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Education

Kobe University School of Medicine, Kobe, Japan. M.D., Ph.D. in Physiology, 2000

China Medical University, Shenyang, China. Bachelor of Medicine, 1993

Professional Experience

Aug/2015 - present:
Associate Professor (Tenured), Michigan State University, Department of Psychology & Neuroscience Program

Aug/2011 – July/2015:
Assistant Professor (Tenure-track), Michigan State University, Department of Psychology & Neuroscience Program

Jan/2008 – Aug/2011:
Assistant Professor (Fixed-term), Michigan State University, Department of Psychology & Neuroscience Program

Nov/2003 - Dec/2007:
Associate Research Scientist, Columbia University, Department of Psychology.

Nov/2000 - Oct/2003:
Postdoctoral Research Scientist, Columbia University, Department of Psychology.

Oct/1995 - Oct/1996:
Visiting Researcher, Kyushu University School of Medicine, Department of Obstetrics and Gynecology, Japan.

Aug/1993 - Oct/1995:
Resident Doctor (Obstetrics and Gynecology), Third Clinical College Hospital, China Medical University.

Research Support

Current funding:

NSF IOS1051919. Feb 2011-Dec 2016
Role: Co-PI total costs: $600,000

Title: Chronotype differences in the acute behavioral responses to light and darkness and their neural substrates.

NSF IOS1147187. Aug 2012-July 2017
Role: PI for the subaward total costs: $188,167
Title: Persistence, entrainment and function of circadian rhythms in arctic ground squirrels. (subaward from University of Alaska)

NIH/NIMH R01 MH111276 9/16/2016-8/31/2021
Role: PI with co-PI: Lonstein total cost: $1,902,49
Title: Neural Basis of Light-dependent Depression and Anxiety

Pending supports:

NIH/NINDS R21 NS098173 4/1/2017 – 3/31/2019
Role: PI with co-I: Nunez total cost: $419,824
Title: Shedding light on orexinergic modulation of the hippocampus. (impact score: 11, 1%tile)

Completed funding:

MSU IRGP Award, Jan 2009-June 2010
Role: PI, direct costs: $40,000
Title: Neural mechanisms underlying circadian rhythm perturbation.

UC Mexus-Conacyt Collaborative Grant. July 2010-Dec 2011
Role: Co-I, direct costs: $7,500
Title: How does feeding synchronize the circadian timing system.

NIH R03MH093760. Apr 2012-Mar 2015
Role: PI, total costs: $147,828
Title: Neural basis of SAD: development of a diurnal model.

College of Social Science Dr. Gwen Andrew Faculty Initiative Fund. July 2014-June 2015
Role: PI total costs: $7,270
Title: Neural basis underlying light-dependent depression and anxiety.

MSU Provost Undergraduate Research Initiative Award. (Role: Faculty Mentor, total award: $7,000). To support the following undergraduate research assistants working in lab: Ashley Tomczak (2009), Amy Campbell (2009), Greg Leach (2011) and Andrew Schmidt (2013).

MSU College of Natural Science Undergraduate Research Support Scholarship. (Role: Faculty Mentor, total award: $1,000). To support the undergraduate research assistant Widya Adidharma working in my lab in 2012.

Courses Taught

Brain and Behavior, Psy209
Laboratory in Behavioral Neuroscience, Psy413
Chronobiology and Mental Health, Psy493

Ad hoc reviewers for professional journals

AJP: Regulatory, Integrative and Comparative Physiology
Behavioral Brain Research
Behavioral Neuroscience
Biochimie
Brain Research
Chronobiology International
ChronoPhysiology and Therapy
Dove Medical Press
Neuroscience
European Journal of Neuroscience
Experimental Neurology
Journal of Biological Rhythms
Nature Scientific Reports
Neuroscience
Neuroscience Letters
Plos Computational Biology
PLoS One
Philosophical Transaction B
Psychiatry Research
Psychoneuroendocrinology
Physiology and Behavior

Reviewer for grant proposals

UK Medical Research Council (MRC)	2012
Vienna Science and Technology Fund	2013
National Science Foundation, Modulation II pre-proposal review panel	2014
National Science Foundation, *Ad hoc* reviewer	2014, 2015
US-Israel Binational Science Foundation	2016
Biotechnology and Biological Sciences Research Council (BBSRC, UK)	2016

University/Department Service

University Undergraduate Research and Art Forum, judge	2008, 2010, 2011, 2014, 2015
Neuroscience Program Comprehensive Exam Committee, member	2009, 2010
Psychology Department Animal Use committee, member	2011 to present
Psychology Comprehensive Exam Committee (Dorela Shuboni), member	2011
Psychology Doctoral Dissertation committee (Dorela Shuboni), member	2012 to present
Neuroscience Program Dissertation committee (Jennifer Langel), member	2012 to present
Psychology Department First-year project committee (Sean Deats), chair	2012
Psychology Department First-year project committee (Samantha Jones), member	2013
Psychology Department Comprehensive Exam Committee (Sean Deats), chair	2014
Psychology Department's Behavioral Neuroscience (BNS) group chair	2012 to 2014

Professional Memberships

Society for Neuroscience
Society for Research on Biological Rhythms
Soceity for Behavioral Neuroendocrionology

Students Mentored at MSU

Undergraduates: Amy Campbell, Ashley Tomczak, Madison Operacz, Mona Shah, Kathleen Thomas, Jennifer Kott, Greg Leach, Widya Adidharma, Chris Rausch, Emily Chambers, Andrew Schmidt, James Hong, Nadia Chupka, Shenee Martin, Sara Golidy, Alex Schulte, Julian Johnson, Valerie Russell

Graduate students: Sean Deats, Joel Soler, Celibets Colon-Ortiz, Athanasios Kondilis

Publications

[*=Publications with MSU undergraduate students; ^=Publications with MSU graduate students; #=Publications with MSU post-docs]
Total citations by other scholars: 1850, h-index: 18 (ISI Web of Science as of July 2016)

peer-reviewed

44. ^Zheng F, ^Zhang M, Moon C. Ding Q, Sethna F, **Yan L**, Wang H. Voluntary running depreciates the requirement of Ca2+-stimulated cAMP signaling in synaptic potentiation and memory formation. Learning & Memory, *in press*.

43. #Ikeno T, **Yan L**. Chronic Light Exposure in the Middle of the Night Disturbs the Circadian System and Emotional Regulation. J Biol Rhythms. 2016 Apr [Epub ahead of print]

42. #Ikeno T, ^Deats SP, ^Soler J, Lonstein JS, **Yan L**. Decreased daytime illumination leads to anxiety-like behaviors and HPA axis dysregulation in the diurnal grass rat (Arvicanthis niloticus). Behav Brain Res. 300:77-84 (2016).

41. #Gall AJ, ^Shuboni DD, **Yan L**, Nunez AA, Smale L. Suprachiasmatic Nucleus and Subparaventricular Zone Lesions Disrupt Circadian Rhythmicity but Not Light-Induced Masking Behavior in Nile Grass Rats. J Biol Rhythms. Epub ahead of print (2016).

40. **Yan L**, Silver R. Neuroendocrine underpinnings of sex differences in circadian timing systems. J Steroid Biochem Mol Biol. (15)30111-4 (2015). Review. PMID: 26472554

39. ^Deats SP, *Adidharma W, **Yan L**. Hypothalamic dopaminergic neurons in an animal model of seasonal affective disorder. Neurosci Lett. 602:17-21 (2015). PMID: 261168212.

38. ^Shuboni DD, *Cramm SL, **Yan L**, #Ramanathan C, Cavanaugh BL, Nunez AA, Smale L. Acute effects of light on the brain and behavior of diurnal Arvicanthis niloticus and nocturnal Mus musculus. Physiol Behav. 138:75-86 (2015). PMID: 25447482

37. #Gall AJ, **Yan L**, Smale L, Nunez AA. Intergeniculate leaflet lesions result in differential activation of brain regions following the presentation of photic stimuli in Nile grass rats. Neurosci Lett. 579:101-5 (2014).

36. ^Langel J, **Yan L**, Nunez AA, Smale L. Behavioral Masking and cFos Responses to Light in Day- and Night-Active Grass Rats. J Biol Rhythms. 29:192-202 (2014).

35. Wang Q, Tikhonenko M, Bozack SN, Lydic TA, **Yan L**, Panchy NL, McSorley KM, Faber MS, Yan Y, Boulton ME, Grant MB, Busik JV. Changes in the daily rhythm of lipid metabolism in the diabetic retina. PLoS One. 15;9(4):e95028 (2014).

34. *Donlin M, ^Cavanaugh BL, *Spagnuolo OS, **Yan L**, Lonstein JS. Effects of sex and reproductive experience on the number of orexin A-immunoreactive cells in the prairie vole brain. Peptides. 57:122-8 (2014).

33. ^Deats SP, Adidharma W, Lonstein JS, **Yan L**. Attenuated orexinergic signaling underlies depression-like responses induced by daytime light deficiency. Neuroscience. 11;272:252-60 (2014)

32. #Gall AJ, Smale L, **Yan L**, Nunez AA. Lesions of the Intergeniculate Leaflet Lead to a Reorganization in Circadian Regulation and a Reversal in Masking Responses to Photic Stimuli in the Nile Grass Rat. PLoS One. 8(6):e67387 (2013).

31. *Leach G, *Adidharma W, **Yan L**. Depression-like responses induced by daytime light deficiency in the diurnal grass rat (Arvicanthis niloticus). PLoS One. 8(2):e57115 (2013).

30. *Leach G, #Ramanathan C, ^Langel J, **Yan L**. Responses of brain and behavior to changing day-length in the diurnal grass rat (Arvicanthis niloticus). Neuroscience. 234:31-9 (2013).

29. *Adidharma W, *Leach G, **Yan L**. Orexinergic signaling mediates light-induced neuronal activation in the dorsal raphe nucleus. Neuroscience. 220: 201-7 (2012).

28. *Kott J, *Leach G, **Yan L**. Direction-dependent effects of chronic "jet-lag" on hippocampal neurogenesis. Neurosci Lett. 515:177-80 (2012).

27. ^Shuboni DD, *Cramm S, **Yan L**, Nunez AA, Smale L. Acute behavioral responses to light and darkness in nocturnal Mus musculus and diurnal Arvicanthis niloticus. J Biol Rhythms. 27: 299-307 (2012).

26. **Yan L**. Structural and functional changes in the suprachiasmatic nucleus following chronic circadian rhythm perturbation. Neuroscience. 183:99-107 (2011).

25. ^Shuboni D, **Yan L**. Nighttime dim light exposure alters the responses of the circadian system. Neuroscience. 170: 1172-8 (2010).

24. **Yan L**, Silver R, Gorman M. Reorganization of suprachiasmatic nucleus networks under 24-h LDLD conditions. J Biol Rhythms. 25: 19-27 (2010).

23. #Ramanathan C, *Campbell A, *Tomczak A, Nunez AA, Smale L, **Yan L**. Compartmentalized expression of light-induced clock genes in the suprachiasmatic nucleus of the diurnal grass rat (Arvicanthis niloticus). Neuroscience. 161: 960-9 (2009).

22. **Yan L**, Silver R. Day-length encoding through tonic photic effects in the retinorecipient SCN region. Eur J Neurosci. 28: 2108-15 (2008).

21. Kriegsfeld LJ, Mei DF, **Yan L**, Witkovsky P, Le Sauter J, Hamada T, Silver R. Targeted mutation of the calbindin D28K gene disrupts circadian rhythmicity and entrainment. Eur J Neurosci. 27: 2907-21 (2008).

20. Witkovsky P, Svenningsson P, **Yan L**, Bateup H, Silver R. Cellular localization and function of DARPP-32 in the rodent retina. European Journal of Neuroscience, 25: 3233-42 (2007).

19. **Yan L**, Bobula JM, Svenningsson P, Greengard P, Silver R. DARPP-32 involvement in the photic pathway of the circadian system. Journal of Neuroscience, 26(37):9434-8 (2006)

18. **Yan L**, Foley N, Bobula JM, Kriegsfeld L, Silver R. Two antiphase oscillations occur in each suprachiasmatic nucleus of behaviorally split hamsters. Journal of Neuroscience, 25(39):9017-26 (2005)

17. **Yan L**, Silver R. Resetting the brain clock: time course and localization of mPER1 and mPER2 protein expression in suprachiasmatic nuclei during phase shifts. European Journal of Neuroscience, 19(4) 1105-9 (2004)

16. Karatsoreos IN, **Yan L**, LeSauter J, Silver R. Phenotype matters: identification of light-responsive cells in the mouse suprachiasmatic nucleus. Journal of Neuroscience, 24(1): 68-75 (2004)

15. Hamada T, LeSauter J, Lokshin M, Romero M, **Yan L**, Venuti J, Silver R. Calbindin influences response to photic input in suprachiasmatic nucleus. Journal of Neuroscience, 23(26): 8820-26 (2003)

14. Witkovsky P, Veisenberger E, LeSauter J, **Yan L**, Johnson M, Zhang D, McMahon D, Silver R. Cellular Location and Circadian Rhythm of Expression of the Biological Clock Gene Period 1 in the Mouse Retina. Journal of Neuroscience, 23(20): 7670-76 (2003)

13. **Yan L**, Hochstetler K, Silver R, Bult-Ito A. Relationship of phase shifts and Per gene expression in mouse suprachiasmatic nucleus. Neuroreport, 14(9): 1247-51 (2003)

12. LeSauter J, **Yan L**, Vishnubhotla B, Quintero J, Kuhlman S, McMahon D, Silver R. A short half-life GFP mouse model for analysis of suprachiasmatic nucleus organization. Brain Research, 946(2): 279-87 (2003).

11. Ishida Y, Yokoyama C, Inatomi T, Yagita K, Dong X, **Yan L**, Yamaguchi S, Nagatsu I, Komori T, Kitahama K, Okamura H. Circadian rhythm of aromatic L-amino acid decarboxylase in the rat suprachiasmatic nucleus: gene expression and decarboxylating activity in clock oscillating cells. Genes Cells, 7(5): 447-59 (2002).

10. **Yan L**, Silver R. Differential induction and localization of mPer1 and mPer2 during advancing and delaying phase shifts. European Journal of Neuroscience, 16: 1531-40 (2002).

9. **Yan L**, Okamura H. Gradients in the circadian expression of Per1 and Per2 genes in the rat suprachiasmatic nucleus. European Journal of Neuroscience, 15: 1153-62 (2002)

8. Takekida S, **Yan L**, Maywood E, Hastings M, Okamura H. Differential adrenergic regulation of the circadian expression of the clock gene Period1 and Period2 in the rat pineal grand. European Journal of Neuroscience, 12: 4557-4561 (2000)

7. Miyake S, Sumi Y, **Yan L**, Takedida S, Fukuyama T, Ishida Y, Yamaguchi S, Yagita K, Okamura H. Phase-dependent responses of Per1 and Per2 genes to a light-stimulus in the suprachiasmatic nucleus of the rat. Neuroscience Letters, 294: 41-44 (2000)

6. Yamaguchi S, Mitui S, Miyake S, **Yan L**, Onishi H, Yagita K, Suzuki M, Shibata S, Kobayashi M, Okamura H. The 5' upstream region of mPer1 gene contains two promoters and is responsible for circadian oscillation. Current Biology, 10: 873-876 (2000)

5. Yamaguchi S, Mitui S, **Yan L**, Yagita K, Miyake S, Okamura H. Role of DBP in the circadian oscillatory mechanism. Molecular and Cellular Biology, 20(13): 4773-4781 (2000)

4. **Yan L**, Miyake S, Okamura H. Distribution and circadian expression of dbp in SCN and extra-SCN areas in the mouse brain. Journal of Neuroscience Research 59 : 291-295 (2000)

3. **Yan L**, Takekida S, Shigeyoshi Y, Okamura H. Per1 and Per2 gene expression in the rat suprachiasmatic nucleus: Circadian profile and the compartment-specific response to light. Neuroscience, 94 (1): 141-150 (1999)

2. Takumi T, Taguchi K, Miyake S, Sakakida Y, Takashima N, Matsubara C, Maebayashi Y, Okumura K, Takekida S, Yamamoto S, Yagita K, **Yan L**, Young MW, Okamura H. A light-independent oscillatory gene mPer3 in mouse SCN and OVLT. EMBO Journal, 17 (16): 4753-4759 (1998)

1. Shigeyoshi Y, Taguchi K, Yamamoto S, Takekida S, **Yan L**, Tei H, Moriya T, Shibata S, Loros JJ, Dunlap JC, Okamura H. Light-induced resetting of a mammalian circadian clock is associated with rapid induction of the mPer1 transcript. Cell, 91 (7): 1043-1053 (1997)

Invited Review

2. **Yan L**. Expression of clock genes in the suprachiasmatic nucleus: effect of environmental lighting conditions. Rev Endocr Metab Disord. 10: 301-10 (2009).

1. **Yan L**, Karatsoreos I, LeSauterJ, Welsh DK, Kay S, Foley D, Silver R. Exploring spatiotemporal organization of SCN circuits. Cold Spring Harb Symp Quant Biol. 72: 527-41 (2007).

Book chapters

2.Okamura-H; Yamaguchi-S; Yan-L. Clock genes in humans. (in Japanese) In Tamura-K (Ed.) Clinical Assessment of Circadian Behavior, Nagai Press: Osaka, Japan, 2000

1.Okamura-H; Yamaguchi-S; Yan-L. Circadian oscillation of Mammalian Period Gene. In Honma-K and Honma-S (Ed.) Zeitgebers, Entrainment and Masking of the Circadian system, Hokkaido University Press, Sapporo, 2001

Abstracts

26. Lily Yan, Tomoko Ikeno, Jeanetter Moore, Cori Williams, Loren Buck, Brain Barnes. Clock gene expression in the SCN of Arctic ground squirrels.15th Biennial Meeting, Society for Research on Biological Rhythms, Palm Harbor, FL, 2016.

25. Soler J, Nunez AA, Yan, L. Light as a modulator of hippocampal-dependent learning and memory. 15th Biennial Meeting, Society for Research on Biological Rhythms, Palm Harbor, FL, 2016.

24. Soler J, Ikeno T, Yan, L. Light modulates spatial learning and memory in an animal model of SAD. Chicago, IL: Society for Neuroscience, Oct 2015.

23. Ikeno T, Yan, L. Altered expression of the core circadian clock component PERIOD2 in a diurnal rodent model of seasonal affective disorder. XIV European Biological Rhythm Soceity Congress and IV World Congress of Chronobiology. Manchester, UK, Aug 2015.

22. Deats S., Yan, L. Effects of light on hypothalamic dopaminergic neurons in an animal model of SAD. Washington, DC: Society for Neuroscience, 2014.

21. Yan L., Leach G. Effects of chronic nighttime light exposure on the daily rhythms in locomotor activity and clock gene expression in the SCN. 14th Biennial Meeting, Society for Research on Biological Rhythms, Big Sky, MT, 2014.

20. Adidharma W., Yan L. Attenuated Orexinergic Signaling in a Diurnal Rodent Model of SAD. San Diego, CA: Society of Neuroscience, 2013.

19. Deats S., Yan, L. Inhibition of Orexinergic Signaling Leads to Depression-like Behaviors in Diurnal Grass Rats. San Diego, CA: Society of Neuroscience, 2013.

18. Gall A.J., Smale L., Yan L., Nunez A. Effects of intergeniculate leaflet (IGL) lesions on behavioral and brain responses to photic stimuli in diurnal grass rats. San Diego, CA: Society of Neuroscience, 2013.

17. Yan L. Effects of Light on Mood and Anxiety: An Animal Model of SAD. East Lansing, MI, Midwest Chronobiology Conference, 2013.

16. Gall A.J., Nunez A., Yan L., Smale L. Does the intergeniculate leaflet (IGL) play a role in masking responses to light in diurnal rodents? New Orleans, LA: Society for Neuroscience, 2012.

15. Van loon J., Nunez A., Yan L., Smale L. Masking in day and night active grass rats (Arvicanthis niloticus): Effects of light pulses on locomotor activity and the brain New Orleans, LA: Society for Neuroscience, 2012.

14. Martin-Fairey C.A., Bostic B., L. Yan L., Smale L., Nunez A. Daily rhythms in brain trkB expression in the diurnal grass rat are disrupted by nocturnal wheel running. New Orleans, LA: Society for Neuroscience, 2012.

13. Yan L., Ramanathan C., Leach G., van loon J. Circadian rhythms and SAD: Novel responses of brain and behavior to changing day-lengths in the diurnal grass rat (Arvicanthis niloticus). 13th Biennial Meeting, Society for Research on Biological Rhythms, Destin, FL, 2012

12. Van Loon, J., Nunez A., Yan L., Smale L. Distinct masking responses in day- and night-active grass rats (Arvicanthis niloticus). 13th Biennial Meeting, Society for Research on Biological Rhythms, Destin, FL, 2012

11. Gall A., Shuboni D., Nunez A., Yan L., Smale L. The intergeniculate leaflet (IGL) shows differential responses to light in diurnal and nocturnal rodents and contributes to the display of a day-active profile. 13th Biennial Meeting, Society for Research on Biological Rhythms, Destin, FL, 2012

10. Shuboni D., Cramm S., Yan L., Nunez A., Smale L. Masking responses and light-induced changes in Fos expression in nocturnal and diurnal rodents. 13th Biennial Meeting, Society for Research on Biological Rhythms, Destin, FL, 2012

9. Yan L., Leach G., Adidharma W., Kott J. A diurnal rodent model of SAD. Washington, DC: Society for Neuroscience, 2011.

8. Shuboni D., Yan L. Nighttime dim light exposure alters the responses of circadian system. 12th Biennial Meeting, Society for Research on Biological Rhythms, Destin, FL, 2010

7. Yan L., Campbell, A., Tomczak A. Circadian rhythm perturbation leads to reorganization of the SCN network. Chicago, IL: Society for Neuroscience, 2009.

6. Butler M.P., Yan L., Rodriguez E., Silver R. The circadian clock coordinates time in the brain via multiple discrete output signals. Washington, DC: Society for Neuroscience, 2008.

5. Yan L., Bobula J. M., Kriegsfeld L., Silver R. Antiphase oscillation in the core and shell SCN of split hamster. Washington, DC: Society for Neuroscience, 2005

4. Yan L., Sun Z., Silver R. Characterization of mPer1 and mPer2 expression in PER2 mutant mice. New Orleans, LA: Society for Neuroscience, 2003.

3. Kriegsfeld, L. J., Mei, D., Yan, L., Hamada, T., Silver, R. Circadian phenotype in mice carrying a targeted mutation of the calbindin D28K gene. New Orleans, LA: Society for Neuroscience, 2003.

2. Karatsoreos, I. N., Yan, L., Le Sauter, J., Silver, R. Rhythmic and non-rhythmic compartments of Per1 expression in the mouse SCN. Orlando, FL: Society for Neuroscience, 2002

1. Yan, L., Silver, R. Distinct role of mPer1 and mPer2 in photic entrainment. Orlando, FL: Society for Neuroscience, 2002.