CURRICULUM VITAE
William Meredith Pierce, Jr.

MAILING ADDRESS: Office of the Executive Vice President for Research and Innovation
Jouett Hall 202
University of Louisville
Louisville, KY 40292
USA

E-mail: pierce@louisville.edu

EDUCATION:

1977 B.A. Chemistry, University of Louisville

1981 Ph.D. Pharmacology and Toxicology, University of Louisville

1981-1982 Postdoctoral Scholar, Stanford University

ACADEMIC AND PROFESSIONAL EXPERIENCE

1973 - 1976	Synthetic organic polymer research and development, Celanese Corporation
1977 - 1981	University Fellow, Department of Pharmacology and Toxicology, University of Louisville
1981 - 1982	Postdoctoral Scholar, Department of Medicine, Stanford University
1982 - 1985	Research Associate, Department of Pharmacology and Toxicology, University of Louisville School of Medicine
1985 - 1987	Instructor of Pharmacology and Toxicology, University of Louisville
1984 - 2000	Associate Director, Therapeutics and Toxicology Laboratory, Department of Pharmacology and Toxicology, University of Louisville School of Medicine
1987 - 1991	Assistant Professor of Pharmacology and Toxicology, University of Louisville School of Medicine
1987 - present	Graduate Faculty, University of Louisville
1988 - 1991	Assistant Professor of Ophthalmology and Visual Sciences, U of Louisville School of Medicine
1991 - 1997	Associate Professor of Pharmacology and Toxicology, University of Louisville
1991 - 1997	Associate Professor of Ophthalmology and Visual Sciences
1997 - present	Professor of Pharmacology and Toxicology, University of Louisville School of Medicine
1997 - present	Director, Biomolecular Mass Spectrometry Laboratory, University of Louisville
1997 - 2003	Professor of Ophthalmology and Visual Sciences, University of Louisville School of Medicine
2000 - present	Director, Therapeutics and Toxicology Laboratory, Department of Pharmacology and Toxicology, University of Louisville School of Medicine
2001 - present	Professor of Chemistry, University of Louisville College of Arts & Sciences
2006 - 2008	Special Assistant to the Provost – Strategic Planning, University of Louisville
2007 - 2011	Vice Provost for Graduate Affairs University of Louisville
2008 - 2009	Interim Dean of the School of Interdisciplinary and Graduate Studies, University of Louisville
2009 - 2011	Interim Executive Vice President for Research, University of Louisville
2011 - present	Executive Vice President for Research and Innovation, University of Louisville

PROFESSIONAL SOCIETIES

American Chemical Society
American Society for Bone and Mineral Research
Association for Research in Vision and Ophthalmology
Society for Experimental Biology and Medicine
International Society for the Study of Xenobiotics
American Society for Pharmacology and Experimental Therapeutics
American Association for the Advancement of Science
American Society for Mass Spectrometry
Association of Biomolecular Resource Facilities
Kentucky Academy of Sciences – Life Member

HONORS

Phi Lambda Upsilon Chemistry Honorary
University Fellowship Award
Graduate Dean's Citation for Superior Accomplishment
Sigma Xi
Gender Equity Award, UofL Medical Women Student Award
Research!Louisville – First Place Prize - for Research with Clinical Potential
University Citations (multiple) for Awarded U.S. Patents, Licenses and Options of technologies
President's Distinguished Faculty Award for Outstanding Service to the University of Louisville
University of Louisville Citation for Licensed Intellectual Property
President's Distinguished Faculty Award for Outstanding Research

PROFESSIONAL CERTIFICATION

Clinical Chemistry Laboratory Director, Qualification under Federal Clinical Laboratory Improvement Act Regulations, No. 5 - Subpart M 405.1312(b)(4)ii, 1985.

Commonwealth of Kentucky: Cabinet for Human Resources. Director, Medical Laboratory for Chemistry (Therapeutics and Toxicology Laboratory), License Number 200062.

LABORATORY DIRECTORSHIP

Founder and Laboratory Director – Blood Lead Monitoring Laboratory, University of Louisville, 1992 – 2010.

Founder and Laboratory Director – Biomolecular Mass Spectrometry Laboratory, University of Louisville. 1995-2012.

TECHNOLOGY TRANSFER

Founder, President, Chief Executive Officer and Chief Scientific Officer - Pradama Inc.

Pradama, founded in January 2005, is a specialty pharmaceutical company focused on the development and commercialization of products to treat bone diseases. Pradama executed a license to certain intellectual property from the University of Louisville Research Foundation in May 2005.

BIBLIOGRAPHY

PEER REVIEWED RESEARCH PUBLICATIONS

1. L.C.Waite, W.M. Pierce, Jr. and M.D. Lineberry. Sulfonamide inhibition of bone resorption: lack of a hypophosphatemia. J. Pharmacol. Exp. Ther. 213: 441-444, 1980.

2. W.M. Pierce, Jr. and L.C. Waite. Acetazolamide inhibition of bone resorption: lack of effect on phosphate release from bone in vitro. Hormone and Metabolic Res. 13: 591-592, 1981.

3. W.M. Pierce, Jr., M.D. Lineberry and L.C. Waite. Effects of sulfonamides on the hypercalcemic response to Vitamin D. Hormone and Metabolic Res. 14: 670-673, 1982.

4. W.M. Pierce, Jr., J.J. Schlager, R.J. Madden and H.E. Hurst. A simple, rapid synthesis of caffeine-1,7-^{13}C. J. Labelled Compounds and Radiopharmaceuticals 21: 187-192, 1984.

5. T.I. Senler, W.L. Dean, W.M. Pierce, Jr. and J.L. Witliff. Procedures for measuring cytochrome P-450-dependent hydroxylation activity in reproductive tissues. Anal. Biochem. 144: 152-158, 1985.

6. W.M. Pierce, Jr., J.A. Blank and L.C. Waite. Effects of heterocyclic sulfonamides on bone metabolism. Res. Comm. Chem. Path. Pharm. 50: 3-20, 1985.

7. W.J. Waddell, C. Marlowe and W.M. Pierce, Jr. Inhibition of the localization of urethane in mouse tissues by ethanol. Food and Chemical Toxicology 25: 527-531, 1987.

8. R.D. Gray, W.M. Pierce, Jr., J.W. Harrod, Jr., and J.M. Rademacher. Inhibition of thermolysin by bifunctional N-carboxyalkyl dipeptides. Arch. Biochem. Biophys. 256: 692-698, 1987.

9. W.M. Pierce, Jr. and L.C. Waite. Bone-targeted carbonic anhydrase inhibitors: Effect of a proinhibitor on bone resorption in vitro. Proc. Soc. Exp. Biol. Med. 186: 96-102, 1987.

10. W.M. Pierce, Jr., A.O. Clark and H.E. Hurst. Determination of ethyl carbamate by gas chromatography with flame ionization or mass spectrometric detection. J. Official Analytical Chemists. 71: 781-784, 1988.

11. W.M. Pierce, Jr. and D.E. Nerland. Qualitative and quantitative analyses of phenol, phenylglucuronide and phenylsulfate in urine and plasma by gas chromatography/mass spectrometry. J. Anal Toxicology, 12: 344-347, 1988.

12. T. Yamamoto, W.M. Pierce, Jr., H.E. Hurst, D. Chen and W.J. Waddell. Inhibition of the metabolism of urethane by ethanol. Drug Metab. Disposition 16: 355-358, 1988.

13. M.S. Mashuta, T.N. Doman, W.M. Pierce, Jr. and R.M. Buchanan. Synthesis and characterization of a new binucleating Schiff base macrocycle and its nickel(II) and copper(II) complexes. Inorgan. Chim. Acta 145: 21-28, 1988.

14. K.J. Oberhausen, J.F. Richardson, W.M. Pierce, Jr. and R.M. Buchanan. Synthesis, structure and properties of a N3 tridentate bis-imidazolyl ligand with copper(II). Polyhedron 8: 659-668, 1989.

15. M.S. Mashuta, W.M. Pierce, Jr. and R.M. Buchanan. Binuclear Schiff base macrocycles. Inorg. Chim. Acta 158: 227-237, 1989.

16. J.S. Hurst, C.A. Paterson, P. Bhattacherjee and W.M. Pierce, Jr. Effects of ebselen on arachadonate metabolism by ocular and non-ocular tissues. Biochem. Pharmacol. 38: 3357-3363, 1989.

17. L.A. Carr, P.P. Rowell and W.M. Pierce, Jr. Effects of subchronic nicotine administration on central dopaminergic mechanisms in the rat. Neurochemical Research 14: 511-515, 1989.

18. S.D. Gettings, C.B. Brewer, W.M. Pierce Jr., J.A. Peterson, A.D. Rodrigues and R.A. Prough. Enhanced decomposition of oxyferrous cytochrome P450CIA1 (P-450$_{cam}$) by the chemopreventive agent, 3-tert-butyl-4-hydroxyanisole. Arch. Biochem. Biophys. 276: 500-509, 1990.

19. T. Yamamoto, W.M. Pierce, Jr., H.E. Hurst, D. Chen and W.J. Waddell. Ethyl carbamate metabolism: in vivo inhibitors and in vitro enzymatic systems. Drug Metabolism and Disposition 18: 276-280, 1990.

20. F.W. Benz, D.E. Nerland, W.M. Pierce, Jr. and C. Babiuk. Acute acrylonitrile toxicity: Studies on the mechanism of the antidotal effect of D- and L-cysteine and their N-acetyl derivatives. Toxicol. Appl. Pharmacol. 102: 142-150, 1990.

21. D.E. Nerland and W.M. Pierce, Jr. Identification of N-acetyl-S-(2,5-dihydroxyphenyl)-L-cysteine as a urinary metabolite of benzene, phenol, and hydroquinone. Drug Metabolism and Disposition 18: 958-961, 1990.

22. J.C. Passmore, A.E. Jimenez and W.M. Pierce Jr. Cardiac output and the blood pressure increase in deoxycorticosterone acetate-salt sensitive hypertension after nicotine infusion. Clin. Experimental Hypertension A13:83-102, 1991.

23. W.M. Pierce, Jr., G.F. Nardin, M.F. Fuqua, E. Sabah-Maren and S.H. Stern. Effect of chronic carbonic anhydrase inhibitor therapy on bone mineral density in white women. J. Bone and Mineral Res. 6: 347-354, 1991.

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55. Thongboonkerd, V., E. Gozal, LR Sachleben, Jr., JM Arthur, WM Pierce Jr., J. Cai, J. Chao and JB Klein. Proteomic Analysis Reveals Alterations in the Renal Kallikrein Pathway During Hypoxia-Induced Hypertension. J Biol Chem. 2002 Sep 20;277(38):34708-16

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57. Thongboonkerd, V, JB Klein, WM Pierce, Jr., AW Jevans and JM Arthur. Sodium Loading Changes Urinary Protein Excretion. Am J Physiol Renal Physiol Jun;284(6):F1155-63, 2003.

58. Singh S, Powell DW, Rane MJ, Millard TH, Trent JO, Pierce WM, Klein JB, Machesky LM, McLeish KR. Identification of the p16-Arc subunit of the Arp2/3 complex as a substrate of MAPK-activated protein kinase-2 by proteomic analysis. J Biol Chem. 2003 Jun 26.

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61. Pierce WM, Cai J. Applications of mass spectrometry in proteomics. Contrib Nephrol. 2004;141:40-58.

62. Thongboonkerd V, Barati MT, McLeish KR, Pierce WM, Epstein PN, Klein JB. Proteomics and diabetic nephropathy. Contrib Nephrol. 2004;141:142-54.

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64. Thongboonkerd V, Barati MT, McLeish KR, Benarafa C, Remold-O'Donnell E, Zheng S, Rovin BH, Pierce WM, Epstein PN, Klein JB. Alterations in the Renal Elastin-Elastase System in Type 1 Diabetic Nephropathy Identified by Proteomic Analysis. J Am Soc Nephrol. 2004 Mar;15(3):650-62.

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79. Sultana R, Boyd-Kimball D, Poon HF, Cai J, Pierce WM, Klein JB, Markesbery WR, Zhou XZ, Lu KP, Butterfield DA.. Oxidative modification and down-regulation of Pin1 in Alzheimer's disease hippocampus: A redox proteomics analysis. Neurobiology of Aging: 27, 918-925, 2006.

80. Perluigi, M, HF Poon, W Maragos, WM Pierce, JB Klein, V Calabrese, C Cini, C De Marco, and DA Butterfield. Proteomic Analysis of Protein Expression and Oxidative Modification in R6/2 Transgenic Mice-- A Model of Huntington's Disease. Molec. Cell. Proteomics, 4:1849-1861, 2005.

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45 Furosemide-Induced Hypercalcuria: A Model of Hypercalcuric Bartter Syndrome (HBS). Shoemaker, L., WM Pierce, Jr. Presented at the American Academy of Pediatrics annual meeting, May 12, 2000, Boston, MA, USA.

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58 J.B. Klein, W.M. Pierce, J.A. Scherzer, J. Cai, L.R. Sachleben, D. Gozal, E. Gozal. Proteomic analysis of CA1 and CA3 regions of hippocampus following brief exposures to continuous hypoxia reveals disparities in antioxidant expression. Presented at: 32th Annual Meeting of the Society for Neuroscience, November 2-7, 2002, Orlando, FL. Vol 28, abstract #. 577.7

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64. Purification and Characterization of CB_2 Cannabinoid Receptor Expressed in *Pichia Pastoris.* Z. H. Song, J. Cai, W. Pierce, and W. Feng, International Cannabinoid Research Society Conference, 2002.

65. Altered Elastase Inhibitor and Elastin Expression in Type 2 Diabetic Kidneys Defined by Proteomic Analysis. V Thongboonkerd, M Barati, KR McLeish, B Rovin, WM Pierce, PN Epsteinand JB Klein. *Journal of the American Society of Nephrology* 14: Suppl. SEP 2003.

66. Mitochondrial damage in diabetic heart and protection by MnSOD Xia S, Zheng SR, Thongboonkerd V, Carlson E, Pierce W, Klein J, Epstein P. DIABETES 52: A429-A429 Suppl. 1 JUN 2003.

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73. Kennedy, MJ Davis, DA Smith, NB Pierce, WM Lin, T Pearce, RE Gaedigk, A Kearns, GL. Recombinant human growth hormone (rhGH) has no effect on activities of hepatic cytochrome P4501A2 (CYP1A2), N-acetyltransferase 2 (NAT2), xanthine oxidase (XO) or cytochrome P4502D6 in children with idiopathic growth hormone (GH) deficiency. Clin Pharm Therapeutics 79 (Suppl.): P84, 2006

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75. David W. Hein, Kristin J. Metry, Jean Bendaly, Ned B. Smith, Jason R. Neale, and William M. Pierce, Jr. N-acetyltransferase 2 genotype-dependent DNA adducts in rapid and slow acetylator congenic rats administered 2-amino-3,8-dimethylimidazo-[4,5-f] quinoxaline. Presentation to the Symposium of the International Society for Polycyclic Aromatic Compounds. 2007.

76. Bendaly, Jean[1]; Zhao, Shuang[1]; Metry, Kristin J.[1]; Doll, Mark A.[1]; States, J. Christopher[1]; Smith, Ned B.[1]; Pierce, William M.[1]; Hein, David W.[1] Role of human cytochrome P4501a1 and N-acetyltransferase 2 genetic polymorphism on the mutagenicity and DNA damage of the environmental carconogens 2-amino-phenylimidazo[4,5-B]pyridine and 4 aminoniphenyl. Society of Toxicology Annual Meeting, 2008.

77. Metry, Kristin J.[1]; Doll, Mark A.[1]; Smith, Ned B.[1]; Zhao, Shuang[1]; States, J. Christopher[1]; McGregor, W. Glenn[1]; Pierce, William M.[1]; Hein, David W.[1] Role of human N-acetyltransferase 2 acetylation polymorphism in mutagenesis and DNA adduct formation by the aromatic amine carcinogens 2-aminofluorene and 4-aminobiphenyl. Society of Toxicology Annual Meeting, 2008.

78. Natali B. Richter, Qian Xu, Kathleen Hamilton, Michael Voor, Kevyn Merten, Jeff Falcone, Jian Cai, K. Grant Taylor and William M. Pierce, Jr. Targeting Drugs to Bone. American Chemical Society Meeting, Philadelphia, 2008.

79. Benz, F.W., Cai, J., Nerland, D.E., Hurst, H.E. and Pierce, W.M. Second order rate constants for the in vitro reaction of the toxic industrial chemical acrylonitrile with the most reactive sites in human blood. Abstract #1848, 49th Annual Meeting, Society of Toxicology, Salt Lake City, UT, March 7-11, 2010 (*Toxicological Sciences* 114: No. 1-Supplement, 393).

80. Cai, J., Benz, F.W., Nerland, D.E., Hurst, H.E. and Pierce, W.M. Human serum albumin Cys34 adducts as a biomarker for exposure to unknown reactive chemicals, Abstract #2724, 58th ASMS Conference on Mass Spectrometry and Allied Topics, Salt Lake City, UT, May 23-27, 2010.

81. Benz, F.W., Cai, J., Nerland, D.E., Hurst, H.E. and Pierce, W.M. Acrylonitrile, adduct, mass spectrometry, biomarker, toxic industrial chemicals. Abstract #P101-014, XII International Congress of Toxicology, Barcelona, Spain, 19-23 July 2010 (*Toxicology Letters* 196S: S41).

INVITED PRESENTATIONS

1. Bone-Targeted Inhibitors of Carbonic Anhydrase. Department of Oral Biology, University of Louisville School of Dentistry, May, 1985.

2. Bone-Targeted Inhibitors of Carbonic Anhydrase. Serono Laboratories, Boston, Massachusetts, February, 1987.

3. Bone-Targeted Inhibitors of Carbonic Anhydrase. Wyeth Laboratories, Philadelphia, Pennsylvania, May, 1987.

4. Development of Topically Active Carbonic Anhydrase Inhibitors for the Management of Glaucoma. Department of Ophthalmology, University of Louisville School of Medicine, June, 1987.

5. Topically Useful Carbonic Anhydrase Inhibitors. Allergan Pharmaceuticals, Irvine, California, April, 1988.

6. Bone-Targeted Inhibitors of Carbonic Anhydrase. Wyeth-Ayerst Pharmaceuticals, Princeton, New Jersey, May, 1988.

7. "Where Are the Topical CAIs?" Presented at the National Meeting of the American Academy of Ophthalmology, Las Vegas, Nevada, October, 1988.

8. Bone Targeting of Pharmacotherapeutic Agents. Glaxo Pharmaceuticals, Research Triangle Park, North Carolina, November, 1989.

9. Heterocyclic Sulfonamide Carbonic Anhydrase Inhibitors for Topical Ocular Use. American Cyanamid Laboratories, Pearl River, New York, November 1990.

10. Bone-Targeted Carbonic Anhydrase Inhibitors as Candidates for Management of Osteoporosis. Mission Pharmaceuticals, Dallas, Texas, October, 1991.

11. Novel Topically Active Carbonic Anhydrase Inhibitors. Hexal Pharma GmbH, Munich, Germany, April, 1993.

12. Choosing (and using) an antibiotic. Fifth Annual Conference, Kentucky Coalition of Nurse Practitioners/Nurse Midwives. Louisville, Kentucky, April, 1993.

13. Bone-Targeted Inhibitors of Carbonic Anhydrase. Abbott Laboratories Pharmaceuticals, Chicago, Illinois, September, 1993.

14. Bone-Targeted Inhibitors of Carbonic Anhydrase. DuPont/Merck Pharmaceuticals, Philadelphia, Pennsylvania, October, 1993.

15. Bone-Targeting Strategies for Management of Osteopenia. Kowa Company, Ltd., Tokyo, Japan, September, 1994.

16. Novel Bone-Targeting Agents. Kowa Company, Ltd., Tokyo, Japan, July 1996.

17. Bone Targeted Steroids. Kowa Company, Ltd., Tokyo, Japan, December, 1997.

18. Development of Bone Targeted Carbonic Anhydrase Inhibitors for Medical Management of Osteoporosis. Tianjin Medical University, Tianjin, P.R. China, December, 1997.

19. Effects of Novel and Classical Carbonic Anhydrase Inhibitors on Intraocular Pressure in Animal Studies. Possible Topical Drugs for Glaucoma. Tianjin Pharmacological Society, Tianjin, P.R. China, December, 1997.

20. Application of Mass Spectrometry in Drug Design and Development. Presented to Institute for Molecular Diversity and Drug Design, University of Louisville, March 15, 1999.

21. Applications of Mass Spectrometry in Genetics and Molecular Medicine. Presented to the Center for Genetics and Molecular Medicine, University of Louisville, October 21, 1999.

22. Bone Targeted Estrogens. Presented to Institute for Molecular Diversity and Drug Design, University of Louisville, March 13, 2000.

23. What Biomolecular Mass Spectrometry can do for me. Presented to the Department of Ophthalmology and Visual Sciences, University of Louisville, October, 2000.

24. Can we make Bone-Anabolic Estrogens? Presented to the Dept. Orthopedic Surgery, University of Louisville, January 16, 2001.

25. Novel Estrogens for treatment of bone metabolic disease. Presented to Dept. of Biochemistry and Molecular Biology, University of Louisville, January 21, 2001.

26. Protein and peptide Mass Spectrometry Presented to the Department of Chemistry, University of Louisville, April 27, 2001.

27. Teaching a drug to fetch a bone? Presented to the J. Graham Brown Cancer Center Molecular Targets Group, Louisville, KY April, 2002.

28. Biomolecular Mass Spectrometry. J. Graham Brown Cancer Center Retreat, September 18, 2002.

29. Biomolecular Mass Spectrometry in your research. Presented at Centre College, April 2005.

30. Spectra for the Masses: From Biomedical Science to NCIS. Cancer Chemoprevention Unit, University of Louisville, September, 2005.

31. Bone Targeting of Pharmaceuticals. Kentucky Translational Research Symposium, October 2007.

SPONSORED RESEARCH PROJECTS

Project: 3T MRI Center
Role: PI - Pierce, W.
Agency: HRSA
Total Costs Awarded: $9.6M
Project Period: 2009-2011

Project: Informatics
Role: PI - Pierce, W. (25%)
Agency: US Dept. of Energy
Total Costs Awarded: $600,000
Project Period: 2008 - 2010

Project: High Technology Mass Spectrometry: Toxic Industrial Chemical Biomarkers
Role: PI - Pierce, W. (25%)
Agency: US Dept. of Defense
Total Costs Awarded: $944,000
Project Period: 4/1/2008 – 10/2009

Project: Center for Environmental Genomics and Integrative Biology
Role: Co-I, Core Lab Director - Pierce, W. (5%)
Agency: NIEHS
Project Period: 12/1/2004 – 1/1/2009

Project: Bone Anabolic Agents
Role: PI - Pierce, W. (10%)
Agency: Kentucky Science and Technology Corporation
Total Costs Awarded: $150,000
Project Period: 12/1/2004 – 3/1/2008

Project: TNF-a in Cell Death & Neuroprotection in Glaucoma
R01 EY13813-05A1
Role: Co-Investigator (PI – Tezel, G)
Agency: National Institutes of Health
Total Costs Awarded: $1,250,000 (direct); $1,850,000 (total)
Project Period: 8/1/2007 - 7/31/2012

Project: Proteomic Analysis of Retinal Ganglion Cell Death in Glaucoma
1 R01 EY017131-01A2
Role: Co-Investigator (PI – Tezel, G)
Agency: National Institutes of Health
Total Costs Awarded: $1,250,000 (direct); $1,850,000 (total)
Project Period: 12/1/2007 - 1/31/2012

Project: Bone Targeting Agents
Role: PI - Pierce, W. (10%)
Agency: Kentucky Science and Technology Corporation R&D Voucher Award
Total Costs Awarded: $200,000
Project Period: 1/1/2006 – 12/31/2007

Project: Bone Targeting of Pharmaceuticals
KSEF-608-RDE-006
Role: PI - Pierce, W. (5%)
Agency: Kentucky Science and Engineering Foundation
Total Costs Awarded: $16,500
Project Period: 9/1/2004 – 8/31/2005

Project: Center for Regulatory Metabolomics: From Molecules to Communities
Role: Co-Investigator (5% effort) (PI – Teresa Fan, Ph.D.)
Agency: National Science Foundation
Project Period: 2005-2008
Total Direct Costs: $2,827,167

Project: Mechanistic Studies of Oligonucleotide Aptamers with Potent Antiproliferative and Pro-Apoptotic Activity against Prostate Cancer Cells
Role: Co-Investigator (PI – PJ Bates)
Agency: Department of Defense
Total Costs Awarded: $375,000 (direct); $551,042 (total)
Project Period: Oct 2003 - Aug 2006

Project: Center for Pediatric Clinical Pharmacology Research
5U10HD045934-02
Co-Investigator: William M. Pierce Jr., Ph.D. (5% effort) (PI – Janice E. Sullivan, M.D.)
Agency: National Institutes of Health
Dates: March 8, 2004 – December 31, 2008

Project: Rabbit Model for In Vivo Monitoring of Bone Structure 1R03AG022299-01
Role: Co-Investigator (PI – MJ Voor)
Agency: National Institutes of Health
Total Costs Awarded: $50,000 (total)
Project Period: Sept 2003 - Aug 2004

Project: Structure and Function of CB2 Cannabinoid Receptor
R01DA11551-07
Role: Co-Investigator (PI – Z-H Song)
Agency: National Institutes of Health
Total Costs Awarded: $1,029,000 (direct); $1,724,900 (total)
Project Period: 3/08/04 – 20/31/08

Project: Pharmacogenetics of drug and carcinogen metabolism
R01-CA34627
Role: Consultant (PI – DW Hein)
Agency: National Institutes of Health
Total Costs Awarded: $1,175,000 (direct); $1,522,900 (total)
Project Period: July 1, 2003 to June 30, 2008

Project: A Proteome Map of Neutrophil Granules
1 R21 DK62389-01A1
Role: Co-Investigator (PI – KR McLeish)
Agency: National Institutes of Health

Total Costs Awarded: $100,000
Project Period: July 1, 2003 – June 30, 2004

Project: Cardiovascular Toxicity of Environmental Aldehydes
1P01ES011860-01A19001 Pierce, W. (10%)
1P01ES011860-01A1 Bhatnagar, A. (PI)
Role: Co-I (Core Lab Director PPG PI – A. Bhatnagar)
Agency: NIH (P20, Program Project Grant)
Total Costs Awarded: $5,015,729
Project Period: 7/1/2003 – 6/30/2008

Project: Hybrid Quadrupole Time of Flight Mass Spectrometer
1S10RR016636-01
Role: Principal Investigator
Agency: National Institutes of Health
Total Costs Awarded: $500,000
Project Period: 4/1/2002 – 3/31/2004

Project: Seed investment in biotechnology
Role: Co-Investigator (PI – Patrick Migliore Novera)
Agency: Kentucky Science and Technology Corporation
Total Costs Awarded: $100,000
Project Period: Dec 2002 – Dec 2003

Project: Proteomic Analysis of Diabetic Nephropathy
Role: Co-I (5% Effort); (PI – Jon B. Klein, M.D., Ph.D.)
Agency: NIH
Total Costs: $200,000
Project Period: 2002 - 2004

Project: Gene Expression of Persistent Chlamydia
1R01HL068874-01
Co-Investigator: William M. Pierce Jr., Ph.D. (5% effort); (PI – James T. Summersgill, Ph.D.)
Agency: National Institutes of Health
December 2001 – November 2006
Total Direct Costs: $1,200,000

Project: Proteomic Analysis of Hippocampal Hypoxic Vulnerability
R01 HL66358-01
Co-Investigator: William M. Pierce Jr., Ph.D. (PI – Jon B. Klein, M.D., Ph.D.)
Agency: National Institutes of Health
Type: Research Grant 10/2000 - 9/2004
Total Costs Awarded: $1,000,800

Project: Toxicity and Detoxification of 4-Hydroxyalkenals in Heart
R01 HL55477-06
Co-Investigator: William M. Pierce Jr., Ph.D. (PI Aruni Bhatnagar, Ph.D.)
Agency: National Institutes of Health
Total Costs Awarded: $1,220,000
Type: Research Grant 10/2000 - 9/2004

Project: Cardioprotective Effects of Ethanol
R21-AA13299-01
Co-Investigator: William M. Pierce Jr., Ph.D. (PI – Aruni Bhatnagar, Ph.D.)
Agency: National Institutes of Health
Type: Research Grant - 1-Apr-2001 – 31-Mar-2004
Total Costs Awarded: $144,000

Project: Regulation of Neutrophil Activation
Co-Investigator: William M. Pierce Jr., Ph.D. (PI - Kenneth R. McLeish, M.D.)
Agency: Veterans Administration Merit Review
Type: Research Grant 1999-2002

Project: Evolution of a Pheromone Signaling System
Co-Investigator: William M. Pierce Jr., Ph.D. (PI's - Lynne Houck, U. of Oregon and Richard C. Feldhoff, UofL)
Agency: National Science Foundation. S0632A-A
Type: Research Grant - 15-July-2001 – 14-July-2004
Total Costs Awarded: $3,022,625

Project: P450 Metabolites of Arachidonic Acid and DOCA-Salt Hypertension
Co-Investigator: William M. Pierce Jr., Ph.D. (PI – Ayotunde S. Adeagbo, Ph.D.)
Agency: American Heart Association
Type: Research Grant 2000-2003
Total Costs Awarded: $75,000

Project: Central Nervous System Injury and Repair
Role: Co-I (5%); (COBRE Program Director: Scott Whittemore, Project Director: E. Gozal)
Agency: NIH 1P20RR15576-01
Total Costs: $8,500,000
Project Period: 2000-2004

Project: Analysis of PTH and Dopamine Receptor Signaling in Proximal Tubules
Role: Co.I. (5%) (PI Eleanor Lederer)
Agency: Veterans Administration
Total Costs: $464,500
August 2001 - July 2005

Project: Mechanisms of Chemoresistance in Ovarian Cancer
Role: Co-I (5% Effort) (PI J. Christopher States)
Agency: Elsa Pardee Foundation
Total Costs: $ 128,418
Project Period: 2001-2003

Project: Regulatory Kinase Signal Transduction Pathways in Human Neutrophils
Role: Co-I (5%; PI Kenneth R. McLeish)
Agency: American Heart Association - Ohio Valley
Total Costs: $89,300
Project Period: 2000-2002

Project: Transcriptional and Posttranscriptional Regulation of Zfhep
Role: Co-I (PI Douglas Darling)
Agency: UofL School of Medicine

Total Costs: $ 14,250
Project Period: 2000-2001

Project: P450 Metabolites of Arachidonic acid and DOCA salt hypertension
Role: Co-I (PI Ayotunde Adeagbo)
Agency: American Heart Association - Ohio Valley
Total Costs: $75,000

Project: MALDI-TOF Mass Spectrometer
Role: Principal Investigator
Agency: State of Kentucky Physical Facilities Trust Fund
Total Costs Awarded: $275,000
Project Period: 7/1/1999 – 6/30/2000

Project: Atomic Absorption Spectrometer
Role: Principal Investigator
Agency: WHAS Crusade for Children
Total Costs Awarded: $50,000
Project Period: 1999

Project: Estrogens: Bone Blood Flow and Bone Mechanical Properties
Role: Co-I (PI – John Fleming)
Agency: NIH
Total Costs: $50,000 (R03)
Project Period: 1999 – 2001

Project: Regulation of Neutrophil Activation
Role: Collaborator (PI Kenneth McLeish)
Agency: VA Merit Review
Total Direct Costs: $407K
Project Period: 1999-2002

Project: Bone Targeting of Estrogens for Osteoporosis
Role: Principal Investigator
Agency: Kowa Company, Ltd.
Role: Principal Investigator
Total Costs Awarded: $604,638
Project Period: August 1, 1997 – September 30, 2000

Project: Lead Monitoring Program
Agency: WHAS Crusade for Children, Fee for Service
Role: Principal Investigator
Total Annual Budget: $36,000
Project Period: 1993-2001
Project: HPLC-Electrospray Mass Spectrometer

1S10RR11368-01
Role: Principal Investigator
Agency: National Institutes of Health
Total Costs Awarded: $282,261
Project Period: 6/15/1997 – 6/14/1998

Project: HPLC-Electrospray Mass Spectrometer Supplement
1S10RR11368-01A1
Role: Principal Investigator
Agency: National Institutes of Health
Total Costs Awarded: $25,693
Project Period: 6/15/1997 – 6/14/1998

Project: Bone Targeting of Pharmaceutical Agents for Osteoporosis
Agency: Kowa Company, Ltd.
Dates: 1995-1997
Role: Principal Investigator
Total Direct Costs: $196,635

Project: Electrically-Induced Exercise Countermeasure Effects on Protein Turnover in Unloaded Skeletal Muscle
Agency: Kentucky NASA EPSCoR Program
Dates: 1995-1996
Role: Co-Investigator (PI - J.M. Steffen)
Total Direct Costs: $24,525

Project: Lead Monitoring Program
Agency: WHAS Crusade for Children
Dates: 1994 - 1995
Role: Principal Investigator
Total Direct Costs: $23,012

Project: Bone Targeted Carbonic Anhydrase Inhibitors
Agency: Research Corporation
Dates: 1985 – 1987
Role: Principal Investigator
Total Direct Costs: $5,050

Project: Studies of Intermediary Nitrogen Metabolism by Saccharomyces
Agency: Kentucky Distillers' Association
Dates: 1987 - 1988
Role: Principal Investigator
Total Direct Costs: $15,000

Project: Topical Carbonic Anhydrase Inhibitors
Agency: Fight for Sight, Inc.
Dates: 1987 - 1988
Role: Principal Investigator
Total Direct Costs: $9,000

Project: Aging and Bone Loss
Agency: LifeSpan
Dates: 1991 - 1992
Role: Principal Investigator
Total Direct Costs: $2,460

Project: Analytical Methodology Development
Agency: Kentucky Distillers' Association
Dates: 1 986 - 1987
Role: Co-Investigator (PI - H.E. Hurst)
Total Direct Costs: $32,000

Project: Antidotal Therapy for Acrylonitrile Toxicity
Agency: British Petroleum
Dates: 1987 - 1988

Role: Co-Investigator (PI's - D.E. Nerland and F.W. Benz)
Total Direct Costs: $75,000

Project: Identity and Biological Activity of a Bone Metabolic Inhibitor from Smokeless Tobacco
Agency: Smokeless Tobacco Research Council
Dates: 1/1/89 - 12/31/91
Role: Co-Investigator (PI - W. K. Ramp)
Total Direct Costs: $307,239

Project: Cyclosporine pharmacokinetics in heart transplant
Agency: Jewish Hospital Foundation
Dates: 1992 - 1995
Role: Co.-Investigator (PI - Martin Bunke, M.D)
Total Direct Costs: $75,000

Project: Topical Ocular Carbonic Anhydrase Inhibitors
Agency: Research Corporation Technologies
Dates: 1992 - 1993
Role: Principal Investigator
Total Direct Costs: $10,000

Project: Blood Lead Screening
Agency: WHAS Crusade for Children
Dates: 1992 - 1993
Role: Co-Investigator (PI - G.C. Rodgers, Jr.)
Total Direct Costs: $39,000

TEACHING AND TRAINING

CLASSROOM INSTRUCTION

Course Director and Lecturer - Nursing Pharmacology, 1985 - 2009
Course Director and Lecturer - Undergraduate Pharmacology, 1984 - 1986. 1998-2005.
Course Director or Lecturer - Research Methods in Pharmacology and Toxicology 1988 – 2009; Director 1988-2000
Course Director or Lecturer - Endocrine Pharmacology – Course Director, 2007 – 2009, Lecturer 2007 – present.
Lecturer - Medical Pharmacology, 1983 - present
Lecturer - Dental Pharmacology, 1985 - present
Lecturer - Graduate level Toxicology, 1984 - 2006.
Lecturer - Research Methods in Biochemistry and Molecular Biology, 1988 – 2007.
Bone and Calcium Physiology, 1990 - 1993, 1995 - 1998

GRADUATE STUDENTS (AS MAJOR PROFESSOR)

Mordechai Sharir, M.D., Ph.D. (1990) "Topically Useful Ocular Carbonic Anhydrase Inhibitors"
M. Kathleen King Kaysinger, Ph.D. (1991) "Regulation of Bone Collagen Synthesis"
Chen-Di, M.D., Ph.D. (1992) "Effects of Zinc on Bone Metabolism"
Qiang Wu, M.D. Ph.D., Co-Mentor with N.A. Delamere (1997)
Jason R. Neale, M.S. (2000) “A Novel Bone Selective Estrogen: A Candidate Compound for the Treatment of Osteopenia”
Jason R. Neale, Ph.D. (2002) “Bone-Targeted Estrogens: Structure-activity Relationships and Mechanisms of Actions”
Hana Khaled, M.S. (2002) “Osteoporosis: An overview of Prevention, Genetics, and Treatment”
Isabelle Bagshaw, M.S.; Co-Mentor with A. Bhatbagar (2010) “Potential Cardiotoxic Impact of Aldehydes in the Progression of Atherosclerosis”
Mildred Menchu, M.S. Candidate.
Natali Richter, Ph.D., Chemistry. Co-mentor with K. Grant Taylor (2008)

THESIS AND DISSERTATION COMMITTEES

Michael S. Wells, Ph.D. (1986)	Pharmacology & Toxicology	Dissertation Committee
Jin Lin, M.S. (1987)	Microbiology & Immunology	Thesis Committee
Steven T. Houpt, M.S. (1987)	Chemistry	Thesis Committee
Elizabeth Dunlap, Ph.D. (1987)	Pharmacology & Toxicology	Dissertation Committee
Mark S. Mashuta, Ph.D. (1989)	Chemistry	Dissertation Committee
James Joly, Ph.D. (1989)	Pharmacology & Toxicology	Dissertation Committee
Kenneth J. Oberhausen, Ph.D. (1990)	Chemistry	Dissertation Committee
Rachelle Galvin, Ph.D. (1990)	Pharmacology & Toxicology	Dissertation Committee
Robert J. O'Brien, Ph.D. (1991)	Chemistry	Dissertation Committee
Elaine Haub, Ph.D. (1993)	Chemistry	Dissertation Committee
Guo-jian Gao, Ph.D. (1993)	Biochemistry	Dissertation Committee
David B. Gazak, Ph.D. (1993)	Pharmacology & Toxicology	Dissertation Committee
Yanna Zhang, Ph.D. (1994)	Biochemistry	Dissertation Committee
Jing Dong, M.D., Ph.D. (1994)	Pharmacology & Toxicology	Dissertation Committee
Song Wu, Ph.D. (1995)	Biochemistry	Dissertation Committee
Raymond A. Kemper, Ph.D. (1995)	Pharmacology & Toxicology	Dissertation Committee
Shan Chen, Ph.D. (1995)	Chemistry	Dissertation Committee
Anne Clark, Ph.D. (1995)	Chemistry	Dissertation Committee

Dong-kuk Lee Ph.D. (1996)	Chemistry	Dissertation Committee
DeAnna Wiegant, Ph.D. (1996)	Chemistry	Dissertation Committee
Mary Manlei Li, Ph.D.(1997)	Pharmacology & Toxicology	Dissertation Committee
Sue Han, Ph.D. (1997)	Pharmacology & Toxicology	Dissertation Committee
Emmanuel Billa, M.S. (1997)	Chemistry	Thesis Committee
Emiko Hatcher Kreklau, Ph.D. (1997)	Pharmacology & Toxicology	Dissertation Committee
Bonny L. Buckaveckas, Ph.D. (1998)	Biology	Dissertation Committee
Matthew Leff III, Ph.D. (1999)	Pharmacology & Toxicology	Dissertation Committee
Jian Cai, Ph.D. (1999)	Pharmacology & Toxicology	Dissertation Committee
Joseph A. Spinnato III, Ph.D. (1999)	Pharmacology & Toxicology	Dissertation Committee
Jennifer Fitzpatrick, Ph.D. (1999)	Biochemistry	Dissertation Committee
Timothy Davis, M.S. (1999)	Chemistry	Thesis Committee
Adrian Fretland, Ph.D. (2000)	Pharmacology & Toxicology	Dissertation Committee
Rhona Feltzler, Ph.D. (2000)	Biochemistry	Dissertation Committee
Xiaoping Tang, Ph.D. (2000)	Chemistry	Dissertation Committee
Jeremy Feitelson, M.S. (2000)	Physiology & Biophysics	Thesis Committee
Scott Merkley, M.S. (2000)	Physiology & Biophysics	Thesis Committee
Jason Lambert, M.S. (2001)	Pharmacology & Toxicology	Thesis Committee
Xichun Sun, Ph.D. (2001)	Pharmacology & Toxicology	Dissertation Committee
R. Scot Payne, Ph.D. (2001)	Pharmacology & Toxicology	Dissertation Committee
Yining Hou, Ph.D. (2001)	Pharmacology & Toxicology	Dissertation Committee
Eugen Cristian Campian, M.S. (2001)	Pharmacology & Toxicology	Thesis Committee
Laila El-Sherif, M.S. (2001)	Pharmacology & Toxicology	Thesis Committee
Tina Wan, Ph.D. (2002)	Biochemistry & Molecular Biology	Dissertation Committee
Jian Li, M.S. (2002)	Pharmacology & Toxicology	Thesis Committee
Hainen Chen, M.S. (2002)	Pharmacology & Toxicology	Thesis Committee
Xiaoyan (Nina) Li, M.S. (2002)	Pharmacology & Toxicology	Thesis Committee
Xia (Clare) Shen, M.S. (2002)	Pharmacology & Toxicology	Thesis Committee
Jason Lambert, Ph.D. (2003)	Pharmacology & Toxicology	Dissertation Committee
David Powell, Ph.D. (2003)	Biochemistry & Molecular Biology	Dissertation Committee
Florence Brunel, Ph.D. (2003)	Chemistry	Dissertation Committee
David Vogel, Ph.D. (2003)	Chemistry	Dissertation Committee
Hainan Chen, Ph.D. (2003)	Pharmacology & Toxicology	Dissertation Committee
Denise Clark, M.S. (2003)	Pharmacology & Toxicology	Thesis Committee
Jian Li, Ph.D. (2003)	Pharmacology & Toxicology	Dissertation Committee
Yu (Janet) Zang, M.S. (2003)	Pharmacology & Toxicology	Thesis Committee
Paul Porter, M.S. (2003)	Pharmacology & Toxicology	Thesis Committee
Rundong (Ray) Zhang, M.S. (2003)	Pharmacology & Toxicology	Thesis Committee
Kristin Metry, M.S. (2004)	Pharmacology & Toxicology	Thesis Committee
Agata Habas, M.S. (2004)	Pharmacology & Toxicology	Thesis Committee
Xiaoyan (Nina) Li, Ph.D. (2004)	Pharmacology & Toxicology	Dissertation Committee
Kristy Michel, Ph.D. (2004)	Biochemistry & Molecular Biology	Dissertation Committee
Yu (Cindy) Wang, M.S. (2004)	Pharmacology & Toxicology	Dissertation Committee
Laila El-Sherif, Ph.D. (2004)	Pharmacology & Toxicology	Dissertation Committee
Xia (Clare) Shen, Ph.D. (2004)	Pharmacology & Toxicology	Dissertation Committee
Brian Turner, Ph.D. (2005)	Chemistry	Dissertation Committee
Darlene Ingram, Ph.D. (2005)	Chemistry	Dissertation Committee
Paul Porter, Ph.D. (2005)	Pharmacology & Toxicology	Dissertation Committee
Christian Campian, Ph.D. (2005)	Pharmacology & Toxicology	Dissertation Committee
Molly Ann Davis, M.S. (2005)	Pharmacology & Toxicology	Thesis Committee
Tanvi Modi, M.S. (2005)	Pharmacology & Toxicology	Thesis Committee
Kevyn Merten, M.S. (2005)	Pharmacology & Toxicology	Thesis Committee
YaFatou Njie, M.S. (2005)	Pharmacology & Toxicology	Thesis Committee
Jason Walraven, M.S. (2005)	Pharmacology & Toxicology	Thesis Committee
Yu (Janet) Zang, Ph.D. (2006)	Pharmacology & Toxicology	Dissertation Committee
Tanvi Modi Jani, Ph.D. (2006)	Pharmacology & Toxicology	Dissertation Committee
Rundong (Ray) Zhang, Ph.D. (2006)	Pharmacology & Toxicology	Dissertation Committee
Steven Reeves, Ph.D. (2006)	Pharmacology & Toxicology	Dissertation Committee
Boon Kim, M.S. (2006)	Biomedical Engineering	Thesis Committee
Steven Xu, M.S. (2006)	Pharmacology & Toxicology	Thesis Committee
Kathleen Mattingly, Ph.D. (2007)	Biochemistry & Molecular Biology	Dissertation Committee
Kristin Metry, Ph.D. (2007)	Pharmacology & Toxicology	Dissertation Committee

Jason Walraven, Ph.D. (2007)	Pharmacology & Toxicology	Dissertation Committee
Agata Habas, Ph.D. (2007)	Pharmacology & Toxicology	Dissertation Committee
Kevyn Merten, Ph.D. (2007)	Pharmacology & Toxicology	Dissertation Committee
YaFatou Njie, Ph.D. (2007)	Pharmacology & Toxicology	Dissertation Committee
Piotr Mroz, Ph.D. (2007)	Chemistry	Dissertation Committee
Shuo Yang, Ph.D. Ph.D. (2007)	Biomedical Engineering	Dissertation Committee
B. Frazier Taylor, Ph.D. (2007)	Pharmacology & Toxicology	Dissertation Committee
Jean Claude Nzimulinda, M.S. (2008)	Pharmacology & Toxicology	Thesis Committee
Bradford Hill, Ph.D. (2007)	Biochemistry & Molecular Biology	Dissertation Committee
J. Phillip Kaiser, M.S. (2007)	Pharmacology & Toxicology	Thesis Committee
Christelle Komguem-Kamga, M.S. (2007)	Pharmacology & Toxicology	Thesis Committee
Qian Xu, Ph.D. (2007)	Biomedical Engineering	Dissertation Committee
Christina Wiegand Clark, Ph.D. (2008)	Pharmacology & Toxicology	Dissertation Committee
Krista Robinson Riggs, Ph.D. (2008)	Biochemistry & Molecular Biology	Dissertation Committee
J. Phillip Kaiser, Ph.D. (2009)	Pharmacology & Toxicology	Dissertation Committee
Jean Claude Nzimulinda, Ph.D. (2009)	Pharmacology & Toxicology	Dissertation Committee
Phillip Bauer, Ph.D. (2009)	Chemistry	Dissertation Committee
Christelle Komguem-Kamga, Ph.D. (2010)	Pharmacology & Toxicology	Dissertation Committee
Lu Yang, Ph.D. (2010)	Pharmacology & Toxicology	Dissertation Committee
Jianxun Wang, Ph.D. (2011)	Pharmacology & Toxicology	Dissertation Committee

SERVICE ACTIVITIES

DEPARTMENT SERVICE

- Director of Graduate Education, 2000-2009
- Therapeutics and Toxicology Laboratory, Associate Director 1984 – 2000; Director – 2000-present
- Coordinator, Departmental Research Conferences and Journal Club, 1993-1996
- Graduate Education Committee, 1996- 2009; Chair, 2000-2009
- Research Committee, Chair 1997-2000
- Vice Chair for Graduate Education, 2003 – 2009

SCHOOL OF MEDICINE

- Research Committee, Member 1989-1995; Chairman 1992-1995
- LCME Accreditation Subcommittee for Research, 1990
- Coordinator, Student Research Day, 1989-1995
- *Ad hoc* Committee for Curriculum Reform - Content Subcommittee, 1992-1993
- Space Committee, 1992-1995
- *Ad hoc* Committee for University Medical Center Research Forum, 1995 - present
- Coordinator, Health Sciences Center Research Forum, 1995
- Student Grievance Committee, 1995-1996; Chair, 1996.
- LCME Accreditation Self-Study Committee for Research, 1997
- Review Committee, Chair of Psychiatry and Behavioral Sciences, 1998
- Chair, Search Committee – Chair of Microbiology & Immunology, 1997 – 1998
- Member, Center for Genetics and Molecular Medicine
- Member, Institute for Molecular Diversity and Drug Design
- Research Committee, 1999 – present
- Research Conflict of Interest Management review committee, 2001 – 2006
- Director, Biomolecular Mass Spectrometry Laboratory, 1996 - present
- Research! Louisville – Founding Advisory group and Presentation Review Committee, 1998-2003
- Review Committee, Chair of Surgery, School of Medicine, 2002
- Decanal Review Committee, School of Medicine, 2003
- LCME Accreditation Review Self-Study – Governance and Administration Subcommittee, Chair 2004
- Integrated Programs in Biomedical Sciences [IPIBS] Executive Committee, 2000-2007
- Ph.D. Programs Curriculum Committee, 2002 - 2007

UNIVERSITY OF LOUISVILLE

- Selection Committee - President's Award for Outstanding Scholarship, Research or Creative Activity, 1992-1995
- Human Resources System Steering Committee, Faculty Representative, 1995- 1999
- University of Louisville Advisory Committee for Policy and Program Development, 1996 - 2000
- Steering Committee, Independent Study of U of L Information Technology, 1997
- University Wide Advisory Committee for Distinguished University Professorships, 1998 - 1999

- University Budget Advisory Committee, 2000 - 2002
- Provost's *ad hoc* committee for review of Centers & Institutes, 2000
- *Ad hoc* committee for review of Faculty Salary Analysis, 2001 – 2004
- University of Louisville Athletic Association, 2001 - 2004
  - Board of Directors, 2001 – 2004
  - Vice Chair, 2003-2004
  - Member, Personnel Committee, 2001
  - Member, Executive Committee, 2001 – 2004
  - Member, Academic Performance Committee, 2001 – 2004
- Board of Trustees, University of Louisville, 2004 – 2006
  - Executive Committee, 2005 - 2006
  - Finance Committee, Member and Chair, 2004 – 2005
  - Academic Affairs, 2004 – 2006
  - Trustees' Award Committee, 2004 – 2006
- University of Louisville Research Foundation
  - Board of Directors, 2004 – 2005
  - Treasurer, 2004 - 2005
- Faculty Senate
  - Chair, 2004 – 2006
  - Vice Chair, 2002-2004
  - Senator, 1992 – 2008
  - Faculty Senate Executive Committee, 1996 – 2008
  - Faculty Senate Committee on Libraries, 1996-1998
  - Faculty Senate Planning and Budget Committee, Chair 2000 – 2002
  - Faculty Senate Committee on Committees and Credentials, Chair 1998-2000
- Graduate Council, 1997 - 2002
  - Graduate Council, Honorary Degrees Committee
  - Graduate Council, Faculty Grievance Committee
- Research Conflict of Interest Committee, 2000 – 2002
- Arena Feasibility Committee, 2001 – 2002
- Conflict of Interest Task Force, 2002 - 2004
- Research Integrity Committee, 2002 - 2005
- National Collegiate Athletic Association [NCAA] Certification Team
  - Steering Committee, 2002 – 2003
  - Chair, Academic Integrity Committee, 2002-2003
- Search committee -Director of Planning, Institutional Research, and Data Administration, 2003 - 2004
- Provost's Planning and Budgeting Advisory Committee, 2003- 2007
- Big East Conference Facilities Committee, 2005
- Administrative ad hoc Search Strategy Committee, 2003-2004
- Search Committee – Executive Vice President for Health Affairs, 2004
- Special Assistant to the Provost for Strategic Planning, 2006 – 2008
- Graduate Education Transition Committee, 2007
- Graduate Education Strategic Planning Committee, Chair 2007
- University of Louisville Alumni Association Board of Directors, 2006-2008
- University Academic Programs Review Committee, 2007 - 2009
- Vice Provost for Graduate Affairs, 2007 – 2010
- Interim Dean of the Graduate School, 2008 – 2009.
- Interim Executive Vice-President for Research, 2009 – 2011
- Executive Vice-President for Research and Innovation 2011 – present
- Board of Directors, University of Louisville Research Foundation 2009 – present

- Board of Directors, University of Louisville Holdings, Inc. 2009 – present
- Nucleus Advisory Board, 2009 - present

PROFESSIONAL EXTRAMURAL

- Editorial Board, National Academy of Inventors. 2014 – present.
- Coalition of Senate and Faculty Leadership for Higher Education in Kentucky
  Member, 2002-2006
  Secretary, 2002 - 2003
- American Chemical Society, Public Education Liaison
- Membership Committee, Sigma Xi, 1986-1988
- Faculty Member, Fifth Annual Conference, Kentucky Coalition of Nurse Practitioners/ Midwives. April 1993
- Judge, various community Science Fairs, 1985-present
- Drug In-Service Workshops, Goodwill Rehabilitation Center, 1988-1991
- Clinical Toxicology Workshop, Jefferson Community College Medical Technology Program.
- Judge, International Science and Engineering Fair, Louisville, KY, 1997
- Research!Kentucky Outreach Speaker
- Editorial Board – Environmental Perspectives in Toxicology 2007- present
- Ad hoc Referee:
  Current Eye Research, Ophthalmic Research
  Experimental Eye Research
  Fight for Sight, Inc.,
  Chemical Research in Toxicology
  Journal of the Association of Official Analytical Chemists
  Investigative Ophthalmology and Visual Science
  Drug Metabolism and Disposition
  Journal of Pharmacology and Experimental Therapeutics
  Journal of Mass Spectrometry
  Biological Trace Element Research
  Bone
  Journal of Bone and Mineral Research
  Journal of Medicinal Chemistry
  Bioorganic and Medicinal Chemistry Letters
- American Chemical Society Chemical Education Liaison, 1990 - 1998
- Director, Blood Lead Monitoring Program, 1992 – 2010
- Board of Directors, KY EPSCoR 2009 – present

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