes AP, Pye RL, **Wyatt CN**, Coney AM and Kumar P. Adrenaline release evokes hyperpnoea and an increase in ventilatory CO2 sensitivity during hypoglycaemia: a role for the carotid body, *J. Physiol*, 10.1113, JP272191, 2016.

Vincent JA, Wiczerzak KB, Gabriel HM, Nardelli P, **Rich MM**, and Cope TC. A Novel Path to Chronic Proprioceptive Disability with Oxaliplatin: Distortion of Sensory Encoding, *Neurobiology of Disease*, 95, 54-65, 2016.

Vollmer LL, Ghosal S, McGuire JL, Ahlbrand RL, Li KY, Santin JM, Ratliff-Rang CA, Patrone LGA, Rush J, Lewkowich IP, Herman JP, **Putnam RW**, and Sah R. Microglial acid sensing regulates carbon dioxide-evoked fear, *Biological Psychiatry*, 80, 541-551, 2016.

Wang X, Pinter MJ, and **Rich MM**. Reversible Recruitment of a Homeostatic Reserve Pool of Synaptic Vesicles Underlies Rapid Homeostatic Plasticity of Quantal Content, *Journal of Neuroscience*, 36, 828-36, 2016.

Books, chapters, reviews

Kaufman MR and **Brown TL**. AMPK and Placental Progenitor Cells. AMP-activated Protein Kinase *Experientia Supplementum*, (Eds) Mario D. Cordero and Benoit Viollet: Vol. 107 (In Press), Springer Publishing (2016)

Kaufman, MR and **Brown TL**. AMP-activated Protein Kinase. *EXS*, 107:73-79, 2016.

Susuki K and Kuba H. Activity-dependent regulation of excitable axonal domains, *J Physiol Sci*, 66, 99-104, 2016.

Susuki K, Otani Y, and Rasband MN. Submembranous molecular complex stabilizes nodes of Ranvier, *Exp Neurol*, 283, 446-451, 2016.

Susuki K. Node of Ranvier disruption in Guillain-Barré syndrome, *Clin Exp Neuroimmunol*, 7, 324-329, 2016.

Posters, Platforms

Albers RE, Kaufman MR, Keoni C, Hughes M, Natale B, Natale D, and **Brown TL**. Placental-Specific Hypoxia Inducible Factor 1 alpha as a Model of Preeclampsia, Human Placental Project Meeting, Washington, DC, 04/14/2016 (Poster).

Albers RE, Kaufman MR, Keoni C, Kaushik G, Min S, Natale B, Natale D, and **Brown TL**. AMPK Alpha Placental-Specific Knockdown Results in Altered Labyrinthine and Trophoblast Giant Cell Development, International Federation of Placenta Associations Meeting (IFPA), Portland, OR, 09/14/2016 (Poster).

Allen JM and **Elbasiouny SM**. A computational motor neuron pool model for the development of motor decoder algorithms for prosthetic control, Society for Neuroscience 2016 Annual Meeting, San Diego, CA 11/15/2016 (Poster).

Beesetty P, Matsushita M and **Kozak JA**. Rapid quantification of mitogen-induced blastogenesis in T lymphocytes for identifying immunomodulatory drugs, Ohio Physiology Society Meeting, Columbus, OH 11/18/2016 - 11/19/2016 (Poster).

Colon C, Dancy M, Garrett T, and **Elbasiouny SM**. Early Treatment with Riluzole Improves Survival in SOD1-G93A ALS Mice, Stream's Student Poster Session, Wright State University, Dayton, OH 08/15/2016 (Poster).

Dancy M, Miller M, Garrett T, and **Elbasiouny SM**. A Comprehensive Approach for Efficient Monitoring of Motor Function in ALS, Society for Neuroscience Conference, San Diego, CA 11/13/2016 (Poster).

Dancy M, Miller M, Garrett T, and **Elbasiouny SM**. Comprehensive Approach for Efficient Monitoring of Motor Function in ALS, WSU Central Research Forum, Wright State University, Dayton, OH 10/13/2016 (Poster).

Dancy M, Yaney J, Dukkipatti S, Garrett T, and **Elbasiouny SM**. The Effect of SK Activators on Disease Progression, Motor Function and Survival Time in the SOD1-G93A ALS Mouse Model, Celebration of Research, Scholarship and Creative Activities, Wright State University, Dayton, OH 04/15/2016 (Poster).

Dhamadhikari S, Nagarajan D, Ragas M, and **Corbett AM**. Examining Infarct Sizes in Female Rats in Response to Post-stroke Pharmacological Treatment and Physical Rehabilitation, STEMM Leadership Conference, Wright State University, Dayton, OH 10/21/2016 (Poster).

Dukkipati SS, Chihi A, Fyffe REF, and **Elbasiouny SM**. Does it really change? Identifying potential sources of variability in experimental studies of ALS mouse models, Society for Neuroscience Meeting, San Diego, CA 11/14/2016 (Poster).

Dukkipati SS, Chihi A, Fyffe REW, and **Elbasiouny SM**. Does it really change? Identifying potential sources of variability in experimental studies of ALS mouse models, Midwest Motoneuron Consortium, Indianapolis, IN 09/17/2016 (Poster).

Dukkipati SS, Chihi A, Tesner S, Daahir C, Romer, Fyffe REW, and **Elbasiouny SM**. Investigating disease changes in C-bouton inputs to murine SOD1-G93A motoneurons, Wright State University's Celebration of Research, Scholarship and Creative Activities, Wright State University 04/15/2016 (Poster).

Ednie AR, Darville LN, Deng W and **Bennett ES**. The Lack of Cardiomyocyte Complex and Hybrid N-glycans Result in Arrhythmic Dilated Cardiomyopathy, Heart Failure, and Premature Death, Experimental Biology, San Diego, CA, 04/02/2016-04/06/2016 (Poster).

Ednie AR, Yip KP and **Bennett ES**. Congenital Reductions in Cardiomyocyte N-glycosylation Alter Voltage-gated Ion Channel Glycosylation and Function Leading to Compromised Electromechanical Signaling., Experimental Biology, San Diego, CA, 04/02/2016 – 04/06/2016 (Poster).

Elbasiouny SM, Garrett T, Quinlan K, Heckman CJ, and Dukkipati SS. Regulation of motoneuron excitability in ALS, Society for Neuroscience Meeting, San Diego, CA 11/12/2016 - 11/16/2016 (Platform).

Elbasiouny SM. Advanced Algorithms for Closed-loop Prosthesis Control, The annual HAPTIX PI meeting, Washington, DC 2/23/2016 - 2/24/2016 (Platform).

Fayyad TH, RakoczyRJ, Hartpence AJ and **Wyatt CN**. Does Hyperoxia Blunt the Acute Hypoxic Ventilatory Response Via Impaired Mitochondrial Development in Carotid Body Type I Cells? Ohio Physiological Society Meeting, Columbus, OH 11/18/2016 - 11/19/2016 (Poster).

Gibson JN, Beesetty P, Sulentic C, and **Kozak JA**. Rapid quantification of mitogen-induced blastogenesis in T lymphocytes for identifying immunomodulatory drugs, Ohio Physiological Society Annual Meeting, Columbus, OH 11/18/2016 - 11/19/2016 (Poster).

Halm D. Survival and growth of BK knockout mice, Lake Cumberland Transport Group Meeting, Jamestown KY 6/19/2016 - 6/21/2016 (Platform).

Halm S and **Halm D**. Aldosterone and b-adrenergic activation of colonic K⁺ secretion requires BK channels (KCa1.1), Society of General Physiologists 70th Annual Meeting, Woods Hole MA 9/7/2016 - 9/10/2016 (Poster).

Halm S and **Halm D**. Survival and growth of C57BL/6J mice lacking the BK channel (KCa1.1), Ohio Physiological Society Annual Meeting, Columbus OH 11/19/2016 (Poster).

Halm S and **Halm D**. Survival and growth of C57BL/6J mice lacking the BK channel (KCa1.1), Society of General Physiologists 70th Annual Meeting, Woods Hole, MA 9/7/2016 - 9/10/2016 (Poster).

Kraszpuska B. Difficulties and Discomfort Experienced by Medical Students Performing Cadaver Dissection, 33rd Annual Meeting of American Association of Clinical Anatomists, Oakland, CA 6/13/2016 - 6/17/2016 (Poster).

Mahrous AE and **Elbasiouny SM**. A new cellular mechanism for regulation of motoneuron bursting, OMV-SFN Neuroscience Meeting, University of Cincinnati, Cincinnati, OH 5/29/2015 (Poster).

Mahrous AE and **Elbasiouny SM**. Early changes in motor output in a mouse model of amyotrophic lateral sclerosis, 8th Cairo International Biomedical Engineering Conference, Cairo, Egypt 12/15/2016 (Poster).

Mahrous AE and **Elbasiouny SM**. SK channel inhibition is critical for initiating motoneuron bursting and grading the motor output of the spinal cord, The Annual Midwest Motoneuron Consortium, Indiana University, Indianapolis, IN 9/16/2016 (Poster).

Mahrous AE and **Elbasiouny SM**. SK channel inhibition is critical for initiating motoneuron bursting and grading the motor output of the spinal cord, Central Research Forum, Wright State University, Dayton, OH 10/13/2016 (Poster).

Mahrous AE and **Elbasiouny SM**. Synaptic origin of synchronized bursting in the spinal cord and the role of gap junctions, Society for Neuroscience annual meeting, San Diego, CA 11/15/2016 (Poster).

Mahrous AE and **Elbasiouny SM**. The role of SK channels in initiating motoneuron bursting in the spinal cord, International Motoneuron Meeting, Istanbul, Turkey 6/23/2016 (Poster).

Nagarajan D, Balakrishnan A, Verma N and **Corbett AM**. Correlation of Stem/Progenitor Cell proliferation with Motor Recovery after Ischemic Stroke in Control and Rehabilitation Rats, Ohio Miami Valley Society for Neuroscience Annual Meeting, Cincinnati, OH 05/06/2016 (Poster).

Putnam RW, Patrone LGA, Ratliff CA, and Gargaglioni LH. The hypercapnic ventilatory response and behavior in Ca²⁺-activated K⁺ (BK) channel knock out mice, Experimental Biology, San Diego, CA (Poster).

Pye RL, Roy A, Wilson RJA and **Wyatt CN**. The effect of obese levels of leptin on peripheral chemoreception, Experimental Biology, San Diego 4/2/2016 - 4/6/2016 (Poster).

Quintero MD, Crodovez JM, and **Putnam RW**. How inhibition of CO₂-H⁺- sensitive ionic currents affects the firing rate of a single neuron model of central chemoreceptors? Experimental Biology, San Diego, CA 4/2/2016-4/6/2016 (Poster).

Ragas M, Balch M and **Corbett AM**. Appropriate Timing of Fluoxetine and Statin Administration Reduces the Risk of Secondary Hemorrhage after Ischemic Stroke, 2016 International Stroke Conference, Los Angeles, CA 02/17/2016 - 02/19/2016 (Poster).

Ragas M, Balch M and **Corbett AM**. Appropriate Timing of Fluoxetine and Statin Administration Reduces the Risk of Secondary Hemorrhage after Ischemic Stroke, Ohio Miami Valley Society for Neuroscience, Cincinnati OH, 05/06/2016 (Poster).

Rakoczy RJ, Pye RL, Fayyad TH, Santin JM, Barr BL and **Wyatt CN**. High fat feeding in rats alters respiratory parameters by a mechanism that may be mediated by carotid body type I cells, Ohio Physiological Society Meeting, Columbus, OH 11/18/2016 - 11/19/2016 (Poster).

Sonner PM and Newsome M. Learning to work together: In-class training to enhance student collaboration and increase learning outcomes, 2016 American Physiological Society Institute on Teaching and Learning, Madison, WI 6/20/2016 - 6/24/2016 (Poster).

Sonner PM and Newsome M. Learning to work together: In-class training to enhance student collaboration and increase learning outcomes, 2016 Teaching for Student Success Symposium, Wright State University 8/23/2016 - 8/23/2016 (Poster).

Sulehria T, Sharma N, Gagle S and **Corbett AM**. Drug Combinations Modulate Stem Cell Proliferation in the Subventricular Zone of 11 month old Rats: Sex Differences Could Explain Susceptibility to Alzheimer's Disease., Experimental Biology, San Diego, CA, 04/02/2016 - 04/07/2016 (Poster).

Verma N, Ragas M, and **Corbett AM**. Timing of Fluoxetine Administration Post-Stroke Impacts Infarct Volume and Hemorrhagic Transformation, Ohio Miami Valley Society for Neuroscience Annual Meeting, Cincinnati, 05/06/2016 (Poster).

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

Elbasiouny, S. Rehabilitation and Neurotechnology 8th Cairo International Biomedical Engineering Conference (CIBEC 2016), Computer simulations identify novel drug target for amyotrophic lateral sclerosis, 12/15/2016 - 12/17/2016, Cairo, Egypt. (Session Chair)

Mayes, D. 2nd International Neuroimmunology & Therapeutics Conference, Antioxidant Use for BBB Therapeutics, 12/01/2016 - 12/03/2016, Atlanta, GA. (Invited Participant)

Mayes, D. Enhancing Innovations in Cancer Research: Diagnosis, Cure & Prevention, Metabolic Changes as Tumors Progress to Malignancy, 11/28/2016 - 11/30/2016, San Antonio, TX. (Invited Participant)

Mayes, D. International Conference on Biotechnology, New Insights in Blood Brain Barrier Manipulation, 08/15/2016 - 08/17/2016, Sao Paulo, Brazil. (Session Chair)

Mayes, D. Metabolism and Glia, MPNST Energy Requirements - Metabolic Role of cx43 in Proliferation and Death, 03/18/2016 - 03/22/2016, Denver CO. (Session Chair)

Consultantships [sponsor activity]

T. Brown to Apoptrol, LLC (Cell Death Inhibitors)
T. Brown to Biontix Laboratories GmbH (Transfectioni Reagents)
T. Brown to Christopher Wyatt, Associate Professor, WSU, NCBP, NIH-R01
T. Brown to David Natale, Assistant Professor, UCSD, Reproductive Medicine, NIH-R01
T. Brown to Debra Mayes, Assistant Professor, WSU, NCBP, NIH-R01
T. Brown to Engstrom, Lipscomb & Lack, Clos Angeles, CA
T. Brown to Jianhua Shao, Professor, UCSD, Dept. of Pediatrics, NIH-R01
T. Brown to Kate Excoffon, Associate Professor, WSU, Dept. of Biological Sciences, NIH-R01
T. Brown to Restaino Siler Law, LLC, Denver, CO
T. Brown to Robert Lober, M.D., Assistant Professor, WSU, Dept. of Neurosurgery
T. Brown to Tor Hoerman Law, Chicago, IL
T. Brown to Ury and Moskow, Fairfield, CT
D. Wooley to Western Institutional Review Board/IBC Services

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

Editorial Board Memberships

American Journal of Physiology (**A. Kozak**)
American Journal of Physiology, Cell Physiology (**T. Brown, D. Halm**)
Experimental Neurology (**M. Rich**)
Journal of Applied Physiology (**R. Putnam**)
Journal of Cell and Molecular Biology (**N. Bigley**)
Journal of Cell Signaling (**N. Bigley**)
Journal of Developmental Biology (**T. Brown**)
Physiological Reports (**R. Putnam**)
The Journal of Cell Death (**T. Brown**)
The Open Stem Cell Journal (**T. Brown**)

Granting agency study section memberships

Cancer Research Associates (**D. Wooley**)
National Institutes of Health - NICHD Pregnancy and Neonatology Section (**T. Brown**), Standing Member
National Institutes of Health (**C. Wyatt**), ADHOC
National Institutes of Health CSR, NDPR Study Section (**D. Ladle**), ADHOC
National Institutes of Health WPNRC Special Emphasis Panel (**T. Brown**), ADHOC
NIH CSR, NCF Study Section (**D. Ladle**), ADHOC
Welcome Trust (**D. Halm**)
Wright State University College of Science and Math (**T. Brown**)

Offices held in national professional organizations

Ohio Physiological Society (Chapter of American Physiological Society), Treasurer (**D. Halm**)
Scientific Program Committee, American Biological Safety Association, Chair (**D. Wooley**)

Outreach programs

HAPI Lab (**T. Brown, B. Kraszpulska, B. Severt**)

Horizons in Medicine (**G. Nieder**)

STEMM: Exploring Human Anatomy an Interactive Anatomy Lab Experience (**L. Ream, B. Kraszpulska, B. Severt**)

STREAMS. This program is funded by the National Institutes of Health to encourage members of under-represented minority groups and students with disabilities to choose careers in cardiovascular-related research. (**R. Putnam and S. Elbasiouny, P. Sonner** mentored students and **R. Putnam** is a program admissions committee member.)

Women in Science Giving Circle (**A. Corbett, B. Kraszpulska, B. Severt**)

Destination Imagination (**D. Mayes**)

Special Interest Program – Exposing High School to Neuroengineering Research (**S. Elbasiouny**)

Student clubs and activities

Operation Smile WSU – WSU chapter of Operation Smile which works to provide life-saving cleft palate and cleft lip surgeries to children in need throughout the world. (**N. Ritucci**)

Ohio Summer Institute (**N. Ritucci, Co-Director**)

Anatomy Club, (**B. Kraszpulska, Advisor**)

Boonshoft Gastronomy Club (**B. Kraszpulska, Advisor**)

6 Summary of Service Activities

Student advising

Undergraduate Students

Colon, Christian (**S. Elbasiouny**)

Flyod, Taylor (**D. Ladle**)

Hitchcock, Julia (**D. Ladle**)

Grant, Hudson (**N. Bigley**)

Hartpence, Annah (**C. Wyatt**)

Hillmon, Allison (**T. Brown**)

Okafor, Ifeoma (**N. Bigley**)

Newman, Courtney (**D. Ladle**)

Theall, Maryann (**N. Bigley**)

Ukandu, Chindeum (**N. Bigley**)

Woods, Brittnay (**S. Elbasiouny**)

Graduate Students

Doctoral – Thesis

Ragas, Moner A. *Refining a Post Stroke Pharmacological and physical Treatment to Reduce Infarct Volume or Improve Functional Recovery, Using Gene Expression Changes in the Per-Infarct Region to Examine Potential Mechanisms in Male and Female Rats.* **A. Corbett**

Anatomy Master – Thesis

Verma, Neal R. *The Timing of Fluoxetine, Simvastatin and Ascorbic Acid Administration in a Post-Ischemic Stroke Environment Affects Infarct Volume and Hemorrhagic Transformation Frequency.* **A. Corbett**

Field, Stephanie Eileen. *The influence of age at menarche and hamstrings fatigue on knee biomechanics.* A. Froehle

Anatomy Master – Non-thesis

Atwell, Jamie (Anatomy, MS, teacher education): **Advisor: L. Ream**
Dunaway, Andrew (Anatomy MS, course option): **Advisor: L. Ream**
Engle, Derek (Anatomy MS, course option): **Advisor: L. Ream**
Gearhart, Alexander (Anatomy MS, course option): **Advisor: L. Ream**
Gupta, Muskan (Anatomy MS, course option): **Advisor: L. Ream**
Jones, Jessica (Anatomy MS, course option): **Advisor: L. Ream**
Rodgers, Alicia (Anatomy MS, course option): **Advisor: L. Ream**
Seger, Christopher (Anatomy MS, course option): **Advisor: L. Ream**
Swell, Leslie (Anatomy, MS, teacher education): **Advisor: L. Ream**
Stafford, Justin (Anatomy MS, course option): **Advisor: L. Ream**
Sulehria, Momina (Anatomy MS, course option): **Advisor: L. Ream**
Thadasina, Meenal (Anatomy MS, course option): **Advisor: L. Ream**
Wechsler, Andrew (Anatomy MS, course option): **Advisor: L. Ream**

Physiology & Neuroscience Master – Thesis

Dukkipati, Saihari Shekar. *SK Channel Clustering in SOD1-G93A Motoneurons*. **S. Elbasiouny**
Hensley, Amber Lee. *The Use of Doublecortin to Quantify the Effects of Pharmacological Treatment on Neurogenesis and Functional Recovery after Stroke*. **A. Corbett**
Patel, Ankita Anil. *Examination of a Post-Stroke Drug Treatment for its Effect on Blood Brain Barrier Permeability, and Gene Expression Changes in the Peri-Infarct Region*. **A. Corbett**
Wieczerek, Krystyna Blanks. *Sensorimotor Analysis of Oxaliplatin Treated Rats*. **T. Cope**

Microbiology & Immunology – Thesis

Alajman, Amal Fahad. *Comparing Antibody-Coated Immune Beads with Flow Cytometry to Measure β -2 Microglubulin+ Murine Spleen Cells*. **N. Bigley**
Alhanghari, Mofeda Abdussalam. *The Anti-Apoptotic Effect of HSV-1 ON Murine Macrophages: RAW 246.7 Murine Macrophage Cell Line*. **N. Bigley**
Almutairi, Mubarak. *The Impact of HSV-1 Infection, SOCS1 peptide and SOCS3 peptide mimetic on Cell Viability Morphology, and Cytoskeleton Proteins of Unpolarized and Cytokine-Polarized M1 RAW 264.7 Murine Macrophages*. **N. Bigley**
Alshehri, Ali Awadh. *Cell Viability, Cytoskeleton Organization and Cytokines Secretion of FAW 264.7 Macrophages Exposed to Gram-negative Bacterial Components*. **N. Bigley**
Alwethaynani, Maher Salem. *The Expression of Aryl Hydrocarbon Receptor in RAW 264.7 Macrophages in the Presence of SOCS1 Peptide and SOCS3 Peptide Mimetic and Cells Infected with HSV-1*. **N. Bigley**
Jenkins, Mary K. *Metabolism of Herpes Simplex Virus 1 infected FAW 264.7 macrophages*. **N. Bigley**
Nagarajan, Devipriyanka. *Correlating Innate Functional Recovery from Stroke Eitehr with Stem Cell Proliferation and/or Limb Rehabilitation*. **A. Corbett**
Subahi, Riham Abbas. *Changes in Cytoskeleton Proteins in HSV-1 Infection of J774A.1 Macrophage Phenotype*. **N. Bigley**
Wilson, Caitlin Persin. *The Expression of Major Histocompatibility Class I and Major Histocompatibility Class II on Macrophages in the Presence of Aryl Hydrocarbon Antagonist (CH 223191)*. **N. Bigley**

Committee membership/officer [indicate if committee chair]

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

Admissions Committee (**G. Nieder, B. Kraszpulska, R. Putnam**)

Anatomy Integration Task Force Committee (**B. Kraszpulska, G. Nieder**)
 Biennium 1 Subcommittee of the Faculty Curriculum Committee (**L. Ream, G. Nieder, M. Rich, N. Ritucci**)
 Biennium One Electives Subcommittee (**B. Kraszpulska**)
 Bylaws Committee (**A. Kozak**)
 Cells, Tissues, and Organ Systems Content Committee (**L. Ream, Chair, R. Putnam, C. Wyatt**)
 Curriculum Change (Doctoring) (**C. Wyatt, Co-Chair**)
 Digestive Steering Committee (**N. Ritucci**)
 Endocrine Steering Committee (**T. Brown**)
 Faculty Promotions and Advancement Committee (**G. Nieder**)
 Faculty Curriculum Committee (**M. Rich**)
 Human Structure Steering Committee (**G. Nieder, Chair, B. Kraszpulska, B. Severt**)
 LCME Review Subcommittee 1 (**G. Nieder, C. Wyatt**)
 LCME Review Subcommittee 5 (**B. Kraszpulska**)
 Musculoskeletal and Integument Steering Committee (**R. Putnam**)
 Medical School Curriculum Reform Committee (**M. Rich**)
 Neuroscience Institute Steering Committee (**M. Rich**)
 Research Committee (**T. Brown, C. Wyatt**)
 Staying Alive Module Leadership Committee (**B. Kraszpulska, N. Ritucci**)
 Steering Committee Origins1 (**C. Wyatt**)
 Steering Committee Origins2 (**C. Wyatt, Director**)
 Student Appeals Committee (**G. Nieder**)
 Wright Curriculum Doctoring Phase Committee (**G. Nieder**)
 Wright Q Steering Committee (**N. Ritucci**)
 Year 2 Heart/Lung/Kidney Module Redesign (**C. Wyatt**)

Biomedical Sciences Committee Memberships

Academic Policies Committee (**T. Brown**)
 Admissions Committee (**R. Putnam**)
 Curriculum Committee (**T. Brown, D. Halm, R. Putnam, P. Sonner**)
 Nominating Committee (**K. Susuki**)

Neuroscience, Cell Biology and Physiology Committee Memberships

Advisory Committee (**A. Corbett, Chair, B. Kraszpulska, D. Ladle, G. Nieder, L. Ream**)
 Annual Evaluation Screening Committee (**L. Ream, Chair, N. Bigley, G. Nieder and R. Putnam**)
 Assistant Professor Search Committee (**M. Rich, Chair**)
 Faculty Search Committee (**T. Brown, R. Putnam**)
 Physiology Education Instructor Search Committee (**R. Putnam, L. Ream**)
 Promotion and Tenure Committee (**T. Brown, A. Corbett, D. Halm, A. Kozak, B. Kraszpulska, D. Ladle**)
 Sensorimotor Integration (SMI) (**C. Wyatt**)
 Neuroimmunology Group (**T. Brown, Chair, N. Bigley**)
 Sensorimotor Integration (SMI) (**C. Wyatt**)
 Undergraduate Neuroscience Program Advisory Board (**P. Sonner, Chair, K. Engisch, D. Halm, C. Wyatt**)

Wright State University

Academic Policies Committee (**M. Rich**)
 Academic Integrity Hearing Panel (**G. Nieder**)
 Faculty Governance, Buildings and Grounds Committee (**D. Wooley**)
 Faculty Senator (**D. Wooley**)
 Faculty Senate Information Technology Committee (**T. Brown**)
 Institutional Biosafety Committee (**D. Ladle**)
 LACUC Institutional Laboratory Animal Care and Use Committee (**C. Wyatt, Chair, T. Brown, Interim Vice Chair, D. Ladle, M. Rich**)
 LACUC Investigative Subcommittee (**T. Brown**)
 Nominating Committee (**D. Mayes**)
 Outside Interest Committee (**D. Mayes**)
 Parking Services and Traffic Appeals Subcommittee (**K. Susuki**)
 Quadrennial Review Committee (**P. Sonner**)
 Radiation Safety Committee (**A. Corbett**)
 University Graduate Committee (**T. Brown**)

Teaching Award Committee (**B. Kraszpulska**)
University Committee for International Education (UCIE) (**M. Kraszpulski**)
University Parking Committee (**D. Wooley**)

Wright State University College of Science and Mathematics

Cell Signaling Data Club Seminar Series (**D. Mayes, Director**)
Communications Team (**P. Sonner**)
Curriculum Committee (**N. Ritucci**)
Curriculum Subcommittee (**L. Ream**)
Dean Search Committee (**R. Putnam**)
Faculty Development Committee (**T. Brown**)
Faculty Membership Subcommittee (**L. Ream**)
Honors Undergraduate Research Committee (**T. Brown**)
Mediation Committee (**D. Halm**)
Graduate Petitions Committee (**L. Ream**)
Undergraduate Curriculum Committee (**N. Ritucci, P. Sonner**)
Promotion and Tenure Committee (**D. Halm, G. Nieder**)
Undergraduate Research and Experiential Learning (**T. Brown, D. Mayes**)
Steering Committee (**T. Brown, D. Wooley**)
Undergraduate Petitions Committee (**B. Severt, P. Sonner**)
University College Academic Standing Review and Appeals Committee (**B. Kraszpulska**)
Women in Science Giving Circle Committee (**A. Corbett, B. Kraszpulska, B. Severt**)
Women in STEMM Research Symposium Organization Committee (**B. Kraszpulska**)

Microbiology & Immunology Committee Memberships

Admissions Committee of M&I Graduate Program (**N. Bigley, T. Brown**)

Wright State Graduate School

Curriculum Subcommittee of Graduate Studies Committee (**L. Ream, Chair**)
Graduate Directors Council (**L. Ream**)
Graduate Studies Committee (**L. Ream**)

Other Committees

Executive Committee of AAUP-WSU (**A. Corbett**)
Human Anatomy and Physiology Society Cadaver Use Committee (**B. Severt**)

Hospital or affiliated institution [Premier Health Partners]

Dayton Collaborative for Childhood Tumors (**D. Mayes**)
Premier Health Partners Neuroscience Steering Committee (**M. Rich**)
IACUC Department of Veterans Affairs Medical Center (**C. Wyatt**)

National

American Biological Safety Association Scientific Program Committee (**D. Wooley**)
American Society for Neurochemistry (ASN) YIEE Award Committee (**D. Mayes**)
NIH Recombinant DNA Advisory Committee (**D. Wooley**)
Promotion and Tenure Ad Hoc Reviewer for the University of California San Diego (**R. Putnam**)

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Patient Care Summary

Mark Rich, M.D., Ph.D. – 180 ambulatory visits in 2016

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Honors and awards [Faculty or staff]

Class of 2018 Outstanding Freshman Instructor Award, University of South Florida, College of Medicine (**E. Bennett**)
Early Career Teaching Excellence Award, Wright State University (**M. Kraszpulski**)
Boonshoft School of Medicine 2016 Teaching Excellence Award, (**N. Ritucci**)
Boonshoft School of Medicine Faculty Mentor Award, (**C. Wyatt**)

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Hosted events [CME, etc.]

Neuroscience, Cell Biology and Physiology Seminars

March 11, 2016 – Walter Boron, M.D., Ph.D. Case Western Reserve University, Cleveland, OH Sniffing CO₂ and HCO₃: How the kidney senses acidosis.

March 25, 2016 – Ahmed M.T. Raslan, MBBch, MSc, M.D., Oregon Health & Sciences University, Portland, OR Functional Brain Surgery: A synergy between science, technology and medicine.

April 1, 2016 – Jeffrey L. Dupree, Ph.D., Virginia Commonwealth University, Richmond, VA Maintaining axonal domains in inflammatory environments.”

April 8, 2016 – Kurt Beam, Ph.D., University of Colorado, Aurora, CO Trying to identify the minimal set of proteins essential for excitation-contraction coupling in skeletal muscle.

September 9, 2016 – Pothito Pitychoutis, Ph.D., University of Dayton, Dayton, OH Dissecting the sex-dependent effects of the rapid-acting antidepressant drug ketamine in the female mouse brain.

September 16, 2016 – Dave Hildeman, Ph.D., University of Cincinnati, Cincinnati, OH Inflammation, Regulatory T Cells, and age-related immunosuppression: a new twist on an old story.

September 23, 2016 – Irina Buhimschi, M.D., Nationwide Children’s Hospital Research Institute and The Ohio State University, Columbus, OH Untangling preeclampsia through omics technologies.

October 7, 2016 – Christopher Thompson, PT, Ph.D., DPT, Temple University, Philadelphia, PA Quantifying the neural drive to muscle using parallel animal and human approaches.

November 4, 2016 – Samuel Cheshier, M.D., Ph.D., Stanford University, Stanford, CA Anti-CD47 for the treatment of malignant pediatric brain tumors.

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Other information

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