

East Tennessee State University

Digital Commons @ East Tennessee State University

Quillen College of Medicine Scholarly Activity Report

6-30-2013

2012-2013 Department of Biomedical Sciences Scholarly Activity Report

Quillen College of Medicine, East Tennessee State University

Follow this and additional works at: <https://dc.etsu.edu/qcom-scholarly-activities>



Part of the [Medical Education Commons](#)

Recommended Citation

Quillen College of Medicine, East Tennessee State University, "2012-2013 Department of Biomedical Sciences Scholarly Activity Report" (2013). *Quillen College of Medicine Scholarly Activity Report*. 56. <https://dc.etsu.edu/qcom-scholarly-activities/56>

This Report is brought to you for free and open access by Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Quillen College of Medicine Scholarly Activity Report by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact digilib@etsu.edu.

EAST TENNESSEE STATE UNIVERSITY
QUILLEN COLLEGE OF MEDICINE

SUMMARY OF SCHOLARLY ACTIVITIES

Department of Biomedical Sciences
2012 - 2013

Extramural Funding:

Total New Extramural Grants Awarded to Biomedical Sciences P.I.: \$886,907

Total New Annual Funding to Biomedical Sciences P.I.: \$545,762

“A genetic strategy to restore impaired noradrenergic function by increasing expression of noradrenergic phenotypes in the locus coeruleus in Parkinson's disease model mice.” Michael J. Fox Foundation (RR1A2012); Meng-Yang Zhu, P.I.; project funding period 07-01-2012 to 06-30-2013; Total Direct Costs: \$68,170; **Total Award: \$74,987.**

“Acute and chronic evaluation of VNS for treatment of epilepsy.” Cyberonics. Eric Beaumont, P.I.; Donald Hoover, Gregory Ordway, Russell Brown, and Jeffrey L. Ardell (Co-Investigators) project funding period 01-01-2013 to 12-31-2013; **Total Award: \$129,628.**

“Efficacy of vagal nerve stimulations (VNS) in managing heart failure: Intrinsic cardiac nervous system as therapeutic target of VNS.” Cyberonics. Eric Beaumont, P.I.; Jeff Ardell, John Andrew Armour, (Co-Investigators); project funding period 07-01-2012 to 06-30-2015; Annual Direct Costs: \$61,500; **Total Award: \$184,500.**

“White matter glial pathology in autism.” Department of Defense/Department of the Army USAMRAA. Gregory A. Ordway, P.I.; project funding period 09-01-2012 to 08-31-2014; Total Direct Costs: \$99,787; **Total Award: \$145,689.**

“Modulation of atherosclerosis by type 2 cannabinoid receptor.” NIH 1R15HL113878-01A1. Douglas P. Thewke, P.I.; Anatonio Rusinol, Co-P.I.; project funding period 01-10-2013 to 12-31-2015; Total Direct Costs \$250,000; **Total Award: \$352,103.**

Continued Extramural Funded Grant Awards:

Total Continuing Extramural Grants Awarded to Biomedical Sciences P.I.: \$12,754,292

Total Continuing Annual Funding for Grant Awards to Biomedical Sciences P.I.: \$3,222,652

“Acute and chronic evaluation of VNS for treatment of heart failure.” Cyberonics, Inc.; Jeffrey L. Ardell, P.I.; E. M. Southerland, (Co-Investigator); project funding period 01-01-2012 to 12-31-2012. Annual Costs: \$255,884; **Total Award: \$460,006.**

“An investigation of the fluoroketolide antibiotic CEM101 on bacterial ribosome biogenesis.”; Cempra Pharmaceuticals;” Scott Champney, P.I.; project funding period 04-01-2011 to 08-31-2012; **Total Award: \$74,502. (No cost ext. to 12/31/13 – Carry forward Direct Costs: \$2,342).**

“Characterization of a novel host pathway that regulates chlamydial development.” NIH/National Institute of Allergy and Infectious Disease; R01 AI095637-01; Robert V. Schoborg, P.I., Michelle M. Duffourc (Consultant); J. Hall (Co-Investigator); project funding period 07-01-2011 to 07-31-2015; Total Direct Costs: \$1,446,896; Annual Costs: \$377,056; **Total Award: \$2,049,795.**

“Checkpoint signaling and repair of UV damage to human DNA.” National Institutes of Health (NIH/NCI); Type: R01CA086927/R56CA086927; Yue Zou, P.I.; project funding period 07-01-2000 to 07-31-2010; Total Direct Costs: \$861,005; Annual Costs: \$227,830; **Total Award: \$1,173,640 (No cost ext. to 10/31/13 – Carry forward Direct Costs: \$95,545.03)**

“Effects of spinal cord stimulation on cardiac remodeling in mitral regurgitation/myocardial infarction.” St. Jude Medical, Inc., Jeffrey Ardell, P.I.; project funding period 03-31-2010 to 05-31-2011; Annual Direct Costs: \$159,908; **Total Award: \$199,880;** (No cost ext. to 12-31-12).

“ER stress: Role in myocyte apoptosis and myocardial remodeling.” Dept. of Veterans Affairs VA Merit Review; Krishna Singh, P.I., and Mahipal Singh (Co-Investigator); project funding period 07-1-2010 to 06-30-2014; Annual Costs:\$180,352; **Total Direct Costs: \$901,764.**

“Extracellular ubiquitin: role in myocyte apoptosis and myocardial remodeling.” NIH R21; Krishna Singh, P.I. and Mahipal Singh, Co-Investigator). Project funding period: 05-10-2009 to 03-31-2013; Total Direct Costs: \$275,000; **Total Award \$391,750. (No cost ext. to 3/31/13 – Carry forward Direct Costs: \$117,077).**

“Features of bacterial ribosomal subunit assembly intermediates.” NIH AREA 1R15GM086783; Scott Champney, P.I.; project funding period 09-1-2009 to 08-31-2012; Total Direct Costs: \$150,000; Annual Direct Costs: \$59,986; **Total Award: \$208,025.**

“Glial pathology in autism.” Autism Speaks AS#7330; Gregory A. Ordway, P.I.; project funding period 03-01-2011 to 02-28-2013; Annual Costs: \$59,986; **Total Award: \$120,000. (No cost ext. to 7/31/13 – Carry forward Direct Costs: \$ 3,653.00).**

“Health science fellowship in neurocardiology.” American Heart Association.: Jeffrey L. Ardell, P.I.; project funding period 01-01-2009 to 01-31-2014; Annual Costs: \$13,500; **Total Award: \$27,000+ \$40,500 = \$67,500.**

“Micro Lab Services.” Mountain Home Research and Education Corporation. Donald Ferguson, P.I.; project funding period 12-15-2010 to 12-14-2015. Annual Costs: \$9,000; **Total Award: \$9,000.**

“Molecular mechanisms of genome instability in HGPS.” Progeria Research Foundation; Yue Zou, P. I.; project funding period 03-01-2011 to 05-31-2013; Annual Costs: \$50,000; **Total Award: \$100,000.**

“Myocardial ischemia remodels the cardiac nervous system.” National Heart Blood and Lung Institute; R01 HL071830 (competing renewal); Jeffrey L. Ardell, P.I.; Donald B. Hoover, E. Marie Southerland, (Co-Investigators); C.I., Jean Hardwick (Ithaca College Consultant); project funding period 04-01-2010 to 03-31-2014; Annual Costs: \$355,000; **Total Award: \$1,417,100.**

“Neurobiological correlates of stress and norepinephrine transporter.” NIMH R01MH080323; Meng-Yang Zhu, P.I.; Gregory A. Ordway (Co-Investigator); project funding period 04-01-2009 to 03-31-2013; Annual Costs: \$283,635; **Total Award: \$1,156,238. (No cost ext. to 01-31-2014 – Total Direct Costs \$175,161.80).**

“Noradrenergic system in depression.” NIMH; R01 46692; Gregory A. Ordway, P.I.; Michelle M. Duffourc, Attila Szebeni, and Katalin Szebeni (Co-Investigators); project funding period 07-01-2008 to 03-31-2013; Annual Costs: \$309,825; **Total Award: \$1,605,938.** (No cost ext. to 01-31-2014)

“Pharmacokinetic evaluation of Drugs.” University of Colorado School of Pharmacy; Donald H. Hoover, PI; project funding 07-01-2011 to 03-31-2014; Annual Costs: \$28,025; **Total Award: \$30,000+\$10,252=\$40,252. (ongoing agreement)**

“Quillen college of medicine building 119 renovation.” NIH/NCRR; 1C06RR030651, Philip Bagnell, P.I.; Gregory A. Ordway, primary author; project funding period 03-18-2010 to 03-17-2015; **Total Award: \$9,127,509).**

“Remodeling of the guinea pig intrinsic cardiac plexus with chronic heart disease.” NIH: R01 HL098589; Jean Hardwick, Ithaca College, P.I., E. Marie Southerland, Co-Investigator); Jeffrey L. Ardell (Faculty); project funding period 01-01-2010 to 12-31-2013; Annual Costs to ETSU: \$45,000; **Total Award: \$494,865.**

“Role of prelamin A in cell quiescence.” NIH R15; Antonio Rusinol, P.I.; project funding period 7-01-2008 to 6-30-2011. Total Direct Costs: \$150,000; **Total Award: \$213,000; (No cost ext. to 09-30-2012 - Total Direct Costs: \$34,993).**

“Role of prolyl-hydroxylase O2-sensor in cardioprotection.” 5R01HL084302 NHLBI; Gary Wright, P.I.; project funding period 09-01-2009 to 05-31-2012; Total Direct Costs; \$873,206; **Total Award: \$1,216,088. (No cost ext. to 05-31-2013 – Total Direct Costs: \$154,031).**

“Role of neurturin in the development of cardiac cholinergic neurons,” Greater Southeast Affiliate of the American Heart Association; Grant-in-Aid; Donald B. Hoover, P.I.; project funding period 07-01-2010 to 06-30-2012; Total Direct Costs: \$150,000; Annual Costs: \$82,500; **Total Award: \$165,000. (No cost extension to 06-30-13 - Total Direct Costs: \$17,351.27).**

“Role of RPA hyperphosphorylation in DNA damage responses.” NIH 1F31E2017214. Moises A. Serrano, P.I.; Yue Zou, Preceptor/Sponsor; project funding period 07-01-2009 to 06-30-2013; Annual Costs: \$30,973; **Total Award: \$121,979.**

“Sequence effects of arylamine-DNA adducts: repair and Replication.” National Institutes of Health (NIH/NCI) Type: R01CA098296; Yue Zou, Co-P.I.; P.I.: Bongsup Cho); project funding period 03-01-2010 to 02-28-2014; Annual Costs: \$63,999; **Total Award: \$229,734.**

“Structure-function relationships of c-reactive protein.” NHLBI, NIH; R01 HL071233; Alok Agrawal, P.I.; Donald A. Ferguson (Collaborator); project funding period 8-1-2008 to 06-30-2012; Total Direct Costs: \$900,000; **Total Award: \$1,240,000.** Annual Costs: \$321,750. **(No cost ext. 6/30/13 – Total Direct Costs \$29,660.04).**

Continued Extramural Funding for Grants Awarded to non-DBMS P.I.:

“Undergraduate research in integrative developmental biology.” National Science Foundation – Research Experience for Undergraduates (REU) Site Grant DBI-1062645. Rebecca Pyles, P.I.; Tom Ecay, James Stewart, Donald Hoover, Dennis Defoe, Theresa Harrison (Co-Investigators); project funding period 09-15-2011 to 09-14-2014; Total Direct Costs: \$169,496; **Total Award: \$184,499.**

Intramural Grant Awards:

Total Internal Grants Awarded to Biomedical Sciences P.I.: \$115,670

“Dual antibiotic effects on bacterial ribosome biogenesis: 13-018sm.” ETSU RDC; Scott Champney, P.I.; project funding period 10-01-2012 to 6-30-2013; **Total Award \$1,470.**

“Calcium nutrition in development of uptake by lizard embryos.” ETSU RDC; Tom Ecay, P.I.; project funding period 01-03-2013 to 6-30-2013; **Total Award: \$1,500.**

“Characterization of hormonal influences on *Chlamydia trachomatis* development.” Department of Biomedical Sciences Mentor-Mentee Grant; Mentee (PI); project period 01-01-2013 to 12-31-2013; Dr. Robert Schoborg and Dr. Priscilla Wyrick serve as Mentors. **Total Award: \$25,000.**

“Characterization of microsporidia surface protein and host cell integrin molecules as mediators of spore adherence and infection.” ETSU RDC Major Grant; J. Russell Hayman, P.I.; project funding period 07-01-2012 to 6-30-2013; **Total Award: \$9,250.**

“Determining the role of reactive oxygen species and vitamin E in depression”; Mentee-Mentor Collaborative Grant Application, Department of Biomedical Sciences. P.I. Sharon E. Campbell, Mentors Greg Ordway and Jeff Ardell; Collaborator, Russ Brown; project funding period 01/01/2013-12/31/2013; **Total Award \$30,000.**

“DNA replication vs DNA Damage accumulation during the onset of senescence in Hutchinson-Gilford progeria syndrome cells.” ETSU RDC; Phil Musich; project funding period 10-03-2012 to 06-30-2013; **Total Award: \$1,500.**

“Encephalitozoon intestinalis infection increases host cell mutation frequency.” ETSU, COM, DBMS Mentee-Mentor Grant; E31274; J. Russell Hayman (Mentee); Robert V. Schoborg (Mentor); project period 02-01-13 to 01-31-14; **Total Award: \$25,000.**

“Integrative Organismal Systems Physiology Fellowship Summer Research Stipend for Hannah Frye, Undergraduate Student.” American Physiological Society (APS); Tom W. Ecay, Research Advisor; project funding period 06-01-2013 to 05-31-2014; **Total Award: \$4,500.**

Lgr5-expressing cells are adult stem cells for taste. Department of Biomedical Sciences Bridge Funding Award; Theresa Harrison, P.I.; project funding period 01-01-2013 to 07-31-2013. **Total Award: \$4,750.**

“Modifying a natural defense mechanism to control pneumonia.” ETSU RDC; Alok Agrawal, P.I.; project funding period 07-01-2012 to 6-30-2013; **Total Award: \$10,000.**

“Protein expression is regulated by calcium availability in the embryos of corn snakes (*Pantherophis guttatus*).” ETSU Honors College Student/Faculty Collaborative Grant; Hannach Frye, Undergraduate Student; Tom W. Eday, Faculty Advisor; project funding period 01-01-2013 to 06-30-2013; **Total Award: \$1,200.**

“Serotonin depletion and movement in zebrafish embryos.” ETSU RDC; Paul Monaco, P.I.; project funding period 07-01-2012 to 6-30-2013; **Total Award: \$1,500.**

Upcoming Pending Grant Awards:

Total New Grants Awarded to Biomedical Sciences P.I.: \$1,060,354

“Cholinergic Anti-inflammatory Response to Vagal Stimulation in Polymicrobial Sepsis”; Greater Southeast Affiliate of the American Heart Association; Grant-in-Aid; Donald B. Hoover, P.I.; Cherie Bond and Tammy Ozment, CIs; project funding period 07-01-2013 to 6-30-2015; \$150,000 direct and \$15,000 indirect for entire budget period. **Total Award: \$165,000.**

“Bringing the power of whole genome analysis to ETSU.” ETSU RDC; Michelle M. Duffourc, P.I.; Interdisciplinary Grant; project funding period 07-01-2013 to 6-30-14; **Total Award: \$50,000.**

“Evaluation of vagal nerve stimulation (VNS) for treatment of heart failure.” Cyberonics, Inc. ; Jeffrey Ardell, P.I.; J. Andrew Armour, Eric Beaumont and E. Marie Southerland (Co-Investigators); project funding period 07-01-2013 to 06-30-2015; **Total Award: \$808,649.**

“Lgr5-expressing cells in taste papillae: Role in adult taste cell regeneration.” ETSU RDC Major Grant; Theresa Harrison, P.I., project funding period 07-01-2013 to 06-30-2014. **Total Award: \$10,000.**

“Purification and isolation of extracytoplasmic vesicles (exosomes) from the opportunistic pathogen *Candida albicans*”; ETSU RDC-14-017M; Michael Kruppa, P.I.; project funding period 07-01-2013 to 06-30-2014; **Total Award: \$6,780.**

“Understanding protein abnormalities that control DNA and genetic integrity in prematurely-aging progeroid cells.” ETSU RDC; Phil Musich, P.I.; project funding period 07-01-2013 to 6-30-2014; **Total Award: \$10,000.**

“ Zebrafish embryos as a model system to investigate how brain chemicals such as serotonin effect the machinery for movement.” ETSU RDC; Paul Monaco, P.I.; project funding period: 07-01-2013 to 6-30-2014; **Total Award: \$9,925.**

JOURNAL PUBLICATIONS:

Brown RW, Maple, AM, Perna MK, Sheppard AB, Cope ZA, **Kostrzewa, RM (2012)** Schizophrenia and substance abuse comorbidity: Nicotine addiction and the neonatal quinpirole model. *Dev. Neurosci.* 34(2-3): 140-151. [Review] PMID: 22777523. (IF 3.63)

Brudecki L, **Ferguson DA**, Yin D, Lesage GD, McCall CE, El Gazzar M. 2012 Hematopoietic stem-progenitor cells restore immunoreactivity and improve survival in late sepsis. *Infect Immun.* 80(2):602-11. PubMed PMID: 22144495; PubMed Central PMCID: PMC3264285. (IF 4.074)

Brudecki L, **Ferguson DA**, McCall CE, El Gazzar M. 2012. Adoptive transfer of CD34(+) cells during murine sepsis rebalances macrophage lipopolysaccharide responses. *Immunol Cell Biol.* 90(10):925-34. PubMed PMID: 22732898. (IF 3.925)

Chakraborty, C., and **A. Agrawal**. Computational analysis of C-reactive protein for assessment of molecular dynamics and interaction properties. *Cell Biochem. Biophys.* 2013, DOI: 10.1007/s12013-013-9553-4. (IF 1.912)

Chandley MJ, Szebeni K, Szebeni A, Crawford J, Stockmeier CA, Turecki G, Miguel-Hidalgo JJ, **Ordway GA**. Gene expression deficits in pontine locus coeruleus astrocytes in men with major depressive disorder. *J Psychiatry Neurosci.* 38:276-284, 2013. (IF 5.34)

Daniels, C.R., Foster, C., Yakoob, S., Dalal, S., **Joyner, W.L., Singh, M., Singh, K.** Exogenous ubiquitin modulates chronic β -adrenergic receptor stimulated myocardial remodeling: role in Akt activity and matrix metalloproteinase expression. *Am. J. Physiol. Heart and Circ. Physiol.* 2012: 303:H1459-H1468. (IF 3.629)

Dubeau S, Havlicek M, **Beaumont E**, Ferland G, Lesage F, Pouliot P. Neurovascular deconvolution of optical signals as a proxy for the true neuronal inputs. *J Neurosci Methods.* 2012 Sep 30;210(2):247-58. (IF 2.114)

Fan Y., Chen P., Li Y., and **Zhu M.-Y.**: Effects of chronic social defeat on expression of dopamine β -hydroxylase in rat brains. *Synapses*, 2013, 67:300-312. (IF 2.31)

Frazier, A. and **S. Champney**, The vanadyl ribonucleoside complex inhibits ribosomal subunit assembly in *Staphylococcus aureus*. *J. Antimicrobial Chemother.* 2012 67(9): 2152-2157. (IF 5.338)

Frazier, A. and **S. Champney**. Impairment of ribosomal subunit synthesis in aminoglycoside treated ribonuclease mutants of *Escherichia coli*. *Arch. Microbiology*, 2012 194 (12): 1033-1041. (IF 1.905)

Fregoso, S.P. and **Hoover, D.B.** Development of cardiac parasympathetic neurons, glial cells, and regional cholinergic innervation of the mouse heart. *Neuroscience* 221: 28-36, 2012. (IF 3.122)

Gang TB, Hammond DJ Jr, Singh SK, **Ferguson DA Jr**, Mishra VK, **Agrawal A**. 2012. The Phosphocholine-binding pocket on C-reactive protein is necessary for initial protection of mice against pneumococcal infection. *J Biol Chem.* 287: 43116-43125, 2012. PubMed PMID:23139417; PubMed Central PMCID: PMC3522306. (IF 4.651)

Gao, M., Ha, T., Zhang, X., Liu, L., Wang, X., Kelley, J., **Singh, K.**, Kao, R., Gao, X., Williams, D., Li, C. TLR3 plays a central role in cardiac dysfunction during polymicrobial sepsis. *Critical Care Medicine* 2012, 40:2390-2399. (Article published with an editorial); Not only a toll for viruses: the role of toll-like

receptor 3 in nonviral sepsis-induced cardiac depression. Michael, P., Bleiblo, F., Kumar, A., Kumar, A. *Critical Care Medicine* 2012, 40: 2514-2514). (IF 6.124)

Gibbons DD, **Southerland EM**, Hoover DB, **Beaumont E**, Armour JA, **Ardell JL**. Neuromodulation targets intrinsic cardiac neurons to attenuate neuronally mediated atrial arrhythmias. *Am J Physiol Regul Integr Comp Physiol*. 2012 Feb;302(3):R357-64. (IF 3.284)

Graves BM, Simerly T, Li C, Williams DL, **Wondergem, R**. Phosphoinositide-3-kinase/Akt (PI3K/Akt) dependent signaling is required for maintenance of $[Ca^{2+}]_i$, I_{Ca} and Ca^{2+} transients in HL-1 cardiomyocytes. *J. Biomed. Sci.* 19:59, 2012. (IF 2.458)

Hall, R. A., Bates,S., Lenardon,M.D., MacCallum, D.M., Lowman,.W., **Kruppa,M.D.**, Williams,D.L., Odds,F.C., Brown,A.J.P., and N.A.R. Gow. 2013. The Mnn2 mannosyltransferase family modulates mannoprotein fibril length, immune recognition and virulence of *Candida albicans*. *PLoS Pathog.* 9(4): e1003276. PMID:PMC3636026. (IF 3.73)

Hardwick, J.C., **Southerland, E.M.**, Girasole, A.E., Ryan, S. E., Negrotto, S. and **Ardell, J.L**. Remodeling of intrinsic cardiac neurons: Effects of β -adrenergic receptor blockade in guinea pig models of heart disease. *Am. J. Physiol. Regul. Interg. Physiol.* 303: R950-R948, 2012. (IF 3.284)

Hoover, D.B., Girard, B.M., Hoover, J.L. and Parsons, R.L. PAC₁ receptors mediate positive chronotropic responses to PACAP-27 and VIP in isolated mouse atria. *European Journal of Pharmacology* 713:25-30, 2013. (IF 2.592)

Hilton B, Chiarelli P, **Zou Y**, Patnaik S, Cho B (2012) Conformational probing of the nucleotide excision repair of aminofluorene- and 2-acetylaminofluorene dG adducts in the NarI sequence *Nucleic Acids Res.* 2012 Jan 12. [Epub ahead of print] (IF 8.278)

Korossy-Mruk E, Kuter K, Nowak P, Szkilnik R, **Kostrzewa RM**, Brus R (Jan 2013) Neonatal DSP-4 treatment modifies analgesic effect of methandamide, a CB₁ receptor agonist in adult rats. *Neurotox Res* 23(1), 39–48. (IF 2.865)

Laflamme GY, Rouleau DM, Leduc S, Roy L, **Beaumont E**. The Timed Up and Go test is an early predictor of functional outcome in patients with femoral neck fracture. *Journal of Bone and Joint Surgery, AM (JBJS)*, 2012, Jul 3;94(13):1175-9. (IF 3.234)

Li, C., Hua, F., Ha, T., **Singh, K.**, Lu, C., Kalbfleisch, J., Breuel, K.F., Ford, T., Kao, R.L., Ozment-Skelton, T.R., Williams, D.L. Activation of myocardial phosphoinositide-3-kinase p110 α ameliorates cardiac dysfunction and improves survival in murine sepsis. *PLoS One*, 2012; 7(9):e44712. (IF 3.73)

Li, Z, **Musich PR**, Cartwright BM, and **Zou Y** (2013) UV-Induced Nuclear Import of XPA in S-Phase Is Mediated by Importin- α 4 in An ATR-Dependent Manner. *PLoS One* 8(7):e68297 (IF 3.73)

MacDonell CW, Button DC, **Beaumont E**, Cormery B, Gardiner PF. Plasticity of rat motoneuron rhythmic firing properties with varying levels of afferent and descending inputs. *Journal of Physiology (London)* 2012 Jan;107(1):265-72. (IF 4.38)

Nowak P, Kowalińska-Kania M, Nowak D, **Kostrzewa RM**, Malinowska-Borowska J. Antinociceptive Effects of H3 (R-Methylhistamine) and GABA_B (Baclofen)-Receptor Ligands in an Orofacial Model of Pain in Rats. *Neurotox Res.* 2013 Mar 6. [Epub ahead of print] PMID: 23463522 [PubMed - as supplied by publisher. (IF 2.865)

Ordway G.A., Szebeni A., Chandley M.J., Stockmeier C.A., Xiang L., Newton S.S., Turecki G., **Duffourc M.,** Zhu M.-Y., Zhu H., and Szebeni K.: Reduced gene expression of bone morphogenetic protein 7 in brain astrocytes in major depression. *Int. J. Neuropsychopharmacology*, 15:855-868, 2012. (IF 5.641)

Ozment TR, Ha T, Breuel KF, Ford TR, **Ferguson DA,** Kalbfleisch J, Schweitzer JB, Kelley JL, Li C, Williams DL. 2012. Scavenger receptor class a plays a central role in mediating mortality and the development of the pro-inflammatory phenotype in polymicrobial sepsis. *PLoS Pathog.* 8(10):e1002967. doi:10.1371/journal.ppat.1002967. PubMedCentral PMCID: PMC3469655. (IF 3.73)

Phillips-Campbell, R., Kintner, J., Whittimore, J., and **Schoborg, R.V.** Chlamydia muridarum enters a viable but non-infectious state in amoxicillin-treated BALB/c mice. *Microbes Infect.* 2012 Nov;14(13):1177-85. PMID: 22943883. (IF 2.92)

Rodgers, W., Ashley D. Frazier and **W. Scott Champney.** Solithromycin Inhibition of protein synthesis and ribosome biogenesis in Staphylococcus aureus, Streptococcus pneumoniae, and Haemophilus influenzae. (2013) *Antimicrobial Agents Chemother.* 57 (4): 1632-1637. (IF 4.565)

Schell, M., C. Moore, M. Novak, C. Leonard, M. Hossain, J. Price, **J. Vanover Hall** and **R.V. Schoborg C.** Trachomatis Infection Increases Host Cellular Mutation Frequency. *Proceedings of the 7th Meeting of the European Society for Chlamydia Research.* July, 2012.

Serrano MA, Li Z, Dangeti M, **Musich PR,** Patrick S, Roginskaya M, Cartwright B, **Zou Y** (2013) DNA-PK, ATM and ATR collaboratively regulate p53-RPA interaction to facilitate homologous recombination DNA repair. *Oncogene* 32, 2452–2462. (IF 6.373)

Smith, Eliot T. and **David A. Johnson.** “Human Enteropeptidase Light Chain: Bioengineering of Recombinants and Kinetic Investigations of Structure and Function.” Published online in *Protein Science*, February 25, 2013. (IF 2.735)

Sutherland, E.M., Gibbons, D.D., Smith, S.B., Sipe, A., Williams, C.A., **Beaumont, E.,** Armour, J.A., Foreman, R.D and Ardell, J.L. Activated cranial cervical neurons affect left ventricular infarct size and the potential for sudden cardiac death. *Autonomic Neuroscience: Basic and Clinical*, 169:34-42, 2012. (IF 1.846)

Steagall, R.J., Sipe, A, Williams, C.A., **Joyner, W., Singh, K.** Substance P release in response to cardiac ischemia from rat thoracic spinal dorsal horn is mediated by TRPV1. *Neuroscience* 2012, 214:106-119. (IF 3.122)

Sutherland M, Richards CA, Armour JA, **Beaumont E, Ardell JL.** Activated cranial cervical cord neurons affect left ventricular infarct size and the potential for sudden cardiac death. *Autonomic Neuroscience: Basic and Clinical*, 2012 Jul 2;169(1):34-42. (IF 1.846)

Thirumalai, A., S. K. Singh, D. J. Hammond Jr., M. K. Pangburn, V. K. Mishra, **D. A. Johnson, A. E. Rusiñol,** and **A. Agrawal.** Exposing a hidden functional site of C-reactive protein by site-directed mutagenesis. *J. Biol. Chem.* 287: 3550-3558, 2012. (IF 4.773)

Thirumalai, A., B. Voleti, D. J. Hammond Jr., and **A. Agrawal.** Oct-1 acts as a transcriptional repressor on the C-reactive protein promoter. *Mol. Immunol.* 52: 242-248, 2012. (IF 2.645)

Voleti, B., D. J. Hammond Jr., A. Thirumalai, and **A. Agrawal**. Oct-1 acts as a transcriptional repressor on the C-reactive protein promoter. *Mol. Immunol.* 52: 242-248, 2012. (IF 2.645)

Wagner, R, S. Modla, **F. Hossler**, and K. Czymmek. "Three-Dimensional Analysis and Computer Modeling of the Capillary Endothelial Vesicular System with Electron Tomography" R. Wagner, Shannon Modla, Fred Hossler, and Kirk Czymmek. *Microcirculation* 19 (6), 477-484 (2012). (An image from the paper was used on the journal cover). (IF 2.763)

Wondergem R, Graves BM, Li C, Williams DL. Lipopolysaccharide prolongs action potential duration in HL-1 mouse cardiomyocytes. *Am. J. Physiol:Cell Physiol.* 303:C825-C833, 2012. (IF 3.711)

Wright, T.H. and **K.E. Ferslew**: Biotransformation of Ethanol to Ethyl Glucuronide in a Rat Model After a Single High Oral Dosage. *Alcohol*, 46:159-164 (2012). (FP 2.255)

Wright T.H., Cline-Parhamovich, K., Lajoie, D., Parsons, L., Dunn, M., and **K.E. Ferslew**: Deaths Involving Methylenedioxypropylvalerone (MDPV) in Upper East Tennessee. *Proceedings of the American Academy of Forensic Sciences* 18:463 (2012). (IF 1.244)

Wright, T.H. and **K.E. Ferslew**: The Effect of Burn Injury on Tissue Ethanol and Ethyl Glucuronide on Concentrations. *Proceedings of the American Academy of Forensic Sciences* 19:518 (2013). (IF 1.244)

Wright, T.H. and **K.E. Ferslew**: Blood Glucose Concentrations After Burn Injury. *Proceedings of the American Academy of Forensic Sciences* 19:518-519(2013). (IF 1.244)

Zhang J., Fan Y., Li Y., Zhu H., Wang L., and **Zhu M.-Y.**: Chronic social defeat up-regulates expression of the serotonin transporter in rat dorsal raphe nucleus and projection regions in a glucocorticoid-dependent manner. *Journal of Neurochemistry*, 2012, 123(6):1054-1068. (IF 4.061)

PUBLICATIONS SUBMITTED OR IN PRESS:

Agrawal, A. Not only immunoglobulins, C-reactive protein too. *Mol. Immunol.* 2013, DOI: 10.1016/j.molimm.2013.05.234. (in press)

Beaumont E, Guevara E, Dubeau S, Lesage F, Nagai M, Popovic M. Functional electrical stimulation post spinal cord injury improves locomotion and increases afferent input into the central nervous system in rats. *J. of Spinal Cord Medicine*, (in press) , 2013.

Beaumont E, Rouleau DM, Wang L. Most effective adjuvant treatments after surgery in peripheral nerve laceration: systematic review of the literature on rodent models. *Restaurative Neurol and Neurosci.*(in press), 2013.

Beaumont, E., Salavatian, S., **Southerland, E.M.**, Vinet, A., Jacquemet, V., Armour, J.A. and **Ardell, J.L.** Network interactions within the canine intrinsic cardiac nervous system: Implications for reflex control of regional cardiac function. *J. Physiol.*,(in press), 2013.

Bond CE, Zhu H, Cranmore J, **Hoover DB** (2013) Neurturin knock-out mice display alterations in glial-derived neurotrophic factor expression in brain and intestine. *Neuroscience.* (submitted)

Brudecki, Laura , **Donald Ferguson**, Charles McCall, and Mohamed Elgazzar. Induction of MAPK phosphatase-1 disrupts proinflammatory protein synthesis in septic macrophages. *Clinical and Vaccine*

Immunology. (submitted)

Brudecki Laura, **Donald Ferguson**, Charles McCall, and Mohamed Elgazzar. MicroRNA-146a and RBM4 form a negative feed-forward loop that disrupts cytokine mRNA translation following TLR4 responses in human THP-1 monocytes. *Journal of Leukocyte Biology*. (submitted)

Burt R, Graves BM, Gao M, Li C, Williams DL, Fregoso SP, **Hoover DB**, Li Y, **Wright GL**, **Wong R**. 9-Phenanthrol and flufenamic acid inhibit calcium oscillations in HL-1 mouse cardiomyocytes. (submitted)

Campbell, SE, Stone, WL, Krishnan, K. Vitamin E isoforms: Multiple mechanisms of action against carcinogenesis. Invited Review Nova Biosciences (under review due August 22, 2013):

Chakraborty, C., and **A. Agrawal**. Computational analysis of C-reactive protein for assessment of molecular dynamics and interaction properties. *Cell Biochem. Biophys*. 2013, DOI: 10.1007/s12013-013-9553-4. (in Press)

Defoe, D.M., Harris, D.J. III, Rao, H. and **Harrison, T.A.** Cell cycle-specific function of p27 in individual corneal endothelial cells in vivo. *PLoS ONE*. (submitted)

Douglas W. Lowman, Rachel R. Greene, Daniel W. Bearden, **Michael Kruppa**, Max Pottier, Mario Monteiro, Dmitriy Soldatov, Harry E. Ensley, Shih-Chin Cheng, Mihai G. Netea, David L. Williams. 2013. Identification of unique structural features in *Candida albicans* hyphal glucan: Structural basis for differential immune recognition of hyphae versus yeast. *Journal of Biological Chemistry*. submitted

El Helou J, Bélanger-Nelson E, Freyburger M, Dorsaz S, Curie T, Spada FLA, Gaudreault, PO, **Beaumont E**, Pouliot P, Lesage F, Frank M, Franken P, Mongrain V. Neuroligin-1: A link between neuronal activity and sleep/wake regulation, *PNAS*, (in press, 2013)

Fan, Yan, Ping Chen, Ying Li, Daniel M. Noel, Elizabeth D. Cummins, Russell W. Brown and **Meng-Yang Zhu**: Corticosterone administration upregulated expression of norepinephrine transporter and dopamine β -hydroxylase in rat brains. *Journal of Neurochemistry*, (Submitted revised manuscript)

Fox, Sean J Fox, Bryce T. Shelton, and **Michael D. Kruppa**. 2013. Characterization of genetic determinants that modulate *C. albicans* Filamentation in the Presence of Bacteria. (submitted to *PLoS One*).

Fox, Sean Fox and **Michael Kruppa**. 2013. The contribution of *C. albicans* CDR4 and ALS6 are involved in the farnesol response and response to bacterial molecules. *Applied and Environmental Microbiology*. (submitted).

Frazier, A. and **S. Champney**, Inhibition of ribosomal subunit synthesis in *Escherichia coli* by the vanadyl ribonucleoside complex. (2013) *Curr. Microbiol.* (in press).

Gao, M., Ha, T., Zhang, X., Wang, X., Liu, L., Kalbfleisch, J., **Singh, K.**, Williams, D., Li, C. The toll-like receptor 9 ligand, CpG oligonucleotide, attenuates cardiac dysfunction in polymicrobial sepsis, involving activation of both phosphoinositide 3 kinase/Akt and extracellular-signal-related kinase signaling. *J. Infect. Dis.* 2013 (in press).

Hardwick J, Ryan, S, **Beaumont E**, **Ardell JL** and **Southerland EM**. Dynamic remodeling of the guinea pig intrinsic cardiac plexus induced by chronic myocardial infarction. Submitted to *Autonomic Neuroscience* (submitted).

Hilton, B.A., Shkriabai, N., Shell, S., **Musich, P.R.**, Chazin, W., Kvaratskhelia, M. and **Zou, Y.** (2013) A novel structural insight into XPA-DNA interaction, *Nucleic Acids Research*. (submitted under review)

Hossler, F., A. Lametswandtner, R. Kao, and R. Fensterbusch. Microvascular architecture of the mouse urinary bladder studied with vascular corrosion casting, SEM and TEM. *Microscopy and Microanalysis* (submitted May 2013).

Jackson EA, **Hoover DB**, and **Duffourc MM**. Quantitative analysis of developmental change in cardiac neurturin expression using an exogenous ribonucleic acid control. In preparation, *Developmental Neurobiology*. (submitted).

Jain V, Hilton B, Lin B, Jain A, MacKerell AD, Jr., **Zou Y**, and Cho BP (2013) Nucleotide excision repair of cluster acetylaminofluorene adducts on the NarI sequence: sequence dependence and structural factors. *Chem Res Toxicology* (in press)

Labus L, Nowak P, Szkilnik R, **Kostrzewa RM**, Boroń D, Brus R (2012) Neonatal DSP-4 lesioning of central noradrenergic neurons: a model for the study of interaction with other neurotransmitter systems in the brain of adult rats. *Annales Acad. Med. Silesiensis* (in press). [Original data, scientific paper]

Leonard, Cory A., Stacy D. Brown, and **J. Russell Hayman**. "Random Mutagenesis of the *Aspergillus oryzae* Genome Results in Fungal Antibacterial Activity". *International Journal of Microbiology*. (submitted 4/30/13)

Leonard, Cory A., Carrie E. Jolly, and **J. Russell Hayman**. "Microsporidia ADAM family member (microsporidia ADAM, MsADAM) is involved in *Encephalitozoon intestinalis* adherence and host cell infection". *PLoS ONE* (submitted on 5/31/13)

Leonard, Cory A., Maria Schell, **Robert V. Schoborg**, and **J. Russell Hayman**. "Encephalitozoon intestinalis infection increases host cell mutation frequency." *Infectious Agents and Cancer*. (submitted June 2013)

Leonard, Cory A. and **J. Russell Hayman**. "Role of Host Cell Integrins in *Encephalitozoon intestinalis* adherence and infection". (submitted)

Li, Z., **Musich, P.R.**, Cartwright, B.M., Wang, H. and **Zou, Y.** (2013) UV-induced nuclear import of XPA is mediated by importin- α 4 in an ATR-dependent manner, *PLoS One Genetics* (in press)

Li, Z., **Musich, P.R.**, Serrano, M., Hilton, B.A., Wang, H., Shkriabai, N., Kvaratskhelia, M. and **Zou, Y.** (2013) Cytoplasmic ATR lacking checkpoint kinase activity is a Bax-inhibiting anti-apoptotic protein at mitochondria, *Cell Death & Differentiation*. (submitted under review)

Netherland, C. and **D. Thewke**. Cannabinoid Receptor Type 2 (CB2) Dependent and Independent Effects of Win55,212-2 on Atherosclerosis in Ldlr-null Mice. *Journal of Cardiovascular Diseases*. (in preparation).

Nakhle, Saba, Ho Chuan Xing, Salman Huda, Krishnan, Koyamangalath and **Campbell SE**. Gamma and Delta Tocopherol Modulate Homeobox Protein Expression resulting in differentiation, inhibition of cell cycle progression and reduced cell proliferation in KG-1 Leukemia cells. (Under revision)

Nowak P, Kowalińska-Kania M, Nowak D, **Kostrzewa RM**, Malinowska-Borowska J (2013) Antinociceptive effects of H₃ (R-methylhistamine) and GABA_B (baclofen) -receptor ligands in an orofacial model of pain in rats. *Neurotox Res* (accepted, Feb 18, 2013).

Salavatian, S., Vinet, A., **Beaumont, E.**, Armour, J.A., **Ardell, J.L.** and Jacquemet, V. Recording and identification of cardiac neuron activity in the right atrial ganglionated plexus. *Computing in Cardiology*, Vol 40, (in press), 2013.

Sokan, Olufunke, **Campbell Sharon** and Otukonyong Effiong, Systemic Leptin modulates expression of ecadherin and beta-catenin in the ovary of dietary-induced obese infertile rats. (in progress).

Stuart G. Jarrett, Perry A. Christian, Jillian C. Vanover, **Yue Zou** and John A. D’Orazio (2013) Melanocortin 1 receptor suppresses UV mutagenesis by ATR-enhanced nucleotide excision repair in melanocytes. (submitted)

Wang, Yan, **Phillip R. Musich**, Moises A. Serrano, **Yue Zou**, Jia Zhang and **Meng-Yang Zhu**: Effects of DSP4 on the noradrenergic phenotypes and its potential molecular mechanisms in SH-SY5Y cells. *Neurotoxicity Research*, (submitted revised manuscript)

Wright, T.H., Cline-Parhamovich, K., Lajoie, D., Parsons, L., Dunn, M. and **K.E. Ferslew**: Deaths Involving Methylenedioxypropylvalerone (MDVP) in Upper East Tennessee. *Journal of Forensic Sciences* (accepted for publication 2014).

Wright, T.H. and **K.E. Ferslew**: The Effect of Burn Injury on Blood Ethanol and Ethyl Glucuronide Concentrations. *Journal of Forensic Sciences* (Submitted for publication, 2012).

Wright, T.H. and **K.E. Ferslew**: The Effect of Burn Injury on Tissue Ethanol and Ethyl Glucuronide Concentrations. *Journal of Forensic Sciences* (Submitted for publication, 2012).

Wright, T.H. and **K.E. Ferslew**: Blood Glucose Concentrations After Burn Injury. *Journal of Forensic Sciences* (Submitted for publication, 2012).

Wright, T., Lajoie, D., and **K.E. Ferslew**: A “Bath Salt” Fatality: Intravenous Abuse of Crystal Clean Pipe Cleaner Containing Pyrovalerone. *Journal of Forensic Sciences* (Submitted for publication, 2012).

Wright, Gary. 9-Phenanthrol and Flufenamic Acid Inhibit Calcium Oscillations in HL-1 Mouse Cardiomyocytes. *Cell Calcium*. (prepublication June 2013)

Wu, Joe, Ping Chen, Ying Li, Chris Ardell, Tatyani Der, Ralph Shohet, and **Gary L Wright**. HIF-1alpha in heart: protective mechanisms. *American Journal of Physiology-Heart and Circulation*. (in press)

Zhang, Jia, Yan Fan, Paresh Patel and **Meng-Yang Zhu**: The regulation of glucocorticoid receptor in response to chronic social defeat; *Journal of Neurochemistry*. (submitted)

PAPERS, ABSTRACTS, AND/OR PRESENTATIONS:

A. Regional/Local

Beach, Justin and **Scott Champney**. An Examination Of The Inhibitory Effects Of Antibiotic Combinations On Molecular Targets In Staphylococcus Aureus. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN. **Third place winner of graduate research category.**

Burt, Rees, Bridget M. Graves, Chaunfu Li, David L. Williams, Santiago P. Fregoso, **Donald B. Hoover**, and **Robert Wondergem**. 9-Phenanthrol Inhibits Calcium Oscillations In HL-1 Mouse Cardiomyocyte. Appalachian Student Research Forum, East Tennessee State University, April 3-4, 2013; Johnson City, TN. **Third place winner of undergraduate research category.**

Burt, Rees, Bridget M. Graves, Chaunfu Li, David L. Williams, Santiago P. Fregoso, **Donald B. Hoover**, and **Robert Wondergem**. 9-Phenanthrol Inhibits Calcium Oscillations In HL-1 Mouse Cardiomyocyte.

Boland Undergraduate Research Symposium, East Tennessee State University, April 3-4, 2013; Johnson City, TN.

Campbell, Regenia Phillips, Jennifer Kintner, and **Robert V. Schoborg**. Induction of chlamydial persistence/stress response increases azithromycin treatment failure in a mouse genital infection model. Appalachian Student Research Forum, East Tennessee State University, April 4, 2013; Johnson City, TN.

Crawford, Jason L, **Michelle J. Chandley**, Jessica D. Crawford, and **Gregory A. Ordway**. Molecular analysis of gfap positive astrocytes from neocortical gray matter of the anterior cingulate cortex in autism spectrum disorder. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN.

Crawford, Jessica D., **Michelle J. Chandley**, Brandon L. Waters, Jason L. Crawford, and **Gregory A. Ordway**. Elevated glial fibrillary acidic protein (gfap) protein expression in white matter from autism spectrum disorder subjects. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN. **Third place winner of graduate research category.**

Daniel L.L., Daniels, C.R., Joyner, W.L., Singh, M., Singh, K. Role of ATM in structural and functional remodeling of the heart following myocardial infarction. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City TN.

Daniels C.R., Zhang, X., Dalal, S., Cunningham, S., Li, C., Joyner, W. Singh M., Singh K. Exogenous ubiquitin plays a protective role in the heart against ischemia/reperfusion injury: role of CXCR4 in fibroblast function; Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN. **First place winner of graduate research category.**

DiPeri, Timothy, Attila Szebeni, Katalin Szebeni, Craig A. Stockmeier, and **Gregory A. Ordway**. Defense system in deep white matter of patients with major depressive disorder; Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN.

Gong H and Musich PR (2013). Senescence in Hutchinson-Gilford Progeria Syndrome with relation to DNA replication and DNA damage accumulation. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN.

Hinshaw, Kaitlyn, Z. Lahr, and **D. Thewke**. Role of CB2 in calcification of atherosclerotic lesions. Boland Undergraduate Research Symposium, East Tennessee State University, April 2013; Johnson City, TN.

Hinshaw, Kaitlyn, Z. Lahr, and **D. Thewke**. Role of CB2 in Calcification of Atherosclerotic Lesions. Appalachian Student Research Forum, East Tennessee State University; April 2013; Johnson City, TN. **Second place winner Poster session division undergraduate research category.**

Perry, Evan, Eliot Smith, and **David Johnson**. Expression of recombinant human neutrophil cathepsin G. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN.

Sabri, Mohammad, Jaime Parman-Ryans, and **Antonio Rusiñol**, Proximity-labeling of mouse fibroblasts proteins that: are near-neighbors of Lamin A and Lamin A-D50 (Progerin). Appalachian Student Research Forum, East Tennessee State University, April 2, 2013; Johnson City, TN. **First place winner of undergraduate research category.**

Sabri, Mohammad, Jaime Parman-Ryans, and **Antonio Rusiñol**, proximity-labeling of mouse fibroblasts proteins that: are near-neighbors of Lamin A and Lamin A-D50 (Progerin). Boland Undergraduate Research Symposium, East Tennessee State University, April 2, 2013; Johnson City, TN.

Sears, Megan Brittany, Eliot T. Smith, and **David Johnson**. Optimum conditions for enteropeptidase expression in *pichia pastoris*. Appalachian Student Research Forum, East Tennessee State University, April 4, 2013; Johnson City, TN.

Smith, Eliot T. and **David A. Johnson**. Human enteropeptidase light chain: bioengineering of recombinants and kinetic investigations of structure and function. Appalachian Student Research Forum, East Tennessee State University, April 4, 2013; Johnson City, TN.

Wang, Yan and **Zhu M.-Y.** Dexmethasone-induced up-regulation of the human norepinephrine transporter involves glucocorticoid receptors and increased binding of CREB to the proximal promoter of the norepinephrine transporter gene; Appalachian Student Research Forum, East Tennessee State University, April 2013; Johnson City, TN.

Wu, Joe, **Cherie Bond**, Ying Li, and **Gary Wright**. The purine nucleotide cycle: a novel pathway induced by Hif1. Appalachian Student Research Forum, East Tennessee State University; April 4, 2013; Johnson City, TN. **2nd place winner of graduate research category.**

B. National

Abercrombie, C. L., Yogesh, N.P., Olive, L.Q., Miller, J.A., Denham, J.W., Browe, B.M., **Kwasigroch, T.E.** Innovative technology expands student laboratory experience during medical gross anatomy course: addition of iPads in lab revolutionizes how anatomy is taught. Experimental Biology 2013; April 20-24, 2013; Boston, MA.

Ardell J.L., Beaumont E, Salavatian S, Vinet A, Jacquemet V, Armour JA. Vagal nerve stimulation modifies cardiac local circuit neurons in the suppression of atrial arrhythmias. American College of Cardiology (ACC), 2013; San Francisco, CA.

Ardell, J.L., Beaumont, E., KenKnight, B. H., Gibbons, D., **Southerland, E.M.** and Armour, J.A. Cardiac sensory consequences of low-amplitude autonomic regulation therapy. FASEB J., 27, 928.10, 2013. Experimental Biology 2013, April 20-24, 2013; Boston, MA.

Beach, Justin and **Scott Champney**. An examination of the inhibitory effects of antibiotic combinations on molecular targets in *staphylococcus aureus*. 113th General Meeting of the American Society for Microbiology; May 18-22, 2013; Denver, CO.

Beaumont, E., Armour, J.A., Salavatian, S., Vinet, A., Jacquemet, V. and **Ardell, J.L.** Network interactions within the intrinsic cardiac nervous system: Implications for reflex control of regional cardiac function. FASEB J. 27, 928.9; Experimental Biology 2013, April 20-24, 2013; Boston, MA.

Beaumont E, Armour JA, Kenknight B, Nier H, **Southerland M, Ardell JL.** Characterization of cardiac responses to intermittent, left vagus nerve stimulation: clinical implications for autonomic regulation therapy in heart failure. American College of Cardiology (ACC); San Francisco, CA, 2013.

Brudecki L, **Donald A. Ferguson**, and El Gazzar M. MicroRNA-21 expands myeloid-derived suppressor cell during the late phase of murine sepsis. Cambridge Healthtech Institute's Ninth Annual MicroRNA Conference; Targets and Tools for Therapeutic Development; March 4-5, 2013; Cambridge, MA.

Burt, R., Graves, B.M., Li,C., Williams, D.L., Fregoso, S.P., **Hoover, D.B., Wondergem, R.** 9-Phenanthroline Inhibits Calcium Oscillations in HL-1 Mouse Cardiomyocytes. Experimental Biology 2013, Abstract #913.47, April 20-24, 2013; Boston, MA. **First place winner of the Robert Gunn Award for undergraduate research.**

Cooper, D.L., Conder, C.M., Campbell, G.E., Lynch, S.P., Byrne, R.N., Hanley, A.V., Bullins, K.W., Hanley, G.A., Hoard, J.L., **Singh, K.**, Harirforoosh, S. Effect of an EP Receptor Agonist on Cardiorenal Toxicity of Celecoxib in Rats. APhA (American Pharmacist Association); March 1-4, 2013; Los Angeles, CA.

Dalal, S., Zha, Q., Daniels, C.R., Steagall, R.J., Das, B.C., Gadeau, A-P., **Joyner, W.L., Singh, M.** and **Singh, K.** Osteopontin stimulates cardiac myocyte apoptosis via the involvement of ER stress and mitochondrial death pathway. Experimental Biology 2013; April 20-24, 2013; Boston, MA.

Daniels, C.R., Foster, C.R., Yakoob, S., **Singh, M., Singh, K.** β -adrenergic receptor (β -AR)-stimulated cardiac myocyte apoptosis and myocardial remodeling are modulated by exogenous ubiquitin. FASEB J. 2012; 26; 1139.3. Experimental Biology 2013, April 20-24, 2013; Boston, MA.

Denham, J.W., Robichaud, F. **Abercrombie, C.L.**, Browe, B.M., **Kwasigroch, T.E.**, and **Monaco, P.J.** *Cadaver* Presentations: An integrative, clinical approach to anatomy. Experimental Biology 2013; Abstract #3959; April 20-24, 2013; Boston, MA.

Defoe, D.M., Rich, W.J. & Harrison, T.A. Morphological complexity of mouse corneal endothelial cells revealed by mosaic analysis. Association for Research in Vision and Ophthalmology Annual Meeting (ARVO); Abstract 1668; May 6, 2013; Seattle, WA.

Duffourc, M.M., Schoborg, RV, McGowen, KR, Lybrand, C., and Blackwelder, RB. (2013). Team-taught grand rounds promote horizontal and vertical integration in a discipline-based medical curriculum. American Society for Pharmacology and Experimental Therapeutics (ASPET) Annual Meeting; FASEB J 27, 516.11; April 20-24, 2013; Boston, MA.

Ecay, TW, Stewart, JR, and Pyles, RA. Eggshell calcium influences embryonic growth in *Pantherophis guttatus*. FASEB J. Abstract #519.4; Experimental Biology Meeting; April 20-24, 2013; Boston, MA.

Fan, Yan, Ying Li, Ping Chen and **Zhu M.-Y.**: Effects of desipramine on upregulated norepinephrine transporter expression caused by chronic social defeat in rat brains. Society for Neuroscience; October 13-17, 2012; New Orleans, LA.

Gong H and **Musich PR** (2013). DNA synthesis, repair and cellular senescence in aging progeroid cells; 15th Annual Midwest DNA Repair Symposium, University of Kentucky, May 18-19, 2013; Lexington, KY.

Hall, J., J. Kintner, J. Sun, M. Bambino, M. Novak and **R.V. Schoborg**. Involvement of host cell signal transduction pathways in HSV-Co-infection-induced chlamydia trachomatis Persistence; Sixth Biannual Meeting of the Chlamydia Basic Science Research Society; March 2013; San Antonio, TX.

Harrison, T.A., Downs, A. M., & **Defoe, D. M.** Lgr5 expression defines a set of progenitors that give rise to both taste cells and keratinocytes of adult mouse circumvallate and foliate papillae. Association for

Chemoreception Sciences (AChemS), XXXV Annual Meeting; Abstract P219; April 20, 2013; Huntington Beach, CA.

Hilton, Benjamin, B, Yiyong Liu, Hui Tang, Steven M. Shell, Youjie Wang, Ji Liu, **Phillip R. Musich**, **Antonio E. Rusinol**, Michael S. Sinensky, Maya Breitman, and **Yue Zou**. Molecular mechanisms of genome instability in hutchinson-gilford progeria syndrome. 7th Progeria Research Foundation International Workshop-Hand in Hand: Basic & Clinical Science Working Together Toward the Cure; April 24-26, 2013; Bethesda, MD.

Hilton, Benjamin, Yiyong Liu, Hui Tang, Steven Shell, Youjie Wang, Ji Liu, **Phillip Musich**, **Antonio Rusinol**, Michael Sinensky, Maya Breitman, and **Yue Zou**. Molecular mechanisms of genome instability in Hutchinson-Gilford Progeria Syndrome. 15th Annual Midwest DNA Repair Symposium; May 18-19, 2013; Lexington, KY. **Ben Hilton received the 1st place prize for graduate student platform presentation.**

Hilton, Benjamin, Nick Shkriabai, Steven Shell, **Phillip Musich**, Walter Chazin, Mamuka Kvaratskhelia and **Yue Zou**. A novel structural insight into XPA-DNA interaction. 15th Annual Midwest DNA Repair Symposium, May 18-19, 2013; Lexington, KY.

Hoover, D.B., **C. E. Bond**, T.R. Ozment, D. McDonald, and D.L. Williams. Molecular evidence for upregulation of the cholinergic anti-inflammatory phenotype during sepsis. 36th Annual Conference on Shock, June 1-4, 2013; San Diego, CA.

Keel, A.J., Rosenberg, S., Farazi, T.G., **Southerland, E.M.** and **Ardell, J.L.** A novel heart failure canine model of myocardial infarction and mitral regurgitation results in sustained remodeling and autonomic dysfunction. Heart Failure Society of America, September 2012; Seattle, WA.

Keel, A.J., Rosenberg, S., Farazi, T.G., **Southerland, E.M.**, and **Ardell, J.L.** Chronic spinal cord stimulation preserves autonomic reserve in a canine model of heart failure. Heart Rhythm Society, May 2013; Denver, CO.

Kostrzewa RM, Nowak P, Kostrzewa RA, Skaba D, Brus R, Kostrzewa JP. Hydroxyl radicals in striatum of parkinsonian rats. 42nd Society for Neuroscience meeting, October 2012; New Orleans LA.

Li, Zhengke, **Musich PR**, Hilton BA, Serrano M, Wang H, Shkriabai N, KvaratskheliaM and **Zou Y**. Cytoplasmic ATR lacking checkpoint kinase activity is a Bax-inhibiting anti-apoptotic protein at mitochondria. 15th Annual Midwest DNA Repair Symposium, University of Kentucky, May 18-19, 2013; Lexington, KY.

Mehraban, Nahid, McKayla Johnson, Ben Hilton, Henry Gong, Zhengke Li, **Yue Zou** and **Phillip R. Musich**. Altered XPA subcellular localization and deficient nucleotide excision repair in HGPS cells. 7th Progeria Research Foundation International Workshop-Hand in Hand: Basic & Clinical Science Working Together Toward the Cure, April 24-26, 2013; Bethesda, MD.

Morrissey J, Brudecki L, **Donald A. Ferguson**, and El Gazzar M. Ethyl Pyruvate restores transcription, but not protein synthesis, of inflammatory genes in a cell model of severe systemic inflammation. Poster sessions-at-the-State Capitol Conference; February 12, 2013; Nashville, TN.

Ordway G.A., Szebeni A., Chandley M.J., Stockmeier C.A., Crawford J., Szebeni K.: Norepinephrine: A broken spoke on the wheel of depression. 10th International Catecholamine Conference, September 11, 2012; Asimolar, CA,

Perry, E. T., Smith, E., and Johnson, D. Expression of recombinant human neutrophil Cathepsin G in *Pichia pastoris*. American Society for Biochemistry and Molecular Biology (Experimental Biology 2013); April 20-24, 2013; Boston, MA.

Phillips-Campbell, R., J. Kintner, and Schoborg, R. V. Induction of chlamydial persistence/stress response increases azithromycin treatment failure in a mouse genital infection model. Sixth Biannual Meeting of the Chlamydia Basic Science Research Society; March 19-22, 2013; San Antonio, TX.

Phillips-Campbell, R., J. Kintner, and Schoborg, R. V. Immunosuppression increases post-amoxicillin shedding in *C. muridarum*-infected mice. Sixth Biannual Meeting of the Chlamydia Basic Science Research Society; March 19-22, 2013; San Antonio, TX.

Schell, M., M. Novak, C. Moore, C. Leonard, **J.R. Hayman, J. Price, J. Hall and R.V. Schoborg.** Productive *C. trachomatis* infection is required to increase host cellular mutation frequency. Sixth Biannual Meeting of the Chlamydia Basic Science Research Society; March 2013; San Antonio, TX.

Schoborg, R. V. and N. Borel. Co-infection induced chlamydial persistence does not require PEDV replication. Sixth Biannual Meeting of the Chlamydia Basic Science Research Society; March 2013; San Antonio, TX.

Wang, Yan, **Phillip R. Musich, Yue Zou and Zhu M.-Y.** A comprehensive study for effects of DSP4 on the expression of noradrenergic phenotypes in cultured cells and its potential mechanisms. Society for Neuroscience; October 13-17, 2012; New Orleans, LA.

Wang, Yan, Phillip R. Musich, Moises A. Serrano, Yue Zou and Meng-Yang Zhu: Neurotoxin DSP4 induces persistent DNA damage in neuroblastoma cells. 15th Annual Midwest DNA Repair Symposium, May 18-19, 2013; Lexington, KY.

Wright, T.H. and **K.E. Ferslew.** The effect of burn injury on tissue ethanol and ethyl glucuronide on concentrations. Society of Forensic Toxicologists; July 4, 2012; Boston, MA.

Wright, T.H. and **K.E. Ferslew.** The effect of burn injury on tissue ethanol and ethyl glucuronide on concentrations. 65th Anniversary Meeting of the American Academy of Forensic Sciences; February 20, 2013; Washington, DC.

Wright, T.H. and **K.E. Ferslew.** Blood glucose concentrations after burn injury. 65th Anniversary Meeting of the American Academy of Forensic Sciences; February 20, 2013; Washington, DC.

C. International

Beaumont, E., Southerland, E.M., Hardwick, J., Ryan, S., KenKnight, B.H. and **Ardell, J.L.** Chronic autonomic regulation therapy mitigates adverse remodeling induced by myocardial infarction in the guinea pig heart; European Society of Cardiology, Amsterdam, The Netherlands, 2013.

Dubeau S, Lesage F, Ferland G, **Beaumont E.** Effect of aging on the vascular properties in rats. Research Day, University of Montreal, 2012. Montreal, Canada.

Halawa, A., Foster, C., Valdez, G., Madireddy, S.R., **Thewke, D.P., Hoover, D.B., Singh, M., Singh, K.,** Lack of osteopontin is associated with an early compensation of left ventricular systolic function in

streptozotocin-induced model of diabetic cardiomyopathy. European Society of Cardiology (ECS) Congress, Aug 25-29, 2012, Munich, Germany.

Keel, A.J., Rosenberg, S., Taraneh, T.G., **Southerland, E.M.**, and **Ardell, J.L.** Thoracic spinal cord stimulation applied chronically reduces mortality and preserves vagal responsiveness in a canine heart failure model. International Neuromodulation Society (INS), Berlin, Germany, 2013.

Salavatian S, Vinet A, **Beaumont E**, Armour JA, **Ardell JL** and Jacquemet V. Recording and Identification of Cardiac Neuron Activity in the Right Atrium Ganglionated Plexus, in Proc. Computing in Cardiology, vol. 40,, Sept. 2013, Zaragoza, Spain.

Schell, M., Moore, C., Novak, M., Leonard, C., Hossain, M., Price, J., **Hall, J.**, and **Schoborg, R.V.** C. trachomatis Infection Increases Host Cellular Mutation Frequency. 7th Meeting of the European Society for Chlamydia Research, July 2012. Amsterdam, The Netherlands.

Schoborg, R.V. and N. Borel. Co-infection induced Chlamydial Persistence Does Not Require PEDV Replication. 11th Annual German Chlamydia Workshop, April 2013; Würzburg, Germany; April 2013.

Smith, Eliot T. and **David A. Johnson.** Expression of recombinant human neutrophil elastase in pichia pastoris. Gordon Research Conference on Proteolytic Enzymes and Their Inhibitor; June 2012; Lucca (Barga) Italy.

Stewart, JR, **Ecay TW**, and Heulin, B. Calcium mobilization by embryos of a viviparous lizard, Zootoca vivipara, incubated ex utero. 7th World Congress of Herpetology 2012; Aug. 8-14, 2012; Vancouver, BC, Canada.

INVITED PRESENTATIONS:

A. Regional/Local:

Dr. Duffourc. **“The Molecular Biology Core Facility: A Symphony In Molecular Biology.”** Invited presentation at Department of Internal Medicine, East Tennessee State University, August 28, 2012, Johnson City, TN.

Dr. Duffourc. **“BMP7: A Novel Target For The Treatment Of Neurodegenerative Disorders?”** Invited presentation at Edward Via College of Osteopathic Medicine, November 5, 2012; Blacksburg, VA.

Dr. Ferslew. **“Bath Salts And Synthetic Thcs.”** Invited presentation for Psychology Inservice, James H. Quillen College VA Medical Center, September 7, 2012; Mountain Home, TN.

Dr. Ferslew. **“Toxicology of Alcohol”, “Toxicology of Drugs That Impair” and “Toxicology of Synthetic Drugs”** Invited presentation as part of “DUI Detection & Standardized Field Sobriety Testing” and “Toxicology for Prosecutors Tennessee District Attorneys General Conference at Fall Creek Falls State Park; July 18, 2012. Sponsored and funded by the Governor’s Highway Safety Office and the Natural Highway Traffic Safety Administration; Pikeville, TN

Dr. Ferslew. **“Toxicology of Synthetic Drugs: The Challenge of Bath Salts and Synthetic Cannabimimetics”** Invited presentation as part of the Drug Recognition Experts (DRE) Inservice at the 25th Annual Tennessee Life Savers Conference, September 5, 2012; Murfreesboro, TN.

Dr. Ferslew. **“The Challenge of Bath Salts and Synthetic THC’s.”** Invited presentation at Parish Nurse Ministry, Wellmont Health System, September 17, 2012. Holston Valley Hospital; Kingsport, TN.

Dr. Ordway. **“Does Depression Accelerate Cellular Aging?.”** Invited presentation at Psychiatry Grand Rounds, Quillen College of Medicine, August 24, 2012; Johnson City, TN.

B. National:

Dr. Ardell. **“Neural Remodeling Of The Intrinsic Cardiac Nervous System Associated With Ischemic And Non-Ischemic Heart Disease: Neural Processing Implications.”** Invited presentation at UCLA, September 2012; Los Angeles, CA.

Dr. Bond. **“The Importance Of Being Glia.”** Invited presentation at West Virginia School of Osteopathic Medicine, February 18, 2013, Lewisburg, WV.

Dr. Ferslew. **“The Effect Of Burn Injury On Blood Ethanol And Ethyl Glucuronide Concentrations.”** Invited presentation at The Society of Forensic Toxicologists, July 4, 2012, Boston, MA.

Dr. Ferslew. **“The Effects Of Burn Injury On Tissue Ethanol And Ethyl Glucuronide Concentrations.”** Invited presentation at 65th Anniversary Meeting of the American Academy of Forensic Sciences, Washington, D.C., Wright, T.H. and K.E. Ferslew: Blood Glucose Concentrations After Burn Injury. Presented at the 65th Anniversary Meeting of the American Academy of Forensic Sciences, February 20, 2013, Washington D.C

Dr. Hoover. **“Molecular Evidence For Upregulation Of The Cholinergic Anti-Inflammatory Phenotype During Sepsis.”** Invited Presentation At 36th Annual Conference On Shock, June 1-4, 2013, San Diego, CA.

Dr. Kruppa. **“Re-Evaluating The Cell Wall: What We Know Now That We Didn’t Know Then.”** Invited presentation at International Congress on Yeasts, August 26-30, 2012, Madison, WI.

Dr. Ordway. **“New Approaches To Probe Pathology Of The Human Brain.”** Invited Panel Chairman at Winter Conference on Brain Research, January 2012, Snowbird, UT.

Dr. Ordway. **“Norepinephrine: A Broken Spoke On The Wheel Of Depression.”** Invited Symposium speaker at the Tenth International Catecholamine Symposium, September 12, 2012, Pacific Grove, CA

Dr. Schoborg. **“Chlamydial Persistence-A Tool To Dissect Chlamydia-Host Interactions.”** Invited presentation at Dept. of Microbiology, University of South Alabama, September 24, 2012, Mobile, AL.

Dr. Singh. **“Osteopontin: Role In Cardiac Myocyte Apoptosis And Myocardial Remodeling.”** Invited presentation at FASEB Science Research Conferences on Osteopontin Biology (Session Title: Osteopontin and related proteins: Inflammation and pathological angiogenesis), August 5-7, 2012. Saxtons River, VT.

Dr. Zou. **“Molecular Mechanisms Of Genome Instability In Hutchinson-Gilford Progeria Syndrome.”** Invited presentation at 7th Progeria Research Foundation International Workshop-Hand in Hand: Basic

& Clinical Science Working Together Toward the Cure, April 24-26, 2013, Bethesda, MD.

C. International:

Dr. Agrawal. **“Evolutionary conservation and structure-function relationships of C-reactive protein.”** **International Symposium on Molecular Signaling.** Invited presentation at Visva-Bharati University, February 18-21, 2013, Santiniketan, India.

Dr. Ardell. **“Neurostimulation For Cardiac Rhythm Disorders: Mechanisms.”** Invited presentation at International Neuroscience Society 11th World Congress 2013 (INS 2013), June 8, 2013; Berlin, Germany.

Dr. Hall. **“Involvement Of Host Cell Signal Transduction Pathways In HSV-Co-Infection-Induced Chlamydia Trachomatis Persistence.”** Invited presentation at Australian Chlamydia Conference. November 21, 2012. Brisbane, Australia.

Dr. Kostrzewa. **“The Dopamine D₂ Agonist Quinpirole As A Non-Neurodegenerative Neurotoxin.”** Invited presentation at VI Neurotoxicity Society Meeting on Mechanisms of Neurodegenerative Disorders, March 2013, Valdivia, Chile.

Dr. Kostrzewa. **“The Changing Face Of Neurotoxins.”** Invited presentation at XVIII International Congress of the Polish Pharmacological Society, May 22-25, 2013, Kazimierz Dolny, Poland.

Dr. Kostrzewa. **Dopamine D₂ Receptor Supersensitivity: Impact On Schizophrenia.** Symposium Organizer and Co-Chair: R Moratalla (Cajal Inst., Madrid, Spain). RM Kostrzewa Invited lecture: **Dopamine D₂ Receptor Supersensitization – Effect on Dopamine Release and Actions.** Invited presentation at 11th World Congress of Biological Psychiatry Meeting, June 23-27, 2013. Kyoto, Japan.

Dr. Kostrzewa. **“Evolution Of Selective Neurotoxins.”** Invited presentation at 11th International Symposium on VIP, PACAP and Related Peptides. Pecs,, August 26-31, 2013, Hungary.

Dr. Ordway. **“Oxidative Stress Defense Is Compensated In White Matter Oligodendrocytes Of Suicide Victims With Major Depressive Disorder.”** Invited Symposium speaker at Congress of the International Academy of Suicide Research (IASR) , June 2013, Montreal, Canada.

Dr. Schoborg. **“A Tale of Two Models: Exploring the Role of Persistent/Stressed Chlamydiae In Treatment Failure, Disease Progression and Cancer Induction.”** Invited presentation at 11th Annual German Chlamydia Workshop, April, 12, 2013, Würzburg, Germany.

BOOKS/BOOK CHAPTERS:

A. Books:

Kostrzewa RM (Editor-in-Chief) *Handbook of Neurotoxicity*, Springer Publishing Company, New York NY. Target publication date, Fall 2013.

B. Book Chapters:

Chandley MJ and Ordway GA. Noradrenergic Dysfunction in Depression and Suicide. In: *The Neurobiological Basis of Suicide*. Chapter 3.(Ed. Y. Dwivedi) , Frontiers in Neuroscience, CRC press, Boca Raton. (2012).

Chen J, **RM Kostrzewa**, X Xu (Sep 2013, target date) Necroptosis, a potential therapeutic target for neurological disorders. In: Section on Selective Neurotoxins (RM Kostrzewa, Section Editor),In: Handbook of Neurotoxicity (Kostrzewa RM, Editor) (Springer, New York NY). Submitted September 2012; galley proofed, June 2013. DOI 10.1007/978-1-4614-5836-4_166.

Daniel L.L., **Joyner, W.L., Singh, M., Singh, K.** Integrins: implications for aging and heart failure therapy. In: *Aging and Heart Failure*, Jugdutt B (Ed.). Springer Publishing Co., 2012; (In Press).

Stone, William L., V. P. Ramsauer, **Campbell S.E.**, and Krishnan K. Targeted Prostate Cancer Chemoprevention Trial with Tocotrienols. In: *Tocotrienol: Vitamin E Beyond Tocopherols*, Second Edition, Chapter 8, p. 101-116. Ed., Barrie Tan, Ronald Ross Watson, and Victor R. Preedy. CRC Press Taylor and Francis, Boca Raton. (2013)

Stone, William L., **Sharon E.Campbell**, and Koyamangalath Krishnan. The Role of Vitamin E in Prostate Cancer, p. 333-354. Donald R.Spitz, Kenneth J.Dornfeld, Koyamangalath Krishnan, and David Guis (ed.), In: *Oxidative Stress in Cancer Biology and Therapy*. Humana Press, New York. (2012)

C. Book/Book Chapters Under Submission/Review:

Archer T, **Kostrzewa RM** (Autumn 2013) The Inductive Agency of Stress: From Perinatal to Adolescent Induction, (Laviola G, Macri S, Editors) In: *Adaptive and Maladaptive Aspects of Developmental Stress*, (Springer: New York, NY), pp 1-20.

Archer T, Ricci S, Rapp-Ricciardi M, **Kostrzewa RM** (Autumn 2013, target date) Polluting agents in Parkinsonism: I Transition metals. In Handbook of Neurotoxicity (Kostrzewa RM, Editor) (Springer, New York NY), Section on Neurotoxicity in Psychiatric and Neurologic Disorders (T Archer and U Sailer, Section Editors). September 2012.

Chandley, MJ and Ordway GA. The noradrenergic system in depression and suicide. In: *The Concise Guide to Understanding Suicide: Epidemiology, Pathophysiology and Prevention* (ed. C. Nemeroff, P. Ruiz, S.H.Koslow), Cambridge University Press (In Press)

Hossler, Fred. *Ultrastructural Atlas of Human Tissues*. Including 3-D Images." Wiley-Blackwell Publishing Company (**Book submitted June 2013**).

Ferslew, K.E.: Epidemiological Basis of Alcohol Induced Psychomotor Performance Impairment in *Garriott's Medicolegal Aspects of Alcohol*, 6th Edition, B. Goldberger and Y. Caplan, Editors, Lawyer & Judges Publishing Company, Inc., Tucson, AZ, Chapter 13, pages; (accepted for publication, 2014).

Ferslew, K.E. Experimental Basis of Alcohol-Induced Psychomotor Performance Impairment in *Garriott's Medicolegal Aspects of Alcohol*, 6th Edition, B. Goldberger and Y. Caplan, Editors, Lawyers & Judges Publishing Company, Inc., Tucson, AZ, Chapter 14, pages; (accepted for publication, 2014)

Hayman, J.R. "The Spore Wall Proteins of Microsporidia". In: *The Microsporidia and Microsporidiosis*. (Submitted to Editor on 5/28/13).

Kostrzewa RM (Autumn 2013, target date) Survey of Selective Neurotoxins, (chapter title ,In: Section on Selective Neurotoxins, in *Handbook of Neurotoxicity* (Kostrzewa RM, Editor), Springer New York.

Kostrzewa RM, Kostrzewa JP, Brus R (Autumn 2013, target date) Tardive dyskinesia: outcome of antipsychotic treatment and brain damage? In Section on Diseases and Disorders Relevant to Neurotoxins, in *Handbook of Neurotoxicity* (Kostrzewa RM, Editor), Springer New York. DOI 10.1007/978-1-4614-5836-4_163.

Invited Book Peer-Reviewer:

Dr. Scott Champney. Invited Reviewer for Benjamin/Cummings & SaundersTextbooks

Shin-Kang,S., Ramsauer,V.P., Lightner,J., Chakraborty,K., Stone,W., **Campbell,S.**, Reddy,S.A., and Krishnan,K. (2011). Tocotrienols inhibit AKT and ERK activation and suppress pancreatic cancer cell proliferation by suppressing the ErbB2 pathway. *Free Radic. Biol. Med.* 51, 1164-1174.

PATENTS:

Continue to work with Cyberonics on a patented use of vagal nerve stimulation. Authors: Jeffrey Ardell, Bruce Kenknight, Gregory Ordway.

EXTERNAL ACTIVITIES:

Dr. Agrawal:

- **Editorial Board:** Cardiovascular & Hematological Disorders—Drug Targets (CHD-DT); 2012-present.
- **Journal Ad Hoc Reviewer** (Jan. 2012-Dec. 2012) - *Atherosclerosis Thrombosis and Vascular Biology* x 3; *Cardiovascular and Hematological Disorders – Drug Targets* x 3; *Cell Biochemistry and Biophysics* x 1; *Circulation* x 2; *European Journal of Immunology* x 1; *Gene* x 1; *Human Genetics* x 1; *Inflammation Research* x 1; *International Journal of Molecular Sciences* x 1; *Journal of Immunology* x 6; *Journal of Nutrition and Metabolism* x 1; *Medicinal Chemistry* x 1; *Molecular Therapy* x 1; *Open Journal of Immunology* x 2; *PLoS One* x 1.
- **NIH Grant Study Sections Ad Hoc Reviewer:** *Innate Immunity and Inflammation*, June 2012; *Innate Immunity and Inflammation*, February 2013; *Arthritis, Connective Tissues and Skin*, June 2013.
- **Regional Editor**, *Cardiovascular and Hematological Disorders – Drug Targets (CHD-DT)*, 2012.
- Chair, Session number IX, *International Symposium on Molecular Signaling*, February 18-21, 2013, Visva-Bharati University, Santiniketan, India.

Dr. Ardell:

- **Journal Reviews:** *American Journal of Physiology: Heart and Circulation*, *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, *Journal of*

Applied Physiology, Circulation, Circulation Research, Cardiovascular Research, Journal of Pharmacology and Experimental Therapeutics, Journal of Physiology, Autonomic Neuroscience: Basic and Clinical, Journal of Interventional Cardiac Electrophysiology, Experimental Physiology, Heart Rhythm, PLoS ONE

Dr. Beaumont:

- **Journal Peer-Reviewer:** Neuroscience Research, Muscle and Nerve, Neuroscience Letters

Dr. Bond:

- **Journal Peer-Reviewer:** Journal of Neurochemistry, FEBS Journal, International J of Biochemistry & Cell Biology, BBA-Molecular Cell Research
- Neuroscience MythBusters, Community Neuroscience Education Outreach for Brain Awareness Week
- **National Science Advisory Board Member**

Dr. Campbell:

- **Invited Reviewer** – Nova Biosciences
- **Journal Peer-Reviewer:** Nutrition and Cancer, Free Radical Biology and Medicine, European Journal of Cancer, Molecular Food and Nutrition, Cancer Letters
- **Invited Textbook Reviewer:** Shin-Kang,S., Ramsauer,V.P., Lightner,J., Chakraborty,K., Stone,W., Campbell,S., Reddy,S.A., and Krishnan,K. (2011). Tocotrienols inhibit AKT and ERK activation and suppress pancreatic cancer cell proliferation by suppressing the ErbB2 pathway. Free Radic. Biol. Med. 51, 1164-1174

Dr. Champney:

- **Outside Journal Reviews** of 5-6 submitted papers
- **Invited Textbook Reviewer** for Benjamin/Cummings & SaundersTextbooks

Dr. Duffourc:

- **Journal Reviewer** - Journal of Biotech Research
- ASPET Member, Pharmacology Education Division

Dr. Ecay:

- American Physiological Society - Education Committee; Joint Programming Committee; Comparative Section Secretary; Chapter Advisory Committee, Tennessee Delegate.
- Tennessee Physiological Society -Immediate Past President

Dr. Ferslew:

- Member of the **Editorial Advisory Board** of the Journal of Analytical Toxicology, 2009 to date
- **Journal Reviewer**- Journal of Analytical Toxicology 2012 (2 papers) and 2013 (1 paper); Journal of Forensic Sciences 2010 (1 paper), 2011 (1 paper), and 2012 (1 paper)
- Certificant to the Examination Committee of the American Board of Forensic Toxicology, 2007 to date.

Dr. Hall:

- Member of the American Society of Microbiology

Dr. Hayman:

- **Ad Hoc Journal Reviewer** - Mycoses; International Journal for Parasitology; Biology of the Cell; Journal of Eukaryotic Microbiology; Protist.

Dr. Hoover:

- **Journal Reviewer** - American Journal of Physiology Cell Physiology (1); Circulation (1); Critical Care (1); Journal of the American Heart Association (1); Journal of Pharmacology and Experimental Therapeutics (1); Shock (1)

Dr. Johnson:

- J. H. Quillen V.A. Medical Center Biomedical Research Corporation **Board of Directors** since 2008

Dr. Joyner:

- Veteran Affairs Standing Committee, 2012
- **Grant Reviewer** - American Heart Association, Spring Peer Review Committee, Cardiac Bio Reg. 5, (86), April 2013

Dr. Kostrzewa:

- **Editor-in-Chief** of the journal, *Neurotoxicity Research* - IMPACT FACTOR = **3.514** for 2011 (most recent yr)
- **Editorial Board**, *J. Neural Transmission* (Term continued through 2013). Served as editor for 5 papers, 2012-3; Editorial Board, *Neurochemical Research*. Jan 2012 – present; Editorial Board, *Applied Cell Biology*. 2012-present;
- **Co-Editor-in-Chief** (with T Archer, Göteborg Univ., Sweden) of the book series *Current Topics in Neurotoxicity*. Springer Science, NY. (Jan 2010 - current).
Books in 2012-3:
Antkiewicz-Michaluk L, Rommelspacher H: *Isoquinolines and Beta-Carbolines as Neurotoxins and Neuroprotectants: New Vistas in Parkinson's Disease Therapy*
Ceccatelli S, Aschner M: *Methylmercury and Neurotoxicity*
Laviola G, Macri S: *Adaptive and Maladaptive Aspects of Developmental Stress*
- **Editor-in-Chief** of *Handbook of Neurotoxicity*, Springer Science, NY. (Target, Autumn 2013) June 2011 – present
- **Section Editor** on “Neurotoxins”. In *Handbook of Neurotoxicity*, Springer Science, NY. (Target, Autumn 2013)
- **Manuscript Editor**, *Neurotoxicity Research*: ~180; **Manuscript Editor**, *J. Neural Transm.*: 5
- **Manuscript Peer Reviews**: *Brain Res*, *Neurotox Res* (5), *Neurochem Res* (6), *Exp Brain Res*, *Peptides*, *J Neurochem*
- **GRANT REVIEW**: NIDA SD Fellowship for Diversity Research; July 2012
- Councillor, Neurotoxicity Society, 2012-2014

Dr. Kruppa:

- **Deputy Editor** of the journal *Mycology*
- **Journal Peer Reviewer** for PLoS One –two papers reviewed; FEMs Yeast Research- one article reviewed
- **Member of the Scientific board** for AppRidge International, LLC

Dr. Ordway:

- Member, Special Emphasis Panel/**Scientific Review Group** 2013/NIMH
- Member, **Research Grants Committee** for the American Foundation for Suicide Prevention; **reviewed 3 grants**; attended RGC meeting in NYC in April
- **Field Editor** for *International Journal of Neuropsychopharmacology*
- **Journal Reviewer**: *International J. of Neuropsychopharmacology* (2); *Journal of Psychiatric Research* (1)
- Tenure Ferview, Naguib Mechawar, McGill University

Dr. Robinson:

- Life Sciences Tennessee Workforce Committee
- International Association of Medical Science Educators
- Association of Biochemistry Course Directors
- AAQMC – Group on Graduate Research Education and Training
- Association of Practical and Professional Ethics

Dr. Rusinol:

- Was Ad-Hoc reviewer for the Argentine National Research Council (reviewed 11 grants)

equivalent to NIH R01)

- **Reviewed manuscripts** for J. Lipid Research (2), Free Radicals (1) J. Biol. Chem. (1) and Leucocyte Biology (1)

Dr. Schoborg:

- **Ad hoc manuscript reviewer** for *Journal of Biological Regulators and Homeostatic Agents* (1 paper); *PLoS ONE* (4 papers); and *Microbes and Infection* (1 paper).
- **Ad hoc grant reviewer** NIH/NIAID K22 awards (1 grant).
- **NIH/GMS grant review** panel ZGM1 MBRS-X (GC) member (10 grants as reviewer 1, 2 or 3).

Dr. Schambra:

- Autism Society of America
- Autism Society of North Carolina
- Residential Services of Chapel Hill, NC

Dr. Singh:

- **Editorial Board** - Life Sciences (Associate Editor)
- **Grant Reviewer:** Cardiac biology regulation (BSci 5; Basic and clinical-translational science) grant peer-review committee, American Heart Association (meeting date September 27, 2012; Via teleconferencing); Cardiac biology regulation (BSci 5; Basic and clinical-translational science) grant peer-review committee, American Heart Association (meeting date April 08, 2013; via teleconferencing)
- **Journal Manuscript Reviewer:** PLoS One (3 manuscripts); Rejuvenation Research (1 manuscript); Molecular Cell. Biochem (1 manuscript); AJP heart (1 manuscript); Cell Biochem Biophys (1 manuscript); Cardiovas Research (1 manuscript)

Dr. Thewke:

- **Journal Ad hoc reviewer:** Bioorganic & Medicinal Chemistry Letters, Nutrients, Journal of Cardiovascular Pharmacology, Biochemical Pharmacology, Life Sciences, BMC Immunology
- **American Heart Association, Unified (National) Research Peer Review Study Committee** (Vascular Wall Biology, Committee-AAG1 BSc1)-member

Dr. Wondergem:

- **Editorial Board** – American Journal of Physiology:
- **Journal Reviewer:** Cell Physiology - 4 reviews; Cold Spring Harbor Research Protocols—1 review; Chinese Journal of Physiology—1 review

Dr. Wright:

- **Editorial Board** - Associate of Journal of Molecular and Cellular Cardiology Editorial Board (20+ reviews per annum)
- **Journal Reviewer:** American Journal of Physiology (3 reviews) FASEB Journal (1 review)

Dr. Zhu:

- **Journal Peer-Reviewer:** Psychoneuroendocrinology (September, 2012; Neuroscience Letters (December, 2012); Neuroscience Letters (Second review, February, 2013; eBook Chapter review (Frontiers in Clinical Drug Research , January 2013; Molecular Autism (April, 2013); Neuroimage (May, 2013)
- **Grant Peer-Reviewer:** Foundation: Parkinson's UK (September – October, 2012)

Dr. Zou:

- **NIH (SBIR/STTR) Special Emphasis Panel:** Cell, Computational, and Molecular Biology ZRG1 IMST-J (15)
- **NIH Special Emphasis Panel:** ZRG1 GGG-E (90) A
- **Manuscript reviewer:** *Oncogene*, and *PLoS One*

UNIVERSITY COMMITTEES ACTIVITIES:

Dr. Agrawal:

- Awarded “Outstanding Professor-2012-2013; 2006-present: Biomedical Sciences faculty representative, Biosafety Committee; 2012-present: Research and Mentoring Committee, COM Department of Biomedical Sciences

Dr. Ardell:

- Promotion and Tenure Committee, Department of Biomedical Sciences; Research and Mentoring Committee, Department of Biomedical Sciences ; Faculty Recruitment Committee, Department of Biomedical Sciences; Director: COM Medical Student Summer Research Program

Dr. Bond:

- RDC Grant Review Committee - Review Major grants and Small Grants; Review of Student-Faculty Collaborative Grants, Honors College; Judge/Timekeeper for Appalachian Student Research Forum; External Reviewer Graduate Thesis Oral Defense – Sherry Maddox Murphy; MBCF website redesign/update; Provided technical training; sponsored seminars; Managed MBCF relocations during Bldg. 119 renovation.

Dr. Campbell:

- Member Faculty Senate; Research Advisory Council; OIT Users Group; Biochemistry of Disease Journal Club Coordinator; Search Committee for Analytical Chemist, Department of Chemistry

Dr. Champney:

- ETSU Academic Council – Member; ETSU Graduate Council – Chairman; ETSU University Research Advisory Council Committee – Member; Appalachian Student Research Forum – Task Force Member; ETSU 125 Committee – Member; Department of Biomedical Sciences Faculty Search Committee – Chairman

Dr. Defoe:

- University Committee on Animal Care (UCAC); Biomedical Sciences Graduate Program Committee; Department of Biomedical Sciences Faculty Search Committee

Dr. Duffourc:

- Molecular Biology Core Facility, 2001-present; *Director*, 2004 – present (40% time commitment); Committee on Gender and Special Issues, 2007-present; Promotions Committee, 2009 – present; Voting member; Integrated Grand Rounds Committee 2010- present; M1/M2 Curriculum Committee; Subcommittee leader: Comprehensive review of Introduction to Clinical Psychiatry; Biomedical Sciences Seminar Committee; Admissions Committee (start date: July 2013); ETSU Silent Committee; Outside Observer for MS Thesis Defenses; Helped to develop new integrated Grand Rout activities for 2nd year medical students; Educational Outreach to Johnson City Schools; Preparation for LCME Site Visit

Dr. Ecay:

- Course Director Medical Physiology Course; ETSU Appalachian Student Research Forum Judge; QCOM Learning Resources Advisory Committee; QCOM Student Promotions Committee; Faculty Advisor to Medical Student Honor Council; National Science Foundation Research Experiences for Undergraduates (REU) Sit

Dr. Ferguson:

- Director of ETSU Clinical Microbiology Laboratory; Chairman of the Pathogens and Select Agents Subcommittee of the University Bio-Safety Committee; OSHA Infection Control Coordinator
- Safety Officer and Building Coordinator for the 3rd floor of Building 119.

Dr. Ferslew:

- Committee Member for Recruitment of Forensic Pathologist, Dr. Maison; Director: COM Medical Student Research Program

Dr. Hall:

- ETSU Faculty Senate Representative ; Departmental Library Coordinator for Sherrod Library

Dr. Harrison:

- Biomedical Sciences Graduate Program Committee (through 12/2012)

Dr. Hayman:

- Graduate Student Academic & Research Committee; Bill Mayberry Travel Award Committee (Chairman); Jane E. Raulston Memorial Microbiology Endowment Award Committee (Chairman); Medical Student Promotions Committee (Meets quarterly); Course Directors Committee; M3/M4 Clerkship Review Committee – A sub-committee of MSEC

Dr. Hoover:

- National Science Foundation Research Experiences for Undergraduates (REU); Member of Graduate Program Committee of the Department of Biomedical Sciences; Served as the College of Medicine representative on the Graduate Council; Served as a member of the Graduate Faculty Subcommittee; Chaired the Confocal Oversight Committee and supervised the facility director; College of Medicine, Member of Molecular Biology Core Faculty oversight committee; Interviewed candidates for laboratory coordinator in the Department of Biomedical Sciences; 2013 Reviewer for Graduate Student Research Grants, ETSU School of Graduate Studies

Dr. Hossler:

- Presented one hour talk to Visiting Governor's School Group, June 11, 2013; Presented Seminar at the DBMS Seminar Series on Applications of SEM, 3/29/13

Dr. Johnson:

- Quillen Admissions – Interviewing and reviews of applicants, and meeting attendance; Quillen MSEC – meeting and other assignments; Twice monthly meetings and quarterly retreats due to LCME accreditation issues; Chair of MSEC committee to Review the M1 and M2 curriculum; Laboratory provided research experience for undergrad students--Evan Perry, Dustin Wood and Megan Sears; 2013 Reviewer for Graduate Student Research Grants, ETSU School of Graduate Studies

Dr. Hossler:

- Presented one hour talk to Visiting Governor's School Group, June 11, 2013

Dr. Kostrzewa:

- ETSU COM Faculty Promotion & tenure Committee, 2011-present

Dr. Kruppa:

- Member of the William Mayberry travel award committee; Member of the Jane Raulston travel award committee; Standing Chair of the Department of Biomedical Sciences Seminar Committee

Dr. Monaco:

- Medical Student Education Committee (and Outcome Subcommittee); Student Promotions Committee; Student Financial Aid and Scholarship Committee; Faculty Advisory Council; Ad Hoc Committee (Chair) for P&T Guidelines for Department of Biomedical Sciences

Dr. Musich:

- Learning Resources Advisory Committee, Chair since 2011; Organic Chemist Search Committee; Department of Chemistry, ETSU

Dr. Ordway:

- Member, Executive Council of Academic Chairs Committee, ETSU; Non-voting Member, University Planning Committee (representative from Council of Chairs); Member, Administrative

Council, COM; Member, Renovation Leadership Team for Building 119 renovation project, ETSU/COM; Chair, Proteomics Core Facility Oversight Committee, ETSU/COM; Member, Grand Rounds Committee, Department of Psychiatry, ETSU/COM; Member, 125 Task Force on Research and Sponsored Programs; Chair, Research and Mentoring Committee, Department of Biomedical Sciences; Member, Search Committee for Department of Psychiatry Chair, ETSU/COM.

Dr. Robinson:

- College of Pharmacy Strategic Planning Committee; Institute of Quantitative Biology; Biomedical Graduate Program Committee (Chair); COM Promotions Committee; Graduate Program Academic Progress Committee; Advisor, Biomedical Sciences Graduate Student Organization; ETSU Research Forum Task Force; ETSU Institute for Quantitative Biology Advisory Council; Host for TN Governor's School Science and Math Program; Judge, Appalachian Research Forum

Dr. Rowe:

- ETSU Presidential Grant-in-Aid Committee (Chair); Biomedical Sciences Graduate Program Committee; Student Promotions Committee; Financial Aid Committee; Promotion and Tenure Committee (Department BMS, *ad hoc*)

Dr. Rusinol:

- Awarded "Outstanding Course Director--2012-2013; ETSU Animal Care committee ETSU Library Committee; QCOM Admission Committee; QCOM Diversity Council – Chair; QCOM MSEC's M1/M2 curriculum review subcommittee; QCOM Graduate Program committee; Departmental Website design and maintenance; ETSU Search committee for Dean of QCOM position; Gave 2 talks to HASCA (Hispanic American Student Community Alliance of ETSU) to increase the number of Hispanic students applying to QCOM; Assistant building safety coordinator (1hour per month); Reviewed and critiqued grants for junior COP faculty (two grants); Operated and maintained the digital deconvolution microscope and imaging facilities available for QCOM faculty

Dr. Schoborg:

- Cell and Molecular Medicine (CMM) Three-year Comprehensive Review Sub-Committee, QCOM. Role: Chair; M1/M2 Curriculum Review Committee, QCOM. committee member; Department of Biomedical Sciences Mentoring and Research Development Committee, QCOM, Role committee member; Department of Biomedical Sciences Faculty Recruitment/Hiring Committee, QCOM. Role: committee member; Medical Course Director's Committee, QCOM. Role: committee member; Biomedical Sciences Graduate Program Steering and Admissions Committee, QCOM. Role: committee member and Microbiology discipline representative; Medical Student Promotions Committee, QCOM. Role: *Ad hoc* committee member; Microbiology Discipline Graduate Coordinator, QCOM; Faculty research mentor for Drs. Russ Hayman and Jennifer Hall, Department of Biomedical Sciences, QCOM; Department of Biomedical Sciences Mentor-Mentee Grant reviewer, QCOM.

Dr. Schambra:

- ETSU Commission for Women Standing Committee; Committee on Gender and Special Issues (CGSI)

Dr. Singh:

- RDC Interdisciplinary grant application reviewer, ETSU, April 2013; RDC major grant application reviewer, ETSU, April 2013; Member, Chair Search Committee for Department; Member, Faculty Search Committee (Neuroscience and Microbiology) for Department Member, Research and Mentoring Committee; Member, Seminar Committee; Member, Admissions Committee for COM

- Member, Institutional Animal Care and Use Committee; Member, ETSU Research Development Committee; Judge, Appalachian Student Research Forum

Dr. Southerland:

- University Committee on Animal Care (Alternate member)

Dr. Thewke:

- Reviewer for ETSU Student-Faculty Collaborative Grant Program; Reviewer for ETSU Research Development Committee Major Grant Program

Dr. Wondergem:

- QCOM Faculty Advisory Council-Physiology/Biomedical Sciences Representative; Executive Director ETSU Research Foundation

Dr. Wright:

- Learning Resources Advisory Committee (LRAC) member
- Dean's Faculty Advisory Council - Secretary

Dr. Zhu:

- Faculty Senator; Graduate Faculty Representative at the oral defense of the thesis or dissertation as an Outside Observer: Deidre L. Yowell, Doctor of Education, The Clemmer College of Education; Member of the Department of Biomedical Sciences Research and Mentoring Committee; Recruited Visiting Scholars; Peer-Reviewing of Grants: Mentee-Mentor Collaborative Grants, Department of Biomedical Sciences - 3 Grants. (Sep. 18-Oct 1, 2012)

Dr. Zou:

- ETSU Faculty Senate; Department of Biomedical Sciences Seminar Committee; Department of Biomedical Sciences Mentee-Mentor Collaborative Grant Program Review Committee

ADMINISTRATIVE:

Dr. Bond:

- Assistant Director Molecular Biology Core Facility; Supervisor/Manager Laser Capture Microdissection Facility; Departmental First Aid Provider/AED Operator; Attended Fall 2012 Research Retreat at Roan Mountain State Park sponsored by Cyberonics; Dr. Duffourc: Administrator of the MBCF (personnel oversight, budget oversight, public relations, outreach)

Dr. Ecay:

- Organize and produce the annual Undergraduate Summer Research Symposium held in August of each year for students involved in life science research on the ETSU and Quillen COM campuses. The sixth annual symposium was held August 2, 2012 with 13 students presenting research.

Dr. Ferslew:

- Director of the Section of Toxicology, Department of Pharmacology and part of the William L. Jenkins Forensic Center. This includes participation in and supervision of daily operation, scheduling and budgeting of the section and laboratory; Administer Toxicology service contracts with all the hospitals, clinics and drug abuse treatment programs served by our laboratory.

Dr. Hayman:

- Course Director, Medical Microbiology

Dr. Hoover:

- Attended Fall 2012 Research Retreat at Roan Mountain State Park sponsored by Cyberonics; Attended AHA Research Reception held at HealthSouth Rehabilitation Hospital, Kingsport, TN, March 5, 2013

Dr. Monaco:

- Interim Chairman Department of Anatomy and Cell Biology prior to the merger of the basic science departments in the Spring of 2012; Course Director: Biology, Case Oriented Learning (COL), Cell & tissue, Genetics; Completed ETSU Supervisor On-line Training – February 2012; Apple / ETSU Made for Learning Seminar – March 2012; Participated in review of Dr. Olive at the request of the Dean – March 2012; Reviewed one RDC grant – June 2012; ETSU Title VI Compliance On-line Training – August 2012; ETSU Sexual Harassment On-Line Training – August 2012.

Dr. Ordway:

- Served as Interim Chair, Department of Biomedical Sciences
- Served on Ad Hoc Committee with Dr. Wilsie Bishop, Robert Pack, Joel Hillhouse, and Bill Duncan to develop long-term strategy to enhance research at ETSU
- Mentor for Dr. Campbell, Dean's Award for Mentee-Mentor Grant, Department of Biomedical Sciences

Dr. Robinson:

- Associate Dean for Graduate Studies and Director of Biomedical Sciences Graduate Program; First Year Course Coordination

Dr. Wondergem:

- Executive Director ETSU Research Foundation

Dr. Wright:

- American Heart Association 2012 Medical Student Summer Research Experiential in Cardiovascular Biology, Co-Director

CONSULTING ACTIVITIES:

Dr. Ardell:

- St. Jude Medical, Sylmar, CA
- Cyberonics, Inc., Houston, TX

Dr. Bond:

- Nature Reader Panel Member
- National Science Advisory Board Member - Consultant for cell & molecular biology & microscopy technology

Dr. Duffourc:

- As Director of the MBCF provide consulting services to many researchers in COM

Dr. Ecay:

- American Physiological Society - Broadening Participation in Undergraduate Research Experiences Advisory Board

Dr. Ferslew:

- Consultant to the Scientific Working Group in Toxicology (SWGTOX), 2012 to date. Appointed by the Executive Committee of SWGTOX.
- Toxicology Consultant to all the hospitals, clinics and drug abuse treatment programs served by ETSU Physicians and Associates as well as all programs of ETSU and the Division of Health Sciences. Forensic Toxicologist to the William L. Jenkins Forensic Center serving the courts, district attorneys, law enforcement and private attorneys of our state and region (VA, KY, WV and NC)

Dr. Hoover:

- Consultant on AHA Grant Application submitted by Nazareno Paolucci, John Hopkins University

Dr. Joyner:

- GoTrybe, LLC, Vice President, Research Operational Manager, 2012
- Medical Physiological Course, Gastrointestinal Section, American University of the Caribbean, School of Medicine, St. Maarten, Class of 2016 (150 students), 10 hours, September 2012

Dr. Kruppa:

- Member of the scientific board for AppRidge International, LLC

Dr. Robinson:

- Chair, Program Review Committee, Wright State University Boonshoft School of Medicine Biomedical Sciences Program
- Reviewer, National Board of Medical Examiners 2013 Biochemistry Subject Examination

Dr. Schambra:

- Answer requests for help to identify structures in their images of brain tissue that come in from researchers all over the world using my electronic prenatal brain atlas or the *Prenatal Mouse Brain Atlas* book.

Dr. Wondergem:

- Editorial Board: American Journal of Physiology: Cell Physiology

Dr. Wright:

- Seahorse BioSciences: Methods Development

RESEARCH COLLABORATIONS:

Dr. Ardell:

- Dr. Jean Hardwick, Ithaca College, Ithaca, NY
- Dr. Robert Foreman, University of Oklahoma Health Science Center, Oklahoma City, OK
- Dr. Mike Andresen, Oregon Health and Science University, Portland, OR
- Dr. Guy Kember, Dalhousie University, Halifax, NS, Canada
- Dr. Alan Vinet, University of Montreal, Montreal, Quebec, Canada
- Dr. Vincent Jacuqemet, University of Montreal, Montreal, Quebec, Canada
- Dr. Kalyanam Shivkumar, University of California Los Angeles, CA
- Dr. Marmar Vaseghi, University of California Los Angeles, CA

Dr. Bond:

- 09/2010-Ongoing: "Comparative analysis of mRNA expression changes in the stellate ganglion in a dog model of chronic myocardial infarction: effects of spinal cord stimulation"
In collaboration with Jeffrey Ardell, PI, & Marie Southerland, Donald Hoover
Funding: NIH R01 HL071830 JL Ardell (PI).
- 08/2011-Ongoing - Role: PI: In vitro characterization of neurturin and GDNF adaptations to oxidative stress" Collaboration with Donald Hoover & Gary Wright Funding: Major RDC ETSU (08/11-07/12), C Bond (PI) AHA Greater Southeast Affiliate, D Hoover (PI)
- 04/2012-06/2013: "Increased levels of activated caspase 3 in hippocampus in a dog model of chronic myocardial infarction" Collaboration with Kate Szebeni, Gregory Ordway, & Jeffrey Ardell. Funding: NIH R01 HL071830 JL Ardell (PI)
- 05/2011-Ongoing: Hypoxia-inducing factor activation stimulates upregulation of AMPd2, AMPd3, and HPRT expression in mouse heart tissue" Collaboration with Gary Wright & Joe Wu
Funding: NIH R01; G Wright (PI)

- 05/2012-Ongoing: “Cholinergic anti-inflammatory mechanisms in sepsis and septic shock. ” Collaboration with Donald Hoover, David Williams, and Tammy Ozment Funding: AHA Greater Southeast Affiliate, D Hoover (PI)

Dr. Ferslew:

- Collaborator with Dr. Yin; Internal Medicine and Section of Toxicology; Morphine Promotes Jurkat Cell Apoptosis Through Pro-apoptotic FADD/P53 and Anti-apoptotic P13K/Akt/NF-κB Pathways; Funded by NIH and ETSU Research Development; \$ amount unknown; 2003 – present.

Dr. Ecay:

- “Undergraduate research in integrative developmental biology.” National Science Foundation – Research Experience for Undergraduates (REU) Site Grant DBI-1062645. Rebecca Pyles, P.I.; Tom Ecay, James Stewart, Donald Hoover, Dennis Defoe, Theresa Harrison (Co-Investigators); project funding period 9-15-2011 to 9-14-2014; Total Direct Costs: \$169,496; Total Award: \$184,499.

Dr. Defoe:

- “Undergraduate research in integrative developmental biology.” National Science Foundation – Research Experience for Undergraduates (REU) Site Grant DBI-1062645. Rebecca Pyles, P.I.; Tom Ecay, James Stewart, Donald Hoover, Dennis Defoe, Theresa Harrison (Co-Investigators); project funding period 9-15-2011 to 9-14-2014; Total Direct Costs: \$169,496; Total Award: \$184,499.

Dr. Harrison:

- “Undergraduate research in integrative developmental biology.” National Science Foundation – Research Experience for Undergraduates (REU) Site Grant DBI-1062645. Rebecca Pyles, P.I.; Tom Ecay, James Stewart, Donald Hoover, Dennis Defoe, Theresa Harrison (Co-Investigators); project funding period 9-15-2011 to 9-14-2014; Total Direct Costs: \$169,496; Total Award: \$184,499.

Dr. Hoover:

- Collaborator with Dr. Jonas Galper, Tufts University, to provide immunohistochemical support for his studies of cardiac arrhythmias in diabetic mice.
- “Undergraduate research in integrative developmental biology.” National Science Foundation – Research Experience for Undergraduates (REU) Site Grant DBI-1062645. Rebecca Pyles, P.I.; Tom Ecay, James Stewart, Donald Hoover, Dennis Defoe, Theresa Harrison (Co-Investigators); project funding period 9-15-2011 to 9-14-2014; Total Direct Costs: \$169,496; Total Award: \$184,499.

Dr. Kostrzewa:

- “Nicotine and the roles of nicotinic receptors in a rodent model of schizophrenia.” NIH R15; Brown, RW, P.I.; Kostrzewa RM, Collaborator (5%).
- Liaison with Dr. Ryszard Brus, Emeritus Professor, Department of Pharmacology, Medical University of Silesia, Zabrze, Poland. He and I have collaborated in research for 20 years. We have coauthored more than 75 papers.
- Liaison with Dr. Przemyslaw Nowak, Professor, Department of Pharmacology, Medical University of Silesia, Zabrze, Poland. Dr. Nowak has worked in my laboratory, we have coauthored more than 30 papers.

Dr. Schramba:

- As I am writing the behavioral papers of my Fetal Alcohol Syndrome study, I realized that I needed to redo some of the statistical analysis, while I can retain other analyses that Dr. Sheryl Moy, Neurodevelopmental Research Center, UNC-Chapel Hill, had done in our collaboration. I

found two sources of help for the statistical evaluation of the massive behavioral data I had collected on mice prenatally exposed to ethanol. Dr. Edith Seier, a statistician in the Mathematics Department, has been of tremendous help in using more refined statistical tests to help characterize the ethanol effects most clearly. Also helping is Dr. Sam Harirforoosh in Pharmacy with more straight forward analyses. By the time I am getting the statistics done, I now have to update and rewrite what I had written so far (i.e. introduction), since the alcohol research has picked up steam again.

Dr. Singh:

- “ Inntate immunity and cardiovascular function in sepsis .” NIGMS R01; Chuanfu Li, and David L. Wlliams, P.I.’s. Co-investigator: Krishna Singh, Ph.D.

ACADEMIC SUPERVISION/ADVISEMENT:

Dr. Agrawal:

Dissertation Supervision (Chair):

Avinash Thirumalai

Toh Gang (Committee Chair)

Dissertation Committee:

Christopher McGoldrick, (Advisory Committee)

Justin Beach, Ph.D. candidate (Biochemistry) (Advisory Committee)

Dr. Beaumont:

Thesis Committee:

Robert McMillan, MSc Candidate in Biology (major in Biomedical Sciences), June 20

Dr. Bond:

Mentored Students:

Irmine Milord, Nursing major, Undergraduate Research Discovery Work Study

Jessica Woodby, Biology major, Undergraduate Regular WorkStudy

Husan Ahmad, Chemistry major, Undergraduate Research Discovery Work Study

Dr. Campbell:

Dissertation Committee:

Regenia Phillips-Campbell (Microbiology), anticipated graduation Fall 2013;

Christopher McGoldrick (Pediatrics), anticipated graduation Spring 2014

Theresa Pickle, unknown

Thesis Committee Member:

Sokan Olufunke , anticipated graduation Summer 2013

Fidelis Ikwueme, anticipated graduation Spring 2014

Martha Borketey, anticipated graduation Spring 2014

Student Advisement:

Heramb Dave

Zach Greene

Dr. Champney:

Dissertation Committee:

Justin Beach, Ph.D. candidate (Biochemistry), anticipated graduation Fall 2013

Dr. Duffourc:

Dissertation Committee:

Moises Serrano (Graduated June 2013)

Eliot Smith (Biochemistry) (Graduated July 2013)

Sean Fox (Graduated July 2013)

Thesis Committee:

Fritz Prohaska, Master's candidate, anticipated graduation May 2014

Dr. Ecay:

Dissertation Committee:

Regenia Campbell, Ph.D. candidate, anticipated graduation 2013

Laura Daniels, Ph.D. candidate, anticipated graduation 2015

Dr. Ferslew:

Dissertation Supervision (Chair):

Trista Haupt Wright, anticipated graduation 2013

Dr. Hall:

Academic Advisement:

Jessica Jordan, Ph.D., candidate

Dr. Harrison:

Academic Advisement:

Candice Rai, ETSU APS Research Discovery Student in neuro-anatomical research

Stephen Cunningham, NSF-funded REU Summer Research Program

Dr. Hayman:

Dissertation Supervision (Chair):

Cory Leonard (Graduated July 2013)

Dissertation Committee:

Eliot Smith, (Biochemistry) (Graduated July 2013)

Sean Fox, Ph.D. (Graduated July 2013)

Regenia Campbell, anticipated graduation Fall 2013

Jessica Slade, anticipated graduation 2016

Dr. Hoover:

Dissertation Committee:

Jessica Crawford, (Pharmacology), anticipated graduation 2013

Zhouxi (Joe) Wu; (Pharmacology), anticipated graduation 2013

Jaime Parman-Ryans, (Biochemistry), anticipated graduation 2013

Justin Beach (Biochemistry), anticipated graduation 2013

Dustin Cooper (Pharmaceutical Sciences), anticipated graduation 2014

Dr. Hossler:

Dissertation Committee :

Cory Leonard (Graduated July 2013)

Dr. Johnson:

Dissertation Supervision (Chair):

Eliot Smith, (Biochemistry) (Graduated July 2013)

Dissertation Committee:

Cory Leonard (Graduated July 2013)

Zhengke Li (Graduated August 2013)

Jaime Parman-Ryans (Biochemistry), anticipated graduation 2013

Christopher McGoldrick

Dr. Joyner:

Dissertation Committee:

Christopher Daniels (Physiology), anticipated graduation 2014

Laura L. Daniel (Physiology), anticipated graduation 2014

Dr. Kostrzewa:

Dissertation Committee:

Zhouxi (Joe) Wu (Pharmacology), anticipated graduation 2013

Avinash Thirumalai

Toh Gang

Brianna Sheppard (Psychology)

Dr. Kruppa:

Dissertation Committee :

Sean Fox (Microbiology) (Graduated July 2013)

Dr. Monaco:

As Course Director for four courses, formally advise a number of medical students on an on-going basis

Dr. Musich:

Dissertation Committee:

Moises Serano (Graduated June 2013)

ZhengKe Li (Graduated August 2013)

Yan (Annie) Wang, , anticipated graduation December 2014 (**Co-major advisor**)

Benjamin Hilton, anticipated graduation December 2014

Laura Daniels (Physiology), anticipated graduation December 2014

Hui Wang, anticipated graduation December 2015

Thesis Committee:

Cathy Lin, M.S. candidate, anticipated graduation December 2014

Medical Student Advisor:

Caryn Brehm

Undergraduate Student Advisement:

Henry Gong

Dr. Ordway:

Dissertation Supervision (Chair):

Jessica Crawford, (Pharmacology)

Dissertation Committee:

Toh Gang
Avinash Thirumalai
Yan Wang

Student Advisement:

Tim DiPeri, Undergraduate Honors College
Brandon Waters, Summer research student
Jason Crawford, Undergraduate researcher
Mohan Mohan
Ashley Kelner, HS Volunteer

M-1 Student

Nate Davis

Dr. Robinson:

Advised all first year graduates prior to selection of research advisor. Monitored the progress of all graduate students including progress to completion of qualifying exam and dissertation.

Dr. Rusinol:

Dissertation Committee:

Jaime- Lynn Parman, Expected graduation 2014;
Eliot Smith (Biochemistry) Graduated July 2013)
Moises Serrano (Graduated June 2013)
Sean Fox (Graduated July 2013)
Theresa Pickle (Anticipated Graduation 2013)
Ben Hilton (Anticipated Graduation 2014)
Avinash Thirumalai (Anticipated Graduation 2015)
Justin Beach (Anticipated Graduation 2015)
Toh Gang (Anticipated Graduation 2015)
Hui Wang (Anticipated Graduation 2015)
Jennifer Price (Anticipated Graduation 2016)
Yan Wang (Anticipated Graduation 2016)
Alison Hilbun (Anticipated graduation 2017)
Mohammed Sabri – Undergrad Honors Student

Dr. Schoborg:

Dissertation Committee:

Cory Leonard (Microbiology) (Graduated July 2013)
Sean Fox (Microbiology) (Graduated July 2013)
Regina Phillips-Campbell (Microbiology), expected award date Dec. 2013. Role: Dissertation advisor
Jessica Slade (Microbiology), expected award date May 2016. Role: Dissertation advisor
Ben Hilton (Biochemistry), expected award date May 2014
Jennifer Price (Computational Biology), expected award date May 2015

Thesis Committee:

Julia Colgrove, B.S (Biological Sciences), expected award date May 2014. **Role:** Undergraduate Midway Honors Thesis advisor

Dr. Singh:

Dissertation Supervisor (Chair):

Christopher Daniels, Physiology, anticipated graduation June 2014 (Committee Chair)

Laura L. Daniel, Physiology, anticipated graduation Dec 2014 (Committee Chair)

Dissertation Committee:

Zhengke Li (Biochemistry)(Graduated August 2013)

Joe Wu (Pharmacology)

Benjamin Hilton (Biochemistry)

Hui Wang, (Biochemistry)

Chen Lu, (Surgery)

Research Scholar:

Suman Dalal, Physiology (Ph.D. student Delhi University) Oct 2013

Research Associate

Rebecca Steagall

Student Volunteer

Stephanie Cunningham

Dr. A. Szebeni:

Jessica Crawford, Ph.D. Candidate

Timothy DiPeri, Undergraduate student

Kristen Leedy, Undergraduate student

Jason Crawford, Undergraduate student

Luke Johnson, Undergraduate student

Mahon Mahmodian, Undergraduate student

Dr. K. Szebeni:

Jessica Crawford, Ph.D. Candidate

Timothy DiPeri, Undergraduate student

Kristen Leedy, Undergraduate student

Jason Crawford, Undergraduate student

Luke Johnson, Undergraduate student

Mahon Mahmodian, Undergraduate student

Dr. Thewke:

Dissertation Supervision (Chair):

Theresa Pickle (on medical leave)

Kaitlyn Hinshaw (Chemistry), Honors College Student, May 2013

Zach Lahr (Chemistry, APS Student), anticipated graduation 2014

Dissertation Committee:

Ashley Frasier, PhD. Awarded 2012

Christina Bridges, PhD. Awarded 2012

Natalie Burke, PhD. Awarded 2013

Elliot Smith (Graduated July 2013)

Justin Beach, PhD. Student (expected 2013)

Avanash Thirmalai, PhD. Student (expected 2014-15)

Jamie Parman-Ryans, PhD. Student (expected 2014-15)

Jessica Slade, PhD. Student (expected 2015-16)

Hui Wang, PhD. Student (expected 2015-16)

M.D. Student Summer Research Program

Ben Cearlock

Dr. Wondergem:

Dissertation Committee:

Christopher Daniels (Physiology)

Xia Zhang

Thesis Supervision:

Rees Burt (Chemistry), Undergraduate Honors College, anticipated graduation December 2013

Dr. Wright:

Dissertation Supervision (Chair):

Joe Wu (Pharmacology)

Medical Student:

Jason Fleenor, AHA Medical Student Summer Rotation 2013

Dr. Zhu:

Dissertation Supervision (Chair):

Yan Wang (Pharmacology)

Medical Student

Chris Hill, M1 as the Summer Program (June 2013)

Postdoctoral Fellow:

Dr. Yan Fan

Dr. Zou:

Dissertation Supervision (Chair):

Moises Serrano(Graduated June 2013)

Zhengke Li (Graduated August 2013)

Ben Hilton, Ph.D. Candidate

Hui Wang, Ph.D. Candidate

Thesis Supervision:

Cathy Lin, M.S. Candidate

VISITING PROFESSORS:

Name: Matthew Shotwell, Ph.D.

Title: Assistant Professor, Department of Biostatistics

Institution: Vanderbilt University College of Medicine

Date: November 30, 2012

Event: Department of Biomedical Sciences Seminar Program

Topic: "Mechanic Analysis And Design Of Challenge—Response Experiments

Name: Rakesh C. Kukreja, Ph.D.

Title: Pawley Heart Center, Division of Cardiology

Institution: Virginia Commonwealth University

Date: January 13, 2013

Event: Department of Biomedical Sciences Seminar Program

Topic: "PDES Inhibitors: Emerging Therapeutics in Cardiac Diseases "

Name: Chuan-Yuan Li, Ph.D.
Title: Professor of Dermatology/Professor of Pharmacology & Cancer Biology
Institution: Duke University School of Medicine, Department of Dermatology
Date: March 4, 2013
Event: Department of Biomedical Sciences Seminar Program
Topic: "Phoenix Rising" And "Wheel Of Life" Redefining The Roles Of Apoptotic Caspases In Cancer Therapy And Tissue Regeneration"

Name: Peter Sun, Ph.D.
Title: Chief, Structural Immunology Section, Laboratory of Immunogenetics
Institution: National Institute of Allergy & Infectious Diseases NIH
Date: March 26, 2013
Event: Department of Biomedical Sciences Seminar Program
Topic: "Fc Receptor Biology 2.0: The Role of Pentraxins in Myeloid Cell Activation"

Name: Todd Reynolds, Ph.D.
Title: Associate Professor, Department of Microbiology
Institution: University of Tennessee-Knoxville
Date: April 16, 2013
Event: Department of Biomedical Sciences Seminar Program
Topic: "Phosphatidylserine Synthase In *Candida Albicans* As A Target For Antifungals"

Name: James Kaper, Ph.D.
Title: Professor & Chair, Department of Microbiology & Immunology
Institution: University of Maryland School of Medicine
Date: April 22, 2013
Event: Department of Biomedical Sciences Seminar Program
Topic: "Vibrio Cholera And Cholera: Vaccine Development And *In Vivo* Gene Expression "

Name: Randy D. Blakely, Ph.D.
Title: Allan D. Bass Professor of Pharmacology & Psychiatry; Director, Vanderbilt/NIMH; Silvio O. Conte Center for Neuroscience Research & Postdoctoral Training
Institution: Vanderbilt University
Date: May 10, 2013
Event: Department of Psychiatry & Behavioral Sciences & Department of Biomedical Sciences Seminar Program
Topic: "New Clues To The Regulation Of Dopamine Signaling: A Can Of Worms"

Name: Randy D. Blakely, Ph.D.
Title: Allan D. Bass Professor of Pharmacology & Psychiatry; Director, Vanderbilt/NIMH; Silvio O. Conte Center for Neuroscience Research & Postdoctoral Training
Institution: Vanderbilt University
Date: May 10, 2013
Event: Booney Vance Memorial Lecture
Topic: "ADHD and Dopamine: Paying Attention To Rare Gene Variation"