

Curriculum Vitae

BIN LIU**Educational Background**

B.M.	West China University of Medical Sciences, Chengdu, Sichuan, China
M.S.	University of Massachusetts, Boston, Massachusetts, USA
Ph.D.	Wayne State University, Detroit, Michigan, USA
Postdoc	Duke University, Durham, North Carolina, USA

Continuing Education:

06/2013 – 05/2014:	Mentor Academy, University of Florida Clinical and Translational Science Institute (CTSI), Gainesville, FL
05/2014	Center for the Advancement of Pharmaceutical Education (CAPE) Educational Outcomes Workshop, American Association of Colleges of Pharmacy (AACP) Institute, Leesburg, VA

Academic Positions

2012-	Investigator, Center for Addiction Research and Education, University of Florida
2010-	Associate Professor, Department of Pharmacodynamics, University of Florida
2003-2010	Assistant Professor, Department of Pharmacodynamics, University of Florida
2003-	Investigator, The McKnight Brain Institute, University of Florida
1998-2003	Research Fellow, Laboratory of Pharmacology and Chemistry, NIEHS/NIH
1994-1998	Postdoctoral Associate, Department of Medicine, Duke University
1988-1993	Graduate Res. Assistant, Departments of Biology & Radiation Oncology, Wayne State University
1985-1987	Graduate Res. Assistant, Department of Biology, University of Massachusetts
1982-1985	Instructor, School of Public Health, West China Univ. of Medical Sciences

Honors and Awards

2018	Outstanding Teaching Team of Year 3 Pharm. D. Curriculum, UF College of Pharmacy
2014	Master Mentor, University of Florida Clinical and Translation Science Institute Mentor Academy
2009	Distinguished Mentor Award, HHMI-University of Florida Science for Life Program
1999 & 2000	Fellow's Awards for Research Excellence, NIH
1997	Terry Seelinger Fellow in Cancer, Duke University
1995	Individual National Research Service Award (F32-GM017426), NIH
1991 & 1993	Graduate Travel Awards, Wayne State University
1989	Heberlein Graduate Research Fellowship, Wayne State University
1987	The Biology Program Award for Outstanding Achievement, Univ. of Massachusetts

Professional Curriculum Teaching

Doctor of Pharmacy (Pharm.D.) Curriculum

Accreditation

2019-2020: Member, ACPE Self-study Curriculum Team

2011-2012: Member, ACPE Self-study Curriculum Sub-Committee

2015 – Present: New Curriculum (3 campuses/240-270 students: Gainesville, Jacksonville & Orlando)

New Curriculum Development

2014: Member, Curriculum Implementation Committee

2015: Member, 2015 Education Strategic Planning Task Force

2015: Member, Orientation Task Force

Course Development and Teaching:

PHA5560: Pathophysiology & Patient Assessment-I, 3 Credit Hours

Fall 2015 – Fall 2016: Teaching Partnership Leader

Fall 2017 – Fall 2020: Instructor

PHA5561: Pathophysiology & Patient Assessment-II, 3 Credit Hours

Spring 2016 – Spring 2017: Teaching Partnership Leader

Spring 2018 – Spring 2020: Instructor

PHA5933: Pathophysiology & Patient Assessment-I & II Remediation, 1 Credit Hour

Summer 2016 – Summer 2017: Teaching Partnership Leader

Summer 2018 – Summer 2020: Instructor

PHA5755: Principles of Medical Microbiology, Immunology & Virology, 2 Credit Hours

Fall 2016 – Fall 2020: Instructor

Summer 2017 – Summer 2020 (Remediation): Instructor

PHA5789C: Patient Care 7, 6 Credit Hours

Spring 2018 – Spring 2020: Instructor

Summer 2018 – Summer 2020 (Remediation): Instructor

2004 – 2016: Legacy Curriculum (4 campuses/300 students: Gainesville, Jacksonville, Orlando & St. Petersburg)

PHA5560: Physiological Basis of Disease-I, 5 Credit Hours

Fall 2004 – Fall 2009: Instructor

Fall 2010 – Fall 2014 and Summer 2015: Course Coordinator

PHA5561: Physiological Basis of Disease-II, 5 Credit Hours

Spring 2005 – Spring 2010: Instructor

Spring 2011 – Spring 2015 and Summer 2015: Course Coordinator

PHA5516: Pharmacological Basis of Therapy-I, 4 Credit Hours

Fall 2004 – Fall 2016: Instructor

PHA5517: Pharmacological Basis of Therapy-II, 4 Credit Hours

Spring 2006 – Fall 2010: Instructor

Doctor of Philosophy (Ph.D.) Curriculum in Department

PHA6521C: Research Techniques in Pharmacodynamics (Methods), 1 Credit Hour

Fall 2004 – Fall 2017: Instructor

Fall 2018 – Fall 2020: Course Coordinator

PHA6512L: Experimental Research Training (Lab Rotation), 6 Credit Hours

Fall 2004 – Fall 2017: Instructor
 Fall 2018 – Fall 2020: Course Coordinator
 PHA7939: Journal Colloquy in Pharmacodynamics, 1 credit hour
 Fall 2004 – Fall 2018: Instructor/Course Coordinator
 PHA6938: Research Seminar in Pharmacodynamics, 1 credit hour
 Spring 2005 – Spring 2018: Instructor/Course Coordinator
 Spring 2019 – Spring 2020: Course Coordinator
 PHA6936: Scientific Writing, 1 credit hour
 Fall 2005 – Fall 2017: Instructor
 Fall 2018 – Fall 2020: Course Coordinator
 PHA6936: Advanced Topics in Pharmacodynamics (Case Studies), 2 credit hours
 Spring 2005 – Spring 2008: Instructor
 PHA6540: Neurochemistry, 3 credit hours
 Spring 2010: Instructor
 PHA6508: Systems Physiology and Pathophysiology-I, 5 credit hours
 Fall 2012 – Fall 2015: Course Coordinator
 PHA6509: Systems Physiology and Pathophysiology-II, 5 credit hours
 Spring 2013 – Spring 2016: Course Coordinator
 PHA6508/6936: Systems Physiology and Pathophysiology-I, 3 credit hours
 Fall 2016 – Fall 2018: Course Coordinator
 PHA6509/6936: Systems Physiology and Pathophysiology-II, 3 credit hours
 Spring 2017 – Spring 2019: Course Coordinator

Supervised Research Mentorship of Pharm.D. Students

PHA5902: Supervised Research, 1-3 credit hours
 Fall 2017 & Spring 2018: Course Coordinator

Doctor of Philosophy (Ph.D.) Curriculum at College Level

PHA6894: Introduction to Graduate Studies, 1 credit hour
 Summer 2019: Course Coordinator
 PHA6936: Special Topics: Grant Writing, 1 credit hour
 Summer 2019 – Summer 2020: Instructor

Doctor of Philosophy (Ph.D.) Curriculum Outside of College

VME6603: Advanced Toxicology, 3 credit hours
 Spring 2006 & Spring 2008: Instructor
 GMS6029: Neurodegenerative Research: From Bench-to-bedside, 1 credit hour
 Fall 2016: Instructor

Mentorship

Doctor of Philosophy (Ph.D.) Graduate Students

University of Florida (2004-present):

As primary mentor and chair of committee: Haoyu Mao, Heera Sharma, Garima Dutta, Yue Liu, Rajiv Tikamdas, Meera Rath, and Max Russo

As member of committee: Zhimin Li, Chinki Batia, Vinayak Shenoy, Mike Dismuke, James Kasper, Kyle Kelly, Thomas Cirino, Amy Alleyne, and Yuma Ortiz

University of South Florida (2011-present):

As member of committee: Harris Bell-Temin, Joao Paulo C Pinho, Brandi Cook and Jennifer Guergues

NIEHS/NIH (1998-2003):

As dissertation research mentor: Huiming Gao, Yuxin Liu, Kevin Wang and Wei Zhang

Postdoctoral and Visiting Scholars

University of Florida (2003-2005): Jessie X. Fang

NIEHS/NIH (1998-2003): Lina Du and Sam SN Yang

Undergraduate Students (Research)

University of Florida (2004-present): Melissa Farello, Katon Floyd, Angela Hatter, Kyle Lokuta, Haley Parks, Jeanette Polcz, DeAnne Turner, Kristina Vujisic and Tamika Wong

NIEHS/NIH (1998-2003): Rene Gentry, Crystal Paris and Karen Tamaka

Duke University (1994-1998): Meredith Roser

Wayne State University (1989-1993): Rajish Bazaz, James Howlett, Julie Kowynia, Raji Papat, Sanja Stojakovic, and Lori Wojciechowski

Pharmacy Students (Research Supervisor)

2004-present: Truc Nguyen, Sara Wu, Jasmin Tawfic, Azizakhon Abrorkhujueva, and Athena Sergiou

Pharmacy Students (Academic Faculty Mentor)

2009-2020: Pharm.D. students, 10-20 per semester, College of Pharmacy, University of Florida

Professional Service

National:

Research Grant Reviewer

2019	NIH CMBG 2020-06, and NIH CMBG 2020-09
2019	NIH SEP ZDA1 JXB-N (03) R, NIH SIEE 2019-06, and NIH NAL 2019-10
2018	NIH SEP ZRG1 MDCN-E (50) R, and NIH SEP ZNS1 SRB-M (06) R/U
2017	NIH SEP ZRG1 DKUS-G (54) R
2016	NIH SEP ZRG1 DKUS-C (50) R, NIH SEP ZES1 LWJ-J (U0)1, and NIH SEP ZRG1 DKUS-N (50) R
2015	NIH SEP ZRG1 DKUS-C (54) R
2014	NIH SEP ZES1 LKB-J (KS) 1
2011	Vanderbilt University NIEHS Center in NIEHS Center in Molecular Toxicology Seed Fund
2009	NIH SEP ZES1 RAM-G-L9, NIH SEP, ZMH1 ERB-B & C & S (A1) R, and NIH SEP ZES1 LKB-G-P1 & P2
2008	NIH SEP ZES1 LKB D (S8)
2006	NIH SBRP Teleconference JAB (C) (SB)
2005 – 2015	Alzheimer's Association, IIRG & RGP
2005	Michael J. Fox Foundation for Parkinson Research, Community Fast Track
2002	Guy's & St. Thomas' Charitable Foundation (UK), Seed Fund

Journal Editorial Board

2011-2020: Editorial Board member, *Toxicological Letters*

Journal Peer Reviewer (1997-present)

<p>American Journal of Physiology, Archives of Toxicology, Biochemical Journal, Biochemistry, Biochimica Biophysica Acta, Brain Research, Cell Biology and Toxicology, Cell Death and Differentiation, Chemical Research in Toxicology, Current Pharmaceutical Design, Electrophoresis, Experimental Biology and Medicine, Environmental Health Perspective, Experimental Brain Research, Experimental Neurology, FASEB Journal, Journal of Biological Chemistry, Journal of Cell Science, Journal of Medicinal Chemistry, Journal of Neurochemistry,</p>	<p>Journal of Neuroinflammation, Journal of Neuroimmune Pharmacology, Journal of Neuroscience, J. of Pharmacol. & Experimental Therap., Life Science, Molecular Cellular Endocrinology, Molecular Neurobiology, Molecular Pharmacology, Neurobiology of Aging, Neurochemistry International, Neuropharmacology, Neuroreport, Neuroscience Letters, NeuroToxicology, Neurotoxicity Research, Pharmacological Research, PLOS ONE, Toxicology, Toxicology Letters Toxicological Sciences</p>
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University/College/Department Service

<p>2018 – 2020: 2018 – 2020: 2018 – 2020: 2016 – 2019: 2016 – 2019: 2015 – 2020: 2008 – 2020: 2014 – 2018: 2008 – 2014: 2005: 2004 – 2020: 2004 – 2005: 2003 – 2018:</p>	<p>Graduate Coordinator, Department of Pharmacodynamics BBP & Biomedical Waste Training Coordinator, Department of Pharmacodynamics Member, International Committee, College of Pharmacy Member Faculty Governance Council, College of Pharmacy Member, University of Florida Faculty Senate , Reviewer, PROSPER Seed Fund, College of Pharmacy Interviewer, Pharm.D. Candidate, College of Pharmacy Member, Pharm.D. Curriculum Committee, College of Pharmacy Member, Pharm.D. Admission Committee, College of Pharmacy Reviewer, Research Opportunity Fund, University of Florida Judge, Research Showcase Day, College of Pharmacy Interim Graduate Coordinator , Department of Pharmacodynamics Member, Graduate Education Committee, Department of Pharmacodynamics</p>
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Professional Society Membership

American Society of Pharmacology and Experimental Therapeutics
Society for Neuroscience
Society of Toxicology

Scientific Publications

NCBI Bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/1jWvdbnYn4Fkf/bibliography/public/>

Google Scholar: <https://scholar.google.com/citations?user=jZ5wp&user=jZ5wp-8AAAAJ>

ResearchGate: https://www.researchgate.net/profile/Bin_Liu193

96. Rath M, Guergues J, Pinho , JPC, Zhang P, Nguyen TG, MacFadyen KA, Peris J, McLaughlin JP, Stevens SM Jr, Liu B. (2020) Chronic Voluntary Binge Ethanol Consumption Causes Sex-Specific Differences in Microglial Signaling Pathways and Withdrawal-associated Behaviors in Mice. *Alcohol Clin Exp Res*. PMID: 32767774
95. Russo M, Sobh A, Zhang P, Longuinov A, Tagmount A, Vulpe CD, Liu B. (2020) Functional Pathway Identification with CRISPR/Cas9 Genome Wide Gene Disruption in Human Dopaminergic Neuronal Cells Following Chronic Treatment with Dieldrin. *Toxicol. Sci*. 176: 366-381. PMID: 32421776
94. Guergues J, Wohlfahrt J, Zhang P, Liu B, Stevens SM Jr. (2020) Deep proteome profiling reveals novel pathways associated with pro-inflammatory and alcohol-induced microglial activation phenotypes. *J Proteomics*. 220:103753. PMID: 32200115
93. Guergues J, Zhang P, Liu B, Stevens SM Jr. (2019) Improved Methodology for Sensitive and Rapid Quantitative Proteomic Analysis of Adult-Derived Mouse Microglia: Application to a Novel In Vitro Mouse Microglial Cell Model. *Proteomics* 19:1800469. PMID: 30980500.
92. Sharma H, Hirko AC, King ML, Liu B (2018) Role of NADPH Oxidase in Cooperative Reactive Oxygen Species Generation in Dopaminergic Neurons Induced by Combined Treatment with Dieldrin and Lindane. *Toxicol. Lett*. 299:47-55. PMID: 30240590
91. Tikamdas R, Singhal S, Zhang P, Smith JS, Krause EG, Stevens SS, Song S, Liu B (2017) Ischemia responsive protein 94 is a key mediator of ischemic neuronal injury-induced microglial activation. *J. Neurochem*. 142:908-919. PMID: 28640931
90. Zhang P, Culver-Cochran A, Stevens SM, Liu B (2017) De Novo and Uninterrupted SILAC Labeling of Primary Microglia. *Methods in Mol. Biol*. 1598:285-293. PMID: 28508368
89. Pinho JPC, Bell-Temin H, Liu B, Stevens SM, (2017) Spike-In SILAC Approach for Proteomic Analysis of Ex Vivo Microglia. *Methods in Mol. Biol*. 1598:295-312. PMID: 28508369
88. Zhang P, Culver-Cochran A, Stevens SM, Liu B (2016) Characterization of a SILAC method for proteomic analysis of primary microglia. *Proteomics* 16:1341-1346. PMID: 26936193
87. Tikamdas R, Zhang P, Liu B (2016) Mediators of Neuroinflammation. In "Oxidative Stress and Antioxidant Protection: The Science of Free Radical Biology and Disease", pp39-55, Armstrong D and Stratton RD, editors; John Wiley and Sons, Hoboken, NJ
86. Bell-Temin, H., Culver-Cochran, A Kuehl, M., Chaput, D., Carlson, C., Burkhardt, B., Liu, B., Stevens, Jr., S. M. (2015) Novel molecular insights into classical and alternative activation states of microglia as revealed by SILAC-based proteomics. *Mol. Cell. Proteomics* 14:3173-3184. PMID: 26424600
85. Bell-Tamin H, Liu B, Zhang P, Stevens SM (2014) Biomarkers of Drug Abuse-induced Brain Changes: Role of Microglia in Alcohol-induced Neurotoxicity. In "Biomarkers of Brain Injury and Neurological Disorders", pp591-614, Wang KW, Zhang ZQ, Kobeissy FH, editors; CRC Press, Boca Raton, FL
84. Bell-Tamin H, Zhang P, Liu B, Stevens SM (2013) Quantitative proteomic characterization of ethanol-responsive pathways in rat microglia. *J. Proteome Res*. 12:2067-2077. PMID: 23495833
83. Liu Y, Barber DS, Zhang P and Liu B (2013) Complex II of the mitochondrial respiratory chain is the key mediator of divalent manganese-induced hydrogen peroxide production in microglia. *Toxicological Sciences* 132:298-306. PMID: 23315522
82. Dutta G, Barber DS, Zhang P, Doperalski NJ and Liu B (2012) Involvement of dopaminergic neuronal cystatin C in neuronal injury-induced microglial activation and neurotoxicity. *J. Neurochem*. 122:752-763. PMID: 22679891
81. Liu B, Barber DS and Stevens SM (2011) Stable isotope labeling with amino acids in cell culture (SILAC)-based proteomic analysis of ethanol-induced protein expression profiles in microglia. *Meth. Mol. Med*. 829:551-565. PMID: 22231838

80. Bell-Tamin H, Barber DS, Zhang P, Liu B, and Stevens SM (2012) Proteomic analysis of rat microglia establishes a high-confidence reference dataset of over 3,000 proteins. *Proteomics* 12:246-250. PMID: 22121004
79. Sharma H, Zhang P, Barber DS and Liu B (2010) Organochlorine pesticides dieldrin and lindane induce cooperative toxicity in dopaminergic neurons: role of oxidative stress. *Neurotoxicology* 31:215-222. PMID: 20036686
78. Zhang P, Lokuta KM, Turner DE and Liu B (2010) Synergistic dopaminergic neurotoxicity of manganese and lipopolysaccharide: differential involvement of microglia and astroglia. *J. Neurochem.* 112:434-443. PMID: 19895668
77. Zhang P, Wong TA, Lokuta KM, Turner DE, Vujisic K and Liu B (2009) Microglia enhance manganese chloride-induced dopaminergic neurodegeneration: role of reactive oxygen species. *Exp. Neurol.* 217:219-230. PMID: 19268665
76. Dutta G, Zhang P and Liu B (2008) The LPS Parkinson disease model: mechanistic studies and drug discovery. *Fundament. Clin. Pharmacol.* 22:453-464. PMID: 18710400
75. Mao H and Liu B (2008) Synergistic microglial ROS generation induced by pesticides lindane and dieldrin. *Neuroreport* 19:1317-1320. PMID: 18695515
74. Mao H, Fang X, Katon FM, Polcz JE, Zhang P and Liu B (2007) Induction of microglial reactive oxygen species production by the organochlorinated pesticide dieldrin. *Brain Res.* 1186:268-274. PMID: 17999924
73. Zhang P, Hatter A and Liu B (2007) Manganese chloride stimulates rat microglia to release hydrogen peroxide. *Toxicol. Lett.* 173:88-100. PMID: 17669604
72. Embury JE, Charron CE, Martynyuk A, Zori AG, Liu B, Ali SY, Rowland NE and Laipis PJ (2006) PKU is a reversible neurodegenerative process within the nigrostriatum that begins as early as 4 weeks of age in *Pah^{enu2}* mice. *Brain Res.* 1127:136-150. PMID: 17112485
71. Liu B (2006) Modulation of microglial pro-inflammatory and neurotoxic activity as a strategy for the treatment of Parkinson's disease. *AAPS J.* 8:606-621. PMID: 17025278
70. Qin L, Li G, Qian X, Liu Y, Wu X, Liu B, Hong JS and Block M (2005) Interactive role of the toll-like receptor 4 and reactive oxygen species in LPS-induced microglia activation. *Glia* 52:78-84. PMID: 15920727
69. Wang T, Pei Z, W Zhang, Liu B, Langenbach R, Lee C, Wilson B, Reece JM, Miller DS and Hong JS (2005) MPP⁺-induced COX-2 activation and subsequent dopaminergic neurons. *FASEB J.* 19:1134-1136. PMID: 15845609
68. Zhang W, Qin L, Wang TG, Wei S-J, Gao HM, Y Meng, Wilson B, Liu B, Zhang W and Hong JS (2005) 3-Hydroxymorphinan is neurotrophic to dopaminergic neurons and is also neuroprotective against LPS-induced neurotoxicity. *FASEB J.* 19:395-397. PMID: 15596482
67. Li FQ, Wang T, Pei Z, Liu B and Hong JS (2005) Inhibition of microglial activation by the herbal flavonoid baicalein attenuates inflammation-mediated degeneration of dopaminergic neurons. *J. Neural Transmission.* 112:331-347. PMID: 15503194
66. Li G, Liu Y, Tzeng N, Cui G, Block ML, Wilson B, Qin L, Wang T, Liu B, Liu J and Hong JS (2005) Protective effect of dextromethorphan against endotoxic shock in mice. *Biochem. Pharmacol.* 69:233-240. PMID: 15627475
65. Zhang W, Wang T, Qin L, Gao H, Wilson B, Ali S, Zhang W, Hong JS and Liu B (2004) Neuroprotective effect of dextromethorphan in the MPTP Parkinson's disease model: role of NADPH oxidase. *FASEB J.* 18:589-591. PMID: 14734632
64. Wang T, Liu B, Zhang W, Wilson B and Hong JS (2004) Andrographolide reduces inflammation-mediated dopaminergic neurodegeneration in mesencephalic neuron-glia cultures. *J. Pharmacol. Exp. Ther.* 308:975-983. PMID: 14718612
63. Wang T, Qin L, Liu B, Wilson B, Eling TE, Langenbach R and Hong JS (2004) Role of reactive oxygen species in LPS-induced production of prostaglandin E₂ in microglia. *J. Neurochem.* 88:939-947. PMID: 14756815
62. Wang T, Liu B, Qin L, Wilson B and Hong JS (2004) Protective effect of the SOD/catalase mimetic MnTMPyP on inflammation-mediated dopaminergic neurodegeneration in mesencephalic neuron-glia cultures. *J. Neuroimmunol.* 147:68-72. PMID: 14741430
61. Qin L, Liu Y, Wang T, Wei S, Block ML, Wilson B, Liu B and Hong JS (2004) NADPH oxidase mediates LPS-induced neurotoxicity and pro-inflammatory gene expression in activated microglia. *J. Biol. Chem.* 279:1415-1421. PMID: 14578353
60. Gao HM, Liu B, Zhang W and Hong JS (2003) Critical role of microglial NADPH oxidase-derived free radicals in the in vitro MPTP model of Parkinson's disease. *FASEB J.* 17:1754-1756. PMID: 12897068

59. Gao HM, Liu B, Zhang W and Hong JS (2003) Synergistic dopaminergic neurotoxicity of MPTP and inflammogen lipopolysaccharide: relevance to the etiology of Parkinson's disease. *FASEB J.* 17:1757-1759. PMID: 12923073
58. Gao HM, Liu B, Zhang W and Hong JS (2003) Novel anti-inflammatory therapy for Parkinson's disease. *Trends Pharmacol. Sci.* 24:395-401. PMID: 12915048
57. Gao HM, Liu B, Hong JS (2003) Critical role for microglial NADPH oxidase in rotenone-induced degeneration of dopaminergic neurons. *J. Neurosci.* 23:6181-6187. PMID: 12867501
56. Liu B, Gao HM, Hong JS (2003) Parkinson's disease and exposure to infectious agents and pesticides and the occurrence of brain injuries: role of neuroinflammation. *Environ. Health Perspect.* 111:1065-1073. PMID: 12826478
55. Liu Y, Qin L, An J, Liu B and Hong JS (2003) Dextromethorphan protects dopaminergic neurons against inflammation-mediated degeneration through inhibition of microglial activation. *J. Pharmacol. Exp. Ther.* 305:212-218. PMID: 12649371
54. Gao HM, Hong JS, Zhang W and Liu B (2003) Synergistic dopaminergic neurotoxicity of pesticide rotenone and inflammagen lipopolysaccharide: relevance to etiology of Parkinson's disease. *J. Neurosci.* 23:1228-1236. PMID: 12598611
53. Liu B and Hong JS (2003) Primary rat mesencephalic neuron-glia, enriched-neuron, enriched-microglia and enriched-astroglia cultures. *Method Mol. Med.* 79:387-395. PMID: 12506711
52. Liu B and Hong JS (2003) Neuroprotective effect of naloxone in inflammation-mediated dopaminergic neurodegeneration: dissociation from the involvement of opioid receptors. *Method Mol. Med.* 79:43-54. PMID: 12506689
51. Liu B and Hong JS (2003) Role of microglia in inflammation-mediated neurodegenerative diseases: mechanisms and strategies for therapeutic intervention *J. Pharmacol. Exp. Ther.* 304:1-7. PMID: 12490568
50. Qin L, Liu Y, Cooper C, Liu B, Wilson B and Hong JS (2002) Microglia enhance β -amyloid peptide-induced toxicity in cortical and mesencephalic neurons by producing reactive oxygen species. *J. Neurochem.* 83:973-983. PMID: 12421370
49. Feng Z, Wang T, Li D, Fung P, Liu B, Ali F, Langenbach R and Hong JS. (2002) Cyclooxygenase-2 deficient mice are resistant to MPTP-induced damage of dopaminergic neurons in substantia nigra. *Neurosci. Lett.* 329:354-359. PMID: 12183047
48. Liu Y, Qin L, Wilson B, An J, Hong JS and Liu B (2002) Inhibition by naloxone stereoisomers of beta-amyloid peptide (1-42)-induced superoxide production in microglia and degeneration of cortical and mesencephalic neurons. *J. Pharmacol. Exp. Ther.* 302:1212-31219. PMID: 12183682
47. Gao HM, Jiang J, Wilson BW, Zhang W, Hong JS and Liu B (2002) Microglial activation-mediated delayed and progressive degeneration of rat nigral dopaminergic neurons: relevance to Parkinson's disease. *J. Neurochem.* 81:1285-1297. PMID: 12068076
46. Jeohn G, Cooper CL, Wilson B, Chang RC, Jang K, Kim H, Liu B and Hong JS (2002) P38 MAP kinase is involved in lipopolysaccharide-induced dopaminergic neuronal cell death in rat mesencephalic neuron-glia cultures *Ann. New York Acad. Sci.* 962:332-346. PMID: 12076985
45. Liu B, Gao HM, Wang K, Jeohn G, Cooper C and Hong JS (2002) Role of nitric oxide in inflammation-mediated neurodegeneration. *Ann. New York Acad. Sci.* 962:318-331. PMID: 12076984
44. Gao HM, Hong JS, Zhang W and Liu B (2002) Distinct role for microglia in rotenone-induced degeneration of dopaminergic neurons. *J. Neurosci.* 22:782-790. PMID: 11826108
43. Jeohn G, Cooper C, Jang K, Liu B, Lee D, Kim H and Hong JS (2002) Go6976 inhibits LPS-induced TNF α release by suppressing P38 MAP kinase. *Neuroscience* 114:689-697. PMID: 12220570
42. Liu B, Qin L, Yang S, Wilson BC and Hong JS (2001) Femtomolar concentrations of dynorphins protect rat mesencephalic dopaminergic neurons against inflammatory damage. *J. Pharmacol. Exp. Ther.* 298:1133-1141. PMID: 11504811
41. Dbaibo GS, El-Assaad W, Krikorian A, Liu B, Diab K, Idriss NZ, El-Sabban M, Driscoll TA, Perry DK and Hannun YA. (2001) Ceramide generation by two distinct pathways in tumor necrosis factor alpha-induced cell death. *FEBS Lett.* 503:7-12. PMID: 11513845
40. Liu B, Wang K, Gao H, Mandavilli B, Wang J and Hong JS (2001) Molecular consequences of activated microglia in the brain: over-activation induces apoptosis. *J. Neurochem.* 77:182-189. PMID: 11279274

39. Liu B, Jiang J, Wilson B, Du L, Yang S, Wu G, Chao X and Hong JS (2000) Systemic infusion of naloxone reduces degeneration of rat substantia nigral dopaminergic neurons induced by intranigral injection of lipopolysaccharide. *J. Pharmacol. Exp. Ther.* 295:125-132. PMID: 10991969
38. Chang RC, Hudson PM, Wilson B, Liu B, Abel H, Hemperly J and Hong JS. (2000) Immune modulatory effects of neural cell adhesion molecules on lipopolysaccharide-induced nitric oxide production by cultured glia. *Mol. Brain Res.* 81:197-201. PMID: 11000493
37. Kim W, Mohny RP, Wilson B, Jeohn G, Liu B and Hong JS (2000) Regional difference in susceptibility to lipopolysaccharide-induced neurotoxicity in the rat brain: role of microglia. *J. Neuroscience* 20: 6309-6316. PMID: 10934283
36. Kong L, Jeohn G, Hudson PM, Du L, Liu B and Hong JS (2000) Reduction of lipopolysaccharide-induced neurotoxicity in mouse mixed cortical neuron/glia cultures by ultralow concentrations of Dynorphins. *J. Med. Sci.* 7: 241-247. PMID: 10810243
35. Liu B, Du L and Hong JS (2000) Naloxone protects rat dopaminergic neurons against inflammatory damage through inhibition of microglia activation and superoxide generation. *J. Pharmacol. Exp. Ther.* 293:607-617. PMID: 10773035
34. Chang RC, Hudson P, Wilson B, Liu B, Abel H and Hong JS. (2000) High concentrations of extracellular potassium enhance bacterial endotoxin lipopolysaccharide-induced neurotoxicity. *Neuroscience* 97: 757-764. PMID: 10842021
33. Liu B, Du L, Kong L, Hudson PM, Wilson B, Chang RC and Hong JS (2000) Reduction by naloxone of lipopolysaccharide-induced neurotoxicity in mouse cortical neuron-glia co-cultures. *Neuroscience* 97:749-756. PMID: 10842020
32. Liu B and Hannun YA (2000) Sphingomyelinase assay using radiolabeled substrate. *Method Enzymol.* 311: 164-167. PMID: 10563321
31. Liu B and Hannun YA (2000) Purification and characterization of the membrane associated neutral sphingomyelinase. *Method Enzymol.* 311:156-164. PMID: 10563320
30. Liu B, Hassler D, Smith G, Weaver, K and Hannun YA (1998) Purification and characterization of the membrane magnesium-dependent neutral sphingomyelinase. *J. Biol. Chem.* 273: 34472-34479. PMID: 9852115
29. Liu B, Andrieu-Abadie N, Levade T, Zhang P Obeid LM and Hannun YA (1998) Glutathione-regulation of neutral sphingomyelinase in tumor necrosis factor alpha-induced cell death. *J. Biol. Chem.* 273: 11313-11320. PMID: 9556624
28. Zhang P, Liu B, Kang SW, Seo MS, Rhee SG and Obeid LM (1997) Thioredoxin peroxidase is a novel inhibitor of apoptosis with a mechanism distinct from that of bcl-2. *J. Biol. Chem.* 272: 30615-30618. PMID: 9388194
27. Jayadev S, Hayter HL, Andrieu N, Gamard CJ, Liu B, Balu R, Hayakawa M, Ito F and Hannun YA (1997) Phospholipase A2 is necessary for TNF α -induced ceramide generation in L929 cells. *J. Biol. Chem.* 272: 17196-17203. PMID: 9202042
26. Gamard CJ, Dbaibl GS, Liu B, Obeid LM and Hannun YA (1997) Sphingomyelinase and ceramide define a TNF α and FAS signal transduction pathway which is distinct from NF- κ B activation. *J. Biol. Chem.* 272: 16474-16481. PMID: 9195956
25. Liu B and Hannun YA (1997) Inhibition of neutral and magnesium-dependent sphingomyelinase by glutathione. *J. Biol. Chem.* 272: 16281-16287. PMID: 9195931
24. Liu B, Obeid LM and Hannun YA (1997) Sphingomyelinases in cell regulation. *Seminars Cell. Develop Biol.* 8:311-322. PMID: 10024495
23. Zhang P, Liu B, Jenkins GM, Hannun YA and Obeid LM (1997) Expression of neutral sphingomyelinase identifies a distinct pool of sphingomyelin involved in apoptosis. *J. Biol. Chem.* 272:9609-9612. PMID: 9092485
22. Liu B, Maher RJ, De Jonchheere J, Stojakovic S, Popat RU, Hannun YA and Honn KV (1998) 12(S)-HETE increases the motility of prostate tumor cells through selective activation of PKC Alpha. *Adv. Exp. Med. Biol.* 400B: 707-718. PMID: 9547622
21. Timar J, Liu B, Bazaz R and Honn KV (1996) Association of protein kinase C-alpha with cytoplasmic vesicles in melanoma cells. *J. Histochem. Cytochem.* 44:177-182. PMID: 8609374

20. Hannun YA and Liu B. (1996) Sphingomyelinases and ceramide in cell growth regulation. In: *Atelier de Formation No 87*. INSERM (Eds: F. Russo-Marie, B. Geny, and D. Aunis)
19. Liu B, Khan WA, Hannun YA, Timar J, Taylor JD, Lundy S, Butovich I and Honn KV (1995) 12(S)-hydroxyeicosatetraenoic acid and 13(S)-hydroxyoctadecadienoic acid regulation of protein kinase C-alpha in melanoma cells: role of receptor-mediated hydrolysis of inositol phospholipids. *Proc. Natl. Acad. Sci. USA* 92:9323-9327. PMID: 7568126
18. Tepper CG, Jayadev S, Liu B, Bielawska AE, Wolff R, Yonehara S, Hannun YA and Seldin MF (1995) Role for ceramide as an endogenous mediator of FAS-induced cytotoxicity. *Proc. Natl. Acad. Sci. USA* 92:8443-8447. PMID: 7545303
17. Jayadev S, Liu B, Bielawska AE, Lee JY, Nazaire F, Pushkareva MY, Obeid LM and Hannun YA (1995) Role for ceramide in cell cycle arrest. *J. Biol. Chem.* 270:2047-2052. PMID: 7836432
16. Onoda JM, Kantak SS, Piechocki MP, Awad W, Chea R, Liu B and Honn KV (1994) Inhibition of radiation-enhanced expression of integrin and metastatic potential in B16 melanoma cells by a lipoxygenase inhibitor. *Radiation Res.* 140:410-418. PMID: 7972695
15. Honn KV, Tang DG, Gao X, Butovich IA, Liu B, Timar J and Hagmann (1994) 12-lipoxygenase and 12(S)-HETE: role in cancer. *Cancer Metastasis Rev.* 13:365-396. PMID: 7712597
14. Liu B, Maher RJ, Hannun YA, Porter AT and Honn KV (1994) 12(S)-HETE enhancement of prostate tumor cell invasion: selective role of PKC alpha. *J. Natl. Cancer Inst.* 86:1145-1151. PMID: 7518003
13. Chen YQ, Duniec ZM, Liu B, Hagmann W, Gao X, Shimoji K, Marnett LJ, Johnson CR and Honn KV (1994) Endogenous 12(S)-HETE production by tumor cells and its role in metastasis. *Cancer Res.* 54:1574-1579. PMID: 7511046
12. Liu B, Marnett LJ, Chaudhary A, Li C, Blair IA, Johnson CR, Diglio CA and Honn KV (1994) Biosynthesis of 12(S)-hydroxyeicosatetraenoic acid by B16 amelanotic melanoma cells is a determinant of their metastatic potential. *Lab. Invest.* 70:314-323. PMID: 8145526
11. Timar J, Liu B, Bazaz R, Taylor JD and Honn KV (1992) Fatty Acid Modulation of cancer cell spreading and cytoskeleton rearrangement. In: *Eicosanoids and other Bioactive Lipids in Cancer, Inflammation and Radiation Injury*. (S Nigam, KV Honn, LJ Marnett and T Walden, eds), pp 639-643. Kluwer Academic Publishers, Boston.
10. Liu B, Renaud C, Kowynia J, Nelson KK, Roudachevski, Snyder D, Timar J and Honn KV (1992) Activation of Protein kinase C by 12(S)-HETE: role in tumor cell metastasis. In: *Eicosanoids and other Bioactive Lipids in Cancer, Inflammation and Radiation Injury*. (S Nigam, KV Honn, LJ Marnett and T Walden, eds), pp629-634. Kluwer Academic Publishers, Boston
9. Chen YQ, Liu B, Tang DG and Honn KV (1992) Fatty acid modulation of tumor cell-platelet-vessel wall interaction. *Cancer Metastasis Rev.* 11:389-409. PMID: 1423824
8. Timar J, Chen YQ, Liu B, Bazaz R, Taylor JD and Honn KV (1992) The lipoxygenase metabolite 12(S)-HETE promotes α 3-mediated tumor cell spreading on fibronectin. *Int. J. Cancer* 52:594-603. PMID: 1399143
7. Liu B, Renaud C, Nelson KK, Chen YQ, Bazaz R, Kowynia J, Timar J, Diglio CA and Honn KV (1992) Protein kinase C inhibitor calphostin C reduces B16 amelanotic melanoma cell adhesion to endothelium and lung colonization. *Int. J. Cancer* 52:147-152. PMID: 1379995
6. Liu B, Timar J, Howlett J, Diglio CA and Honn KV (1991) Lipoxygenase metabolites of arachidonic and linoleic acids modulate the adhesion of tumor cells to endothelium via regulation of protein kinase C. *Cell Regulation (Mol. Biol. Cell)* 2:1045-1055. PMID: 1801923
5. Saul S, Liu B and Sugumaran M (1987) The majority of prophenoloxidase in the hemolymph of *Manduca sexta* is present in the plasma and not in the hemocytes. *Develop. Comp. Immunol.* 11:479-185. PMID: 3119385
4. Li CJ, Liu B, Hu YH, Li SQ (1987) Eye irritancy evaluation of N-acylglutamic acid. *J. West China Med. Univ.* 18:86-9. PMID: 3623528
3. Li SQ, Dong QN, Liu YQ and Liu B (1987) The carcinogenicity of 1,4-dichlorobutene-2. Part B: Tumor incidence among workers exposed to 1,4-dichlorobutene-2. *J. Industrial Hygiene Occupational Diseases* 5:202-207.
2. Xue SQ, Zhang P and Liu B (1987) The teratogenicity residual methacrylate in in-line filter. *J. Occupational Protection Chemical Engineering* 29:29-30.
1. Liu YQ, Hu YH, Liu B, Li CJ, Dong QN, Zhang P, Ling F, Yang H and Zhao L (1986) The toxicity of N-acetyl glutaminic acid. *J. Occupational Protection Chemical Engineering* 23:6-12.

Recent Research Support

- NIH R01 AA026082 Liu (Co-I, PI- Stevens) 01/2018 - 06/2022
 Role of histone demethylase KDM5B in methylation in ethanol-induced microglial activation
 This project uses novel proteomic approaches in both in vitro and in vivo models to determine the contribution of histone demethylase KDM5B in microglia in response to alcohol exposure.
- COP PROSPER Award Liu (PI) 01/2019 - 01/2021
 Disruption of innate immunity by persistent environmental contaminants
 This pilot project explores cellular pathways associated with innate immunity in response to environmental toxicants.
- NIH R21 AA021518 Stevens & Liu (MPI) 05/2017 - 10/2020
 Role of methylation in ethanol-induced microglial activation
 This project uses novel proteomic approaches in both in vitro and in vivo models to determine the contribution of DNA methylation in microglia in response to alcohol exposure.
- UF Opportunity Fund Liu (Co-I, PI-Vulpe) 07/2016 - 06/2018
 Functional screening to identify mediators of dopaminergic neuronal toxicity by pesticides
 This pilot project proposes to identify key molecular mediators of dopaminergic neurotoxicity induced by chlorine pesticides.
- NIH R03 AA022790 Liu & Stevens (MPI) 08/2015 - 07/2017
 Novel Proteomic Approaches for the Study of Alcohol Neuropathology
 This project explores the application of proteomic techniques for studying microglial activation in animals exposed to alcohol.
- COP PROSPER Award Liu (PI) 08/2015 - 07/2016
 Characterization of ethanol-induced microglial activation
 This project explores microglial activation patterns in the brain of animals exposed to alcohol.
- NIH R21 AA021245 Liu & Stevens (MPI) 08/2013 - 07/2015
 Role of microglia in ethanol-induced oxidative stress
 This project determines the contribution of microglia to oxidative neuronal damage induced by alcohol using proteomic approach and in vitro culture systems.