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EDUCATION

2005-2009 **University of California, Los Angeles**
Ph.D., Neuroscience
Dissertation: *Investigating Medial Temporal Representations of Episodic Information: A Multi-modal Approach*

2003-2005 **University of California, Los Angeles**
B.S., Neuroscience
Honors Thesis: *Circadian Regulation of Long-term Potentiation*

1999-2002 **University of California, Berkeley**
Molecular and Cell Biology

PROFESSIONAL EXPERIENCE

2016- Ruth and Raymond Stotter Endowed Chair, Department of Neurosurgery, UCLA

2016- Associate Director for Neuroscience Outreach, Brain Research Institute, UCLA

2015- Assistant Professor-in-Residence, Department of Psychiatry & Biobehavioral Sciences, Neurosurgery, and Bioengineering, UCLA

2015- Associate Director, Neuromodulation Division, Jane and Terry Semel Institute of Neuroscience and Human Behavior, UCLA

2015- Vice President, Society for Neuroscience UCLA Chapter

2012-2015 Assistant Researcher, Department of Neurosurgery, UCLA
Lecturer, Department of Psychology, UCLA

2009-2012 Postdoctoral scholar, Department of Neurosurgery, Department of Psychology, UCLA

2005-2009 Graduate student researcher, Neuroscience Interdepartmental Ph.D. Program, UCLA

AWARDS & GRANTS

Awards

2016-2021 Ruth and Raymond Stotter Endowed Chair, Department of Neurosurgery, UCLA

2015 Excellence in Translational Research Award, Department of Neurosurgery, UCLA

2015-2017 Joseph Drown Friends Scholar Award, Friends of the Semel Institute of Neuroscience and Human Behavior, UCLA

2012 UCLA Brain Research Institute Travel Award, Society for Neuroscience

2011 Society for Neuroscience Postdoctoral Travel Award

2011 UCLA Chancellor's Award for Postdoctoral Research, Finalist

2009-2011 Neural Repair Postdoctoral Fellowship, UCLA NIH grant 5T32NS007449

2009 Achievement Award, National Science Foundation GK-12 Conference

2008, 2009 UCLA Brain Research Institute Travel Award, Society for Neuroscience

2008 UCLA Jeffrey L. Hanson Award for Distinguished Service

2007, 2008, 2011 Organization for Human Brain Mapping Travel Award

2007-2008 Neuroimaging Fellowship, UCLA NIMH grant 5T90DA022768-08

2006-2007 Behavioral Neuroscience Fellowship, UCLA NIMH grant 5T32MH015795

2005 UCLA Neuroscience Undergraduate Honors

Current Funding

NIH UO1 NS103802, National Institute of Neurological Disorders and Stroke
Purpose: Neurostimulation and recording of real world spatial navigation in humans
Role: Principal Investigator

Funding term: 2017-2020

NIH UO1 NS103802-Supplement, National Institute of Neurological Disorders and Stroke
Purpose: Data sharing
Role: Principal Investigator
Funding term: 2018-2019

TEACHING EXPERIENCE

Course Instructor

Winter 2019	Introduction to Signal Processing for Neuroscientists (*Neuroscience 260*), UCLA
Summer 2013-18	Competitive Edge Course for women and minority PhD Graduate Students in STEM fields (Topic: Presentation skills), UCLA
Winter 2017	Human Single Neuron and Oscillatory Mechanisms of Cognition (*Psychology 207b*), UCLA
Winter & Spring 2017	Project Brainstorm (*Neuroscience 192B*), UCLA
Summer 2015	Behavioral Neuroscience (*Psychology 115*), UCLA
Spring 2015	Medical Neurosciences, David Geffen School of Medicine, UCLA
Summer 2013,2014 & Fall 2012	Cognitive Neuroscience (*Psychology 119C),* UCLA
Summer, Fall 2013 & Summer 2012	Behavioral Neuroscience Laboratory (*Psychology 116),* UCLA
Spring 2013	Introduction to Psychobiology (*Psychology 15),* UCLA
Spring 2013	Physiological Psychology of Learning (*Psychology 119M),* UCLA
Winter 2013 & Fall 2012	Introduction to Psychology (*Psychology 10),* UCLA

Guest Lecturer

Spring, 2017, 2018	Undergraduate Course: Computational Methods for Medical Imaging (*Computer Science 188*), UCLA
Spring, 2017, 2018	Graduate Course: Dynamics of Neural Microcircuits (*Neuroscience M287*), UCLA

Fall, 2017	Undergraduate Course: Neurobionics-Past, Present, and Future at UCLA and Beyond (Neuroscience 19), UCLA
Fall 2009, 2015 2017	Graduate course: Functional Neuroanatomy *(Psychology 292),* UCLA
Fall, 2016 & Spring 2009	Graduate Course: Principles of Neuroimaging (*Neuroscience M284A*), UCLA
Fall 2015	Undergraduate course: Mind Reading and Manipulation: Brain and Computer Interface (*Neuroscience 19*), UCLA
Spring 2011, 2013	Graduate course: Biology of Learning & Memory (*Neurobio M200*), UCLA

INVITED PRESENTATIONS

November 2018	Neural Prosthesis Seminar Series, Cleveland FES Center, Case Western Reserve University Title: *Brain implants, virtual reality and treatment of neuropsychiatric disorders*
November 2018	Human Single-unit Meeting, California Institute of Technology Title: *Single neuron and oscillatory correlates of real world spatial navigation in humans*
October 2018	Psychiatry Grand Rounds, Dartmouth-Hitchcock Medical Ctr, NH Title: *Characterization of human episodic memory using intracranial recordings, deep brain stimulation and virtual reality*
October 2018	The Science of Dreams, UCLA Title: *Novel Approaches for characterization and modulation of deep brain activity during real world human behaviors*
June 2018	iNAV Symposium, Mont Tremblanc, Quebec Title: *Medial temporal theta dynamics during ambulatory spatial navigation in humans*
June 2018	Center for Neural Science and Medicine, Cedars-Sinai Title: *Combining virtual reality, intracranial recordings and neurostimulation to study human episodic memory*
May 2018	Dementia Colloquium, UCLA Title: *Neuromodulation and Enhancement of Human Declarative Memory*
May 2018	Brain Injury Research Center, UCLA

	Title: *Restoring real world human memory using novel neurotechnologies and virtual reality*
April 2018	International Learning and Memory Symposium, Huntington Beach, CA Title: *Memory related oscillatory dynamics in the human medial temporal lobe during freely moving behavior*
April 2018	NIH Brain Initiative Meeting, Bethesda, MD Title: *Neurostimulation and Recording of Real World Spatial Navigation in Humans*
March 2018	Cognitive Neuroscience Society Annual Meeting, Boston, MA Title: *Advancements in intracranial stimulation of the entorhinal area for enhancement of episodic memory*
March 2018	Virtual Reality and Healthcare Symposium, Harvard University Title: *Combining neuroprosthetics and virtual reality to restore memory*
January 2018	Wagner Laboratory, Stanford University Title: *Single neuron and oscillatory mechanisms of human episodic memory*
January 2018	NIH Neuroethics Division Meeting, Stanford University Title: *Neuroprosthetics, virtual reality, and memory modulation*
December 2017	Brain Mapping Center, UCLA, Title: *Neuroimaging-guided approaches for invasive and non-invasive stimulation of human episodic memory*
November 2017	Underrepresented Graduate Students in Psychology (UGSP) Brown Bag, UCLA Title: *Navigating Neuroscience and Academia: A personal and scientific journey*
November 2017	Ephys Lounge, Blackrock booth, SfN, Washington D.C. Title: *Human Episodic Memory*
October 2017	Workshop on Memory Consolidation, Restoration, and Augmentation, HRL Laboratories, Malibu, CA Title: *Optimization of deep brain stimulation for episodic memory*
October 2017	Neurosurgery Grand Rounds, UCLA Title: *Intracranial recording and stimulation of human episodic memory*

June 2017	Neural Microcircuits Brown Bag, UCLA Title: *Medial temporal circuits underlying human episodic memory*
June 2017	Meet the Experts, UCLA Neurosurgery Title: *Understanding and Improving Memory using Virtual Reality and Novel Brain Prosthetics*
April 2017	UT Austin Conference on Learning and Memory, UT Austin Chair and speaker Title: *Optimization of intracranial stimulation for enhancement of episodic memory*
March 2017	Neurosurgery Education Day, UCLA Title: *Current Research Projects*
March 2017	Behavioral Neuroscience Perception Journal Club, UCLA Title: *Concept or Memory Cells? Insight from single-unit recordings in the human medial temporal lobe*
November 2016	Human Single-unit Meeting, California Institute of Technology Title: *Neuronal characterization and Modulation of Human Episodic Memory*
September 2016	Neuroscience Interdepartmental Ph.D. Program Retreat, UCLA Title: *Theta Oscillations in the Human Medial Temporal Lobe during Real World Ambulatory Movement*
July 2016	International Conference on Memory, Budapest, Hungary Title: *A high-resolution imaging investigation of hippocampal subfield oscillatory correlates of human episodic memory*
April 2016	Clinical and Translational Neuroscience Workshop, University of Illinois, Urbana Champaign Title: *Novel approaches for targeted recording and stimulation of human learning and memory*
March 2016	Neuromodulation Division, Jane and Terry Semel Institute of Neuroscience and Human Behavior, UCLA Title: *Using High-resolution Neuroimaging to Target Neuromodulation of Human Episodic Memory*
February 2016	Cognitive Forum, UCLA Department of Psychology Title: *Selectivity of Hippocampal Neurons during Episodic Memory*
February 2016	Winter Conference in Neural Plasticity, Maui, HI

Title: *Optimizing deep brain stimulation for enhancement of human episodic memory*

December 2015 — Integrative Center for Learning and Memory, UCLA
Title: *Theta-gamma coupling in human hippocampal CA1 during learning of subsequently recollected items*

December 2015 — Integrative Center for Neural Repair Seminar, UCLA
Title: *Understanding and Improving Human Episodic Memory using Single-unit, Oscillations, and Deep Brain Stimulation*

October 2015 — Neurology Grand Rounds, UC Irvine
Title: *Understanding and improving human episodic memory using single cells, oscillations and deep brain stimulation*

October 2015 — Neuroscience and Society Conference, UCLA
Title: *Rewiring the Brain: Science and Ethics of Brain Stimulation*

October 2015 — Neural Interfaces for Therapeutic Interventions, Los Angeles, CA
Title: *Targeting Memory Circuits: The current state of the art*

June 2015 — Brain-computer Interfaces Workshop, UCLA
Title: *Restoring Neurophysiological Activity and Memory Functions using Deep Brain Stimulation*

March 2015 — Society for Brain Mapping and Therapeutics, Los Angeles, CA
Title: *High-resolution Neuroimaging of Genetic Risk for Alzheimer's Disease*

March 2015 — Neuropace, Inc., Mountainview, CA
Title: *Improving Human Episodic Memory using Deep Brain Stimulation*

January 2015 — Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark, NJ
Title: *A Multi-modal Approach to Understanding and Improving Human Episodic Memory*

November 2014 — Minisymposium, Society for Neuroscience, Washington D.C.
Title: *High-resolution functional MRI methods for investigating the role of the hippocampus in human memory*

November 2013 — Women and Brain Science and Technology Seminar, UCLA
Title: *Navigating Neuroscience: A Personal and Scientific Journey*

September 2013 — Neurobionics and Neuromodulation Symposium, UCLA
Title: *Neuromodulation for Memory Restoration*

PUBLICATIONS

1. Wang, L.M., **Suthana, N.,** Chaudhury D, Weaver, D.R., Colwell, C.S. (2005) Melatonin inhibits hippocampal long-term potentiation. European Journal of Neuroscience 22:2231-7

2. Ekstrom, A., **Suthana, N.**, Salamon, N., Behnke, E., Bookheimer, S.Y., Fried, I. (2008) High-Resolution Depth Electrode Localization and Imaging in Patients with Pharmacologically Intractable Epilepsy. Journal of Neurosurgery 108:812-5

3. **Suthana, N.**, Ekstrom, A., Moshirvaziri, S., Knowlton B., Bookheimer, S.Y. (2009) Human hippocampal CA1 involvement during allocentric encoding of spatial information. Journal of Neuroscience 29:10512-9

4. Ekstrom, A.D., **Suthana, N.**, Millet, D., Fried I., Bookheimer S.Y. (2009) Correlation Between BOLD fMRI and Theta-band Local Field Potentials In the Human Hippocampal Area. Journal of Neurophysiology, 101:2668-78

5. Ekstrom A.D., Bazih, A., **Suthana, N.**, Al-Hakim, R., Ogura, K., Zeineh, M., Burggren, A., Bookheimer S.Y. (2009) Advances in High-resolution Imaging and Computational Unfolding of the Human Hippocampus. Neuroimage, 47:42-9.

6. Donix, M., Burggren, A.B., **Suthana, N.**, Siddarth, P., Ekstrom, A.D., Krupa, A., Jones, M. *, Martin-Harris, L. *, Ercoli, L.M., Miller, K.J., Small, G.W., Bookheimer, S.Y. (2010) Family History of Alzheimer's Disease and Hippocampal Structure in Healthy People. American Journal of Psychiatry, 167:1399-406

7. **Suthana, N.**, Krupa, A., Donix, M., Burggren, A.B., Ekstrom, A.D., Jones, M., Ercoli, L.M., Miller, K.J., Siddarth, P., Small, G.W., Bookheimer, S.Y. (2010) Reduced hippocampal CA2, CA3, and dentate gyrus activity in asymptomatic people at genetic risk for Alzheimer's disease. Neuroimage, 53:1077-84

8. Donix, M., Burggren, A.B., **Suthana, N.**, Siddarth, P., Ekstrom, A.D., Krupa, A., Jones, M., Rao, A., Martin-Harris, L. *, Ercoli, L.M., Miller, K.J., Small, G.W., Bookheimer, S.Y. (2010) Longitudinal Changes in Medial Temporal Cortical Thickness in Normal Subjects with the APOE-4 polymorphism. Neuroimage, 53:37-43

9. Burggren, A.C., Renner, B., Jones, M., Donix M., **Suthana, N.**, Martin-Harris L., Ercoli L.M., Miller K.J., Siddarth P., Small G.W., Bookheimer S.Y. (2011) Cortical thinning in entorhinal and subicular cortex predicts decline in episodic memory performance in subjects with mild cognitive impairment. International Journal of Alzheimer's Disease, 956053, PMID: 21559183

10. **Suthana, N.**, Ekstrom, A., Moshirvaziri, S., Knowlton B., Bookheimer, S.Y. (2011) Dissociations within Human Hippocampal Subregions during Encoding and Retrieval of Spatial Information. Hippocampus, 21:694-701

11. Staba, R., Ekstrom, A., **Suthana, N.**, Burggren, A., Fried, I, Engel, J. Jr., Bookheimer, S. (2012) Gray matter loss correlates with mesial temporal lobe neuronal hyperexcitability inside the human seizure onset zone. Epilepsia, 53:25-34

12. **Suthana, N.,** Haneef, Z., Stern, J., Mukamel, R., Behnke, E., Knowlton, B., Fried, I. (2012) Memory Enhancement and Deep Brain Stimulation of Entorhinal Area. New England Journal of Medicine, 366:502-510

    Also see Letters to Editor Correspondence: **Suthana, N.** and Fried, I. (2012) Memory Enhancement and Deep Brain Stimulation of Entorhinal Area. New England Journal of Medicine, 366:1945-1946

    Also, see related editorial written by: Black SE. Brain stimulation, learning, and memory. New England Journal of Medicine, 366:563-5

13. Kern, K., Ekstrom, A., **Suthana, N.**, Giesser, B., Montag, M., Arshanapalli, A., Bookheimer, S., Sicotte, N. (2012) Fornix damage limits verbal memory. Neuroimage, 59:2932-40

14. Romero-Calderón, R., O'Hare, E., **Suthana, N.,** Scott-Van Zeeland, A., Rizk-Jackson, A., Attar, A., Madsen, S., Ghiani, C., Evans, C., Watson, J. (2012) Project Brainstorm: Using Neuroscience To Connect College Students with Local Schools. PLoS Biology 10:e1001310

15. **Suthana, N.**, Fried, I. (2012) Percepts to recollections: Insight from single neuron recordings in the human brain. Trends in Cognitive Science, 16:427-36, Review

16. Jacobs, J., Weidemann, C., Miller, J., Solway, A., Burke, J., Wei, X., **Suthana, N.**, Sperling, M., Sharan, A., Fried, I., Kahana, M. (2013) Direct recordings of grid-like neuronal activity in human spatial navigation. Nature Neuroscience 16:1188-90

17. Donix, M., Burggren, A., Scharf, M., Marschner, K., **Suthana, N.,** Siddarth, P., Krupa, A., Jones, M., Martin-Harris, L., Ercoli, L., Miller, K., Werner, A., Kummer, R., Sauer, C., Small, G., Holthoff, A. and Bookheimer, S. (2013) APOE associated hemispheric asymmetry of entorhinal cortical thickness in aging and Alzheimer's disease. Psychiatry Research: Neuroimaging 214:212-20

18. **Suthana, N.** and Fried, I. (2014) Deep Brain Stimulation for Enhancement of Learning and Memory. Review. Neuroimage 85:996-1002, Review

19. Wagshal, D., Knowlton, B., **Suthana, N.,** Cohen, J., Poldrack, R., Bookheimer, S., Bilder, B., Asarnow, R. (2014) Evidence for corticostriatal dysfunction during cognitive skill learning in adolescent siblings of patients with childhood-onset schizophrenia. Schizophrenia Bulletin. 40:1030-9

20. Cohen, M.S., Rissman, J., **Suthana, N.,** Castel, A.D., Knowlton, B.J. (2014) Memory

selectivity is associated with greater engagement of areas involved in deep semantic encoding for high-value items. Cognitive Affect Behav Neuroscience. 14:578-92

21. **Suthana, N**., Donix, M., Wozny, D., Bazih, A., Jones, M., Heidemann, R., Trampel, R., Ekstrom, A.D., Scharf, M., Knowlton, B., Turner, R., Bookheimer, S.Y. (2015) High-resolution 7-Tesla fMRI of Human Hippocampal Subregions during Associative Learning. Journal of Cognitive Neuroscience, 27:1194-206, PMID: 25514656

22. Yushkevich, P., Augustinack, J., Bender A., Bernstein, J., Boccardi, M., Bocchetta, M., Burggren, A., Carr V., Chakravarty, M.M. Chetelat, G., Daugherty, A., Davachi, L., Ding, S., Ekstrom, A., Geerlings, M., Hassan, A., Huang, Y., Iglesias, J., LaJoie, R., Kerchner, G., LaRocque, K., Libby, L., Malykhin, N., Mueller, S., Olsen, R., Palombo, D., Parekh, M., Pluta, J., Preston, A., Pruessner, J., Ranganath, C. Raz, C., Schlichting, M., Schoemaker, D., Singh, S., Stark, C., **Suthana, N.,** Tompary, A., Turowski, M., Leemput, K., Wagner, A., Wang, L., Winterburn, J., Wisse, L., Yassa, M., Zeineh, M. (2015) Quantitative Comparison of 21 Protocols for Labeling Hippocampal Subfields and Parahippocampal Cortical Subregions in In Vivo MRI: Towards Developing a Harmonized Segmentation Protocol. Neuroimage, 111: 526-41, PMID: 25596463

23. Miller, J., **Suthana, N.,** Fried, I., Jacobs, J. (2015) Repeating spatial activations in human entorhinal cortex. Current Biology, 25:1080-5, PMID: 25843029

24. **Suthana, N.,** Parikshak, N., Ekstrom A.D., Ison, M., Knowlton, B., Bookheimer S.Y., Fried, I. (2015) Specific responses of human hippocampal neurons are associated with better memory. Proceedings of the National Academy of Sciences, 112:10503-8, PMID: 26240357

25. Cohen, M.S., Rissman, J., **Suthana, N.,** Castel, A.D., Knowlton, B.J. (2016) Effects of aging on value-directed modulation of semantic network activity during verbal learning. Neuroimage 125:1046:52, PMID: 26244278

26. Wisse, L.*, Daugherty, A.M.*, Olsen, R.K., Berron, D., Carr, V.A., Stark, C.E.L., Amaral, R.S.C., Amunts, K., Augustinack, J.C., Bender, A.R., Bernstein, J.D., Boccardi, M., Bocchetta, M., Burggren, A., Chakravarty, M.M., Chupin, M., Ekstrom, E., Flores, R.E., Insausti, R., Kanel, P., Kedo, O. Kennedy, K.M., Kerchner, G.A., LaRocque, K., Liu, X., Maass, A., Malykhin, N., Mueller, S.G., Ofen, N., Palombo, D.J., Parekh, M.B., Pluta, J.B., Pruessner, J.C., Raz, N., Rodrigue, K.M., Schoemaker, D., Shafer, A.T., Steve, T.A., **Suthana, N.,** Wang, L., Winterburn, J.L., Yassa, M.A., Yushkevich, P.A., la Joie, R. (2017) A harmonized segmentation protocol for hippocampal and parahippocampal subregions: why do we need one and what are the key goals? Hippocampus, 27:3-11, PMID: 27862600

    *Equal first authorship

27. Nir, Y., Andrillon, T., **Suthana, N.,** Cirelli, Chiara, Tononi, G., Fried, I. (2017)

Selective neuronal lapses precede human cognitive lapses upon sleep deprivation. Nature Medicine, 23:1474-1480, PMID: 29106402

28. Titiz, A.S.*, Hill, M.R.H.*, Mankin, E.A.*, Eliashiv, D., Tchemodanov, N., Maoz, U., Stern, J., Tran, M., Behnke, E., **Suthana, N.**,** Fried, I.**. (2017) Theta-Burst Microstimulation in the human entorhinal area improves memory specificity. eLife pii: e29515, PMID: 29063831, *Equal first authorship, ** **Equal senior authorship**

29. Aghajan, Z., Schuette, P., Fields, T., Tran M., Siddiqui, S., Hasulak, N., Tcheng, T., Eliashiv, D., Stern, J., Fried, I., **Suthana, N.** (2017) Theta Oscillations in the human medial temporal lobe during ambulatory movement. Current Biology 27:3743-3751, PMID: 29199073

30. Reggente, N., Essoe, J.K., M. Aghajan, Z., Tavakoli, A.V., McGuire, J.F., **Suthana, N.,** Rissman, J. Enhancing the ecological validity of fMRI memory research using virtual reality. Frontiers in Neuroscience, Mini-review (In Press)

31. **Suthana, N.,** Aghajan, Z.M., Mankin, E.A., Lin, A. Reporting guidelines and issues to consider for using intracranial brain stimulation in studies of human declarative memory. Frontiers in Neuroscience, Mini-review (In Press)

BOOK CHAPTERS

1. **Suthana, N.** and Fried, I. (2014) "Navigating our Environment: Insight from single neuron recordings from the human brain" in Atoms of Cognition. Probing single neurons in the human brain. Publisher: MIT Press

MEDIA COVERAGE

1. Science News, "When tickling the brain to stimulate memory, location matters"
2. PC Mag, "How Brain Implants, VR Could Help Treat Diseases Like Alzheimer's"
3. UCLA Newsroom, "Neuroscientist earns prestigious BRAIN grant"
4. Mashable, "Meet the Neuroscience using VR to fight memory loss | How she works"
5. UCLA Newsroom, "Neuroscientist shows deep brain waves occur more often during navigation and memory formation"
6. UCLA Newsroom, "Neuroscientist harnesses the power of virtual reality to unlock the mystery of memory"
7. Los Angeles Times, "How our memories are made in the brain"
8. Wareable, "How can we use VR to relive memories, and how it changes the past"
9. Society for Neuroscience, "2011 Travel Award Winner: U.S. Postdoctoral Trainee"
10. The Daily Bruin, "UCLA Neuroscience Assistant Professor uses VR to study memory formation"
11. The Daily Bruin, "Researchers study how electrical stimulation can improve memory" and "Neuroscience conference probes brain"
12. The Wallstreet Journal, "Memory Gets Jolt in Brain Research" and "Parkinson's

Research Yields Progress on memory Treatment"
13. Bloomberg News, "Electric Deep-Brain Stimulation Helps Memory in Novel Approach to Dementia"
14. Science Magazine, "Tiny Zaps Boost Memory"
15. Time Magazine, "Study: Zapping the Brain boosts Memory"
16. Daily Mail, "Can't find your car? Scientists say zap to the brain can improve your spatial memory"
17. Los Angeles Times, "Study finds jolt to the brain boosts memory"
18. CBS News, "Electric shocks to brain may boost memory: Study"
19. The Guardian, "Deep brain stimulation enhances spatial memory"
20. CNN, "Could stimulating the brain one day treat Alzheimer's disease"
21. Reuters, "Tiny electric shocks to the brain enhance memory: study"
22. New York Times, "Study Explores Electrical Stimulation as an Aid to Memory"
23. ABC News, "Deep Brain Stimulation Boosts Memory"
24. Agence France Presse, "Brain Stimulation may boost memory: study"
25. US News, "Electrical Brain Stimulation May Strengthen Memory, Study says"
26. Third Age (Australia), "Deep Brain Stimulation Could Boost Memory"
27. Press TV, "Stimulating key brain region improves memory"
28. Emax Health, "UCLA Study: Brain shock improves memory"
29. Med Page Today, "Study: Zap to Brain Boosts Memory"
30. The Mental Note, "Brain Awareness Week brings students from low-income schools to UCLA"
31. ABC News coverage of Brain Awareness Week, 2009
32. Neuroscience Quarterly, Society for Neuroscience, "Brain Awareness Week"

Curriculum Vitae Last updated: 11/23/2018