Curriculum Vitae

Ann M. Marini, Ph.D., M.D.

Work Address: Department of Neurology
Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
Bethesda, Maryland 20814

Birthplace: Greenwich, Connecticut

EDUCATION

1980 M.D. - Georgetown University School of Medicine
Washington, D.C. 20007

1978 Ph.D.- Department of Biochemistry
Georgetown University School of Medicine
Washington, D.C. 20007

1971 B.A. Chemistry, Erskine College, Summa Cum Laude
Due West, South Carolina 29639

PRESENT POSITION

2008-present Professor
Department of Neurology
Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
Bethesda, Maryland 20814

2000-2008 Associate Professor
Department of Neurology
Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
Bethesda, Maryland 20814

1994-2000 Assistant Professor
Department of Neurology
Uniformed Services University of the Health Sciences
4301 Jones Bridge Road
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1994-2001	Staff neurologist and Education Director Department of Neurology Walter Reed Army Medical Center Washington, D.C. 20307-5001
1995-2000	Assistant Professor (secondary appointment) Department of Neuroscience Uniformed Services University of the Health Sciences 4301 Jones Bridge Road Bethesda, Maryland 20814
2000-2008	Associate Professor (secondary appointment) Program of Neuroscience Uniformed Services University of the Health Sciences 4301 Jones Bridge Road Bethesda, Maryland 20814
2008-present	Professor (secondary appointment) Program in Neuroscience Uniformed Services University of the Health Sciences 4301 Jones Bridge Road Bethesda, Maryland 20814

PREVIOUS EMPLOYMENT

1993-1994	Department of Neurology Department of Veterans Affairs Medical Center 50 Irving Street, N.W. Washington, D.C. 20422

RESEARCH EXPERIENCE

1991-1993	Senior Staff Fellow in the Laboratory of Dr. Steven Paul
1986-1991	Senior Staff Fellow in the Laboratories of Drs. Joan P. Schwartz and Irwin J. Kopin
1981-1983	Laboratory Investigator University of Massachusetts 55 Lake Avenue North Worcester, Mass. 01605
1972-1976	Graduate Research Assistant in the

laboratory of Dr. Lee Van Lenten
Department of Biochemistry
Georgetown University School of Medicine
4000 Reservoir Road NW
Washington, D.C. 20007

CLINICAL EXPERIENCE

1989-1991 Clinical Fellowship
Clinical Neuropharmacology
Neurodegenerative disorders affecting the central nervous system and/or sympathetic nervous system: Multiple Systems Atrophy and Idiopathic Orthostatic Hypotension

1985-1986 Chief Resident
Montefiore Hospital
Albert Einstein College of Medicine
1300 Morris Park Avenue
Bronx, New York 10461

1983-1985 Resident in Neurology
Albert Einstein College of Medicine
1300 Morris Park Avenue
Bronx, New York 10461

1982-1983 Senior Assistant Resident
Department of Medicine
University of Massachusetts Medical Center
55 Lake Avenue North
Worcester, Massachusetts 01605

1981-1982 Junior Assistant Resident
Department of Medicine
University of Massachusetts Medical Center
55 Lake Avenue North
Worcester, Massachusetts 01605

1980-1981 Intern
Department of Medicine
University of Massachusetts Medical Center
55 Lake Avenue North
Worcester, Massachusetts 01605

1976-1980	Medical Student Georgetown University School of Medicine Washington, D.C. 20007

COLLEGE EXPERIENCE

1967-1971	Undergraduate student Erskine College Due West, South Carolina 29639

LICENSURE AND CERTIFICATION

1980-present	Massachusetts License/Registration
1994-present	District of Columbia License
1995-present	Maryland License

CERTIFICATION

1983	American Board of Internal Medicine
1990	American Board of Neurology and Psychiatry

TEACHING EXPERIENCE

1969-1971	Undergraduate Teaching Assistant Department of Biology Erskine College Due West, South Carolina 29639
1972-1976	Graduate Teaching Assistant Department of Biochemistry Georgetown University School of Medicine Washington, D.C. 20007 Tutored medical and dental students in general Biochemistry.
1986-1993	Responsible for teaching summer students in the laboratories of Drs. Kopin, Schwartz and Paul.
1991-1993	Responsible for teaching post-doctoral fellows in Dr. Steven Paul's laboratory.

USUHS

1994-present	Graduate Neuroscience students
1994-present	Medical Student education (Clinical concepts in Neurology)
2001-2003	Lecture series on headache to ICM-4
2003	Preparation of headache lecture on CD for ICM-4
2003-present	Neurobiology Course directed by Dr. Rosemary Borke, Department of Anatomy, Physiology and Genetics.
2005-present	Medical Student education (preparation for National Boards)

WALTER REED ARMY MEDICAL CENTER

1994- present	Patient care
2004-present	Neurology consultant for the Vaccine Healthcare Center under the direction of Dr. Renata Engler, Director, Vaccine Healthcare Center, Walter Reed Army Medical Center.

MENTORSHIP IN NEUROBIOLOGY LAB

1997 Dr. Charles Kelly - Senior Neurology resident. Dr. Kelly studied the role of NF-κB in NMDA receptor-mediated neuroprotection.

1997 Dr. Abid Naseer - conducted experiments on the effect of lamotrigene in the excitotoxic response in cultured cerebellar granule cells.

1998 Dr. Jamie Grimes - Junior Neurology resident. Dr. Grimes studied the role of lamotrigine in protecting cultured rat cerebellar granule cells against glutamate excitotoxicity.

2005 Nora Harwood Neuroscience graduate student (winter rotation)

2006 Arielle Brown Neuroscience graduate student (spring rotation)

POST-DOCTORAL FELLOWS SUPERVISED

1998 - 2001 Dr. Krishna Banaudha - postdoctoral fellow studying the neuroprotective properties of the non-NMDA receptor agonist AMPA.

2000-2003 Dr. Daming Zhu-postdoctoral fellow studied the role of extracellular signal-regulated kinase in NMDA neuroprotection and the role of PKC in a neuronal model of apoptosis.

2001-present Dr. Xueying Jiang-Research Associate-is studying the mechanism of activation of promoter 4 of the BDNF gene by NMDA by NF-κB and CRE.

2001-2005 Dr. Xuan Wu-Senior Research Associate-is studying the role of CaM kinase II in NMDA neuroprotection.

2006-2008 Dr. Hong Jiang-Senior Research Associate- is studying the role of exon1-specific BDNF transcripts in NMDA neuroprotection.

SUPERVISION OF COLLEGE AND MEDICAL STUDENTS:

Medical Students:

1999 -2000 Artin Terhakopian - USUHS medical student studied the role of MAP kinase in NMDA receptor-mediated neuroprotection.

Summer-2001 Ms. Katie Barletta-Harvard College student spent the summer in the lab studying the neuroprotective effect of arachidonic acid against glutamate neurotoxicity.

Summer-2004 Ens. Melissa Ehret, Medical Student, USUHS. Ens. Ehret studied the activation of calcium-calmodulin kinase II by NMDA in cultured rat cerebellar granule cells.

High School Students:

1999 - 2000 Ms. Gigi Qureshi - Thomas Jefferson High School student studied the role of MAP kinase and Shc in NMDA receptor-mediated neuroprotection

Summer-2005 Mr. Jonathan Satria-Wooton High School, Rockville, MD spent the summer in the lab studying the requirement of activated CaM kinase II by NMDA to protect neurons against glutamate excitotoxicity.

Summer-2005 Mr. Michael Lee-Montgomery Blair High School, North Potomac, MD will spend the summer studying how a calcium-calmodulin inhibitor affects activation of CaM kinase II by NMDA.

Summer-2008 Katy Tong Wooton High School, Rockville, MD. Katy spent one month learning how to prepare buffers, make solutions, calculate molarity and use fluorescent microscopy.

Summer-2008 Melissa Satria Wooton High School, Rockville, MD spent the summer in the lab studying the function of balic helix loop helix B2 in cultured neurons.

College Students:

Summer 2007 Mr. Jonathan Satria, a Johns Hopkins University student who will begin his sophomore year in September 2007, spent the summer in my laboratory where he studied the effects of glutamate excitotoxicity on bHLHB2 and exon 4-specific BDNF mRNA levels in cultured rat hippocampal neurons. Mr. Satria learned how to isolate and purify total RNA, synthesize cDNA from RNA and perform the 5' nuclease assay.

MEMBER OF THESIS ADVISORY COMMITTEES

Patrick Awenowicz	Department of Anatomy, Cell Biology and Physiology
Steven Noctor	Department of Anatomy, Cell Biology and Physiology

USUHS COMMITTEE MEMBERSHIPS AND SERVICE

1994-2005	Education committee, Department of Neurology
1997-2000	Faculty Senate
1997-2000	Research subcommittee-Faculty Senate
1998-2000	Head, Comparability subcommittee -Faculty Senate
2001-2004	Member, continuing health education committee
2000- 2005	Member, comparability subcommittee of the Faculty Senate
2003-2006	Primary member, IRB
2006-2008	Alternate, IRB
2006-2009	Member, Medical Admissions Committee, USUHS
2008-present	Primary member, IRB

HONORS AND AWARDS

1971	E.A. Sloan Award in physical chemistry, Erskine College
1970	Garnet Circle for Academic Excellence, Erskine College
1988	Granted full fellowship to attend MPTP symposium in Sardina, Italy

INTERNATIONAL RESEARCH INVITATIONS

Invited to speak at the 3rd International Congress on Amino Acids and Analogues, Vienna, Austria, August 23-27, 1993.
Invited to speak at the Third International Conference on Neuroprotective Agents, Varenna, Italy. September 9-13, 1996
Invited to speak at the Fourth International Conference on Neuroprotective Agents,

Annapolis, Maryland. November, 1998
Invited to speak at the Fifth International Congress on Amino Acids and Analogues, Vienna Austria, August 2001.
Invited to speak at the Fifth International Conference on Neuroprotective Agents, Lake Tahoe, California, 2000
Invited to speak at the Sixth International Conference on Neuroprotective Agents, Hilton Head, September 2002.
Invited to speak at the Sixth International Congress on Amino Acids and Analogues, Rome Italy, September 2003.
Invited to speak at the Seventh International Conference on Neuroprotective Agents, Monterey, CA, November 2004.
Invited to speak at the Ninth International Congress on Amino Acids and Analogues, Vienna, Austria, August, 2005.
Invited to speak at the Eighth International Conference on Neuroprotective Agents, MacKinac Island, Michigan, September 2006.
Invited to speak at the Tenth International Congress on Amino Acids and Analogues, Chalkidiki, Greece, August 2007.
Invited to speak at the Eleventh International Congress on Amino Acids and Analogues, Vienna, Austria, August 2009.

INVITED SEMINARS

December 2004. CRE and NF-κB are required to activate promoter 4 of the bdnf gene. Department of Biochemistry and Pharmacology, University of Oviedo, Oviedo, Spain.

May 2008 *New Mechanisms of Regulating BDNF Gene Expression: Implications for Neuroprotection following Brain Injury.* USUHS Research Day; Traumatic Brain Injury Symposium

FELLOWSHIPS:

1989-1991 Clinical Neuropharmacology at the National Institues of Health
1986-1991 Senior Staff Fellowship (Drs. Irwin Kopin and Joan Schwartz)
1991-1993 Senior Staff Fellowship (Dr. Steven Paul)

PROFESSIONAL ORGANIZATIONS

1975- Sigma Xi
1980- American Academy of Neurology
1986- Society for Neuroscience
1995- Fellow of the Stroke Council of the American Heart Association (invited for membership)
2001- Fellow of the American Heart Association and the Stroke Council [F.A.H.A.]

2002- American Society for Neurochemistry

ADVISORY BOARDS

2007-present Scientific Advisory Board member of the *International Conference on Neuroprotective Agents.*

2009-present Food Safety Advisor for the Equine Welfare Alliance

EDITORIAL BOARD

2009- CNS & Neurological Disorders-Drug Targets

SCHOLARLY ACTIVITES AT WALTER REED ARMY MEDICAL CENTER

1995-1999 Grand rounds coordinator in the Department of Neurology

1999- 2003 Established a multi-disciplinary Neurovascular Conference consisting of Neurology, Neurosurgery, Vascular Surgery, and Cardiology.

1999-2003 Established a Transient Ischemia Attack pathway for patients. This pathway is conducted through the Short Stay Unit at WRAMC.

1999-2002 Contributed to multi-disciplinary team to elevate awareness of stroke at Forest Glen.

1999- 2002 Initiated a stroke clinic to establish a stroke database, elevate awareness of stroke risk factors and educate patients about modifying these factors to reduce stroke.

RESEARCH AWARDS

May 1995-1997 PI: Department of Clinical Investigation, Walter Reed Army Medical Center (7163) NMDA receptor-mediated neuroprotection in cultured cerebellar granule cells from Sprague-Dawley Rat Pups: The role of growth factors.

July 1996-1997 PI: Uniformed Services University of the Health Sciences: R09276 - The Neuroprotective Effect of Growth Factors in Excitotoxicity.
April 1997-98 PI: Uniformed Services University of the Health Sciences: R09278 - Transcriptional Regulation of the BDNF gene in cultured granule cells from Sprague Dawley Rat Pups.

December 1998-October 1999. PI at Walter Reed: Phase III trial for the acute treatment of Stroke. GAIN Americas - sponsored by Glaxo-Wellcome.

April 1999-2002 PI: Uniformed Services University of the Health Sciences: RO9292 - Phosphoprotein transducers in NMDA protection.

April 1999-2001 PI: (7164) Walter Reed Army Medical Center: The role of non-NMDA receptors in protection against glutamate excitotoxicity.

April 1999-2001 PI: Defense and Veterans Head Injury Program: Incorporating Strategies of Neuroprotection in Head Injury: the novel use of glutamate.

September 2001-2003 PI: United States Army: Long-term neuroprotective strategies against the neurotoxic effects of acetylcholinesterase inhibitors.

June 2001-June 2002 PI: DBSCIP: COX2 mechanisms in glutamate-mediated neurotoxicity.

September 2001-August 2004 PI: Defense and Veterans Head Injury Program: Incorporating Strategies of Neuroprotection in Head Injury: the novel use of glutamate.

NIH R21 AT00350-01A1 (February 2002-February 2004) Co-PI: Homeopathic treatment of neurodegenerative diseases.

April 2002-2005 Uniformed Services University of the Health Sciences: R092BI-01 Calcium-mediated survival pathways in neurons.

January 2002-December 2005 PI: Defense Brain Spinal Cord Injury Program: N-methyl-D-aspartate receptor-mediated neuroprotection in hippocampal neurons.

April 2005-2008 (R092EB) Uniformed Services University of the Health Sciences: R092EB Exon-specific BDNF transcripts in NMDA neuroprotection.

April 2006-2008 PI: Defense and Veterans Head Injury Program: Sharp-2 mechanisms in neuronal function and neurodegeneration.

October 2006-2009. Defense Threat Reduction Agency NF-kappaB as a neuroprotective strategy against nerve agent-induced neuronal cell death.

October 2009-2011. Defense Threat Reduction Agency: Linolenic acid: An omega 3 fatty acid that protects against soman-induced neuropathology.

October 2009-2011. Defense Threat Reduction Agency: Phenserine, an acetylcholinesterase inhibitor with possible neuroprotective efficacy against soman-induced neuropathology

EXTRAMURAL COMMITTEES

1994- 1999 American Academy of Neurology - Therapeutics and Technology Subcommittee

EXTRAMURAL SCIENTIFIC SERVICE POSITIONS

1995-1997 Reviewer for Nation's Capitol Chapter of the American Heart Association.

2006-2008 Reviewer for the Defense Threat Reduction Agency (Neurologic Therapeutics)

REVIEWER (AD HOC) FOR THE FOLLOWING JOURNALS

Journal of Neuroscience
Glia
Journal of Neurocytology
Life Sciences
European Journal of Neuroscience
Journal of Neurochemistry
Neurotoxicology
Stroke
Neuroscience
Neuropsychopharmacology
International Journal of Developmental Neuroscience
Neuropharmacology
Neurochemistry International
Journal of Biological Chemistry
Journal of Neuroscience Research
Brain Research
Neurobiology of Aging
Neuromolecular Medicine

PUBLICATIONS

1. Zaret BS, Beckner RR, **Marini AM**, Wagle W, Passarelli C. 1982 Sodium valproate-induced hyperammonemia without clinical hepatic dysfunction. Neurology 32:206-208.

2. Heeb MJ, **Marini AM**, Gabriel O. 1985 Factors affecting binding of galacto-ligands to actinomyces viscosus lectin. Infection and Immunity 47:61-67.

3. **Marini AM**, Zaret BS, Beckner RR. 1988 Hepatic and renal contributions to valproic acid-induced hyperammonemia. Neurology 38:365-71.

4. **Marini AM**, Schwartz JP, Kopin IJ. 1989 The neurotoxicity of 1-methyl-4-phenylpyridinium in cultured cerebellar granule cells. J. Neurosci 9:3665-3672.

5. Shinoda H, **Marini AM**, Cosi C, Schwartz JP. 1989 Neuropeptide gene expression in cultured astrocytes: Brain region and gene specificity. Science 245:415-417.

6. **Marini AM**, Kozuka M, Lipsky RH, Nowak TS. 1990 70 KDa heat shock protein induction in cerebellar astrocytes and cerebellar granule cells in vitro. J. Neurochem. 54:1509-1516.

7. Dipasquale B, **Marini AM**, Youle RJ. 1991 Apoptosis and DNA degradation induced by 1-methyl-4-phenylpyridinium in neurons. Biochem. Biophys. Res. Comm. 181 (3):1442-1448.

8. **Marini AM**, Novelli A. 1991 The glutamate uptake blocker DL-threo-3-hydroxyaspartate reduces NMDA receptor activation by glutamate in cultured neurons. European J. Pharm. 194:131-2.

9. **Marini AM**, Lipsky RH, Schwartz JP, Kopin IJ. 1991 Accumulation of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine in cultured cerebellar astrocytes. J. Neurochem. 58(4):1250-1258.

10. Polinsky RJ, Brown RT, Curras MT, Baser SM, Baucom CE, Hooper DR, **Marini AM**. 1991 Central and peripheral effects of arecoline in patients with autonomic failure. J. Neurol Neurosurg Psychiatry 54(9):807-12

11. Duncan MW, **Marini AM**, Kopin IJ, Markey SP. 1992 Zinc, a neurotoxin to cultured neurons, contaminates flour traditionally prepared by Guamanians. J. Neurosci. 12(4):1523-1537.

12. Charlton TS, **Marini AM**, Markey SP, Norstog K, Duncan MW. 1992 Quantification of the neurotoxin 2-amino-3-(methylamino)-propanoic acid (BMAA) in cycadales. Phytochemistry 31(10):3429-3432.

13. **Marini AM**, and Paul SM. 1992 N-Methyl-D-aspartate receptor-mediated neuroprotection in cerebellar granule cells requires new RNA and protein synthesis. Proc. Natl. Acad. Sci. USA 89:6555-6559.

14. **Marini AM,** Paul SM. 1993 Induction of a neuroprotective state in cerebellar granule cells following activation of N-methyl-D-aspartate receptors. Ann N Y Acad Sci. 679:253-259.

15. **Marini AM**, Friedman R. Martin GR. 1992 The neurotoxin 1-methyl-4-phenyl-pyridinium is a cytostatic agent in small cell lung carcinoma cell lines with neuroendocrine properties. J. National Cancer Institute 84(20):1582-1587.

16. Shimoda K, Sauve Y, **Marini AM**, Schwartz JP, Commissiong JW. 1992 A high percentage yield of tyrosine hydroxylase-positive cells from rat E14 mesencephalic cell culture. Brain Res. 586:319-331.

17. Shinoda J, **Marini AM**, Schwartz JP. 1992 Developmental expression of the proenkephalin and prosomatostatin genes in cultured cortical and cerebellar astrocytes. Dev. Brain Res. 67:205-210.

18. Weller M, **Marini AM**, Paul SM. 1992 Niacinamide blocks 3-acetylpyridine toxicity of cerebellar granule cells in vitro. Brain Res. 594:160-164.

19. Finiels-Marlier F, **Marini AM**, Williams P, Paul S. 1993 The N-methyl-D-aspartate antagonist MK-801 fails to protect dopaminergic neurons from 1-methyl-4-phenylpyridinium toxicity in vitro. J. Neurochem. 60:1968-1971.

20. Weller M, **Marini AM**, Finiels-Marlier F, Martin B, Paul SM. 1993 MK-801 and memantine protect cultured neurons from glutamate toxicity induced by glutamate carboxypeptidase-mediated cleavage of methotrexate. Eur. J. Pharm. Environmental Toxicology and Pharmacology Section, 248:303-312.

21. **Marini AM**, and Paul SM. 1993 Induction of a neuroprotective state in cerebellar granule cells following activation of N-methyl-D-aspartate receptors. Ann NY Acad Sci, 253-259.

22. Mutoh T, Tokuda A, **Marini AM**, Fujiki N. 1994 1-Methyl-4-phenylpyridinium kills differentiated PC12 cells with a concomitant change in protein phosphorylation. Brain Res 24:661:51-55.

23. **Marini AM**, Strauss K., Jacobowitz DM. 1997 Calretinin-containing neurons in rat cerebellar granule cell cultures. Brain Res. Bull. 42:279-288.

24. **Marini AM**, Rabin SI, Spiga G, Mocchetti I. 1997 Toward Developing Strategies To Prevent Ischemic Neuronal Damage. Ann NY Acad Sci 825:209-219.

25. **Marini AM**, Rabin SI, Lipsky RH, Mocchetti I. 1998 Activity-dependent release of brain derived neurotrophic factor underlies the neuroprotective effect of N-methyl-D-aspartate. J. Biol. Chem. 1998 273(45):29394-29399.

26. Klatka L, Depper M, **Marini AM**.1998 Infarction in the Territory of the Anterior Cerebral Artery. Neurology 51(2):620-622.

27. **Marini AM**, Ueda Y., June CH. 1999 Intracellular survival pathways against glutamate receptor agonist excitotoxicity in cultured neurons: Intracellular calcium responses. Ann NY Acad Sci 890:421-37.

28. Banaudha K, **Marini AM**. 2000 AMPA prevents glutamate-induced neurotoxicity and apoptosis in cultured cerebellar granule cell neurons. Neurotoxicity Res 2:51-61.

29. Diaz-Trelles R, Vega-Alvarez J.A., **Marini AM**, Novelli A, Fernandez-Sanchez M.T. 2000 Antihistamine terfenadine potentiates NMDA receptor-mediated calcium influx, oxygen radical formation, and neuronal death. Brain Res, 880:17-27.

30. **Marini AM**, Nowak TS. 2000 Metabolic effects of 1-methyl-4-phenylpyridinium in primary neuron cultures. J. Neurosci Res. 62:814-820.

31. **Marini AM**, Choi YJ and Labutta RJ. 2001 Synaptic deprivation and age-related vulnerability to hypoxic-ischemic neuronal damage: A hypothesis. Ann N Y Acad Sci 939:238-253.

32. Lipsky RH, Xu K, Zhu D, Kelly C, Terhakopian A, Novelli A, **Marini AM**. 2001 NF-κB is a critical determinant for NMDA receptor-mediated neuroprotection. J. Neurochem, 78:254-264.

33. Sacco RL, DeRosa JT, Haley EC Jr, Levin B, Ordronneau P, Phillips SJ, Rundek T, Snipes RG, Thompson JL; 2001 The Glycine Antagonist in Neuroprotection Americas Investigators [**Marini AM**]. Glycine antagonist in neuroprotection for patients with acute stroke: GAIN Americas: a randomized controlled trial. JAMA Apr 4;285(13):1719-28. Multicenter trial

34. Diaz-Trellis, R, Fernandez-Sanchez, MT, **Marini AM**, Novelli A. 2002 Antihistamine terfenadine inhibits calcium influx, cGMP formation, and NMDA receptor-dependent neurotoxicity following activation of voltage sensitive calcium channels. Neurotoxicity Res 4:15-24.

35. Zhu D, Lipsky RH, **Marini AM**. 2002 Co-activation of the phosphatidylinositol-3-kinase/Akt signaling pathway by N-methyl-D-aspartate and TrkB receptors in cerebellar granule cell neurons. Amino Acids 23:11-17.

36. Strauss KI, **Marini AM**. 2002 Cyclo-oxygenase-2 Inhibition Protects cultured cerebellar granule cell neurons from glutamate-mediated cell death. J. Neurotrauma, 19:627-638.

37. Marotta D, **Marini AM**, Banaudha KK, Maharaj S, Ives J, Jonas W. 2002 Non-linear effects of cycloheximide in glutamate-treated cultured rat cerebellar neurons. Neurotoxicology 23:307-312.

38. Marotta D, **Marini AM**, Banaudha KK, Maharaj S, Jonas W. 2003 Non-Linear Effects of Glutamate and KCl on Glutamate Toxicity in Cultured Rat Cerebellar Neurons. Int J Neurosci 113:491-502.

39. Jiang X, Zhu D, Okagaki P, Lipsky R, Wu X, Banaudha K, Mearow K, **Marini AM**. 2003 N-Methyl-D-aspartate and TrkB receptor activation in cerebellar granule cells: An

in vitro model of preconditioning to stimulate intrinsic survival pathways in neurons. Ann NY Acad Sci, 993:134-145.

40. **Marini AM**, Choi JY, Labutta RJ. 2003 Transient neurological deficits associated with carbamazepine-induced hypertension. J Clin Neuropharm 26:174-176.

41. **Marini AM**, Jiang X, Wu X, Tian F, Zhu D, Okagaki P, Lipsky RH. 2004 Brain-derived neurotrophic factor and NF-κB: From genomics to molecular biology to phenotype. Restorative Neurology and Neuroscience 22:121-130.

42. Lipsky RH, Jiang X, Xu K, Marko A, **Marini AM.** 2004 Genomics and variation of ionotropic glutamate receptors: implications for neuroplasticity. Amino Acids 28:169-175.

43. Wu X, Zhu D, Jiang X, Okagaki P, Mearow K, Zhu G, McCall S, Banaudha K, Lipsky RH**, Marini AM**. 2004 AMPA protects cultured neurons against glutamate excitotoxicity through a phosphatidylinositol 3-kinase-dependent activation in extracellular signal-regulated kinase to upregulate BDNF gene expression. J Neurochem 90:807-818.

44. Zhu D, Jiang X, Wu X, Tian F, Mearow K, Lipsky RH, **Marini AM**. 2004 Inhibition of protein kinase C promotes neuronal survival in low potassium through an Akt-dependent pathway. Neurotoxicity Res, 6(4):281-289.

45. Zhu D, Wu X, Strauss KI, Lipsky RH, Qureshi Z, Terhakopian A, Novelli A, Banaudha K, **Marini AM**. 2005 N-methyl-D-aspartate and TrkB receptors protect neurons against glutamate excitotoxicity through an extracellular signal-regulated kinase pathway. J Neurosci Res, 80:104-113.

46. Wu X, Tian F, Okagaki PM, **Marini AM**. 2005 Inhibition of N-methyl-D-aspartate receptor activation increases paraoxon-induced apoptosis in cultured neurons. Toxicol and Appl Pharmacol, 208:57-67.

47. Jiang X, Enoch M-A, Xu K, Hoberman J, Waheed J, Harris CR, **Marini AM**, Lipsky RH. 2005 BDNF and mood disorders: A novel functional promoter polymorphism and Val66Met are associated with anxiety but have opposing effects. Neuropsychopharmacology, 30:1353-1361.

48. Wu X, Jiang X, **Marini AM**, Lipsky RH. 2005 Delineating and understanding cerebellar neuroprotective pathways: Potential implication for protecting the cortex. Ann NY Acad Sci, 1053:39-47.

49. Jiang X, Tian F, Okagaki P, Lipsky RH, **Marini AM**. 2005 The excitoprotective effect of N-methyl-D-aspartate is mediated by a BDNF autocrine loop in cultured hippocampal neurons. J Neurochem 94:713-722.

50. **Marini AM**, Jiang X, Wu X, Pan H, Guo Z, Mattson MP, Blondeau N, Novelli A, Lipsky RH. 2007 Preconditioning and Neurotrophins: A model for brain adaptation to seizures, ischemia and other stressful stimuli. Amino Acids 32:299-304.

51. Tian F, Wu X, Jiang, H, Kuo, Yu-Liang, **Marini AM**. 2007 Inhibition of protein kinase C protects cultured neurons against the neurotoxic effects of paraoxon. NeuroToxicology, 28:843-849.

52. Lipsky RH, **Marini AM**. 2007 Role of brain-derived neurotrophic factor in neuronal survival and behavior-related plasticity. Annals NY Acad Sci, 1122:130-143.

53. Jiang X., Tian F, Du Y, Copeland NG, Jenkins NA, Tessarollo L, Wu X, Pan H, Xu K, Kenney H, Egan SE, Turley H, Harris AL, **Marini AM**., Lipsky RH. 2008 BHLHB2 controls *Bdnf* promoter 4 activity and neuronal excitability. J. Neurosci 28:1118-1130.

54. Tian, F., **Marini, AM**., Lipsky RH. 2009 Epigenetic analysis of BDNF promoters associated with NMDA receptor activation in hippocampal neurons. Amino Acids, *Epub ahead of print.*

55. Jiang X, Zhou J, Mash DC, **Marini AM**., Lipsky RH. 2009 Human BDNF isoforms are differentially expressed in cocaine addicts and are sorted to the regulated secretory pathway independent of the Met66 Substitution. Neuromolecular Medicine 11(1):1-12

56. Tian F. Marini AM, Lipsky RH. 2009 Effects of histone deacetylase inhibitor Trichostatin A on epigenetic changes and transcriptional activation of *Bdnf* promoter 1 by rat hippocampal neurons. Ann NY Acad Sci, *in press.*

57. Tian F. Hu X, Wu X, Jiang H, Pan H, Marini AM, Lipsky RH. 2009 Dynamic chromatin remodeling events in hippocampal neurons are associated with NMDA receptor-mediated activation of *Bdnf* gene promoter 1. J Neurochem, 109(5):1375-1388.

58. Blondeau N, Nguemeni C, DeBruyne DN, Piens M, Wu X, Pan H, Hu X, Gandin C, Lipsky RH, Plumier J-C, Marini AM, Heurteaux C. 2009 Subchronic alpha-linolenic acid treatment enhances brain plasticity and exerts and antidepressant effect: A versatile potential therapy for stroke. Neuropsychopharmacology, *in press.*

INVITED PAPERS

Marini AM, Jiang H, Pan H, Wu, X, Lipsky RH. 2007 Hormesis: A promising strategy to sustain endogenous neuronal survival pathways against neurodegenerative disorders. Ageing Research Reviews, 7:21-33.

BOOK CHAPTERS

1. Marini AM, and Pratter MR. Sedative hypotic overdose. In: Intensive Care Medicine. JM Rippe, RS Irwin, JS Alpert, JE Dalen, Eds. Boston: Little Brown, 1985:915-919.

2. Markey SP, Ikeda H, Yang S-C, Markey CJ, Marini AM, Johannessen JN. Search for environmental or endogenous neurotoxins related to MPTP. In: Progress in Parkinson's Research, F. Hefti and WJ Weiner, Eds. Plenum NY, 1988:85-91.

3. Schwartz JP, and Marini AM. Regional specificity of astrocytes. In: Neuroscience Year, Smith B. and Adelman G., Eds. Birkhauser, 1990:135-6.

4. Marini AM, and Kopin IJ. The role of astrocytes in MPTP toxicity. In: Progress in Parkinson's Research. Hefti F, and Weiner WJ., Eds. Plenum, NY, 1993:3-13.

LETTER TO THE EDITOR:

1. Duncan MW, Marini AM. 2006 Debating the cause of a neurological disorder. Science 313:1737.