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Education and Professional Experiences:

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1994 - 1995	Dept. of Psychology, Univ. of Arizona, Assistant research professor
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Editorial boards:

2005 - 2008	Associate Editor, Neural Plasticity
2008 -	Editorial Board, Journal of Neurophysiology
2008 -	Review Editor, Frontiers in Behavioral Neuroscience
2009 - 2012	Associate Editor, Experimental Neurobiology
2009 -	Associate Editor, Frontiers in Integrative Neuroscience
2009 -	Review Editor, Frontiers in Decision Neuroscience
2015 - 2017	Editorial Board, Scientific Reports

Publications:

Ahn S, Kang Y, Lee JW, Jeong SJ, Lee YJ, Lee S, Kim J, Koo JW, Kim JJ, Jung MW. A role of anterior cingulate cortex in the emergence of worker-parasite relationship. Proc Natl Acad Sci U S A. 2021 Nov 30;118(48):e2111145118. <https://doi.org/10.1073/pnas.2111145118>. 34815341

Yi JH, Choe SY, Jung MW. Variations in Commissural Input Processing Across Different Types of Cortical Projection Neurons. Cereb Cortex. 2021 Oct 5;bhab361. <https://doi.org/10.1093/cercor/bhab361>. 34607355

Lee E, Lee S, Shin JJ, Choi W, Chung C, Lee S, Kim J, Ha S, Kim R, Yoo T, Yoo YE, Kim J, No YW, Rhim I, Lee SY, Kim W, Lee T, Shin H, Cho IJ, Deisseroth K, Kim SJ, Park JM, Jung MW, Paik S-Bum, Kim EJ. Excitatory synapses and gap junctions cooperate to improve Pv neuronal burst firing and cortical social cognition in Shank2-mutant mice. Nat Commun. 2021 Aug 25;12(1):5116. doi: 10.1038/s41467-021-25356-2. 34433814

Bae JW, Jeong H, Yoon YJ, Bae C, Lee H, Paik S-Bum, Jung MW. Parallel processing of working memory and temporal information by distinct types of cortical projection neurons. Nat Commun. 2021 Jul 16;12(1):4352. doi: 10.1038/s41467-021-24565-z. 34272368

- Shin EJ, Jang Y, Kim S, Kim H, Cai X, Lee H, Sul JH, Lee SH, Chung Y, Lee D, Jung MW. Robust and distributed neural representation of action values. *Elife*. 2021 Apr 20;10:e53045. doi: 10.7554/eLife.53045. 33876728
- Lim DH, Yoon YJ, Her ES, Huh S, Jung MW. Active maintenance of eligibility trace in rodent prefrontal cortex. *Sci Rep*. 2020 Nov 2;10(1):18860. doi: 10.1038/s41598-020-75820-0. 33139778
- Shin JH, Song M, Paik S-Bum, Jung MW. Spatial organization of functional clusters representing reward and movement information in the striatal direct and indirect pathways. *Proc Natl Acad Sci U S A*. 2020 Oct 14. doi: 10.1073/pnas.2010361117. 33055217
- Song YH, Hwang YS, Kim K, Lee HR, Kim JH, MacLachlan C, Dubois A, Jung MW, Petersen CCH, Knott G, Lee SH, Lee SH. Somatostatin enhances visual processing and perception by suppressing excitatory inputs to parvalbumin-positive interneurons in V1. *Sci Adv*. 2020 Apr 22. doi: 10.1126/sciadv.aaz0517. 32494634
- Jeong H, Kim D, Song M, Paik S-Bum, Jung MW. Distinct roles of parvalbumin- and somatostatin-expressing neurons in flexible representation of task variables in the prefrontal cortex. *Prog Neurobiol*, 2020 Feb 15. doi: 10.1016/j.pneurobio.2020.101773. 32070716
- Lee J, Bae C, Lee D, Jung MW. Transient effect of mossy fiber stimulation on spatial firing of CA3 neurons in familiar and novel environments. *Hippocampus*. 2020 Jul;30(7):693-702. doi: 10.1002/hipo.23190. Epub 2020 Jan 30.
- Bhattarai B, Lee JW, Jung MW. Distinct effects of reward and navigation history on hippocampal forward and reverse replays. *Proc Natl Acad Sci U S A*. 2020 Jan 7;117(1):689-697.
- Park JC, Bae JW, Kim J, Jung MW. Dynamically changing neuronal activity supporting working memory for predictable and unpredictable durations. *Sci Rep*. 2019 Oct 29;9(1):15512.
- Kwak S, Jung MW. Distinct roles of striatal direct and indirect pathways in value-based decision making. *Elife*. 2019 Jul 16;8. pii: e46050. doi: 10.7554/eLife.46050.
- Lee J, Yun M, Cho E, Lee JW, Lee D, Jung MW. Transient effect of mossy fiber stimulation on spatial firing of CA3 neurons. *Hippocampus*. 2019 Jul;29(7):639-651.
- Jung MW, Lee H, Jeong Y, Lee JW, Lee I. Remembering rewarding futures: A simulation-selection model of the hippocampus. *Hippocampus*. 2018 Dec;28(12):913-930.
- Kim JJ, Jung MW. Fear paradigms: The times they are a-changin'. *Curr Opin Behav Sci*. 2018 Dec;24:38-43.
- Kim J, Kim D, Jung MW. Distinct dynamics of striatal and prefrontal neural activity during temporal discrimination. *Front Integr Neurosci*. 2018 Aug 13;12:34.
- Jeong Y, Huh N, Lee J, Yun I, Lee JW, Lee I, Jung MW. Role of the hippocampal CA1 region in incremental value learning. *Sci Rep*. 2018 Jun 29;8(1):9870.
- Shin JH, Kim D, Jung MW. Differential coding of reward and movement information in the dorsomedial striatal direct and indirect pathways. *Nat Commun*. 2018 Jan 26;9(1):404.
- Lee SH, Huh N, Lee JW, Ghim JW, Lee I, Jung MW. Neural signals related to outcome evaluation are stronger in CA1 than CA3. *Front Neural Circuits*. 2017 Jun 7;11:40.
- Lee J, Jung MW. Separation or binding? Role of the dentate gyrus in hippocampal mnemonic processing. *Neurosci Biobehav Rev*. 2017 Feb 4;75:183-194.
- Tiganj Z, Kim J, Jung MW, Howard MW. Sequential firing codes for time in rodent medial prefrontal cortex. *Cereb Cortex*. 2017 Dec 1;27(12):5663-5671.
- Kim D, Jeong H, Lee J, Ghim J-W, Her E, Lee S-H, Jung MW. Distinct roles of parvalbumin- and somatostatin-expressing interneurons in working memory. *Neuron*. 2016 Nov 23;92(4):902-915.
- Lee E, Rhim I, Lee JW, Ghim JW, Lee S, Kim E, Jung MW. Enhanced Neuronal Activity in the Medial Prefrontal Cortex during Social Approach Behavior. *J Neurosci*. 2016 Jun 29;36(26):6926-36.
- Her ES, Huh N, Kim J, Jung MW. Neuronal activity in dorsomedial and dorsolateral striatum under the requirement for temporal credit assignment. *Sci Rep*. 2016 Jun 1;6:27056.
- Mochizuki Y, Onaga T, Shimazaki H, Shimokawa T, Tsubo Y, Kimura R, Saiki A, Sakai Y, Isomura Y, Fujisawa S, Shibata K, Hirai D, Furuta T, Kaneko T, Takahashi S, Nakazono T, Ishino S, Sakurai Y, Kitsukawa T, Lee JW, Lee H, Jung MW, Babul C, Maldonado PE, Takahashi K, Arce-McShane FI, Ross CF, Sessle BJ, Hatsopoulos NG, Brochier T, Riehle A, Chorley P, Grün S, Nishijo H, Ichihara-Takeda S, Funahashi S, Shima K, Mushiake H, Yamane Y, Tamura H, Fujita I, Inaba N, Kawano K, Kurkin S, Fukushima K, Kurata K, Taira M, Tsutsui K, Ogawa T, Komatsu H, Koida K, Toyama K,

- Richmond BJ, Shinomoto S. Similarity in Neuronal Firing Regimes across Mammalian Species. *J Neurosci*. 2016 May 25;36(21):5736-47.
- Jo S, Jung MW. Differential coding of uncertain reward in rat insular and orbitofrontal cortex. *Sci Rep*. 2016 Apr 7;6:24085.
- Kim WR, Lee JW, Sun W, Lee SH, Choi JS, Jung MW. Effect of dentate gyrus disruption on remembering what happened where. *Front Behav Neurosci*. 2015 Jun 30;9:170.
- Kim KU, Huh N, Jang Y, Lee D, Jung MW. Effects of fictive reward on rat's choice behavior. *Sci Rep*. 2015 Jan 27;5:8040.
- Chung W, Choi SY, Lee E, Park H, Kang J, Park H, Choi Y, Lee D, Park SG, Kim R, Cho YS, Choi J, Kim MH, Lee JW, Lee S, Rhim I, Jung MW, Kim D, Bae YC, Kim E. Social deficits in IRSp53 mutant mice improved by NMDAR and mGluR5 suppression. *Nat Neurosci*. 2015 Jan 26.
- Delcasso S, Huh N, Byeon JS, Lee J, Jung MW, Lee I. Functional relationships between the hippocampus and dorsomedial striatum in learning a visual scene-based memory task in rats. *J Neurosci*. 2014 Nov 19;34(47):15534-47.
- Kim BS, Lee J, Bang M, Seo BA, Khalid A, Jung MW, Jeon D. Differential regulation of observational fear and neural oscillations by serotonin and dopamine in the mouse anterior cingulate cortex. *Psychopharmacology (Berl)*. 2014 Apr 22.
- Kwak S, Huh N, Seo JS, Lee JE, Han PL, Jung MW. Role of dopamine D2 receptors in optimizing choice strategy in dynamic and uncertain environment. *Front Behav Neurosci*. 2014 Oct 28;8:368.
- Kim J, Ghim JW, Lee JH, Jung MW. Neural correlates of interval timing in rodent prefrontal cortex. *J Neurosci*. 2013 Aug 21;33(34):13834-47.
- Han J, Lee JH, Kim MJ, Jung MW. Neural activity in mediodorsal nucleus of thalamus in rats performing a working memory task. *Front Neural Circuits*. 2013 Aug 6;7:128.
- Jo S, Kim KU, Lee D, Jung MW. Effect of orbitofrontal cortex lesions on temporal discounting in rats. *Behav Brain Res*. 2013;245:22-8.
- Kim H, Lee D, Jung MW. Signals for previous goal choice persist in the dorsomedial, but not dorsolateral striatum of rats. *J Neurosci*. 2013;33(1):52-63.
- Lee H, Ghim JW, Kim H, Lee D, Jung MW. Hippocampal Neural Correlates for Values of Experienced Events. *J Neurosci*. 2012 Oct 24;32(43):15053-15065
- Lee JW, Kim WR, Sun W, Jung MW. Disruption of Dentate Gyrus Blocks Effects of Visual Input on Spatial Firing of CA1 Neurons. *J Neurosci*. 2012 Sep 19;32(38):12999-1300
- Lee D, Seo H, Jung MW. Neural basis of reinforcement learning and decision making. *Ann. Rev. Neurosci*. 2012 Jul 21;35:287-308.
- Ghim JW, Baeg EH, Kim YB, Jung MW. Stimulus-induced reduction of noise correlation in rat prefrontal cortex. *Neuroreport*. 2011 Nov 16;22(16):824-9
- Sul JH, Jo S, Lee D, Jung MW. Role of rodent secondary motor cortex in value-based action selection. *Nature Neurosci*. 2011 Aug 14;14(9):1202-8
- Han SH, Jung ES, Sohn JH, Hong HJ, Hong HS, Kim JW, N DL, Kim M, Kim H, Ha HJ, Kim YH, Huh N, Jung MW, Mook-Jung I. Human Serum Transthyretin Levels Correlate Inversely with Alzheimer's Disease. *J Alzheimers Dis*. 2011 Feb 18.
- Song EY, Boatman JA, Jung MW, Kim JJ. Auditory cortex is important in the extinction of two different tone-based conditioned fear memories in rats. *Front Behav Neurosci*. 2010;4:24..
- Sul JH, Kim H, Huh N, Lee D, Jung MW. Distinct roles of rodent orbitofrontal and medial prefrontal cortex in decision making. *Neuron*. 2010 May 13;66(3):449-60.
- Kim YH, Lee Y, Kim D, Jung MW, Lee CJ. Scopolamine-induced learning impairment reversed by physostigmine in zebra fish. *Neurosci Res*. 2010 Jun;67(2):156-61. Epub 2010 Mar 16.
- Kim H, Sul JH, Huh N, Lee D, Jung MW. Role of striatum in updating values of chosen actions. *J Neurosci*. 2009 Nov 25;29(47):14701-12.
- Kim J, Jung AH, Byun J, Jo S, Jung MW. Inactivation of medial prefrontal cortex impairs time interval discrimination in rats. *Front Behav Neurosci*. 2009;3:38. Epub 2009 Nov 3.
- Lee JW, Kim WR, Sun W, Jung MW. Role of dentate gyrus in aligning internal spatial map to external landmark. *Learn Mem*. 2009 Aug 25;16(9):530-6. Print 2009.

- Chun SK, Sun W, Jung MW. LTD induction suppresses LTP-induced hippocampal adult neurogenesis. *Neuroreport*. 2009 Sep 23;20(14):1279-83.
- Huh N, Jo S, Kim H, Sul JH, Jung MW. Model-based reinforcement learning under concurrent schedules of reinforcement in rodents. *Learn Mem*. 2009 Apr 29;16(5):315-23. Print 2009.
- Ghim JW, Huh N, Jung MW, Oh JH. Information transmission by stimulus-dependent modulation of noise correlation. *Neuroreport*. 2008 Mar 5;19(4):453-7.
- Jung MW, Baeg EH, Kim MJ, Kim YB, Kim JJ. Plasticity and memory in the prefrontal cortex. *Rev Neurosci*. 2008;19(1):29-46. Review.
- Yoon T, Okada J, Jung MW, Kim JJ. Prefrontal cortex and hippocampus subserve different components of working memory in rats. *Learn Mem*. 2008 Feb 19;15(3):97-105. Print 2008 Mar.
- Jang J, Ha HJ, Kim YB, Chung YK, Jung MW. Effects of methamphetamine on single unit activity in rat medial prefrontal cortex in vivo. *Neural Plast*. 2007;2007:29821.
- Kim JJ, Lee HJ, Welday AC, Song E, Cho J, Sharp PE, Jung MW, Blair HT. Stress-induced alterations in hippocampal plasticity, place cells, and spatial memory. *Proc Natl Acad Sci U S A*. 2007 Nov 13;104(46):18297-302. Epub 2007 Nov 5.
- Kim YB, Huh N, Lee H, Baeg EH, Lee D, Jung MW. Encoding of action history in the rat ventral striatum. *J Neurophysiol*. 2007 Dec;98(6):3548-56. Epub 2007 Oct 17.
- Yun SH, Lee DS, Lee H, Baeg EH, Kim YB, Jung MW. LTP induction modifies functional relationship among hippocampal neurons. *Learn Mem*. 2007 Mar-Apr;14(2):190-4.
- Baeg EH, Kim YB, Kim J, Ghim JW, Kim JJ, Jung MW. Learning-induced enduring changes in functional connectivity among prefrontal cortical neurons. *J Neurosci*. 2007 Jan 24;27(4):909-18.
- Jin SM, Cho HJ, Jung MW, Mook-Jung I. DNA damage-inducing agent-elicited gamma-secretase activity is dependent on Bax/Bcl-2 pathway but not on caspase cascades. *Cell Death Differ*. 2007 Jan;14(1):189-92. Epub 2006 Jun 30.
- Choi SE, Min SH, Shin HC, Kim HE, Jung MW, Kang Y. Involvement of calcium-mediated apoptotic signals in H₂O₂-induced MIN6N8a cell death. *Eur J Pharmacol*. 2006 Oct 10;547(1-3):1-9. Epub 2006 Jun 15.
- Chun SK, Sun W, Park JJ, Jung MW. Enhanced proliferation of progenitor cells following long-term potentiation induction in the rat dentate gyrus. *Neurobiol Learn Mem*. 2006 Nov;86(3):322-9. Epub 2006 Jul 7.
- Pedigo SF, Song EY, Jung MW, Kim JJ. A computer vision-based automated Figure-8 maze for working memory test in rodents. *J Neurosci Methods*. 2006 Sep 30;156(1-2):10-6.
- Kim SK, Park HJ, Hong HS, Baik EJ, Jung MW, Mook-Jung I. ERK1/2 is an endogenous negative regulator of the gamma-secretase activity. *FASEB J*. 2006 Jan;20(1):157-9. Epub 2005 Nov 17.
- Kim JJ, Jung MW. Neural circuits and mechanisms involved in Pavlovian fear conditioning: a critical review. *Neurosci Biobehav Rev*. 2006;30(2):188-202. Epub 2005 Aug 24. Review.
- Lim KY, Yang JJ, Lee DS, Noh JS, Jung MW, Chung YK. Lithium attenuates stress-induced impairment of long-term potentiation induction. *Neuroreport*. 2005 Sep 28;16(14):1605-8.
- Song EY, Kim YB, Kim YH, Jung MW. Role of active movement in place-specific firing of hippocampal neurons. *Hippocampus*. 2005 Feb 15(1):8-17.
- Yang S, Lee DS, Chung CH, Cheong MY, Lee CJ, Jung MW. Long-term synaptic plasticity in deep layer-originated associational projections to superficial layers of rat entorhinal cortex. *Neuroscience*. 2004;127(4):805-12.
- Lee W, Boo JH, Jung MW, Park SD, Kim YH, Kim SU, Mook-Jung I. Amyloid beta peptide directly inhibits PKC activation. *Mol Cell Neurosci*. 2004 Jun;26(2):222-31.
- Baeg EH, Kim YB, Huh K, Mook-Jung I, Kim HT, Jung MW. Dynamics of population code for working memory in the prefrontal cortex. *Neuron*. 2003;40(1):177-88.
- Park IH, Hwang EM, Hong HS, Boo JH, Oh SS, Lee J, Jung MW, Bang OY, Kim SU, Mook-Jung I. Lovastatin enhances Abeta production and senile plaque deposition in female Tg2576 mice. *Neurobiol Aging*. 2003;24(5):637-43.
- Kim MJ, Chun SK, Kim YB, Mook-Jung I, Jung MW. Long-term potentiation in visual cortical projections to the medial prefrontal cortex of the rat. *Neuroscience*. 2003 Aug;120(1):283-9.

- Kim MJ, Kim YB, Kang KJ, Huh N, Oh JH, Kim Y, Jung MW. Neuronal interactions are higher in the cortex than thalamus in the somatosensory pathway. *Neuroscience*. 2003 April;118(1):205-16.
- Cheong MY, Yun SH, Mook-Jung I, Kang Y, Jung MW. Induction of homosynaptic long-term depression in entorhinal cortex. *Brain Res*. 2002 Nov 8;954(2):308-10.
- Kim TY, Hwang JJ, Yun SH, Jung MW, Koh JY. Augmentation by zinc of NMDA receptor-mediated synaptic responses in CA1 of rat hippocampal slices: Mediation by Src family tyrosine kinases. *Synapse*. 2002 Nov;46(2):49-56.
- Mook-Jung I, Kim H, Fan W, Tezuka Y, Kadota S, Nishijo H, Jung MW. Neuroprotective effects of constituents of the Oriental crude drugs, *Rhodiola sacra*, *R. sachalinensis* and Tokaku-joki-to, against beta-amyloid toxicity, oxidative stress and apoptosis. *Biol Pharm Bull*. 2002 Aug;25(8):1101-4.
- Kim C, Jang CH, Bang JH, Jung MW, Joo I, Kim SU, Mook-Jung I. Amyloid precursor protein processing is separately regulated by protein kinase C and tyrosine kinase in human astrocytes. *Neurosci Lett*. 2002 May 24;324(3):185-8.
- Yun SH, Mook-Jung I, Jung MW. Variation in effective stimulus patterns for induction of long-term potentiation across different layers of rat entorhinal cortex. *J Neurosci*. 2002 Mar 1;22(5):RC214.
- Cheong MY, Yun SH, Mook-Jung I, Joo I, Huh K, Jung MW. Cholinergic modulation of synaptic physiology in deep layer entorhinal cortex of the rat. *J Neurosci Res*. 2001 Oct 1;66(1):117-21.
- Park IH, Jung MW, Mori H, Mook-Jung I. Zinc enhances synthesis of presenilin 1 in mouse primary cortical culture. *Biochem Biophys Res Commun*. 2001 Jul 20;285(3):680-8.
- Jo JH, Park EJ, Lee JK, Jung MW, Lee CJ. Lipopolysaccharide inhibits induction of long-term potentiation and depression in the rat hippocampal CA1 area. *Eur J Pharmacol*. 2001 Jun 22;422(1-3):69-76.
- Baeg EH, Kim YB, Jang J, Kim HT, Mook-Jung I, Jung MW. Fast spiking and regular spiking neural correlates of fear conditioning in the medial prefrontal cortex of the rat. *Cereb Cortex*. 2001 May;11(5):441-51.
- Kim H, Bang OY, Jung MW, Ha SD, Hong HS, Huh K, Kim SU, Mook-Jung I. Neuroprotective effects of estrogen against beta-amyloid toxicity are mediated by estrogen receptors in cultured neuronal cells. *Neurosci Lett*. 2001 Apr 13;302(1):58-62.
- Mook-Jung I, Hong HS, Boo JH, Lee KH, Yun SH, Cheong MY, Joo I, Huh K, Jung MW. Ginsenoside Rb1 and Rg1 improve spatial learning and increase hippocampal synaptophysin level in mice. *J Neurosci Res*. 2001 Mar 15;63(6):509-15.
- Kim YB, Jang J, Chung Y, Baeg EH, Kim HT, Mook-Jung I, Kim SU, Jung MW, Chung YK. Haloperidol and clozapine increase neural activity in the rat prefrontal cortex. *Neurosci Lett*. 2001 Feb 9;298(3):217-21.
- Yeon SW, Jung MW, Ha MJ, Kim SU, Huh K, Savage MJ, Masliah E, Mook-Jung I. Blockade of PKC epsilon activation attenuates phorbol ester-induced increase of alpha-secretase-derived secreted form of amyloid precursor protein. *Biochem Biophys Res Commun*. 2001 Jan 26;280(3):782-7.
- Jung MW, Qin Y, Lee D, Mook-Jung I. Relationship among discharges of neighboring neurons in the rat prefrontal cortex during spatial working memory tasks. *J Neurosci*. 2000 Aug 15;20(16):6166-72.
- Yun SH, Cheong MY, Mook-Jung I, Huh K, Lee C, Jung MW. Cholinergic modulation of synaptic transmission and plasticity in entorhinal cortex and hippocampus of the rat. *Neuroscience*. 2000;97(4):671-6.
- Lee SH, Yang SC, Park JK, Jung MW, Lee CJ. Reduction of electrically evoked neural activity by ginseng saponin in rat hippocampal slices. *Biol Pharm Bull*. 2000 Apr;23(4):411-4.
- Jew SS, Yoo CH, Lim DY, Kim H, Mook-Jung I, Jung MW, Choi H, Jung YH, Kim H, Park HG. Structure-activity relationship study of asiatic acid derivatives against beta amyloid (A beta)-induced neurotoxicity. *Bioorg Med Chem Lett*. 2000 Jan 17;10(2):119-21.
- Yun SH, Huh K, Jung MW. Selective enhancement of non-NMDA receptor-mediated responses following induction of long-term potentiation in entorhinal cortex. *Synapse*. 2000 Jan;35(1):1-7.
- Mook-Jung I, Shin JE, Yun SH, Huh K, Koh JY, Park HK, Jew SS, Jung MW. Protective effects of asiaticoside derivatives against beta-amyloid neurotoxicity. *J Neurosci Res*. 1999 Nov 1;58(3):417-25.

- Veinbergs I, Mante M, Jung MW, Van Uden E, Masliah E. Synaptotagmin and synaptic transmission alterations in apolipoprotein E-deficient mice. *Prog Neuropsychopharmacol Biol Psychiatry*. 1999 Apr;23(3):519-31.
- Jung MW, Qin Y, McNaughton BL, Barnes CA. Firing characteristics of deep layer neurons in prefrontal cortex in rats performing spatial working memory tasks. *Cereb Cortex*. 1998 Jul-Aug;8(5):437-50.
- Veinbergs I, Jung MW, Young SJ, Van Uden E, Groves PM, Masliah E. Altered long-term potentiation in the hippocampus of apolipoprotein E-deficient mice. *Neurosci Lett*. 1998 Jun 19;249(2-3):71-4.
- Mook-Jung I, Joo I, Sohn S, Kwon HJ, Huh K, Jung MW. Estrogen blocks neurotoxic effects of beta-amyloid (1-42) and induces neurite extension on B103 cells. *Neurosci Lett*. 1997 Oct 17;235(3):101-4.
- Erickson CA, Jung MW, McNaughton BL, Barnes CA. Contribution of single-unit spike waveform changes to temperature-induced alterations in hippocampal population spikes. *Exp Brain Res*. 1996;107(3):348-60.
- McNaughton BL, Barnes CA, Gerrard JL, Gothard K, Jung MW, Knierim JJ, Kudrimoti H, Qin Y, Skaggs WE, Suster M, Weaver. Deciphering the hippocampal polyglot: the hippocampus as a path integration system. *J Exp Biol*. 1996 Jan;199 (Pt 1):173-85.
- Jung MW, Wiener SI, McNaughton BL. Comparison of spatial firing characteristics of units in dorsal and ventral hippocampus of the rat. *J Neurosci*. 1994 Dec;14(12):7347-56.
- Jung MW, Larson J. Further characteristics of long-term potentiation in piriform cortex. *Synapse*. 1994 Dec;18(4):298-306.
- Barnes CA, Jung MW, McNaughton BL, Korol DL, Andreasson K, Worley PF. LTP saturation and spatial learning disruption: effects of task variables and saturation levels. *J Neurosci*. 1994 Oct;14(10):5793-806.
- Jung MW, McNaughton BL. Spatial selectivity of unit activity in the hippocampal granular layer. *Hippocampus*. 1993 Apr;3(2):165-82.
- del Cerro S, Jung M, Lynch G. Benzodiazepines block long-term potentiation in slices of hippocampus and piriform cortex. *Neuroscience*. 1992 Jul;49(1):1-6.
- Jung MW, Larson J, Lynch G. Evidence that changes in spine neck resistance are not responsible for expression of LTP. *Synapse*. 1991 Mar;7(3):216-20.
- Jung MW, Larson J, Lynch G. Role of NMDA and non-NMDA receptors in synaptic transmission in rat piriform cortex. *Exp Brain Res*. 1990;82(2):451-5.
- Jung MW, Larson J, Lynch G. Long-term potentiation of monosynaptic EPSPs in rat piriform cortex *in vitro*. *Synapse*. 1990;6(3):279-83.
- Seubert P, Larson J, Oliver M, Jung MW, Baudry M, Lynch G. Stimulation of NMDA receptors induces proteolysis of spectrin in hippocampus. *Brain Res*. 1988 Sep 13;460(1):189-94.