

DAVID C. RANDALL

DATE OF BIRTH

April 23, 1945

DEGREES HELD

B.A. (sci)	physics, chemistry	Taylor University, 1967
Ph.D.	physiology	University of Washington, 1972

POSITIONS HELD

2007 - present	Donald T. Frazier Professor, Department of Physiology and Biophysics, College of Medicine, University of Kentucky
1985 - present	Professor, Department of Physiology and Biophysics, College of Medicine, University of Kentucky
1978 - 1985	Associate Professor, Department of Physiology and Biophysics, College of Medicine, University of Kentucky
1981 - 1984	Director of Graduate Studies, Department of Physiology and Biophysics, University of Kentucky
1981	Visiting Associate Professor, Department of Neurobiology and Behavior, State University of New York at Stony Brook
1979 - present	Part-time Instructor, Asbury University, Wilmore, KY
1975 - 1978	Assistant Professor, Department of Physiology & Biophysics, College of Medicine, University of Kentucky
1972 - 1975	Assistant Professor, Division of Behavioral Biology, Department of Psychiatry and Behavioral Sciences, The Johns Hopkins University School of Medicine

JOINT APPOINTMENTS

1987 - Present	Professor, Graduate Center for Biomedical Engineering, University of Kentucky (Executive Committee, 1990 - 1992)
2004 - Present	Associate Faculty, University of Kentucky Spinal Cord and Brain Injury Research Center

MEMBERSHIP ON PUBLIC ADVISORY GROUPS

American Heart Association, Kentucky Affiliate

Research Peer Review Committee (1980 - 1990; chairman, 1985 - 1987)
Resource Allocation Committee, (member, 1986 - 1992; chairman, 1990 - 1992)

Board of Directors, (member, 1987 -1998; vice-chairman/chairman/past-chairman, 1992 - 1998)

American Heart Association, Ohio Valley Affiliate

Board of Directors (member, 1998 - 2003)
Research Committee (member, 1998-2000)
Nominating and Awards Committee (member, 2002)

American Heart Association, Research Consortium Peer Review Committee(s)

Cardiorenal, Cardiovascular Regulation and Lung (1997-2001)

American Heart Association (National)

Member, North Central Regional Heart Committee, 1994 - 1996
Member, Scientific Session Abstract Review Group, 2003 - 2006

Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) International

ad hoc Specialist (Sept. 1, 1998 - present)

NIH, National Heart, Lung and Blood Institute, Behavioral Medicine Branch (1982 - present)

SOCIETIES

American Heart Association (Kentucky Affiliate, Ohio Valley Affiliate)
American Physiological Society
American Scientific Affiliation
Christian Medical Dental Associations
Federation of American Societies for Experimental Biology
International Society for Gravitational Physiology
International Society for Autonomic Neuroscience
National Association for Biomedical Research
Pavlovian Society of America (President, 1993; Executive Committee, 1983 - 2000)
Society for Neuroscience

EDITORIAL BOARDS

American Journal of Physiology Heart and Circulatory Physiology, Editorial Board, 7/1/97-present.

American Journal of Physiology Regulatory, Integrative and Comparative Physiology, Editorial Board, 7/1/04 - 6/30/2009.

Integrative Physiological and Behavioral Science, Co-Editor for Physiology, 1/1/91- 12/31/00

PUBLICATIONS

Articles

Randall, D.C., J.A. Armour and W.C. Randall. Dynamic responses to cardiac nerve stimulation in the baboon. Amer. J. Physiol., 220: 526-533, 1971.

Randall, W.C., J.A. Armour, **D.C. Randall** and O.A. Smith. Functional anatomy of the cardiac nerves in the baboon. Anat. Rec., 170: 183-198, 1971.

Randall, D.C., W.C. Randall and J.A. Armour. Dynamic behavior of endocardial structures in the baboon heart. Proc. Soc. Exp. Med. 140: 278-290, 1971.

Armour, J.A., **D.C. Randall**, W.C. Randall, D.V. Priola and W. Stekiel. Sympatho-adrenal regulation of the cardiovascular system in the baboon. Amer. J. Physiol., 222: 480-488, 1972.

Smith, O.A., K.G. Kastella and **D.C. Randall**. A stereotaxic atlas of the brainstem of Macaca mulatta in the sitting position. J. Comp. Neurol., 145: 1-24, 1972.

Randall, D.C. and O.A. Smith. Ventricular contractility during controlled exercise and emotion in the primate. Amer. J. Physiol., 226: 1051-1059, 1974.

Randall, D.C. Concurrent measurement of left ventricular dP/dt_{max} , isometric contractile force and cardiac loading in intact monkey. Cardiology, 59: 304-318, 1974.

Schramm, L.P., D.E. Anderson and **D.C. Randall**. Renal blood flow changes during aversive conditioning in the dog. Experientia, 31: 71-73, 1975.

Randall, D.C., J.V. Brady and K.H. Martin. Cardiovascular dynamics during classical appetitive and aversive conditioning in laboratory primates. Pavlovian J. Biol. Sci., 10: 66-75, 1975.

Randall, D.C., M.P. Kaye, W.C. Randall, J.V. Brady and K.H. Martin. Response of the primate heart to emotional stress before and after cardiac denervation. Amer. J. Physiol., 230: 988-995, 1976.

Randall, D.C. and D.M. Hasson. A note on ECG changes observed during Pavlovian conditioning in a rhesus monkey following coronary arterial occlusion. Pavlovian J. Biol. Sci., 12: 229-231, 1977.

Randall, D.C., D.M. Hasson and J.V. Brady. Acute cardiovascular consequences of anterior descending coronary artery occlusion in unanesthetized monkey. Proc. Soc. Exp. Biol. Med., 58: 135-140, 1978.

Billman, G.E., D.M. Hasson and **D.C. Randall**. Acquisition and discrimination of appetitively and aversively conditioned heart rate responses in rhesus monkey. Pavlovian J. Biol. Sci., 13: 145-150, 1978.

Knapp, C.F., J.A. Marquis, J.M. Evans and **D.C. Randall**. Frequency response of cardiovascular regulation in canines to sinusoidal acceleration at frequencies below 1 Hz. AGARD-CPP 253:

AI4.I-AI4.I6, 1978.

Randall, D.C., D.M. Hasson and J.V. Brady. Conditional cardiovascular response to shock in monkey before and after coronary arterial occlusion. Amer. J. Physiol. 236 (Heart. Circ. Physiol. 5): H263-H279, 1979.

Billman, G.E. and **D.C. Randall**. Classical aversive conditioning of coronary blood flow in mongrel dogs. Pavlovian J. Biol. Sci., 15: 93-101, 1980.

Billman, G.E. and **D.C. Randall**. Mechanisms mediating the coronary vascular response to behavioral stress in dog. Circ. Res., 48: 214-223, 1981.

Randall, D.C., J.M. Evans, G.E. Billman, G.A. Ordway and C.F. Knapp. Neural hormonal and intrinsic mechanisms of cardiac control during acute coronary occlusion in intact dog. J. Autonom. Nerv. Syst., 3: 87-99, 1981.

Randall, D.C. and D.M. Hasson. Cardiac arrhythmias in monkey during classically conditioned fear and excitement. Pavlovian J. Biol. Sci., 16: 97-107, 1981.

Randall, D.C., and C.M. Cottrill, E.P. Todd, M.A. Price and C.C. Wachtel. Cardiac output and blood flow distribution during rest and classical aversive conditioning in monkey. Psychophysiol., 19: 490-497, 1982.

Ordway, G.A., J.B. Charles, **D.C. Randall**, G.E. Billman and D.R. Wekstein. Heart rate adaptation to exercise training in cardiac-denervated dogs. J. Appl. Physiol., 52: 1586-1590, 1982.

Knapp, C.F., J.M. Evans, **D.C. Randall**, and J.A. Marquis. Regulation of blood pressure and cardiac function in canines during low frequency acceleration. Am. J. Physiol., 243 (Heart Circ. Physiol. 12): H998-H1009, 1982.

Oeltgen, P.R., J.W. Walsh, S.R. Hamann, **D.C. Randall**, W.A. Spurrier and R.D. Myers. Hibernation "trigger": opioid-like inhibitory action on brain function of the monkey. Pharma. Biochem. & Behav., 17: 1271-1274, 1982.

Cohen, D.C. and **D.C. Randall**. Classical conditioning of cardiovascular responses. Ann. Rev. Physiol., 46: 187-197, 1984.

Skinner, T.L. and **D.C. Randall**. Behaviorally conditioned changes in autonomic activity and A-V transmission in awake dog. J. Autonom. Nerv. Syst., 12: 23-34, 1985.

Randall, D.C., T.L. Skinner and G.E. Billman. A comparison of the autonomic nervous control of the heart during classical aversive vs appetitive conditioning in dog. J. Autonom. Nerv. Syst., 13: 125-136, 1985.

White, G.N., C.F. Knapp, J.M. Evans & **D.C. Randall**. Control of left ventricular function during acceleration-induced blood volume shifts. Aviat. Space Environ. Med., 59: 433-439, 1988.

Lee, K.C., R.A. Wilson and **D.C. Randall**. An analysis of the haemodynamic effects of tolbutamide in conscious dogs. Clin. Exp. Pharmacol. Physiol., 15: 379-390, 1988.

Evans, J.M., J.N. Funk, J.B. Charles, **D.C. Randall** & C.F. Knapp. Endurance training in dogs increases vascular responsiveness to an α_1 -activation. J. Appl. Physiol., 65: 625-632, 1988.

Vallance, S.R., D.E. Fitzovich, G.E. Billman & **D.C. Randall**. Effect of Innovar upon the autonomic control of the heart in the intact dog. J. Autonom. Nerv. Sys., 23: 47-54, 1988.

Furedy, J.J., D. Shulhan & **D.C. Randall**. Human Pavlovian HR decelerative conditioning with negative tilt as US: A review of some S-R, stimulus-substitution evidence. Int. J. Psychophysiol., 7: 19-23, 1989.

Furedy, J.J., **D.C. Randall**, D.E. Fitzovich & D. Shulhan. Human Pavlovian HR decelerative conditioning with negative tilt as US: Evidence of vagal and sympathetic influences on the UR in dogs. Int. J. Psychophysiol., 7: 25-33, 1989.

Brown, D.R., **D.C. Randall**, C.F. Knapp, K.C. Lee and J.D. Yingling. Stability of the heart rate power spectrum over time in conscious dog. FASEB J., 3: 1644-1650, 1989.

Billman, G.E., R.S. Hoskins, **D.C. Randall**, W.C. Randall, R.L. Hamlin and Y.C. Lin. Selective vagal postganglionic innervation of the sinoatrial and atrioventricular nodes in the non-human primate. J. Autonom. Nerv. Sys., 26: 27-36, 1989.

Randall, D.C., J.A. Marquis, J.M. Evans & C.F. Knapp. Blood pressure regulation during sinusoidal acceleration in cardiac denervated dog. Am. J. Physiol., 257 (Heart Circ. Physiol. 26): H511-H524, 1989.

Brown, D.R., and **D.C. Randall**. Microprocessor based analysis of sympathetic nerve traffic. Am. J. Physiol., 257 (Regulatory Integrative Comp. Physiol. 26): R958-R963, 1989.

Vallance, S.R., **D.C. Randall** & J.D. Yingling. Coronary α -adrenergic tone and contraction of ischemic myocardium in awake dog. Int. J. Cardiol., 26: 291-302, 1990.

Billman, G.E., **D.C. Randall**, D.R. Brown, S.K. Hall & J.F. Zolman. Hemodynamic and arrhythmogenic effects of aversive stress during myocardial ischemia. J. Autonom. Nerv. Sys., 29: 193 - 202, 1990.

Evans, J.M., **D.C. Randall**, J.N. Funk & C.F. Knapp. Influence of cardiac innervation on intrinsic heart rate in dogs. Am. J. Physiol., 258 (Heart Circ. Physiol. 27): H1132 - H1137, 1990.

Fitzovich, D.E. & **D.C. Randall**. Modulation of the baroreflex by varying insulin and glucose in conscious dogs. Am. J. Physiol., 258: (Regulatory Integrative Comp. Physiol. 27): R624-R633, 1990.

Brown, D.R., **D.C. Randall** & R.M. Raisch. A temporally detailed re-analysis of the conditional heart rate response in dog. Physiol. & Behav., 48: 333-337, 1990.

Randall, D.C., D.R. Brown, R.M. Raisch and W.C. Randall. SA-nodal parasympathectomy delineates

autonomic contributions to heart rate power spectrum. Am. J. Physiol. 260 (Heart Circ. Physiol. 29): H985-H988, 1991.

Randall, D.C.. Plasticity of the unconditional response: Evidence linking pain and cardiovascular regulation? J. Cardiovas. Electrophysiol., 2: S76-S81, 1991.

Brown, D.R., J.D. Yingling, **D.C. Randall**, H.M. Aral, J.M. Evans, J.B. Charles, C.F. Knapp & C.E. Ott. Angiotensin II does not contribute to the rapid reflex control of arterial pressure. Am. J. Physiol. 261 (Regulatory Integrative Comp. Physiol. 30): R473 - R477, 1991.

Randall, D.C., W.C. Randall, D.R. Brown, J.D. Yingling & R.M. Raisch. Heart rate control in awake dog after selective SA-nodal parasympathectomy. Am. J. Physiol. 262 (Heart Circ. Physiol. 31): H1128 - H1135, 1992.

Mick, J.D., R.D. Wurster, M. Duff, M. Weber, W.C. Randall & **D.C. Randall**. Epicardial sites for vagal mediation of sinoatrial function. Am. J. Physiol., 262: H1401-H1406, 1992.

Lee, K.C. & **D.C. Randall**. Potentiation of the pressor response to stress by Tolbutamide in dogs. Integrative Physiol. Behav. Sci., 28: 22-28, 1993.

Randall, D.C., D.R. Brown, L.V. Brown, J.M. Kilgore, M.M. Behnke, S.K. Moore & K.R. Powell. Two-component arterial blood pressure conditional response in rat. Integrative Physiol. Behav. Sci., 28: 258-269, 1993.

Randall, D.C. & D.R. Brown. Stability of "visceral behavior" in awake rat during rest. J. Exp. Anal. Behav., 61: 273-279, 1994.

Wen, Te-Sheng, **D.C. Randall** & J.F. Zolman. Blood-brain barrier disruption during -90° head-down tilt in rabbit. J. Appl. Physiol., 1081 - 1086, 1994.

Brown, D.R., L.V. Brown, A. Patwardham & **D.C. Randall**. Sympathetic activity and blood pressure are tightly coupled at 0.4 Hz in conscious rat. Am. J. Physiol., 267 (Regulatory Integrative Comp. Physiol. 36): R1378 - R1384, 1994.

Randall, D.C., D.R. Brown, L.V. Brown & J.M. Kilgore. Sympathetic nervous activity and arterial blood pressure control in conscious rat during rest and behavioral stress. Am. J. Physiol., 267 (Regulatory Integrative Comp. Physiol. 36): R1241 - R1249, 1994.

Randall, D.C., D.R. Brown & J.L. Ardell. Insights into vagal control of heart rate from selective cardiac parasympathectomy. J. Physiol. (London) 494P: 17S-18S, 1996.

Li, S., J.E. Lawler, **D.C. Randall** & D.R. Brown. Sympathetic nervous activity and arterial pressure responses during rest and acute behavioral stress in SHR vs. WKY rats. J. Auton. Nerv. Sys., 62: 147-154, 1997.

Li, S., **D.C. Randall**, D.R. Brown, M.E. Olmstead, J.M. Kilgore & M.G. White. Autonomic nervous control of heart rate orienting and alpha responses in dog. Integrative Physiol. Behav. Sci., 32: 113-

122, 1997.

Burgess, D.E., J.C. Hundley, S. Li, **D.C. Randall** & D.R. Brown. Multifiber renal sympathetic nerve activity recordings predict mean arterial blood pressure in unanesthetized rat. Am. J. Physiol., 273 (Regulatory Integrative Comp. Physiol. 36): R851 - R857, 1997.

Burgess, D.E., J.C. Hundley, S.-G. Li, **D.C. Randall** & D.R. Brown. A first-order differential-delay equation for the baroreflex predicts the 0.4 Hz blood pressure rhythm in rats. Am. J. Physiol., 273: R1878-1884, 1997.

Li, S.-G., **D.C. Randall** & D.R. Brown. Roles of cardiac output and peripheral resistance in mediating blood pressure response to stress in rats. Am. J. Physiol., 274 (Regulatory Integrative Comp. Physiol. 43): R1065 - R1069, 1998.

Randall, D.C., D.R. Brown, S.-G. Li, M.E. Olmstead, J.M. Kilgore, A.G. Sprinkle, W.C. Randall & J.L. Ardell. Ablation of the posterior atrial ganglionated plexus potentiates the sympathetic tachycardia to behavioral stress. Am. J. Physiol., 275 (Regulatory Integrative Comp. Physiol. 44): R779 - R787, 1998.

Randall, D.C., C.F. Knapp, J.M. Evans, M. Wang & T.-S. Wen. Role of the autonomic nervous system in minimizing acceleration-induced pressure fluctuations in intact dog. Trans. Aviat. Med. Assoc., ROC. 12: 66-74, 1998.

Brown, D.R., S.-G. Li, J.E. Lawler & **D.C. Randall**. Sympathetic control of BP and BP variability in borderline hypertensive rats on high- vs. low-salt diet. Am. J. Physiol. 277 (Regulatory Integrative Comp. Physiol. 46): R650 - R657, 1999.

Burgess, D.E., T.A. Zimmerman, M.T. Wise, S.-G. Li, **D.C. Randall** & D.R. Brown. Low-frequency renal sympathetic nerve activity, arterial BP, stationary "1/f noise," and the baroreflex. Am. J. Physiol., 277 (Regulatory Integrative Comp. Physiol. 46): R894-R903, 1999.

Randall, D.C. Perspectives: Towards an understanding of the function of the intrinsic cardiac ganglia. J. Physiol., 528: 406, 2000.

Baldrige, B.R., Burgess, D.E., Zimmerman, E.E., Carroll, J.J., Sprinkle, A.G., Speakman, R.O., Li, S.-G., Brown, D.R., Taylor, R.F., Dworkin, S. & **Randall, D.C.** Heart Rate-Arterial Blood Pressure Relationship in Conscious Rat before vs. after Spinal Cord Transection. Am. J. Physiol. Regul. Integr. Comp. Physiol., 283: R748-R756, 2002.

Burgess, D.E., **D.C. Randall**, R.O. Speakman and D.R. Brown. Coupling of sympathetic nerve traffic and BP at very low frequencies is mediated by large amplitude events. Am. J. Physiol. Regul. Integr. Comp. Physiol., 284: R802 - R810, 2003.

Kuo, J.H., R.O. Speakman, A.G. Sprinkle, S.-G. Li, D.R. Brown and **D.C. Randall**. Effects of nicotine and dietary salt on a learned blood pressure response in the Dahl-S rat. Am. J. Physiol. Heart Circ. Physiol., 284: H1793 - H1799, 2003.

Su, W., Z. Guo, C.F. Deschepper, **D.C. Randall** and M.C. Gong. Dissociation of coronary artery contractile hyperreactivity from hypertension. Am. J. Hypertension, 16: 570 - 576, 2003.

Randall, D.C., D.R. Brown, A.S. McGuirt, G.W. Thompson, J.A. Armour and J.L. Ardell. Interactions within the intrinsic cardiac nervous system contribute to chronotropic regulation. Am. J. Physiol. Regulatory Integrative Comp. Physiol., 285: R1066 - R1075, 2003.

Randall, D.C. Discovering the role of the adrenal gland in the control of body function. Essay on APS Classic Papers. Am. J. Physiol. Regulatory Integrative Comp. Physiol., 287: R1007 - R1008, 2004.

Boustany, C.M., K. Bharadwaj, A. Daugherty, D.R. Brown, **D.C. Randall** and L.A. Cassis. Activation of the systemic and adipose renin-angiotensin system in rats with diet-induced obesity and hypertension. Am. J. Physiol. Regulatory Integrative Comp. Physiol., 287: R943 - R949, 2004.

De Jong, M.J. and **D.C. Randall**. Heart rate variability analysis in the assessment of autonomic function in heart failure. J. Cardiovas. Nurs., 20: 186 - 195, 2005.

Randall, D.C., B.R. Baldrige, E.E. Zimmerman, J.J. Carroll, R.O. Speakman, D.R. Brown, R.F. Taylor, A. Patwardhan and D.E. Burgess. Blood pressure power within frequency range around 0.4 Hz in rat conforms to self-similar scaling following spinal cord transection. Am. J. Physiol. Regul. Integr Comp. Physiol. 288: R737 - R741, 2005.

Boustany, C.M., D.R. Brown, **D.C. Randall** and L.A. Cassis. AT1 receptor antagonism reverses the blood pressure elevation associated with diet-induced obesity. Am. J. Physiol. Regul. Integr. Comp. Physiol., 289: R181 - R186, 2005.

El-Wazir YM, Li SG, Williams DT, Sprinkle AG, Brown DR and **Randall DC**. Differential Acquisition of Specific Components of a Classically Conditioned Arterial Blood Pressure Response in Rat. Am. J. Physiol. Regul. Integr. Comp. Physiol., 289: R784 - R788, 2005.

Cameron AA, Smith GM, **Randall DC**, Brown DR and Rabchevsky AG. Genetic Manipulation Of Intraspinal Plasticity After Spinal Cord Injury Alters The Severity Of Autonomic Dysreflexia. J Neurosci., 26: 2923 - 2932, 2006.

Brown DR, Cassis LA, Silcox DL, Brown LV and **Randall DC**. Empirical and theoretical analysis of the extremely low frequency arterial blood pressure power spectrum in unanesthetized rat. Am. J. Physiol. Heart Circ. Physiol., 291: H2816 - H2824, 2006.

Aslan SC, **Randall DC**, Donohue KD, Knapp CF, Patwardhan AR, McDowell SM, Taylor RF and Evans, JM. Blood pressure regulation in neurally intact human vs. acutely injured paraplegic and tetraplegic patients during passive tilt. Am. J. Physiol. Regul. Integr. Comp. Physiol., 292: R1146 - R1157, 2007.

Sithisarn T, Bada HS, Dai H., Reinhardt CR, **Randall DC** and Legan SJ. . Effects Perinatal Oxycodone Exposure on the Response to CRH in Late Adolescent Rats. Neurotoxicology and Teratology, 30: 118 - 124, 2008.

El-Wazir YM, Li S-G, Smith RG, Silcox DL, Brown DR, and **Randall DC**. Parasympathetic Response to Acute Stress is Attenuated in Young Zucker Obese Rats. Autonomic Neuroscience: Basic and Clinical, 143: 33 - 39, 2008; doi: 10.1016/j.autneu.2008.07.004.

Su W, Guo Z, **Randall DC**, Cassis L, Brown DR and Gong MC. Hypertension and Disrupted Blood Pressure Circadian Rhythm in Type 2 Diabetic db/db Mice. Am. J. Physiol. Heart Circ Physiol, 295: H1634 - H1641, 2008; doi:10.1152/ajpheart.00257.2008.

Li WY, Strang SE, Brown DR, Smith R'G, Silcox DL, Li S-G, Baldrige BR, Nesselroade, KP, Jr and **Randall, DC**. Atomoxetine Changes Rat's HR Response to Stress from Tachycardia to Bradycardia via Alterations in Autonomic Function, Autonomic Neuroscience: Basic and Clinical 154: 48-53, 2010; doi 10.1016/j.autneu.2009.11.003.

Chapters

Smith, O.A., R.B. Stephenson, and **D.C. Randall**. Range of control of cardiovascular variables by the hypothalamus. In: Lederis, K. and K. Cooper (Eds.), Proc. International Symposium on Recent Studies of Hypothalamic Function, pp. 294-305. S. Karger, A.G. Basel, 1974.

Randall, D.C. Neural control of the heart in the intact non-human primate. In W.C. Randall (Ed.), Neural Regulation of the Heart, pp. 379-408, New York: Oxford Univ. Press, 1977.

Randall, D.C. and D.M. Hasson. The incidence of cardiac arrhythmias in monkey during classical aversive and appetitive conditioning. In A.M. Brown and P.J. Schwartz (Eds.), Neural Mechanisms in Cardiac Arrhythmias, 279-282. New York: Raven Press, 1978.

Randall, D.C. Occurrence of cardiac arrhythmias during Pavlovian Conditioning in Macaca mulatta. In: S.S. Kalter, Ed., The Use of Nonhuman Primates in Cardiovascular Disease. Austin: University of Texas Press, 1980, pp. 253-255.

Randall, D.C. and J.A. Herd. Task force report on arteriosclerosis. In: O.A. Smith, R. A. Galosy and S.M. Weiss (Eds.). Circulation, Neurobiology & Behavior. New York: Elsevier Sci. Pub. Co., pp. 317-328, 1982.

Randall, D.C. and O.A. Smith. Neural control of the heart in the intact conscious animal with implications concerning the etiology of cardiovascular disease. In: W.C. Randall (Ed.) Nervous Control of Cardiovascular Function. New York: Oxford University Press, pp. 391-413, 1984.

Randall, D.C. Emotion, myocardial ischemia and cardiac arrhythmias in dog and monkey. In: (Sudakov, K.V. & Sosnovsky, Eds.) Systems Research in Physiology, 3. London: Gordon & Breach Publishers, pp. 291-302, 1989.

Randall, W.C., **D.C. Randall** and J.L. Ardell. Autonomic regulation of myocardial contractility. In: Gilmore, J.P. and I.H. Zucker (Eds.). Reflex Control of the Circulation. Boca Raton, FL: CRC Press, pp. 39-65, 1991.

Randall, D.C. and D.R. Brown. Autonomic nervous control of cardiovascular function in the awake animal. In: Armour, J.A. and J.L. Ardell (Eds.). Neurocardiology. New York: Oxford Univ. Press, pp. 343 - 363, 1994.

Randall, W.C., R.D. Wurster, **D.C. Randall** & S. X. Xi-Moy. "From Cardioaccelerator and Inhibitory Nerves to a "Heart Brain": An Evolution of Concepts. The Autonomic Nervous System (Eds: J.T. Shepherd & S.F. Vatner). Reading, United Kingdom: Harwood Academic Publishers, 1996, 173-1996.

Books

Richardson, D.R, **D.C. Randall**, & D.F. Speck. The Cardiopulmonary System, Integrated Medical Sciences Series. Madison, CT: Fence Creek Publishing, LLC, 1998. ISBN 1 - 889325 - 30 - 9

Richardson, D.R, **D.C. Randall**, & D.F. Speck. The Cardiopulmonary System, Quick Look Series. Madison, CT: Fence Creek Publishing, LLC, 1999. ISBN 1 - 889325 - 43 - 0

Randall, D.C. & El-Wazir, Y.M. ECG Interpretation. Raleigh, NC: Hayes Barton Press, 2004
ISBN 1-59377-180-0

Richardson, D.R., **D.C. Randall** & D.F. Speck. Cardiopulmonary Physiology, 2nd Ed., Integrated Medical Sciences Series. Raleigh, NC: Hayes Barton Press, 2005.
Print version: ISBN 1-59377-184-3; Electronic version: ISBN 1-59377-194-0

Other Publications

Randall, D.C. and J.N. Troncone. An analysis of foreign and domestic responses to reprint requests. The Physiologist, 24: 43, 1981.

Broderson, A.B. and **D.C. Randall**. Biomedical education and the philosophy of origins. In: S. Saha (Ed.) Proceedings First Southern Biomedical Engineering Conference, pp. 378-381, New York: Pergamon Press, 1982.

Randall, D.C. News and notes from the Pavlovian Society. Pavlovian J. Biol. Sci., 17: 107-108, 1982; 18: 55-62, 114, 1983; 20: 149-150.

Randall, D.C. & K.C. Lee. A study of the cardiovascular effects of tolbutamide, an oral hypoglycemic agent for treatment of diabetics: one example of how to pursue a scientific question. In: Whipple, Andrew P. (Ed.), Physics and the Health Sciences (Festschrift Honoring Elmer N. Nussbaum). Upland, IN: Taylor Univ. Press, pp. 3-31, 1985

Engelberg, J.E. & **D.C. Randall**. A Workshop on Integrative Study in Physiology and Medicine. The Physiologist, 29: 89-90, 1986; The Physiologist, 30: 115-116, 1987.

Randall, D.C. The experimental study of the role of stress in heart disease. Heartlines (American Heart Association, Kentucky Affiliate), 5 (1): 7, 1990.

Randall, D.C., J. Engelberg, B.A. Jackson, K.A. Ogilvy, W.R. Revelette, D.F. Speck, M.W. Vernon & D.T. Frazier. Experience with a physiology workshop for high school and college teachers. Am. J. Physiol. 258 (Adv. Physiol. Educ. 3): S11-S15, 1990.

Randall, W.C. & **D.C. Randall**. Changing Times in Neurocardiology. J. Cardiovas. Electrophysiol., 2: 92-95, 1991.

Randall, D.C., F.H. Wilbur and T.J. Burkholder. Two Models for an Effective Undergraduate Research Experience in Physiology and Other Natural Sciences. Adv. Physiol. Educ., 28: 68-72, 2004.

Abstracts

Randall, D.C. and J.A. Armour. Dynamic responses to cardiac nerve stimulation in the baboon. The Physiologist, 13: 288, 1970.

Randall, D.C. and O.A. Smith. Heart rate, pressure and myocardial contractility responses to exercise and emotional conditioning in the non-human primate. The Physiologist, 14: 273, 1971.

Randall, D.C., M.P. Kaye, W.C. Randall and J.V. Brady. Environmental-behavioral influences on cardiac dynamics in the normal and cardiac denervated monkey. The Physiologist, 16: 429, 1973.

Anderson, D.E., **D.C. Randall**, L.P. Schramm and J.V. Brady. Effects of aversive Pavlovian conditioning upon renal blood flow in the dog. The Physiologist, 16: 254, 1973.

Randall, D.C., O.A. Smith, M.P. Kaye, W.C. Randall and K.H. Martin. Concurrent measurement of $d(LVP)/dt$ and contractile force in intact non-human primate. The Physiologist, 17: 315, 1974.

Randall, D.C., J.V. Brady, and D.M. Hasson. Cardiovascular dynamics during emotional conditioning before and after experimental myocardial infarction in the monkey. The Physiologist, 18: 361, 1975.

Randall, D.C. and D.M. Hasson. Immediate cardiovascular effects of coronary artery occlusion and emotional stress in monkey. The Physiologist, 19: 334, 1976.

Randall, D.C., J.V. Brady and K.H. Martin. Classical conditioning effects upon left and right ventricular pressures and their derivatives in non-human primates. Pavlovian J. Biol. Sci., 11: 125, 1976.

Knapp, C.F., **D.C. Randall**, J. Evans and J. Marquis. Frequency response of cardiovascular regulation in canines to sinusoidal acceleration below 1.8 Hz. Fed. Proc., 36: 514, 1977.

Randall, D.C. and D.M. Hasson. Cardiovascular consequences of coronary occlusion in unanesthetized monkey - observations during rest and Pavlovian conditioning. Proc. Int. Union Physiol. Sci., 13: 618, 1977.

Randall, D.C., J. Evans, T. Patrick and C. Knapp. Cardiovascular responses to coronary occlusion in

normal vs cardiac denervated dog. The Physiologist, 21: 95, 1978.

Knapp, C., **D. Randall**, and J. Evans. Cardiovascular responses to $\pm 2G$ sinusoidal acceleration (0.3 Hz) in normal and cardiac denervated dogs. The Physiologist, 10: 70, 1979.

Billman, G.E. and **D.C. Randall**. Coronary vascular response to behavioral stress in dog. The Physiologist, 22: 10, 1979.

Randall, D.C. Cardiac output and its distribution during classical aversive conditioning in the monkey. Pav. J. Biol. Sci., 14: 154, 1979.

Ordway, G.A., **D.C. Randall**, G.E. Billman, J.M. Evans and C.F. Knapp. The effect of exercise conditioning upon the heart rate and blood pressure response to acute coronary occlusion in dog. Fed. Proc., 39: 291, 1980.

Randall, D.C., J.M. Evans, G.E. Billman, G.A. Ordway and C.F. Knapp. Control of the cardiac response to acute coronary occlusion in dog. The Physiologist, 23: 28, 1980.

Ordway, G.A., J.B. Charles, **D.C. Randall** and D.R. Wekstein. The effect of cardiac denervation on heart-rate adaptations to physical training in dogs. The Physiologist, 23: 47, 1980.

Charles, J.B., **D.C. Randall** and D.R. Richardson. Acceleration responses of endurance trained and detrained dogs. The Physiologist, 23: 85, 1980.

Billman, G.E. and **D.C. Randall**. Changes in coronary blood flow and vascular resistance during Pavlovian aversive conditioning in the dog. Pav. J. Biol. Sci., 15: 82, 1980.

Randall, D.C., G.E. Billman, C.F. Knapp and J.M. Evans. An examination of the possible role of pain and "anxiety" in the canine response to coronary occlusion. Pav. J. Biol. Sci., 15: 89, 1980.

Evans, J.M., **D.C. Randall** and C.F. Knapp. The effect of cardiac denervation on cardiovascular function before and after autonomic blockade. The Physiologist, 24: 111, 1981.

Randall, D.C., T.L. Skinner and K.L. Park. Myocardial response to behaviorally vs drug induced increases in blood pressure in baboon. The Physiologist, 24: 22, 1981.

Vallance, S.R., T.S. Skinner, G.E. Billman, C.L. Fischer, **D.C. Randall**, C.F. Knapp and J.M. Evans. Effects of fentanyl-droperidol (Innovar) on hemodynamic responses to acute coronary occlusion in intact dog. The Physiologist, 24: 22, 1981.

Skinner, T.L., S.R. Vallance, **D.C. Randall**, K.L. Park and C.L. Fischer. Effects of behaviorally conditioned changes in autonomic tone on A-V transmission in dog. The Physiologist, 24: 22, 1981.

Oeltgen, P.R., J.W. Walsh and **D.C. Randall**. An albumin fraction from plasma of hibernating woodchucks produces opiate-like responses in primates. Abstracts of Papers, 148 National Meeting of Amer. Assoc. Adv. Sci., p. 142, #212, 1982.

Skinner, T.L., S.R. Vallance and **D.C. Randall**. Effects of classical appetitive conditioning on cardiac

dromotropism. Pavlovian J. Biol. Sci., 17: 96, 1982.

Randall, D.C., T.L. Skinner and K.L. Park. Comparison of myocardial response to behaviorally conditioned vs. drug-induced increases in blood pressure in the baboon. Pavlovian J. Biol. Sci., 17: 105, 1982.

Randall, D.C., G.E. Billman and T.L. Skinner. Sympathetically mediated increases in the maximal rate of fall of ventricular pressure in awake dog. The Physiologist, 25: 263, 1982.

Spurrier, W.A., P.R. Oeltgen, J.W. Walsh and **D.C. Randall**. Hibernation induction trigger isolated from hibernating woodchuck albumin has opioid-like action on brain function of the monkey. The Physiologist, 25: 326, 1982.

Vallance, S.R., T.L. Skinner, G.E. Billman, C.F. Knapp & **D.C. Randall**. Comparison of hemodynamic responses to acute coronary occlusion in awake vs. sedated dogs. Pavlovian J. Biol. Sci., 18: 104, 1983.

Skinner, T.L. & **D.C. Randall**. Evidence that the conditioned heart rate response to food in dog is mediated exclusively by an increase in cardiac sympathetic tone. Pavlovian J. Biol. Sci., 18: 105, 1983.

Randall, D.C., K. Ogilvy, R. Wilson and S. Vallance. Contraction in "marginally ischemic" myocardium during behaviorally and pharmacologically induced pressor events in baboon. The Physiologist, 26: A64, 1983.

Fitzovich, D.E. and **D.C. Randall**. Development of a controlled insulin concentration model in the conscious, chronically instrumented dog. Fed. Proc. 43: 526, 1984.

Lee, K.C. and **D.C. Randall**. The cardiovascular effects of tolbutamide in conscious dogs. Fed. Proc. 43: 1102, 1984.

Knapp, C.F., J.M. Evans and **D.C. Randall**. Blood pressure regulation in cardiac denervated dogs during low-frequency acceleration. The Physiologist, 27: 215, 1984.

Furedy, J.J., D. Shulhan, **D.C. Randall** and D.E. Fitzovich. Mechanisms of the negative-tilt-induced bradycardic reflex in dog. The Physiologist, 27: 223, 1984.

Evans, J., R. Rountree, **D. Randall** and C. Knapp. Nonadrenergic nonmuscarinic cardioacceleration: impact of drug and hydraulically-induced increases in afterload. The Physiologist, 27: 225, 1984.

Randall, D.C., K.C. Claxon, and R.A. Wilson. Cardiac arrhythmias and sudden death in dogs during classical aversive conditioning: the role of shock predictability. The Physiologist, 27: 248, 1984.

White, G.N., C.F. Knapp, **D.C. Randall**, and J.M. Evans. Cardiac responses to gravitationally-induced changes in venous return. The Physiologist, 27: 252, 1984.

Randall, D.C., T.L. Skinner and G.E. Billman. A comparison of the control of the heart during Pavlovian aversive vs. appetitive conditioning in dog. Pavlovian J. Biol. Sci., 19: 103, 1984.

Randall, D.C. Emotion, myocardial ischemia and cardiac arrhythmias in dog and monkey. USSR - USA International Pavlovian Conference, "Emotions and Behavior: a Systems Approach" (abstracts). Moscow, USSR, pp. 258-260, 1984.

Lee, K.C. and **D.C. Randall**. Tolbutamide injections induce ventricular tachycardia in susceptible dogs. The Pharmacologist, 26: 211, 1984.

Fitzovich, D.E. and **D.C. Randall**. The effects of innovar sedation on the responses to bilateral carotid occlusion and dobutamine in chronically instrumented dogs. J. Mol. Cellular Cardiol., 17: XXII, 1985

Lee, K.C. and **D.C. Randall**. Evidence that tolbutamide potentiates adrenergic α -receptor activation. The Pharmacologist, 27: 204, 1985

Randall, D., C. Knapp, J. Evans and K. Lee. Fourier analysis of the components of blood pressure regulation in normal and cardiac denervated dogs during sinusoidal acceleration. The Physiologist, 28: 289, 1985.

Fitzovich, D. & **D.C. Randall**. The effects of insulin level on the responses to bilateral carotid occlusion and dobutamine in conscious, chronically instrumented dogs. The Physiologist, 28: 362, 1985.

Ogilvy, K.C., **D.C. Randall** & G.N. White. Effect of β -adrenergic blockade on shortening of 'marginally ischaemic' myocardium during classical appetitive conditioning in baboon. J. Physiol. (London), 371: 253P, 1986.

Randall, D.C., D.E. Fitzovich, J.G. Felker & K.A. Ogilvy. Cardiovascular responses to bilateral carotid occlusion (BCO) before vs. after Innovar in intact dog. The Physiologist, 29: 108, 1986.

Fitzovich, D.E. & **D.C. Randall**. Modulation of the response to bilateral carotid occlusion by varying insulin level in dogs. The Physiologist, 29: 112, 1986.

Aral, H.M., J.M. Evans, D.R. Brown, **D.C. Randall**, S.L. McMinn & C.F. Knapp. Autonomic and renin-angiotensin contributions to cardiovascular regulation during sinusoidal blood volume shifts. Soc. Neurosci. Abstr. 12 (pt 1): 524, 1986.

Lee, K.C., **D.C. Randall**, J.M. Evans & C.F. Knapp. Heart rate fluctuations in normal and cardiac denervated conscious dogs. The Pharmacologist, 28: 219, 1986.

Randall, D., W. Randall, D. Brown, C. Knapp & J. Evans. Effect of selective surgical SA-nodal parasympathectomy upon the HR power spectrum in awake dog. Fed. Proc., 46: 1253, 1987.

Brown, L., D. Brown, **D. Randall** & C. Knapp. Correlation of arterial pressure, heart rate, and physical activity in rats. Fed. Proc., 46: 1252, 1987.

Brown, D.R., C.F. Knapp & **D.C. Randall**. Microcomputer based nerve traffic analysis system. Fed. Proc., 46: 675, 1987.

Vallance, S., **D. Randall** & J. Yingling. Changes in coronary α -adrenergic tone affect regional myocardial function in dog. Fed. Proc., 46, 1241, 1987.

Evans, J., J. Funk, **D. Randall**, J. Charles & C. Knapp. Changes in vascular responsiveness to an α agonist as a result of endurance training. Fed. Proc., 46:321, 1987.

Brown, D.R., **D.C. Randall**, J.D. Yingling & C.F. Knapp. Stability of spectral power signatures over time in conscious dogs. The Physiologist, 30: 193, 1987.

Brown, D.R., **D.C. Randall** & C.F. Knapp. Microcomputer based digital analysis of nerve traffic. Soc. Neurosci. Abstr., 13: 741, 1987.

Billman, G.E., R. Hoskins, **D.C. Randall**, W.C. Randall, R. Hamlin & Y.C. Lin. Selective parasympathectomy of the sinoatrial and atrioventricular regions of the monkey heart. Circulation, part 2 (4), supplement: IV-209, 1987.

Randall, W.C. & **D.C. Randall**. Selective parasympathetic regulation of sinus automaticity and AV conduction in the conscious dog. Circulation, part 2 (4), supplement: IV-209, 1987.

Yingling, J.D., J.B. Charles, C.E. Ott, D.R. Brown & **D.C. Randall**. Effect of renin-angiotensin system suppression on heart rate power spectrum in conscious rabbit. The Physiologist, 31: A175, 1988.

Randall, D.C., J.D. Yingling and D.R. Brown. Effect of pharmacological blockade of the renin-angiotensin system upon the heart rate power spectrum. The Physiologist, 31: A175, 1988.

Randall, W.C., D.R. Brown, **D.C. Randall** & J.D. Yingling. Effect of selective surgical SA-nodal parasympathectomy upon heart rate power spectrum in awake dog. The Physiologist, 31: A176, 1988.

Brown, D.R., **D.C. Randall** & J.D. Yingling. Spectral analysis of monophasic and biphasic renal sympathetic nerve activity in the rat. The Physiologist, 31: A57, 1988.

Evans, J.M., C.F. Knapp, J.N. Funk, J.D. Yingling, W.C. Randall & **D.C. Randall**. Dependence of intrinsic heart rate on autonomic innervation. The Physiologist, 31: A175, 1988.

Randall, D.C., W.C. Randall and D.R. Brown. Effects of selective surgical parasympathetic denervation of the canine sino-atrial node upon the heart rate power spectrum and conditional cardiovascular response to shock. Pavlovian J. Biol. Sci., 24: 66-67, 1989.

Brown, D.R., **D.C. Randall** and J.D. Yingling. Stability of the HR power spectral "signature" over time in awake dog. Pavlovian J. Biol. Sci., 24: 65, 1989.

Brown, D.R. and **D.C. Randall**. Pavlovian conditioning using a microprocessor based workstation. Pavlovian J. Biol. Sci., 24: 68, 1989.

Randall, D.C., G.E. Billman, S.K. Hall, D.R. Brown and K.A. Ogilvy. Effect of chronic and/or acute myocardial ischemia upon the conditional cardiovascular response and arrhythmogenesis during classical aversive conditioning in dog. Pavlovian J. Biol. Sci., 24: 65-67, 1989.

Randall, D.C., D.R. Brown, W.C. Randall & R.M. Raisch. Effect of selective surgical SA-nodal parasympathectomy upon the heart rate response to classical conditioning. Soc. Neurosci. Abstr., 15: 1182, 1989.

Randall, D.C., D.R. Brown & R.M. Raisch. A high resolution analysis of the conditional heart rate response in dogs. Pavlovian J. Biol. Sci., 25: 35-36, 1990.

Randall, D.C., D.R. Brown & R.M. Raisch. A temporally fine-grained re-analysis of the canine conditional heart rate response. FASEB J., 4: A706, 1990.

Evans, J., C. Martin, M. Wang, **D. Randall**, R. Wen, J. Charles, C. Fischer & C. Knapp. The role of heart rate in buffering acceleration-induced oscillations in arterial pressure. FASEB J., 4: A703, 1990.

Wen, Te-Sheng & **D. Randall**. The effect of -90° head-down tilt on the permeability of the blood-brain barrier. 62nd Annual Scientific Meeting, Aerospace Med. Soc., p. 188, 1991.

Randall, D.C. A high resolution analysis of the unconditional heart rate response to shock and its relation to the conditional blood pressure response. Integrative Physiol. Behav. Sci. 46: 172, 1991.

Randall, D.C., D.R. Brown, & R.M. Raisch. High resolution analysis of conditional HR and BP response to shock in rat. The Physiologist 34: 241, 1991.

Yingling, J., **D. Randall** & B. Jackson. Glucocorticoids potentiate cyclic AMP (cAMP) accumulation in PC18 cells. FASEB J., 6: A1632, 1992

Brown, D.R., L.V. Brown, A. Patwardhan & **D.C. Randall**. Interaction between sympathetic nerve activity and arterial pressure in conscious and anesthetized rat. Soc. Neurosci. Abs. 18 (part 2): 1182, 1992.

Brown, D.R. & **D.C. Randall**. Spike frequency and density effects on nerve traffic measurement in multifiber bundles. FASEB J., 7: A403, 1993.

Randall, D.C., D.R. Brown & J.M. Kilgore. Sympathetic nerve activity in awake rat: Relation to behaviorally conditioned changes in BP. FASEB J., 7: A621, 1993.

Brown, D.R., **D.C. Randall** & J.M. Kilgore. "Feed forward" relationship between arterial pressure and renal sympathetic nerve activity in awake rat. Soc. Neurosci. Abs., 19 (part 1): 313, 1993.

Randall, D.C. & D.R. Brown. Quantitative analysis of classically conditioned changes in sympathetic nervous activity and blood pressure in rat. Integrative Physiol. Behav. Sci. 29: 98-99, 1994.

Randall, D.C., D.R. Brown & M. Olmstead. Co-ordination of SA-nodal and AV-nodal function in unanesthetized dog. FASEB J., 9: A340, 1995.

Li, S.-G., D.R. Brown, **D.C. Randall** & J.E. Lawler. Renal sympathetic nerve activity and cardiovascular responses to classical conditioning in SHR and WKY rats. FASEB J., 9: A336, 1995.

Li, S-G, D.R. Brown, **D.C. Randall** & J.E. Lawler. Renal sympathetic nerve and cardiovascular responses to classical discriminative conditioning in rats. Integrative Physiol. Behav. Sci., 31: 179, 1996.

Randall, D.C., D.R. Brown, J.L. Ardell, W.C. Randall, M.E. Olmstead, H.O. Ballard & J.M. Kilgore. Surgical removal of dorsal atrial ganglionated plexus potentiates conditional tachycardia in dog. Integrative Physiol. Behav. Sci., 31: 187-188, 1996.

D.E. Burgess, D.R. Brown, S.Li and **D.C. Randall**. A first-order linear differential-delay equation for the regulation of mean arterial blood pressure. FASEB J., 10: A596, 1996.

J.C. Hundly, D.E. Burgess, D.R. Brown, S. Li and **D.C. Randall**. Multifiber renal sympathetic nerve activity recordings predict mean arterial blood pressure in unanesthetized rat. FASEB J., 10: A596, 1996.

D.C. Randall, D.R. Brown, J.L. Ardell, W.C. Randall, J.M. Kilgore and M.E. Olmstead. Excision of canine cardiac dorsal atrial ganglionated plexus potentiates sympathetic tachycardia. FASEB J., 10: A337, 1996.

D. Randall, L. Hitchner, A. Sprinkle, S.-G. Li, Y.M. El-Wazir & D. Brown. Acquisition of first (C_1) and second (C_2) components of blood pressure response to acute stress in rat. FASEB J., 11: A489, 1997.

Brown, D.R., S.-G. Li, A. Sprinkle & **D.C. Randall**. Volume expansion in rat attenuates low-frequency blood pressure power. FASEB J., 11: A490, 1997.

Li, S.-G., D.R. Brown & **D.C. Randall**. Cardiac output and peripheral resistance during acute stress in rat. FASEB J., 11: A489, 1997.

Li, S.-G., D.R. Brown and **D.C. Randall**. Role of changes in cardiac output and peripheral vascular resistance in mediating arterial blood pressure response to CS+ and CS-. Integrative Physiol. Behav. Sci. 32: 184-185, 1997.

Burgess, D.E., **D.C. Randall**, D.R. Brown, J.C. Hundley, & S.-G. Li. Renal sympathetic nerve recordings during classical conditioning predict arterial blood pressure response to CS+ and CS-. Integrative Physiol. Behav. Sci. 32: 180, 1997.

Randall, D.C., Burgess, D.E., Brown, D.R., Hundley, J.C. & Li, S.-G. Renal sympathetic nerve recordings predict arterial blood pressure response to a behavioral stimulus. J. Autonom. Nerv. Sys. 65: 83, 1997.

Randall, D., D. Brown, A. McGuirt, G. Thompson & J. Ardell. Posterior atrial ganglionated plexus contributes to vagal inhibition of sympathetic tachycardia. FASEB J. 12: A396, 1998.

Burgess, D., T. Zimmerman, M. Wise, S-G Li, **D. Randall** & D. Brown. Uncoupling of fluctuations in arterial blood pressure and sympathetic nerve activity at low frequencies in the unanesthetized rat.

FASEB J. 12: A986, 1998.

Li, S.-G., D.E. Burgess, A.G. Sprinkle, **D.C. Randall** & D.R. Brown. Changes of sympathetic nerve activity spectral power during Pavlovian conditioning in SHR and Wistar Kyoto rats. Integrative Physiol. Behav. Sci., 33:96 - 97, 1998.

Kuo, J.H., **D.C. Randall**, A.G. Sprinkle, S.-G. Li & D.R. Brown. Chronic nicotine exposure in rat depresses the second component (C₂) of the conditional blood pressure response but not the first component (C₁). Integrative Physiol. Behav. Sci., 33: 97-98, 1998.

Xu, F., Z. Zhang, D.T. Frazier & **D. Randall**. Ventilation in shaker mutant rats with hereditary Purkinje cell degeneration. J. Neurosci, in press.

Brown, D.R., S.-G. Li, J.E. Lawler & **D.C. Randall**. Sympathetic control of arterial BP and BP lability in pre-hypertensive borderline hypertensive rats on high vs. low salt diet. Integrative Physiol. Behav. Sci., 34: 112, 1999.

Baldrige, B.R., S.G. Li, D.R. Brown, D.E. Burgess, R.F. Taylor & **D.C. Randall**. Blood pressure power spectrum in unanesthetized spinal rat. FASEB J. 13: A450, 1999.

El-Wazir, Y.M., S.-G. Li, **D.C. Randall** & D.R. Brown. Hemodynamic response to behavioral stress in obese vs. lean Zucker rats. FASEB J. 13: A453, 1999.

Brown, D.R., S.-G. Li, J.E. Lawler, A.G. Sprinkle & **D.C. Randall**. Sympathetic control of arterial blood pressure variability in pre-hypertensive borderline hypertensive rats on high vs. low salt diet. FASEB J. 13: A771, 1999.

Li, S.-G., D.R. Brown, **D.C. Randall**, J.E. Lawler, D.E. Burgess, J.M. Kilgore & A.G. Sprinkle. Interaction of sympathetic nerve activity and blood pressure during rest and stress in SHR, BHR and WKY rats. FASEB J. 13: A771, 1999.

Xu, F., Z. Zhang, **D. Randall** & D.T. Frazier. Respiratory-modulated neurons (RRNs) in the fastigial nucleus (FN) respond to chemical challenges in the rat. J. Neurosci., 24: 936, 1999.

Randall, D.C., L.A. Cassis, D.E. Burgess, A.G. Sprinkle & D.R. Brown. Exposure to Angiotensin-II in Rat Alters Low-frequency (Fractal) Characteristics of BP and HR Power Spectra. The Physiologist, 43: 274, 2000.

Brown, D.R., A.G. Sprinkle, L.V. Brown & **D.C. Randall**. Long-term Measurement of BP Periodicity in the Awake Rat. The Physiologist, 43: 275, 2000.

Randall, D.C., D.E. Burgess, E.E. Zimmerman, J.J. Carroll, R.O. Speakman, A.G. Sprinkle, D.R. Brown & BR Baldrige. BP and HR Cross Correlations in Rat before vs. after Spinal Cord Transection. FASEB J., 15: A1145, 2001.

Byron, K.E., R.E. Hoyt, R.O. Speakman, A.G. Sprinkle, D.G. Karounos, L.V. Brown, D.R. Brown and **D.C. Randall**. BP response to acute stress in diabetic rat. FASEB J., 16: A865, 2002.

Hoyt, R.E., R.O. Speakman, A.G. Sprinkle, L.V. Brown, D.R. Brown, L.A. Cassis & **D.C. Randall**. Effects of chronic angiotensin-II infusion on the cardiovascular response to acute stress in rats. FASEB J., 16: A496, 2002.

Speakman, R.O., J.H. Kuo, **D.C. Randall**, A.G. Sprinkle, S. Li & D.R. Brown. Interactive effects of dietary salt and nicotine on the conditional arterial blood pressure response in the Dahl-S Rat. FASEB J., 16: A113, 2002.

Brown, D.R., A.R. Patwardhan, L.V. Brown, R.O. Speakman & **D.C. Randall**. Effects of an 8:8 hour light:dark cycle on the blood pressure and heart rate power spectra in rat. FASEB J., 16: A110, 2002.

Boustany, C., M. Helton, L. Brown, D. Brown, **D. Randall** & L. Cassis. The effect of a moderately high fat diet on body weight and blood pressure. FASEB J., 16: A570, 2002.

Boustany, C., V. English, M. Helton, A. Daugherty, **D. Randall** & L. Cassis. The renin-angiotensin system is activated in obesity-induced hypertension. *ATVB*

Randall, D.C., A.R. Patwardhan, L.V. Brown & D.R. Brown. Effects of 9:9 and 15:15 hour light:dark cycles on the blood pressure and heart rate power spectra in rat. FASEB J., 17: 304.8, 2003.

Stenger, M.B., J.M. Evans, **D. Randall**, D. Brown, A. Patwardhan, F. Moore, J. Greenleaf, D. Burgess and C.F. Knapp. Heart rate-arterial pressure relationship in the human response to head-up tilt before and after artificial gravity training. FASEB J. 17: 594.8, 2003.

Cameron A.A., G.M. Smith G.M., **D.C. Randall**, D.R. Brown and A.G. Rabchevsky. Effects of differential nerve growth factor over-expression on autonomic dysreflexia after spinal cord injury. *Society for Neuroscience Abstracts*, 2003.

Cameron A.A., G.M. Smith G.M., **D.C. Randall**, D.R. Brown and A.G. Rabchevsky. Effects of nerve growth factor over-expression on autonomic dysreflexia after spinal cord injury. *J. Neurotrauma Abstracts*, 20: P234 (p. 1086), 2003.

Cameron, A.A., G.M., Smith, **D.C. Randall**, D.R. Brown & A.G. Rabchevsky. Effects of nerve growth factor over-expression on autonomic dysreflexia after spinal cord injury. *J. Neurosci.*, in press.

Willingham, A., D. Williams, L. Brown, D. Brown, L. Cassis, D. Silcox, C. Anigbogu and **D. Randall**. Arterial Blood Pressure Response to an Acute Stress in Rat following Sino-aortic Denervation. FASEB J., 18: A673-A674, 2004.

D. Williams, A. Willingham, D. Brown, L. Brown, D. Silcox, C. Anigbogu and **D. Randall**. Effects of the nature of the conditional stimulus upon the arterial pressure response pattern in rats. FASEB J., 18: A674, 2004.

Brown, D., L. Brown, D. Silcox, C. Anigbogu, **D. Randall** and L. Cassis. Relationship between amplitude and period of low frequency blood pressure oscillations in conscious rat. FASEB J., 18:

A1079, 2004.

Hogancamp, C.E., J.M. Evans, C.F. Knapp, E.J. Hartman, A. Hartman, S. Aslan, **D. Randall**, K. Donohue and S. McDowell. Role of skin perfusion and fluid volume shifts in regulating blood pressure following spinal cord injury. FASEB J. 18: A662, 2004.

Anigbogu, C.N., D. Brown and **D. Randall**. Autonomic and cardiovascular responses to chloroquine administration in conscious rats. FASEB J. 18: A1080, 2004.

Anigbogu, C.N., R. Speakman, D. Silcox, D. Williams, L. Brown, D. Brown, D. Karounos & **D. Randall**. Changes in autonomic cardiovascular regulation in diabetes. FASEB J. 19:A1290, 2005.

Brown, D.R., L.V. Brown & **D.C. Randall**. Model predicts limit to 1/f relationship in blood pressure. FASEB J. 19:A1301-1302, 2005.

Sithisarn, T., H. Bada, **D. Randall**, D. Brown, M. Kim & S. Legan. Effect of prenatal cocaine exposure on the stress axis in young adult rats. J. Invest. Med. 53: S283, 2005.

Li WY, D.L. Silcox, D.R. Brown & **D.C. Randall**. Effects of CNS norepinephrine reuptake inhibitor upon the arterial blood pressure conditional response in rat. FASEB J 20: A367, 2006.

Anigbogu, C.N.A., D.T. Williams, D.R. Brown, D.L. Silcox, R.O. Speakman, L.V. Brown, D.G. Karounos and **D.C. Randall**. Circadian variations in BP, HR and HR-BP cross correlation during development of diabetes mellitus. FASEB J 20: A1248, 2006.

Evans, J., S. Aslan, **D. Randall**, S. McDowell, E. Hartman, R. Taylor, M. Ziegler, C. Knapp and A. Hartman. Autonomic damage and blood pressure regulation in spinal cord injured patients compared to able bodied subjects. FASEB J 20: A1429-A1430, 2006.

Burgess D., **D.C. Randall** & S.D. Stocker. Analysis of the baroreflex in the frequency and time domain. FASEB J 21: 582.49, 2007.

Burgess D, **D.C. Randall** and S.D. Stocker. Influence of diabetes on baroreflex (BR) sensitivity of sympathetic nerve activity (SNA). FASEB J 23: 990.14, 2009.

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EXTRA-MURAL RESEARCH GRANTS

Funded Applications:

NIH RO1 HL I7680-01 Behavioral Influences on Cardiac Contractility, 1/1/75 to 12/31/75, \$39,863 (direct costs).

SCOR Project (Richard Ross, PI) Effect of sympathetic stimulation on myocardial blood flow (1 of

component projects, directed by D.C. Randall), 1/1/75 to 12/31/75.

AFOSR#80-0039. Cardiovascular responses to low-frequency whole-body acceleration (Charles Knapp, PI). 1975 - 1983. Funding, 1/10/82 to 9/30/83, \$216,335.

NIH RO1HL I9343-0I Behavioral Influences on Cardiac Contractility, 1/1/76 to 12/31/76, \$33,963.

NIH RO1 HL I9343-0ISI Supplement to Behavioral Influences on Cardiac Contractility, 1/1/76 to 12/31/76, \$14,468.

NIH RO1 HL I9343-02-06 Behavioral Influences on Cardiac Contractility, 1/1/77 to 12/31/81, \$211,062.

AHA, Kentucky Affiliate. Pavlovian conditioning, hypothalamic stimulation and genesis of cardiac arrhythmias in unanesthetized monkey, 7/1/77 to 6/31/78, \$5,805.

NIH RO1 HL I9343-07-10 Behavioral Influences on Cardiac Contractility, 1/1/82 to 04/31/86; \$364,186.

Am.Heart Assoc., Kentucky Affiliate. Modulation of Cardiac Function by Varying Insulin Levels, 7/1/85 to 6/31/86; \$15,382.

NASA NAG-929. Use of oscillatory LBNP and spectral analysis to determine cardiovascular adaptation to the microenvironment (Charles Knapp, PI). 7/1/88 to 6/30/90, \$120,806.

NIH RO1 HL 19343-11-14 Behavioral Influences on Cardiac Contractility, 4/1/86 to 3/31/90; \$586,796.

NIH HL07390, Minority Hypertension Research Summer Program, 6/4/86 to 4/30/89, \$74,122.

NIH RO1 HL27595, Selective Innervation of the SA and AV Nodal Regions of the Heart (PI: W.C. Randall), 12/1/87 to 11/30/92, \$454,376.

AHA., Kentucky Affiliate. Sympathetic Nervous Activity in Awake DAHL Rats (PI: David R. Brown), 7/1/91 to 6/31/93, \$28,617.

NIH RO1 HL35195-05-07, Behavioral stress and opioid mechanisms in hypertension (James Mc Cubbin, PI), 2/25/92 to 1/31/93, \$302,243.

Tobacco & Health Res. Inst., "Interaction of Nicotine and Dietary Salt in Hypertension Development in DAHL Rat (D. Brown, PI). 7/1/92 to 6/30/93, \$51,386; 7/1/93 to 6/30/94, \$48,645.

AHA, Kentucky Affiliate. Sympathetic Nervous Activity in Awake DAHL Rat (D. Brown, PI). 7/1/93 to 6/30/95, \$28,292.90.

AHA (National). "Function of Cardiac Intrinsic Ganglia in Unanesthetized Dog." 7/1/94 to 6/30/97, \$123,860.

NASA EPSCoR. "Integrated Studies of Physiological Responses to Weightlessness and Hypotensive Challenges." (C.F. Knapp, PI) 7/1/94 to 6/30/96, \$300,000

- AHA Kentucky Affiliate, "Effects of High Salt Diet on Renal Nerve Activity and Cardiovascular Responses to Aversive Conditioning." Post-doctoral fellowship application for Shenggang Li, 7/1/95 - 6/30/96, \$32,300.
- Tobacco & Health Res. Inst., "Interaction of nicotine and dietary salt in hypertension development in Dahl rat." D.R. Brown, PI, 7/1/95-6/30/98, \$98,439.
- NIH RO1 HL19343-15-17, "Behavioral Influences on Cardiac Contractility," 7/1/95 - 6/30/99, \$417,048.
- NASA EPSCoR. "Integrated Studies of Physiological Responses to Weightlessness and Hypotensive Challenges." (C.F. Knapp, PI) 7/1/97 to 6/30/99, \$200,000
- Kentucky Spinal Cord and Head Injury Res. Brd., "Sympathetic Nervous Function in Unanesthetized Spinal Rat." D.C. Randall, PI. 1/1/97-12/31/00, \$230,106.
- AHA, Kentucky Affiliate, "Application of modern geometrical analysis to cardiovascular time series data and to mathematical models." Post-doctoral fellowship application for Dr. Don E. Burgess, 7/1/97-6/30/98, \$20,000.
- AHA, Ohio Valley Affiliate, "Interactive Effects of Dietary Salt, Nicotine and Behavioral Stress upon Arterial Blood Pressure in Dahl-S Rat." (Pre-doctoral research fellowship for Mr. Richard Speakman). Summer, 2000, \$2,500.
- NIH RO1 NS39774-1-3, "Sympathetic function in diabetes." PI: D.C. Randall, 9/30/2000 - 8/31/2003, \$869,200.
- AHA, Ohio Valley Affiliate, "Autonomic Control of Cardiovascular Function in Type I Diabetic Rats." (Pre-doctoral research fellowship for Ms. Kendal Byron). Summer, 2001, \$2,500.
- Kentucky Spinal Cord and Head Injury Research Board., "Recovery of cardiovascular control after spinal cord injury." PI: J. Abbas, 1/31/01-1/31/04, \$292,530.
- NIH RO1 HL64121-1-4, "Angiotensin/Sympathetic Interactions and Blood Pressure." PI: L. Cassis, 4/01/01 - 3/31/06, \$1,442,484.
- International Spinal Research Trust, "Mechanisms of autonomic dysreflexia following spinal cord injury. PI: A. Rabchevsky, 6/13/2002-6/12/05, \$213,705.
- AHA, Ohio Valley Affiliate, "Effect of Estrogen on Adrenal Catecholamine Secretion and Synthesis." PI: B.A. Jackson, 7/01/02 - 6/30/04, \$110,000.
- NIH R01 HL37085, "Angiotensin: A link between obesity and hypertension." PI: L. Cassis, 6/03/03 - 5/31/08, \$1,600,098.
- AHA, Ohio Valley Affiliate, "Role of the baroreflex in mediating a cardiovascular stress response." (Pre-doctoral research fellowship for Ms. Amanda Willingham). Summer, 2003, \$2,500.

- Childrens' Miracle Television Network, "Prenatal cocaine and stress axis development" PI: S. Legan
7/1/03 - 6/30/04.
- NIH, T32 HL 072743, "Interdisciplinary Cardiovascular Training Program." Program Director: D. Randall. 04/01/2004 - 03/31/2009, \$629,342.
- NIH RO1 NS039774-04-07, "Sympathetic Function in Diabetes." PI: D.C. Randall, 09/01/2005-08/31/2009, \$1,275,096.
- NIH RO1 HL082791, "Vascular Smooth Muscle Hyper-contractility and Hypertension in Type-II Diabetes." PI: M. Gong, 07/01/06 - 06/30/11, \$1,648,125.
- NIH P20 RR021954 "Center of Research in Obesity and Cardiovascular Disease." PI: L. Cassis, 09/30/07 - 09/29/12, \$10,557,220 (total).
- NIH, T32 HL 072743, "Interdisciplinary Cardiovascular Training Program." Program Director: D. Randall. 05/01/2009 - 04/31/2014, \$917,565.

Pending Applications:

2 RO1 NS039774-08, "Sympathetic Function in Diabetes" PI: D.C. Randall, 07/01/2010 - 06/30/2012

SCHOLARSHIPS FELLOWSHIPS AND AWARDS

- | | |
|-------------|---|
| 1967 - 1971 | Cardiovascular Physiology Training, Department of Physiology and Biophysics, University of Washington, Seattle |
| 1969 - 1971 | Fellow, Regional Primate Research Center, University of Washington, Seattle |
| 1978 | The Pavlovian Society of America, Award for Research Excellence |
| 1979 | College of Medicine, University of Kentucky, Outstanding 1 st Year Instructor |
| 1994 | College of Medicine, University of Kentucky, "Master Teacher Award" for 'Teaching' |
| 1995 | College of Medicine, University of Kentucky, "Master Teacher Award" for 'Educational Leadership' and 'Educational Evaluation' |
| 2000 | College of Medicine, University of Kentucky, "Master Teacher Award" for 'Educational Innovation and Development' and 'Faculty Development in Education' |
| 2002 | American Heart Association, Ohio Valley Affiliate, "Heart Honoree for Distinguished Service in Heart Research." |

- 2003 American Heart Association, Ohio Valley Affiliate, "Research Merit Award."
- 2004-9 Charles Wethington Award, University of Kentucky
- 2005 James Holsinger award for Excellence in Teaching
- 2008 Butler Distinguished Service Award, Asbury College, Wilmore, KY

OTHER SCHOLARLY ACTIVITIES

President, Pavlovian Society of America, 1983

Journal Referee for:

Amer. J. Physiol.
Cardiology
J. Appl. Physiol.

Pavlovian J. Biol. Sci.
Physiology & Behavior
Psychophysiology

Grant Review for:

Jewish Hospital, Heart and Lung Institute (ad hoc)
National Science Foundation (ad hoc)
Kentucky Affiliate and Ohio Valley Affiliate, American Heart Association
National Heart Lung & Blood Institute (ad hoc)
American Heart Association

Membership on Standing University or Departmental Committees:

Medical Center Animal Care Committee, (1976 - 1986; Chairman, 1977-1985);
Institutional Animal Care and Use Committee, (Chairman, 1991-1999);
Medical Center Space Utilization Committee (1979-1981);
Graduate Affairs Committee, Dept. Physiology (1976-1979; 1981-1986);
Student (Medical) Progress and Promotions Committee (1983-1987);
Curriculum Committee (College Medicine, 1988-1989);
University of Kentucky Research Committee (1989-1992);
Kentucky Heart Institute, Research Committee (chairman, 1990 - 1994)
Gill Heart Institute at the Univ. of KY, Research Committee (chairman, 1997 - 2000)
College of Medicine, Faculty Appointments, Appeals, Promotions and Tenure
Committee (1997-2000)
Faculty Council, College of Medicine (2000 - 2003; chair, 2001 - 2002; ex officio,
2002-2003)
University Senate (2001 - present; Senate Committee for Research, chair 2001-2002;
Library Committee, chair, 2006 - present; Reinstatement Committee,
chair, 2006-present; University Senate Council, 2006-present; vice chair,
6/2007 - 5/2008; chair, 6/2008 - 5/2010)
University Press Committee (2003 - present)
Department of Physiology Education Committee (chair, 2006 - present)

sponsor, Physiology Teaching, Education and Mentoring (PGY-TEaM) club

Membership on Standing Advisory Committees:

NIH, Division of Heart and Vascular Diseases, Behavioral Medicine Branch;
American Heart Association, Kentucky Affiliate; research review advisory committee
and research allocations committee (1980-1988; chairman, 1985-1987);
American Heart Association, Consortium Peer Review Committee #3 (1997-2000)
Tobacco & Health Research Institute; technical advisory committee (1985-1987);
Academic Area Advisory Committee for the Biological Sciences (1990 - 1992);
American Physiological Society, Animal Care and Experimentation Committee (1993 -
1996)

Membership on Selected Organization/Development/Evaluation Committees:

Chairman, Program Committee for 24th Annual Meeting, Pavlovian Society of America
(Lexington, IL/83).

Member, International Organizing Committee for USSR-USA International Pavlovian
Conference, "Emotions and Behavior: A Systems Approach" (Moscow, 6/1984).

Co-Chairman (with C.F. Knapp) American Physiological Society Symposium on
"Quantitative Approaches to the Study of Cardiovascular Regulation" (Lexington, 7/84).

Member, Organizing Committee for Workshop on Integrative Study in Physiology and
Medicine, American Physiological Society (Lexington, 7/84; New Orleans, 10/86)

Member, Organizing Committee for Symposium on Human Dimensions in Artificial
Intelligence, Chairman, section on "Artificial Intelligence and the Brain: The Biological
Dimension," Lexington, KY, April 6-9, 1988.

Chairman, Physiology Summer Workshop, Lexington, KY June, 1989, June 1990

University of Kentucky Neurosciences Graduate Program Organizing Committee, 1989
- 1990.

Member, Organizing Committee, Interdisciplinary Mathematics Colloquium, 1994 -
1999.

American Physiological Society, Annual Lecture in Biomedical Ethics, Organizing
committee (2001-2003; chair, 2002-2003).

Task Force on the University of Kentucky Chandler Medical Center Organization and
the Provost Model (member, 2002)

Provost's Work Group on 'Organization of Public Health' (member, 2003)

Southeastern Conference Affiliated Faculty Leaders (SECAFL) (member 2007 - present; executive committee 2008-present; chair, executive committee 2008-present)

Membership on Selected Ad-Hoc Committees:

Chairman, Microbiology and Immunology Review Committee, 1988
Chairman, Search Committee for Chairperson, Dept. Biochemistry, 1990
Chairman, Course development committee, Integrated Biomedical Sciences 606, 2000
Member, College of Nursing review committee, 2008

Guest Faculty:

Shandong University, Faculty of Medicine, Oct., 2002.

Arizona School of Dentistry and Oral Health, A.T. Still University of Health Sciences, visiting faculty, Oct., 2003, Nov. 2004, Nov. 2005; Nov. 2006; Nov, 2007; Nov, 2008, Nov, 2009.

SELECTED TEACHING

A. Undergraduate

- 1) PGY 206 Elementary Physiology (1979, 1980, 1981)
- 2) Human Physiology (BIO 351 and/or 352), Asbury College, Wilmore, KY) Human Physiology (1979 - present)
- 3) Discovery Seminar Program, DSP-130-001 The Stability of Life in an Unstable World, 2009.

B. Graduate/Professional

- 1) PGY 502, ZOO 502 Principles of Physiology (1 semester, team taught; cardiovascular block, 1976-1980, 1987, 1994-2008; neuro-physiology block, 1986-1987; course co-ordinator, 1978, 1979, 1980, 1986-1988)
- 2) PGY 811/818 Medical Physiology (1 semester, team taught; cardiovascular block, 1976-1978; 1983-1986, 1988-present)
- 3) PGY 604 Advanced Cardiovascular Physiology (1 semester, team taught - 1977, 1982, 1988, 1991, 1993, 1995, 1998, 2000, 2002, 2004, 2007, 2009)
- 4) PGY 522, Quantitative Physiology (1 semester, team taught; application of mathematical techniques to analysis of physiological problems), 1989, 1990, 1995, 1996.
- 5) PGY 560 Pathophysiology/825 Integrative Study (Fall, Spring semesters, team taught; 1992; course co-ordinator 1993 - present)
- 6) IBS 606, Integrative Biological Science (2000-2008; 2000: chair, course development; course director, 2001-2003; 1 semester, team taught).
- 7) OBI 814, Dental Physiology (2006, 2007)

C. Other teaching

1. National Board Review: 1995, 1996, 1997, 1998
2. Arizona School of Dentistry and Oral Hygiene: 2003 - present

D. Masters Dissertations Directed

- 1) Mr. Thomas Skinner; MS awarded 6/82
- 2) Mr. Gregory White; MS awarded 6/88
- 3) Dr. Steven Hall, MD; MS awarded 6/89

E. Doctoral Dissertations Directed

- 1) Mr. George Billman; Ph.D. awarded 1981
- 2) Mr. Steven Vallance; Ph.D. awarded 1987
- 3) Mr. Douglas Fitzovich; Ph.D. awarded 1987
- 4) Maj. Te-Sheng Wen; Ph.D. awarded 1991
- 5) Mr. Jeffrey Yingling (co-advisor with B. Jackson), Ph.D. awarded 1994
- 6) Mr. Gregory Graf (co-advisor with E. Smart), Ph.D. awarded 1999
- 7) Ms. Yi Zhang (co-advisor with J. Satin); Ph.D. awarded 1999
- 8) Mr. Michael Manning (co-advisor with A. Daugherty), Ph.D. awarded 2002
- 9) Mr. Brian Delisle (co-advisor with J. Satin), Ph.D. awarded 2001
- 10) Ms. Megan Bardgett (co-advisor with S. Stocker)

F. Doctoral Committees (Student Name, Program, University; date Ph.D. awarded)

- 1) David Kostiuk, Graduate Center for Biomedical Engineering, The Johns Hopkins University; 1975
- 2) John Charles, Graduate Center for Biomedical Engineering, University of Kentucky; 1982
- 3) George Ordway, Department of Physiology, University of Kentucky; 1982
- 4) Jeffrey Marquis, Graduate Center for Biomedical Engineering, University of Kentucky; 1982
- 5) Randall Wilson, Department of Physiology, University of Kentucky; 1984
- 6) David Cowen; MD/Ph.D. program, University of Kentucky; MD received 1989
- 7) Bruce Bowdy, Dpt Pharmaceutical Sciences, University of Kentucky; 1989
- 8) Mark Cunningham, Dpt Pharmaceutical Sciences, University of Kentucky; 1990
- 9) Warwick Arden, Department of Physiology, University of Kentucky; 1993
- 10) Andres Vrettos, Graduate Center for Biomedical Engineering, University of Kentucky; 1993
- 11) Glen McCombs, Department of Physiology, University of Kentucky; 1994
- 12) Sanjay Singh, Department of Physiology, Loyola University (Chicago); 1996
- 13) Nowel Horton, Graduate Program in Toxicology, University of Kentucky; 1997
- 14) W. Scott Akers, Dpt Pharmaceutical Sciences, University of Kentucky; 1998
- 15) Margery Anderson, Department of Physiology, University of Kentucky; 1998
- 16) Luna Hilaire, Graduate Center for Biomedical Engineering, University of Kentucky; 1998
- 17) Sachin Moghe, Graduate Center for Biomedical Engineering, University of Kentucky; 2002.

- 18) Julye Adams, Dpt Physioly, University of Kentucky; 2004
- 19) Carine Boustany, Dpt Pharmaceutical Sciences, University of Kentucky; 2004
- 20) Gerome Burke, Graduate Program in Toxicology, University of Kentucky; 2004
- 21) Jesse Pittsley, Graduate Center for Biomedical Engineering, University of Kentucky; 2004
- 22) Sevda Aslan, Graduate Center for Biomedical Engineering, University of Kentucky; 2005
- 23) Letia Richardson, Graduate Center for Biomedical Engineering, University of Kentucky; 2005
- 24) Michael Stenger, Graduate Center for Biomedical Engineering, University of Kentucky; 2005
- 25) Amy Thompson, Dpt Pharmacology, University of Kentucky; 2005
- 26) Xue Wang, Graduate Center for Biomedical Engineering, University of Kentucky; 2005
- 27) Runze Wu, Graduate Center for Biomedical Engineering, University of Kentucky; 2005
- 28) Abu Ruz, School of Nursing, University of Kentucky; 2006
- 29) Fernanda Camargo, Dpt Veterinary Science, University of Kentucky; 2006
- 30) Marla DeJong, School of Nursing, University of Kentucky; 2006
- 31) Miranda Byse, Department of Physiology, University of Kentucky; current student
- 32) Muna Hammash, School of Nursing, University of Kentucky; current student
- 33) Mark Howarth, Graduate Center for Biomedical Engineering, University of Kentucky; current student
- 34) Sarah Police, Graduate Program in Nutritional Science, University of Kentucky; current student

G. Post-Doctoral Fellows

- 1) Dr. John Charles, 1982-83
- 2) Dr. King C. Lee, 1983-1986
- 3) Dr. David R. Brown, 1985-86
- 4) Dr. Shenggang Li, 1995-1999
- 5) Dr. Don E. Burgess, 1997-98

G. Visiting Scholars Hosted

- 1) Dr. C.N.E. Anigbogu, First Annual IUPS Visiting Fellow; University of Lagos, Nigeria, 12/91 - 1/93; sabbatical leave from University of Lagos, 8/03 - 9/04.
- 2) Dr. Don E. Burgess, Asst. Prof. Physics & Mathematics, Asbury College, Wilmore, KY; research scientist, summer 1995, 1996; 5/1998-8/1999.
- 3) Dr. Yasser M. El-Wazir; sabbatical leave from Dept. Physiology, Faculty of Medicine, Suez Canal University, Cairo, Egypt; 9/96-6/97; 8/99-11/99.
- 4) Dr. Lisa Cassis; sabbatical leave from College of Pharmacy, University of Kentucky, 9/01 - 6/02.

H. Undergraduate students mentored (Student Name, School; date; * = student was co-author on a published manuscript and/or abstract resultant from lab experience)

*Rebecca Raisch, Asbury College, 1990
 *Karen Rule, Berea College, 1990
 *Martin Behnke, Asbury College, 1993
 *Jay Kilgore, University of Kentucky, 1994
 *John Hundley, Asbury College, 1997
 *Matthew Olmstead, Asbury College, 1998
 *Aletia Sprinkle, University of Kentucky, 1998
 *Tabetha Zimmerman, Asbury College, 1999
 *John Carroll, Asbury College, 2001
 *Ethan Zimmermann, Asbury College, 2001
 *Richard Speakman, Asbury College, 2002
 *Richard Hoyt, Asbury College, 2002
 *Amanda Willingham, Asbury College, 2004
 Seth Young, University of Kentucky, 2004
 *Daniel Williams, Asbury College, 2005
 Shara Strang, Asbury College, 2007

I. Medical Students Pursuing Research Project (Student Name, School; date; * = student was co-author on a published manuscript and/or abstract resultant from lab experience)

*Charles Fischer, University of Kentucky, 1981
 *Patrick McGinnis, University of Kentucky, 1985
 *Hubbie Ballard, University of Kentucky, 1992
 *Richard Speakman, University of Kentucky, 2003

J. High School Students Pursuing Research Project (Student Name, School; date; * = student was co-author on a published manuscript and/or abstract resultant from lab experience)

*Laura Hitchner, Paul L. Dunbar Math, Science and Technology Center, 1997
 Eric Whitley, Paul L. Dunbar Math, Science and Technology Center, 2000
 Justin Kuo, Paul L. Dunbar Math, Science and Technology Center, 2001

*Winston Li, Paul L. Dunbar Math, Science and Technology Center, 2004
Ashley Johnson, Brian Station High School, 2006
Amit Chakraborty, Paul L. Dunbar Math, Science and Technology Center, current

OTHER PROFESSIONAL ACTIVITIES

Faculty Sponsor, Student Chapter at University of Kentucky, Christian Medical and Dental Associations, 1976-present.

Medical Explorer Post Advisor, University of Kentucky College of Medicine, 1988-1994.

Trinity Christian Academy (K-12), Board of Directors, member 2008 - present.

PERSONAL

Place of Birth: St. Louis, Mo.

Marital Status: Married to Lea C. Wylder

Children: Christopher C. (spouse: Nicole Morrison Randall; grandchild₇₋₉₋₀₅ = Ryne Harold Randall), Matthew F. (spouse: Stephanie Gray Randall; grandchild₇₋₂₋₀₅ = Mary Hannah Randall; grandchild₁₀₋₂₀₋₂₀₀₈ = Lydia Sue Randall), Benjamin W. (no spouse and there better be no children, he's only 21!)

Address: 750 Cedar Lake Rd., Versailles, KY 40383

Personal Interests and Activities:

Amateur (Ham) Radio - K9ARK (80 m cw, QRP; licensed since 1960)

Agriculture: 40 acre 'farm' (complete with 1948 Allis Chalmers model "C" tractor - it works!) and a John Deere 990 (it *really* works!); gardening, apple & peach orchard, bee-keeping

Aviation (licensed single-engine land, visual flight rules)

Boy Scouts of America (Eagle scout), active with Troop 226, Lexington, KY

Grandfathering (Mary Hannah Randall, b. 7/2/05; Ryne Harrold Randall, b. 7/9/05; Lydia Sue Randall, b. 10/20/08)

Photography (Leica M2, F2 and, alas, now also a digital camera)

Regional history and family genealogy

Riding (trusty steed: Fifi, Kentucky's *finest!*; Fifi's friends = Mocha and Missy)

Ruling Elder, Tates Creek Presbyterian Church (in America)