**CURRICULUM VITAE**

Joseph J. McArdle

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Office Address: Department of Pharmacology, Physiology, and Neuroscience, New Jersey Medical School-Rutgers University, 185 South Orange Avenue, Newark NJ 07103-2714;

Telephone: 973-972-4428, email: mcardle @njms.rutgers.edu

1. Education

1. Undergraduate 1963-1967, University of Delaware, BA, Biology & Chemistry

1. Graduate Education: 1967-1972, State University of New York-Buffalo, PhD, Cellular Neuropharmacology

2. Post Doctoral Training:

a. 1971-1972 – Dept Pharmacology, State University of New York-Buffalo

3. Military Service

a. 1967, US Army Reserve, 1st Lieutenant, Corps of Engineers

4. Licensure: none

5. Certification: none

6. Narcotics Certification: none

7. University Appointments:

1. 1971-1972, Dept Pharmacology, State University of New York-Buffalo, Assistant Professor
2. 1972-1977, Dept Pharmacology, New Jersey Medical School-University of Medicine and Dentistry of New Jersey, Assistant Professor
3. 1977-1982, Dept Pharmacology, New Jersey Medical School-University of Medicine and Dentistry of New Jersey, Associate Professor
4. 1982-1997, Dept Pharmacology, New Jersey Medical School-University of Medicine and Dentistry of New Jersey, Professor
5. 1997-2013, Dept Pharmacology & Physiology, New Jersey Medical School-University of Medicine and Dentistry of New Jersey,Professor
6. 1991-2018, Dept Anesthesiology, New Jersey Medical School-Rutgers University, Professor
7. 1992-1998, Dept Biomedical Engineering, New Jersey Institute of Technology Adjunct Associate Professor
8. 2017, Emeritus Professor of Pharmacology, Physiology, and Neuroscience, New Jersey Medical School-Rutgers University

8. Hospital Appointments: none

9. Other Professional Positions:

1. 1979-1980, Laboratory of Cellular and Molecular Neurobiology, Center for National Scientific Research (CNRS), Gif-sur-Yvette, France, Visiting Scientist
2. 1987, Dept Physiology, John Curtin School of Medical Research, Australian National University, Canberra, Australia, Visiting Scientist
3. 1987, Laboratory of Developmental Neurobiology, National Institute of Child Health and Human Development, Bethesda, MD, Visiting Scientist
4. 1988, Anaquest Pharmaceuticals Pharmaceutical, Division of British Oxygen Corporation, Consultant
5. 1991, Laboratoire Jean Maetz, Marine Biology Station, Villefranche-sur-Mer, France Visiting Scientist
6. 2010, Dept Molecular Neurobiology, Max Planck Institute for Medical Research University of Heidelberg, Germany, Visiting Scientist

10. Honors and Awards:

1. 1965-1967, Biology Honors Society, University of Delaware
2. 1972, PhD With Distinction, “Some Physiological and Pharmacological Properties of Reinnervating Fast and Slow Muscles of the Rat”, State University of New York-Buffalo
3. 1979-1980, Fellowship from the Research Foundation of the French Pharmaceutical Industry
4. 1987, Fellowship from the Australian National University
5. 1991, Award from the Department of Cell & Molecular Biology of the Commissariat for Atomic Energy, Saclay, France

11. Membership on Boards of Directors or Trustees: None

12. Major Teaching Experience

1. 1971-2018, Lectures in team taught courses at the State University of New York-Buffalo School of Medicine, University of Medicine and Dentistry of New Jersey, Graduate School of Biomedical Sciences of New Jersey Medical School, New Jersey Medical School-Rutgers
2. 1977-2018, Graduate courses presented at the New Jersey Medical School: A Biophysical Approach to Cellular Neuropharmacology, Molecular Basis of Synaptic Disorders
3. Postdoctoral Fellows

1989-1993, Simon Aiken, PhD

1990-1992 Elizabeth Shafiq, MD

1994-1996 Shen-Wei Liu, MD, PhD

1995-1997 Vanessa Routh, PhD

2007-2010 Baskaran Thyagarajan, PhD

1. Visiting Scholars

1986 Farghali Hassan, PhD, Pharmacology Institute, Czechoslovak Acad. Sci.

1990-1992, Jay J. Choi, MD, New Jersey Medical School

1991m Greg Nestler, MD. Anesthesiology Resident, New Jersey Medical School

1996, Xuo-Qin Guo, MD, Professor of Physiology, Shanghai Medical University 1993-1996, Jiang-Hong Ye, MD, Professor Physiology, Sun Yat-Sen Medical Univ, 2007-2008, Nataliya Krivitskaya, MD, Pediatrician in Private Practice

1. PhD Students

1974-1977, Lawrence C. Sellin, “Studies of Neurotrophic Effects on Mammalian Skeletal Muscle During Reinnervation”

1978-1981, Albert J. D'Alonzo, ”Biophysical Basis for the Differential Toxicity of 20, 25-diazacholesterol Towards Fast and Slow Skeletal Muscles”

1980-1983, Thomas M. Argentieri, “Pre- and Post-synaptic Molecular Aspects of Synapse Formation”

1983-1986, Joseph P. Arena, “Characterization of the Action of Cibenzoline on the Electrical Properties of Guinea Pig Papillary Heart Muscle”

1989-1992, Guo-Jie Huang, MD, “Action of Acute and Chronic Ethanol on the Function of Neuronal Calcium Channels of Long-sleep and Short-sleep Mice”

1989-1994, Yong-Fu Xiao MD, 1989-1994: “Abnormalities of Ion Channels of the Myocardium of the Spontaneously Hypertensive Rat”

1990-1994, Xiang-Yang Li, MD, “Properties of Outward Voltage Dependent potassium Currents of Mature Murine Hippocampal Neurons”

1992-1995, Tracy Brightman, “Convulsant and Anticonvulsant Effects of Oximes on GABAA-gated Chloride Currents of Ventromedial Hypothalamic Neurons”

1993-1996, Dolores Schiller, PhD, “ Pharmacologic Modification of Glycine-gated Ion Channels Within CNS Neurons”

1995-1998, Barbara Gladson, “Somatostatin Modulation of Glucagon Release from Hamster Glucagonoma Cells”

2006-2010, Carmen C. Garcia, MD, “Molecular basis of changes of the neuromuscular junction during diabetes”

2010-2014, Vishwendra Patel, MS, “Role of MuSK in retrograde signaling from muscle to nerve”

1. Masters Students

1995-1997, Dinora Hernandez, “Electrophysiologil studies of hypothalamic Adenosine-S’-Triphosphate-Sensitive Potassium Channels”

1998-2000, Daniel E. Weiss, “Fluorescein Waglerin-1 as a Tool for Studying Development of the Neuromuscular Junction”

2003-2006, Kathleen M. Coakley, “Human Umbilical Cord Blood Cells Improve Motor Nerve Function of SOD1-93 Transgenic Mice”

2004, Keiko Noguchi, “Nitric Oxide Modulates Transmission Across the Neuromuscular Junction”

2011-2013, Anne Oh, “Pharmacotherapy of autoimmune MuSK myasthenia gravis”

2012, Laura Sahyoun, served as advisor for course based MS degree

2014-2017, Michael Morano, served as advisor for course based MS degree

1. 1972-2019, Guidance and counseling for students
2. 2007-2011, Advisor, Science High School, Newark, NJ
3. 2014-2017, Advisor, Manville High School, NJ

13. Principal Clinical and Hospital Service Responsibilities: none

14. Major Committee Assignments

1. 1987-1988, Organizing Committee of the Fernstrom Symposium on the Neuromuscular Junction, Lund Sweden
2. 1983-1990, Ad Hoc Review of NIH Grant Applications for the Physiology and Neurological Sciences Study Sections; Neurobiology Program, National Science Foundation
3. 1985, Co-chairman, The Neuromuscular Junction ASPET Meeting, Boston
4. 1986, Co-organizer and Chairman, New Approaches to Understanding and Controlling Cardiac Arrhythmias, Symposium, ASPET meeting, Baltimore
5. 1986, Organizer and Chairman, Dynamics and Modeling of Ion Channels, Workshop, IEEE/Engineering in Medicine and Biology Society meeting, Fort Worth
6. 1990-1991, Member, NSF Cellular Neuroscience Review Panel
7. 1991-1994, Member, NIH Neurology B1 Study Section
8. 2003, Organizer of Dept Defense supported conference on The Biology of Chemical Defense
9. 2006, 2007, Ad hoc Reviewer, NINDS study section Neurological Sciences and Disorders C
10. 2006, Ad hoc Reviewer, NINDS special emphasis panel Counter Measures Against Chemical Threats
11. 2008, Ad hoc Reviewer, Defense Threat Reduction Agency Chemical and Biological Defense Program
12. 2011, Ad hoc Reviewer, NIH Postdoctoral Fellowship Applications
13. 2012, Ad Hoc Reviewer, NIH Neurological Sciences and Disorders C

15. Medical School Committees

a. 1972, Institutional Funding Committee of the Health Sciences Faculty, SUNY-Buffalo

b. 1972-2017, listing of service to New Jersey Medical School committees

Faculty Academic Appointments and Promotions Committee, Member and Chair

Search Committee, Chair of Anesthesiology, for three separate Chair searches Faculty Council

Bylaws Committee

Executive council of the Graduate School, Chairman

Committee on Institutional Planning and Development Educational Development Biomedical Research Support Grant Committee

Search Committee, Chair of Pharmacology & Physiology

Vice President, Faculty Organization

Faculty Committee on Space Sep

Interviewer of applicants to PhD and MS programs

Interviewer of MD applicants to the New Jersey Medical School

Review of research applications submitted to the UMDNJ Foundation

16. Hospital Committees: none

17. Department Committees since 1972 include: Organizer of Departmental seminar series, Director of graduate student program in pharmacology, Faculty search committees, Graduate student admissions committee

18. Ad hoc peer review of scientific manuscripts for

1. The Journal of Biomedicine and Biotechnology
2. Reviewer American Journal of Applied Physiology
3. American Journal of Physiology
4. Biological Psychiatry
5. Botulinum Research
6. Brain Research British
7. Journal of Pharmacology
8. Canadian Journal of Physiology and Pharmacology
9. Cell and Tissue Research
10. Clinical Pharmacology and Toxicology
11. Experimental Neurology
12. Hippocampus
13. Journal of Neuroscience
14. Journal of Pharmacology and Experimental Therapeutics
15. Journal of Physiology (London)
16. Life Sciences
17. Molecular Brain Research
18. Molecular Pharmacology
19. Nature
20. Neurobiology of Disease
21. Neuroscience Letters
22. Neuropharmacology
23. Neurophysiology
24. Neurotoxicology
25. Pflugers Archiv
26. European Journal of Physiology Pharmacology & Toxicology

Proceedings of the National Academy of Sciences

Progress in Neurobiology

Psychopharmacology

Science

Synapse

Toxicology & Applied Pharmacology

15. Memberships, Offices, and Committee Assignments in Professional Societies

American Society of Pharmacology and Experimental Therapeutics 1982-present, Society for Neuroscience 1984-1998, Biophysics Society 1988-2009 Society of General Physiologists

16. Major Research Interests:

The focus of my research is the neuromuscular junction (NMJ). Specifically, NMJ development and recovery from peripheral nerve damage. This research utilizes toxins, drugs, as well as genetically altered mice to explore the molecular processes involved in NMJ plasticity and trophic regulation of muscle. I have studied the NMJ with Edson X Albuquerque (State University of New York at Buffalo, 1967-1972), Alberto Mallart (CNRS, Gif-sur-Yvette, France, 1979-1980) and Peter W Gage (John Curtin School of Medical Research, Canberra, Australia, 1987). After learning neuronal tissue culture in the laboratory of Phillip Nelson (Developmental Neurobiology, NICHHD, Bethesda, USA, 1987), I studied the action of drugs of abuse on voltage and ligand gated ion channels using patch clamp techniques. My laboratory applied these techniques to the study of myocardial calcium channels in a rat model of hypertension. From 2012 until my retirement at the end of 2017, my performed three projects related to the neuromuscular junction: 1) presynaptic disorders during myasthenia gravis due to autoantibodies to muscle specific tyrosine kinase; 2) neuronal-specific cargo-delivery platforms as post-exposure botulism therapies; 3) altered synaptic transmission during diabetes.

17. Grant History:

1. Principal Investigator

1973-1982, National Institutes of Health, R01 NS 11055

1989-1992, National Institutes of Health, R01 AA 08025

1992-1995, National Institutes of Health, R01 NS 31040

2003-2007, National Institutes of Health, R01 NS 045979

1989-1997, American Heart Association

1984-1986, New Jersey Commission on Cancer Research

1973-2017, General Research Support from the New Jersey Medical School

1988, National Science Foundation, support for 1988, Fernstrom Symposium in Lund 1986-1999, drug companies: Anaquest, Hoffman La Roche, Burlex, Smith Kline Beecham

2003, US Army, support for conference: Biology of Chemical and Biological Defense

2007-2010, US Army, “Therapeutic efficacy of botulinum metalloendoprotease inhibitors”

2007, The Toohey Neuroscience Fund

1. Co-principle investigator

1996-1998, Individual National Research Service Aware to Dr. Vanessa H Routh

2002-2013, The Kirby Foundation awards to NJ Med School Neuroscience Group 2012-2017, NIH R21+R23, Co-investigator with Brenda Wilson, PhD (University of Illinois) as PI

18. Major Administrative Responsibilities:

1. 1981-1984, Director of the Graduate Program Department in Pharmacology
2. 1999-2001, Chair, Faculty Committee on Appointments and Promotions
3. 2005-2006, Vice President, Faculty Organization

19. Private Practice: none

20. Articles

1. McArdle, J.J. and E.X. Albuquerque. 1973 .A study of the reinnervation of fast and slow mammalian muscles. J. Gen. Physiol. 61:1-23. doi:10.1085/jgp.61.1.1

2. McArdle, J.J. and E.X. Albuquerque. 1975. Effects of ouabain on denervated and dystrophic muscles of the mouse. Exp. Neurol. 47:353-356. doi:10.1016/00144886(75)90263-0

3. McArdle, J.J. 1975. Complex end-plate potentials at the regenerating neuromuscular junction of the rat. Exp. Neurol. 49:629-638. doi:10.1016/0014-4886(75)90048-5

4. McArdle, J.J. and F.M. Sansone. 1977. Reinnervation of fast and slow mammalian muscle following nerve crush at birth. J. Physiol. (London) 271:567-586.

5. Sellin, L.C. and J.J. McArdle. 1977. Colchicine blocks neurotrophic regulation of the resting membrane potential in reinnervating skeletal muscle. Exp. Neurol. 55:483-492. doi:10.1016/0014-4886(77)90016-4

6. McArdle, J.J., R. Garnes, and L.C. Sellin. 1977. Membrane electrical properties of fast- and slow-twitch muscles from rats with experimental hyperthyroidism. Exp. Neurol. 56:168-178. doi:10.1016/0014-4886(77)90147-9

7. Sellin, L.C. and J.J. McArdle. 1977. Effect of ouabain on reinnervating mammalian skeletal muscle. Europ. J. Pharmacol. 41:337-340. doi:10.1016/0014-2999(77)90328-4

8. McArdle, J.J., L. Michelson, and A.J. D'Alonzo. 1980. Action potentials in fast- and slow-twitch mammalian muscles during reinnervation and development. J. Gen. Physiol. 75:655-672.

9. McArdle, J.J., C. Guarino, and A.J. D'Alonzo. 1980. Neuronal influences on the sensitivity of skeletal muscle to experimental myotonia. Exp. Neurol. 69:365-372. doi:10.1016/0014-4886(80)90219-8

10. McArdle, J.J. and A.J. D'Alonzo. 1980. Effects of terbutaline upon the membrane potentials of innervated and denervated muscles. Exp. Neurol. 71:134-143. doi:10.1016/0014-4886(81)90076-5

11. McArdle, J.J., D. Angaut-Petit, A. Mallart, R. Bournaud, L. Faille, and J.L. Brigant. 1981. Advantages of the triangularis sterni muscle of the mouse for investigation of synaptic phenomena. J. Neurosci. Meth. 4:109-115. doi:10.1016/0165-0270(81)900443

12. Angaut-Petit, J.J. McArdle, A. Mallart, R. Bournaud, M. Pincon-Raymond, and F. Rieger. 1982. Electrophysiological and morphological studies of a motor nerve in motor end-plate disease of the mouse. Proc. Roy. Soc. B 215:117-125.

13. D’Alonzo, A.J., J.J. McArdle, and T.M. Argentieri. 1982. Sensitivity of skeletal muscle to 20,25-diazacholesterol induced myotonia requires normal innervation. Exp. Neurol. 75:446-455. doi:10.1016/0014-4886(82)90174-1

14. D'Alonzo, A.J., T.M. Argentieri, and J.J. McArdle. 1982. Ouabain and tetrodotoxin block the myotonia of skeletal muscle induced with 20,25- diazacholesterol. J. Pharmacol. Exp. Therap. 222:401-404.

15. D'Alonzo, A.J. and J.J. McArdle. 1982. An evaluation of fast- and slow- twitch muscle from rats treated with 20,25-diazacholesterol. Exp. Neurol. 78:46-66.

16. D'Alonzo, A.J. and J.J. McArdle. 1982. Effects of 20,25-diazacholesterol treatment upon the decay of end-plate currents. Exp. Neurol. 76:681-683. doi:10.1016/00144886(82)90136-4

17. Argentieri, T.M. and J.J. McArdle. 1983. Interaction of the opiate antagonist, naltrexone methyl bromide, with the acetylcholine receptor system of the motor end-plate. Brain Res. 277:377-379. doi:10.1016/0006-8993(83)90950-2

18. McArdle, J.J. and I. Hanin. 1986. Acute in vivo exposure to the cholinergic neurotoxin AF64A depresses the secretion of quanta from motor nerve terminals. Europ. J. Pharmacol. 121:119-121. doi:10.1016/0014-2999(86)90524-8

19. Arena, J.P., J.J. McArdle, and S. Laxminarayan. 1986. Characterization of the class I antiarrhythmic activity of cibenzoline succinate in guinea pig papillary muscle. J. Pharmacol. Exp. Therap. 240:441-450.

20. Arena, J.P., J.J. McArdle, and T.M. Argentieri. 1987. Antiarrhythmic-like actions of the smooth muscle spasmolytic agent, cinnamedrine, on action potentials of mammalian ventricular tissue. Pharmacol. 34:286-295.

21. Gage, P.W., J.J. McArdle, and D.A. Saint. 1990. Effects of butanedione monoxime on neuromuscular transmission. Br. J. Pharmacol. 100:467-470.

22. Aiken, S.P., J.L. Gleitsman, and J.J. McArdle. 1991. Tolerance to ethanol at the neuromuscular junction of long-sleep and short-sleep mice. Alcohol 8:207-209. doi:10.1016/0741-8329(91)90838-N

23. Patel, R., J.J. McArdle, and T.J. Regan. 1991. Increased ventricular vulnerability in a chronic ethanol model despite reduced electrophysiologic responses to catecholamines. Alcoholism: Clinical and Experimental Research, 15:785-789.

24. Shafik, E.N., S.P. Aiken, and J.J. McArdle. 1991. Regional catecholamine levels in brains of long- and short-sleep mice before and after chronic ethanol ingestion. Brain Research, 63:44-48. doi:10.1016/0006-8993(91)91513-Z

25. Aiken, S.P. and J.J. McArdle. 1991. Seasonal changes in the response of fast and slow mammalian skeletal muscle fibers to zero potassium. Life Sciences 50:109-116. doi:10.1016/0024-3205(92)90292-W

26. Huang, G.-J. and J.J. McArdle. 1992. Novel suppression of a neuronal L-type calcium channel in neurons of murine dorsal root ganglia by the chemical phosphatase 2,3-butanedione monoxime. J. Physiol. (London), 447:257-274.

27. Argentieri, T., S.P. Aiken, S. Laxminarayan, and J.J. McArdle. 1992. Physiology of regenerating neuromuscular junctions in the rat, and the effect of 2,3-butanedione monoxime. Pflügers Archiv. European Journal of Physiology, 421:256-261. doi:10.1007/BF00374835

28. Aiken, S.P., L.C. Sellin, J.J. Schmidt, S.A. Weinstein, and J.J. McArdle. 1992. Effects of a peptide toxin from Trimeresurus Wagleri on functioning of the rat neuromuscular junction. Pharmacology and Toxicology 70:459-462.

29. McArdle, J.J., J.J. Choi, and G.-J. Huang. 1992. Effects of Imipramine and Ethanol on the Activity of a Neuronal L-Type Calcium Channel. NY Acad Sci 654: 477-479. doi:10.1111/j.1749-6632.1992.tb26005.x

30. Choi, J., G.-J. Huang, E.N. Shafik, W.-H. Wu, and J.J. McArdle. 1992. Imipramine selective suppression of an L-type calcium channel in neurons of murine dorsal root ganglia involves G proteins. J. Pharmacol. Exp. Therap. 263:49-53.

31. Huang, G.-J. and J.J. McArdle. 1993. Chronic ingestion of ethanol increases the number of Ca2+ channels of hippocampal neurons of long-sleep but not short-sleep mice. Brain Research 615:328-330. doi:10.1016/0006-8993(93)90044-N

32. Huang, G.-J. and J.J. McArdle. 1994. Role of the GTP-binding protein Go in the suppressant effect of ethanol on voltage-activated calcium channels of murine sensory neurons. Alcoholism Clin. Exp. Res. 18:608:615.

33. Xiao, Y.-F. and J.J. McArdle. 1994. Elevated density and altered pharmacologic properties of myocardial calcium current of the spontaneously hypertensive rat. J. Hypertension 12:783-790.

34. Brightman, T. J.-H Ye, E. Ortiz-Jimenez, E.J. Flynn, W.-H. Wu and J.J. McArdle. 1995. 2,3-butanedione monoxime protects mice against the convulsant effect of picrotoxin by facilitating GABA-activated currents. Brain Research 678:110-116. doi:10.1016/00068993(95)00175-P

35. Xiao, Y.-F and J.J. McArdle. 1995. Activation of protein kinsase A antagonizes the effects of 2,3-butanedione monoxime on cardiac transient outward K+ currents. Life Sciences 57:335-343. doi:10.1016/0024-3205(95)00292-E

36. Ye, J-H. and J.J. McArdle. 1995. Excitatory amino acid induced currents of isolated murine hypothalamic neurons and their suppression by 2,3-butanedione monoxime. Neuropharmacology 34:1259-1272. doi:10.1016/0028-3908(95)00100-K

37. Xiao, Y.-F. and J.J. McArdle. 1995. Effects of 2,3-butanedione monoxime on blood pressure, myocardial Ca2+ currents and action potentials of rats. American J. Hypertension 8: 1232-1240. doi:10.1016/0895-7061(95)00251-0

38. Sellin, L.C., K. Mattila, A. Annila, M. Hyvonen, J.J. Schmidt, T.T. Rantala, T. Kivisto and J. J. McArdle. 1996. Conformational analysis of a toxic peptide from Trimeresurus Wagleri. Biophysical J., 70: 3-13.

39. Ye, J.-H. and J.J. McArdle. 1996. 2,3-Butanedione monoxime modifies the glycine-gated chloride current of acutely isolated murine hypothalamic neurons. Brain Research 735:2029. doi:10.1016/0006-8993(96)00546-X

40. Dunn-Meynell, A.A., V.H. Routh, J.J. McArdle, and B.E. Levin. 1997. Low affinity sulfonylurea binding sites reside on neuronal cell bodies in the brain. Brain Research 745:1-9. doi:10.1016/S0006-8993(96)01006-2

41. Li, X-Y. and J.J. McArdle. 1997. Novel transient outward K+ current of mature murine hippocampal neurons. Pflügers Archiv European Journal of Physiology 434:195-202. doi:10.1007/S004240050383

42. Ye, J.-H. and J.J. McArdle.1997. Waglerin-1 modulates GABA activated current of murine hypothalamic neurons. J Pharmacol. Exp. Therap. 282:74-80.

43. Ye, J.-H., W.-H. Wu, P. Liu, and J.J. McArdle. 1997. Cocaine depresses GABAA current of hippocampal neurons. Brain Research 770:169-175. doi:10.1016/S00068993(97)00782-8

44. Routh, V.H., J.J. McArdle, and B.E. Levin. 1997. Phosphorylation modulates the activity of the ATP-sensitive K+ channel in the ventromedial hypothalamic nucleus. Brain Research 778:107-119. doi:10.1016/S0006-8993(97)01043-3

45. Ye, J.-H., T. Hunt, W.-H. Wu, and J.J. McArdle. 1997. Ondansetron modulates GABAA current of rat central nervous system neurons. Europ. J. Pharmacol. 337:87-94. doi:10.1016/S0014-2999(97)01279-X

46. Ye, J.-H., J. Ren, P.L. Liu, and J.J. McArdle. 1998. Glycine-activated currents of neurons freshly isolated from the ventral tegmental area of rats. Brain Research 796: 5362. doi:10.1016/S0006-8993(98)00317-5

47. Taylor, P., H. Osaka, B.E. Molles, N. Sugiyama, P. Marchot, S. Malany, J.J. McArdle, S.M. Sine, and I. Tsigelny. 1998. Toxins selective for subunit interfaces as probes of nicotinic acetylcholine receptor structure. J. Physiology (Paris) 92:79-83. doi:10.1016/S09284257(98)80142-3

48. Ren, J., J.-H. Ye, and J.J. McArdle. 1998. c-AMP-Dependent protein kinase modulation of glycine-activated chloride current in neurons freshly isolated from rat ventral tegmental area. Brain Research 811:71-78. doi:10.1016/S00068993(98)00959-7

49. Ye, J.-H., J. Ren, and J.J. McArdle. 1999. Waglerin-1 inhibits GABAA current of neurons in

the nucleus accumbens of neonatal rats. Brain Research 837:29-37. doi:10.1016/S00068993(99)01668-6

50. McArdle, J.J., T.L. Lentz, V. Witzemann, H. Schwarz, S.A. Weinstein, and J.J. Schmidt. 1999. Waglerin-1 selectively blocks the epsilon form of the muscle nicotinic acetylcholine receptor. J. Pharmacol. Exp. Therap. 289:543-550.

51. Ye, J.-H., J. Ren, K. Krnjevic, P.L. Liu, and J.J. McArdle. 1999. Cocaine and lidocaine have additive inhibitory effects on the GABAA current of acutely dissociated hippocampal neurons. Brain Research 821:26-32. doi:10.1016/S00068993(98)01372-9

52. Ren, J., J.-H. Ye, K. Krnjevic, P.L. Liu, and J.J. McArdle. 1999. Cocaine decreases the glycine-induced current in acutely dissociated neurons from rat hippocampus. Europ. J. Pharmacol. 367:125-130. doi:10.1016/S0014-2999(98)00954-6

53. Ye, J.-H., R. Schaefer, W.-H. Wu, P.L. Liu, V. K. Zbuzek and J. J. McArdle. 1999. Inhibitory effect of ondansetron on the glycine response of dissociated rat hippocampal neurons. J Pharmacol. Exp. Therap. 290:104-111.

54. Ye, J.-H., L. Tao, J. Ren, R. Schaefer, K. Krnjevic, P.L. Liu, D.A. Schiller, and J.J. McArdle. 2001. Ethanol potentiation of glycine responses in dissociated neurons of rat ventral tegmental area. J. Pharmacol. Exp. Therap. 296:77-83. doi:10.1124/jpet.102.033894

55. Song, Z., B.E. Levin, J.J. McArdle, N. Bakhos, and V.H. Routh. 2001. Convergence of pre- and postsynaptic influences on glucosensing neurons in the ventromedial hypothalamic nucleus (VMN). Diabetes 50:2673-2681. doi:10.2337/diabetes.50.12.2673

56. Ye, J.-H., L. Tao, L. Zhu, K. Krnjevic, and J.J. McArdle. 2001. Ethanol inhibition of glycineactivated responses in neurons of ventral tegmental area of neonatal rats. J. Neurophysiology 86:2426-2434. PMID: 11698532

57. Molles, B.E., P. Rezai, E.F. Fine, J.J. McArdle, S.M. Sine, and P. Taylor. 2002. Identification of the α and ε subunit interfaces mediating species selectivity of Waglerin-1 for nicotinic acetylcholine receptors. J. Biological Chemistry 277:5433-5440. doi:10.1074/jbc.M109232200

58. Zhu, L., K. Krnjevic, J.J. McArdle, and J.-H. Ye. 2002. Ethanol suppresses fast potentiation of glycine currents by glutamate. J. Pharmacol. Experimental Therapeutics 302:1-8. doi:10.1124/jpet.102.033894

59. Ye, J.-H. L. Tao, Zhu L., K. Krnjevic, and J.J. McArdle. 2002. Decay of ethanolinduced suppression of glycine-activated current of ventral tegmental area neurons. Neuropharmacology 43:788-798. doi:10.1016/S0028-3908(02)00179-X

60. Cho, K.J, K. A. Trzaska, S.J. Greco, J.J. McArdle, F.S. Wang, J.-H. Ye, and P. Rameshwar. 2005. Neurons derived from human mesenchymal stem cells show synaptic transmission and cab be induced to produce the neurotransmitter substance P by interleukin-1. Stem Cells 23: 383-391. doi:10.1634/stemcells.2004-0251

61 McArdle, J.J. L.C. Sellin,, K.M. Coakley, J.G. Potian, M.C. Quinones-Lopez, C.A. Rosenfeld, L.G. Sultatos, and K. Hognason. 2005. Mefloquine inhibits cholinesterases at the mouse neuromuscular junction. Neuropharmacology 49:1132-1139. doi:10.1016/j.neuropharm.2005.09.011

62. McArdle, J.J., L.C. Sellin, K.M. Coakley, J.G. Potian, and K. Hognason. 2006. Mefloquine selectively increases asynchronous acetylcholine release from motor nerve terminals. Neuropharmacology 50:345-353. doi:10.1016/j.neuropharm.2005.06.011

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 21. Invited Reviews and Book Chapters

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women using bromocriptine for milk suppression. Journal of Pharmacy Practice, VII, No. 6: pp viii-x.

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31. Naguib, M., P. Flood, J.J. McArdle, and H.R. Brenner. 2002. Advances in neurobiology of the neuromuscular junction: Implications for the anesthesiologist. Anesthesiology 96:202-231.

\* Publications with Dr. Leslie Iffy (Department of Obstetrics and Gynecology, New Jersey Medical School) reflect J.J. McArdl’s input on issues related to basic pharmacologic principles.

33. Routh, V.H., J.J. McArdle, N.M. Sanders, Z. Song, and R. Wang. 2006. Glucose sensing neurons. Handbook of Neurochemistry and Molecular Neuroscience, Volume 20 Sensory Systems

34. Garcia, CC, V Patel, JC Zambrano, and JJ McArdle. Neuromuscular junction dysfunction

in type 1 diabetic neuropathy. Is the immune system involved? Submitted.

22. Abstracts -158

23. Invited Seminars:

Properties of reinnervating muscle and the regenerating neuromuscular junctions

12/22/71 Department of Pharmacology, New Jersey Medical School

4/17/72 Department of Pharmacology, Mayo Medical School

4/20/72 Department of Pharmacology, Bowman Grey Medical School

12/17/75 Department of Pharmacology, Rutgers Medical School

6/2/78 Laboratory of Cell Neurobiology, CNRS, Gif-sur-Yvette, France

10/78 Department of Physiology, New Jersey Medical School

5/29/80 Pharmacology Institute, Lund, Sweden

12/2/82 Department of Anatomy, Mount Sinai Medical School

10/6/82 Institute of Electrical and Electronic Engineers, Rockefeller University

9/13/83 Polish Academy of Sciences, Warsaw

9/26/83 Physiology Institute, Czechoslovak Academy of Sciences

10/21/83 Department of Cytopharmacology, Fidia Research Labs, Italy

10/26/83 Department of Comparative Physiology, University of Nice

6/7/85 Anaquest, Murray Hill, New Jersey

4/15/86 Pathology Institute, Jena, East Germany

4/30/86 Laboratory of Neurobiology, CNRS, Marseille

8/14/87 Department of Physiology, The John Curtin School of Medical Research

9/4/87 Department of Physiology, Suzhou Medical College, China

9/19/87 Department of Pharmacology, Sun-Yat-Sen University, Guangzhou, China

10/7/87 International Myochemistry Society Meeting, Rome

Experimental myotonia

4/78 Department of Physiology, New Jersey Medical School

2/8/80 Laboratory of Cell Neurobiology, CNRS, Gif-sur-Yvette, France

3/7/80 Laboratory of Neuromuscular Biol. and Pathol., INSERM, Paris

6/5/80 Center for Nutrition Research, CNRS, Meudon, France

12/2/82 Department of Chemistry, Rutgers University

9/16/83 Polish Academy of Sciences, Warsaw

9/83 Department of Physiology, University of Ulm, West Germany

Antiarrhythmic drugs

9/5/87 Department of Physiology, Suzhou Medical College, China

9/26/87 Department of Pharmacology, Sun-Yat-Sen University, Guangzhou, China

9/24/87 Guangzhou College of Traditional Chinese Medicine, China

9/29/87 Department of Pharmacology, Sun-Yat-Sen University, Guangzhou, China

Modulation of voltage-gated calcium channels

12/5/91 Departments of Physiology and Biochemistry, University Nice

9/9/91 Lab Jean Maetz, A.E.C., Villefranche-sur-Mer, France

4/23/92 Department Pharmacology, University of Montreal

10/13/94 Zoology Institute, University of Salzburg, Austria

Effects of the Waglerins on synaptic transmission

4/23/93 Department of Pharmacology, University of Montreal

7/19/96 Department of Pharmacology, University of California, San Diego

1/8/08 Department of Neuroscience, University of Texas, Southwestern Medical Sch

Mefloquine (Lariam)

4/18/05 Department of Pharmacology & Physiology, New Jersey Med School

4/26/05 Department of Pharmacology, University of Houston

7/8/05 BioCurrent Research Center, MBL, Woods Hole

7/13/05 Department of Anesthesiology, New Jersey Medical School

8/16/05 Max Planck Institute for Medical Research, Heidelberg

9/16/05 Department of Surgery, New Jersey Medical School

Botulinum toxin

6/7/06 Bioscience Review ’06, US Army Med Res Institute for Chemical Defense

9/11/06 US Army Medical Research Institute of Infectious Diseases

11/17/06 43 rd Interagency Botulism Research Coordinating Committee (IBRCC) Meeting

3/6/07 CBER-FDA/NIAID-NIH Partnership to Facilitate Product Development

5/5/08 4th Botulism Small Molecule Drug Development Coordination Meeting, Tufts Univ 5/15/08 Department of Emergency Medicine, Drexel University College of Medicine 17/9/08 Interagency Botulism Research Coordinating Committee (IBRCC)

11/11/08 Dept Cellular & Integrative Phys, Indiana Univ School of Medicine, Indianapolis

1/4/09 Department of Neuroscience, University of Edinburgh, Scotland

3/4/09 International Centre for Neurotherapeutics, Dublin City University, Ireland

6/4/09 Department of Neuroscience, Max Planck Institute, Heidelberg, Germany

27/5/09 Department of Neurology & Neurosciences, NJ Medical School

4/12/09 Botulinum Research Center, University of Massachussetts

2/12/10 Hot Topics discussion, Max Planck Institute for Medical Resarch

4/19/10 Merz Pharmaceuticals, Frankfurt

2/6/12 Department Neurosciences, New Jersey Medical School

5/28/06 Department of Pharmacology & Physiology, New Jersey Medical School

9/27/06 Department of Biomedical Engineering, Stevens Institute of Technology

5/7/07 Centre for Neuroscience Research, University of Edinburgh, Scotland

5/11/07 Department of Neuroscience, CNRS, University of Paris, France

24. Non-Academic Activities

1967-1975, Lieutenant, US Army Reserve, Corps of Engineers

1985-Present: Student of guitar with Steven Murtha (1984-2003), Alice Artzt (2005-2009), Mike Dowling, Beppe Gambetta

1990-1999: Student of navigation and small boat handling with the Maryland School of Sailing and Seamanship as well as the United States Power Squadrons (USPS)

1996-1999: Instructor of Celestial Navigation, USPS 1997-Present: Builder & Captain of the “HighlandSpray”, 38 foot steel Centennial Spray designed by Bruce Roberts

2018-2019: Matheny Medical and Educational Center: Volunteer

2019-Present: New Jersey Science Academy, Medical Careers Program, North Hunterdon High School: Volunteer