CURRICULUM VITAE LINDSAY M. OBERMAN, Ph.D.

1011 Veterans Memorial Pkwy East Providence, RI 02915 (p) (401) 432-1162 (f) (401) 432-1607 loberman@lifespan.org

EDUCATION

Undergraduate

Emory University Neuroscience and Behavioral Biology Psychology B.S., 2002 Magna Cum Laude

Graduate

University of California, San Diego 2002-2007 MA in Psychology, 2004 PhD in Psychology, 2007 Deans Fellowship Department Research Award Geckler Fellowship Dissertation Award

POSTGRADUATE TRAINING

Postdoctoral Fellowship

Beth Israel Deaconess Medical Center 330 Brookline Avenue, Boston, MA 02215 Cognitive Neurology 2007-2009

POSTGRADUATE HONORS AND AWARDS

- NRSA Postdoctoral Fellowship, Beth Israel Deaconess Medical Center 2007
- KL2 Medical Research Investigator Training Award Harvard Catalyst 2009
- Shrine Query Prize Harvard Catalyst 2012

ACADEMIC APPOINTMENTS

- Instructor of Neurology
 Harvard University Medical School
 Beth Israel Deaconess Medical Center
 October 2009-November 2013
- Visiting Assistant Professor of Psychology Emmanuel College September 2011-August 2013
- Assistant Professor of Psychiatry and Human Behavior Brown University School of Medicine
 E.P. Bradley Hospital January 1, 2014-Present

HOSPITAL APPOINTMENTS

- Postdoctoral Research Fellow Beth Israel Deaconess Medical Center July 2007-September 2009
- Research Associate
 Beth Israel Deaconess Medical Center
 September 2009-November 2013
- Research Associate Children's Hospital, Boston February 2010-Present
- Research Collaborator
 Beth Israel Deaconess Medical Center
 December 2013-Present
- Research Associate
 Bradley Hospital
 December 2013-Present

OTHER APPOINTMENTS

Associate Editor – Frontiers in Neuroscience

MEMBERSHIP IN SOCIETIES

Cognitive Neuroscience Society
 International Society for Autism Research
 Society for Neuroscience
 2003-2009
 2012-Present
 2003-Present

PUBLICATIONS LIST

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- 1. **Oberman, L.M.,** Hubbard, E.M., McCleery, J.P., Altschuler, E.L., Ramachandran, V.S., Pineda, J.A. (2005). EEG evidence for mirror neuron dysfunction in autism. *Cognitive Brain Research*, *24*, 190-198.
- 2. Pineda, J.A & **Oberman, L.M.** (2006) What Goads Nicotine Addicts to Smoke? *Brain Research*, 1121, 128-135.

- 3. **Oberman, L.M.,** Pineda, J.A. & Ramachandran, V.S. (2007) The Human Mirror Neuron System: A Link Between Action Observation and Social Skills. *Social Cognitive and Affective Neuroscience*, *2*, 62-66.
- 4. Oberman, L.M., McCleery, J.P, Ramachandran, V.S., Pineda, J.A. (2007). EEG evidence for mirror neuron activity during the observation of human and robot actions: Toward an analysis of the human qualities of interactive robots. *Neurocomputing*, 70, 2194-2203.
- Oberman, L.M., Winkielman, P., Ramachandran, V.S. (2007) Face to Face: Blocking facial muscles selectively impairs recognition of emotional faces. *Social Neuroscience*, 2, 167-178.
- Oberman, L.M. & Ramachandran, V.S. (2008) Preliminary evidence for deficits in multisensory integration in autism spectrum disorders: the mirror neuron hypothesis. *Social Neuroscience*, 3, 348-355.
- 7. **Oberman, L.M.**, Ramachandran, V.S. & Pineda, J.A. (2008). Modulation of mu suppression in children with autism spectrum disorders in response to familiar or unfamiliar stimuli: The mirror neuron hypothesis. *Neuropsychologia, 46*,1558-1565.
- 8. **Oberman, L.M.**, Winkielman, P., Ramachandran, V.S. (2009). Slow Echo: Facial EMG evidence for the delay of spontaneous, but not voluntary emotional mimicry in children with autism spectrum disorders. *Developmental Science*, 12, 510-520.
- 9. **Oberman, L.M.**, Ifert-Miller, F., Najib, U., Bashir, S., Woollacott, I., Gonzalez-Heydrich, J., Picker, J., Rotenberg, A., Pascual-Leone, A. (2010) Transcranial magnetic stimulation provides means to assess cortical plasticity and excitability in humans with fragile X syndrome and autism spectrum disorder. Frontiers in Synaptic Neuroscience, 2
- Cohen, D.A., Freitas, C., Tormos, J.M., **Oberman, L.M.**, Eldaief, M., Pascual-Leone, A. (2010). Enhancing plasticity through repeated rTMS sessions: timing matters. *Clinical Neurophysiology*, 121, 2159-64.
- 11. Stamoulis, C., **Oberman, L.M.,** Praeg, E., Pascual-Leone, A. (2011). Single pulse TMS-Induced modulations of resting brain neurodynamics encoded in EEG Phase. Brain Topography, 24, 105-13. PMID: 21203817
- Fecteau, S., Agosta, S., Oberman, L.M., Pascual-Leone A. (2011) Brain stimulation over Broca's area differentially modulates naming skills in neurotypical adults and individuals with Asperger's syndrome. Eur. J. Neuroscience, 34, 158-164. PMID: 21676037
- Freitas, C., Perez, J., Knobel, M., Tormos, J.M., Oberman, L.M., Eldaief, M., Bashir,
 Vernet, M., Peña-Gómez, C., Pascual-Leone. A. (2011). Changes in cortical
 plasticity across the lifespan. Frontiers in Aging Neuroscience, 3:5. PMID 21519394.
- 14. **Oberman, L.M.**, McCleery, J.P., Hubbard, E.M., Bernier, R., Pineda, J.A. (2012). Developmental changes in mu suppression to observed actions in individuals with autism spectrum disorders. Social Cognitive and Affective Neuroscience
- 15. **Oberman, L.M.,** Eldaief, M.E., Fecteau, S., Ifert-Miller, Fritz, Maria-Tormos, J., Pascual-Leone, A. (2012). Abnormal Modulation of Corticospinal Excitability in Adults with Asperger's Syndrome. European Journal of Neuroscience, 36, 2782-2788.

- 16. Lapenta, O.M., Fregni, F., **Oberman, L.M.,** Boggio, P.S. (2012). Bilateral temporal cortex transcranial direct current stimulation worsens male performance in a multisensory integration task. Neuroscience Letters, 527, 105-9.
- 17. Vernet, M., Bashir, S., Yoo, W.K, **Oberman L.M.**, Mizrahi, I., Ifert-Miller, F., Beck, C.J., Pascual-Leone, A. (2014) Reproducibility of the effects of theta burst stimulation on motor cortical plasticity in healthy participants. *Clinical Neurophysiology*, *125*, 320-326.
- 18. Shafi, M., Westover, M.B., **Oberman, L.M.,** Cash, S.S., Pascual-Leone, A. (2014) Modulation of EEG Functional Connectivity Networks in Subjects Undergoing Repetitive Transcranial Magnetic Stimulation. *Brain Topography, 27,* 172-191.
- 19. Dhamne, S.C., Kothare, R.S., Yu, C., Hsieh, T., Anastasio, E.M., **Oberman, L.M.,** Pascual-Leone, A., Rotenberg, A. (2014) A measure of acoustic noise generated from transcranial magnetic stimulation coils. *Brain Stimulation*, *7*, 432-434.
- 20. **Oberman, L.M.**, Pascual-Leone, A. (2014) Hyperplasticity in autism spectrum disorder confers protection from Alzheimer's disease. Medical Hypotheses
- Oberman, L.M., Pascual-Leone, A., Rotenberg, A. (in press) Modulation of Corticospinal Excitability by Transcranial Magnetic Stimulation in Children with Autism Spectrum Disorder. Frontiers in Human Neuroscience.
 22.

OTHER PEER-REVIEWED PUBLICATIONS

- 1. **Oberman, L.M.** & Ramachandran, V.S. (2007) The simulating social mind: The role of simulation in the social and communicative deficits of autism spectrum disorders, *Psychological Bulletin, 133,* 310-327.
- 2. **Oberman, L.M.**, Ramachandran, V.S. (2008). How do Shared Circuits develop? *Behavioral and Brain Sciences*, *31*, *1-58*.
- 3. **Oberman, L.M.** & Pascual-Leone, A. (2008). Cortical plasticity: A proposed mechanism by which genomic factors lead to the behavioral and neurological phenotype of autism spectrum and psychotic spectrum disorders. *Behavioral and Brain Sciences*, 31, 241-320.
- 4. Winkielman, P., McIntosh, D. N., & **Oberman, L.M.** (2009). Embodied and disembodied emotion processing: Learning from and about typical and autistic individuals. *Emotion Review*. *1*, 178-190.
- 5. McClintock, S.M., Freitas, C., **Oberman, L.M.**, Lisanby, S.H., Pascual-Leone, A. (2011). Transcranial Magnetic Stimulation: A Neuroscientific Probe of Cortical Function in Schizophrenia. Biological Psychiatry. PMID: 21571254
- Pascual-Leone A, Freitas C, Oberman L.M., Horvath JC, Halko M, Eldaief M, Bashir S, Vernet M, Shafi M, Westover B, Vahabzadeh-Hagh AM, Rotenberg A. (2011) Characterizing brain cortical plasticity and network dynamics across the age-span in health and disease with TMS-EEG and TMS-fMRI. Brain Topography.
- 7. Oberman, L.M., Edwards, D., Eldaief, M., Pascual-Leone, A. (2011). Safety of Theta Burst Transcranial Magnetic Stimulation: A systematic review of the literature. *Journal of Clinical Neurophysiology*, 28, 67-74.

- 8. Enticott, P.G., & **Oberman, L.M.** (2012). Synaptic plasticity and non-invasive brain stimulation in autism spectrum disorders. *Developmental Medicine and Child Neurology*, *55*, 13-14.
- 9. **Oberman, L.M.** (2012) mGluR antagonists and GABA agonists as novel pharmacological agents for the treatment of autism spectrum disorders. *Expert Opinion on Investigational Drugs*, *21*, 1819-1825.
- 10. **Oberman, L.M.,** Rotenberg, A., Pascual-Leone, A. (2013) Use of Transcranial Magnetic Stimulation in Autism Spectrum Disorders. Journal of Autism and Developmental Disorders.
- 11. **Oberman, L.M.**, Pascual-Leone, A. (2013). Changes in plasticity across the lifespan: cause of disease and target for intervention. *Progress in Brain Research*, 207, 91-120.
- 12. Gillespie, S.M., McCleery, J.P., **Oberman, L.M.** (2014). Spontaneous versus deliberate vicarious representations: different routes to empathy in psychopathology and autism. *Brain*, 137, e272.
- 13. **Oberman, L.M.**, Hubbard, E.M., McCleery, J.P. (2014). Associative learning alone is insufficient for the evolution and maintenance of the human mirror neuron system. *Behavioral and Brain Sciences*, *37*, 212-213.
- 14. Curatolo, P.. Ben-Ari, Y., Bozzi, Y., Catania, M.V., D'Angelo, E. Mapelli, L., **Oberman, L.M.**, Rosenmund, C., Cherubini, E. (in press). Synapses as therapeutic targets for Autism Spectrum Disorders: an International Symposium held in Pavia on July 4th, 2014. *Frontiers in Cellular Neuroscience*.

BOOKS AND BOOK CHAPTERS

- 1. Winkielman, P., Niedenthal, P.M., **Oberman, L.M** (2008). The embodied emotional mind. In Semin, G. R., & Smith, E. R. (Eds.) *Embodied grounding: Social, cognitive, affective, and neuroscientific approaches*. (pp. 263-288). New York: Cambridge University Press.
- Winkielman, P., Niedenthal, P.M., Oberman, L.M. (2008). Embodied Perspective on Emotion-Cognition Interactions. In Pineda, J.A. (Ed.) Role of Mirroring in Social Cognition. Totowa, New Jersey: Humana Press.
- 3. **Oberman, L.M.** & Ramachandran, V.S. (2008) Reflections on the mirror neuron system: Their evolutionary functions beyond motor representation. In Pineda, J.A. (Ed.) *Role of Mirroring in Social Cognition*. Totowa, New Jersey: Humana Press.
- 4. **Oberman, L.M.**, Ramachandran, V.S., Niedenthal, P.M., Wikielman, P. (2010). Embodied Simulation-A conduit for converting perception into understanding and high-level social skills. In Balcetis, E. & Lassiter, D. (Eds.) *The Social Psychology of Visual Perception*. New York: Psychology Press.
- 5. **Oberman, L.M.** (2014). Repetitive TMS protocols. In Pascual-Leone, A. & Rotenberg, A. (Eds.) *Neuromethods: Transcranial Magnetic Stimulation*. New York: Springer.
- 6. **Oberman, L.M.**, Rotenberg, A., Pascual-Leone, A. (in press). Altered Brain Plasticity as the Proximal Cause of Autism Spectrum Disorders. In Tracy, J., Hampstead, B. and

- Sathian, K. (Eds.) Plasticity of Cognition in Neurologic Disorders. New York: Oxford University Press.
- 7. **Oberman, L.M.**, Ramachandran, V.S. (in press). Role of the Mirror Neuron System in the Pathophysiology of Autism Spectrum Disorders. In Ferrari, P. and Rizzolatti, G. (Eds.) Mirror Neurons: Oxford University Press.

OTHER NON-PEER REVIEWED PUBLICATIONS

- 1. **Oberman, L.M.** & Pascual-Leone, A. (2009) Report of Seizure Induced by Continuous Theta Burst Stimulation. *Brain Stimulation*, 2, 246-247.
- 2. **Oberman, L.M.**, Horvath, J.C., Pascual-Leone, A. (2010). TMS: Using the Theta-Burst Protocol to Explore Mechasnism of Plasticity in Individuals with Fragile X Syndrome and Autism. *J. Vis Exp. 46*.

PUBLICATIONS SUBMITTED OR IN PREPARATION

- 1. **Oberman, L.M.**, Ifert-Miller, F., Najib, U., Bashir, S., Gonzalez Heydrich, J., Picker, J., Rotenberg, A., Pascual-Leone, A. (submitted). Alterations in Corticospinal Modulation Reveals Plastic and Metaplastic Abnormalities in Individuals with Autism Spectrum Disorders and Fragile X Syndrome. Nature Neuroscience.
- 2. Curatolo, P., Ben-Ari, Y., Bozzi, Y., Vincenza Catania, M., D'Angelo, E., Mapeli, L., **Oberman, L.M.**, Rosemund, C., Cherubini, E. (submitted) Synapses as therapeutic targets for Autism Spectrum Disorders: an International Symposium held in Pavia on July 4th, 2014. Frontiers in Cellular Neuroscience.
- 3. **Oberman, L.M.,** Rotenberg, A. (in prep) Safety and Tolerability of Cortical Mapping using TMS in Pediatric Epilepsy.
- 4. Sharer, E., Mostofsky, S.H., Pascual-Leone, A., **Oberman, L.M.** (in prep). Visual goal-based and movement-based components of motor learning in ASD and TD controls.
- 5. Fecteau. S., **Oberman, L.M.,** Agosta, S., Pascual-Leone, A. (in prep) Processing bodily-action language.
- 6. Stamoulis, C., **Oberman, L.M.,** Praeg, E., Bashir, S., Pascual-Leone, A. (in prep). Hidden dynamic states of the brain and their modulation by behavior and stimulation.
- 7. Stamoulis, C., **Oberman, L.M.**, Pascual-Leone (in prep). Age dependent differences in plasticity.

ABSTRACTS

- 1. **Shenk, L.M.** & Ramachandran, V.S. (November, 2003). Intact empathetic SCR in autistic individuals. Society for Neuroscience Abstract.
- Shenk, L.M., Hubbard, E.M., McCleery, J.P., Ramachandran, V.S., Pineda, J.A. (April, 2004). EEG evidence for mirror neuron dysfunction in autism. Cognitive Neuroscience Society Abstract.

- 3. **Shenk, L.M.,** Jacoby, B..P., McCleery, J.P, Ramachandran, V.S., Pineda, J.A. (October, 2004). EEG evidence of mirror neuron activity to unintentional non-goal directed actions. International Conference on Development and Learning
- 4. **Oberman, L.M.,** Pineda, J.A. (April, 2005). Investigations of EEG mu rhythm in moderate to heavy smokers. Cognitive Neuroscience Society Abstract.
- 5. Bressler, A.J., **Oberman, L.M.**, Pineda, J.A., and Ramachandran, V.S. (November, 2005). Recognizing the intentionality of actions: an EEG study of mirror neuron activity. Society for Neuroscience Abstract.
- Gosch, C., Skinner, B., Oberman, L.M., Pineda, J.A. (November, 2005). Mu rhythm suppression while viewing complex social and mechanical scenarios. Society for Neuroscience Abstract.
- Oberman, L.M., Pineda, J.A., Ramachandran, V.S. (November, 2005). EEG evidence for the role of the mirror neuron system in metaphor comprehension. Society for Neuroscience Abstract.
- 8. Ramachandran, V.S. & **Oberman, L.M.** (April, 2006). Evidence for deficits in mirror neuron function, multisensory integration, and sound-form symbolism in autism spectrum disorders. Cognitive Neuroscience Society Abstract.
- 9. **Oberman, L.M.,** Pineda, J.A., & Ramachandran, V.S. (April, 2006). The human mirror neuron system: A link between action observation and social skills. Cognitive Neuroscience Society Abstract.
- Oberman, L.M., Winkielman, P., Ramachandran, V.S. (October, 2006). The role of the mirror neuron system in emotion recognition and judgments of others imitation. Society for Neuroscience Abstract.
- 11. Oberman, L.M. (July, 2007). The Mu wave: An EEG Index of the Mirror Neuron System. National Science Foundation Workshop: Neurocognitive Development and Autism: The Mirror Neuron Hypothesis Abstract.
- 12. **Oberman, L.M.,** Ramachandran, V.S., Pineda, J.A. (November, 2007). Mirror neuron activity modulated by actor familiarity in children with autism spectrum disorders: An EEG study. Society for Neuroscience Abstract.
- 13. **Oberman, L.M.,** Maria-Tormos, J., Pascual-Leone, A. (February, 2008). Preliminary evidence for dysfunctional cortical plasticity mechanisms in autism spectrum disorders. American Clinical Neurophysiology Society Abstract.
- Oberman, L.M., Winkielman, P., Ramachandran, V.S. (April, 2008). Delayed mimicry response in children with autism spectrum disorders: An EMG study. Cognitive Neuroscience Society Abstract.
- Oberman, L.M., Maria-Tormos, J., Pascual-Leone, A. (November, 2008). Preliminary evidence for dysfunctional cortical plasticity mechanisms in autism spectrum disorders. Society for Neuroscience Abstract.
- Fecteau, S., Oberman, L.M., Pasucal-Leone, A. (April, 2009). Brain Plasticity in ASD. Roche Nature Medicine Translational Neuroscience Symposium: Autism and other Developmental Brain Disorders Abstract.
- 17. Fecteau, S., **Oberman, L.M.**, Pascual-Leone, A. (November, 2009). Enhancing language skills in adults with Asperger's syndrome using repetitive transcranial magnetic stimulation over Broca's area. Neurobiology of Language Conference Abstract.

- Oberman, L.M., Fecteau, S., Pascual-Leone, A. (November, 2009). Mechanisms of cortical plasticity are pathologically enhanced in autism and suppressed in schizophrenia. Society for Neuroscience Abstract.
- Pascual-Leone, A., Oberman, L.M., Freitas, C., Stamoulis, C., Bashir, S. (November, 2010). Assessing cortical plasticity in health and disease across the human lifespan. Society for Neuroscience Abstract
- 20. Oberman, L.M. Ifert-Miller, F., Najib, U., Bashir, S., Woollacott, I., Gonzalez-Heydrich, J., Picker, J., Rotenberg, A., Pascual-Leone, A. (November, 2010). Transcranial magnetic stimulation provides means to assess cortical plasticity and excitability in humans with fragile X syndrome and autism spectrum disorder. Society for Neuroscience Abstract.
- 21. **Oberman, L.M.** McCleery, J.P., Hubbard, E.M., Bernier, R., Pineda, J.A. (May, 2012). Developmental changes in mu suppression to observed actions in individuals with autism spectrum disorders. International Meeting for Autism Research.
- 22. **Oberman, L.M.**, Pascual-Leone, A., Rotenberg, A. (October, 2012). Safety and tolerability of repetitive transcranial magnetic stimulation (rTMS) in children with autism spectrum disorders. Society for Neuroscience Abstract.
- 23. Oberman, L.M. Irish, B., Poni, L., Pascual-Leone, A., Rotenberg, A. (October, 2012). Preliminary Data from a pilot study of Repetitive Transcranial Magnetic Stimulation (rTMS) in High Functioning Children with Autism Spectrum Disorders. Autism Consortium Research Symposium.
- 24. Oberman, L.M., Irish, B., Poni, L., Pascual-Leone, A., Rotenberg, A. (October, 2012). Tolerability and Efficacy of rTMS in Children with ASD. American Neurological Association Annual Meeting Abstract.
- 25. **Oberman, L.M.** Seligson, E., Pascual-Leone, A., (June, 2013). Hyperplasticity in Autism Spectrum Disorders confers protection from Alzheimer's Disease. Harvard Catalyst 2013 Shrine Conference.
- Oberman, L.M., Pascual-Leone, A., Rotenberg, A. (November, 2013) Modulation of corticospinal excitability across the lifespan in individuals with autism spectrum disorders. Society for Neuroscience Abstract.

SCHOLARLY WORK PUBLISHED IN OTHER MEDIA

NON-PEER-REVIEWED

- 1. Appearance on *Mirror Neurons*. Nova Science Now. Public Broadcasting Service (first aired in January, 2005).
- 2. Ramachandran, V.S. & **Oberman, L.M.** (May 13, 2006) Autism: The search for Steven, *New Scientist* 48-50.
- 3. Ramachandran, V.S. & **Oberman, L.M.** (November, 2006; June 2007) Broken Mirrors: A Theory of Autism, *Scientific American*.
- 4. Appearance on *The Real Rain Man*. Discovery Health Channel (November, 2006).
- 5. Interviewed by Robert Lee Hotz. How your brain allows you to walk in another's shoes. *Wall Street Journal* (August 17, 2007).
- 6. Interviewed by Jon Hamilton *Neuroscientists Focus on Autism*. National Public Radio Morning Edition (November, 2007).

- 7. Scientific and artistic contributor to *Waves of Mu*, Art Installation based on the mirror neuron system (World Premier, Burlington, Vermont, March, 2008).
- 8. Psychology Today Internet forum blog. The Autism Spectrum. (2008-2010).
- 9. Interviewed by Carl Zimmer. Why Darwin would have loved Botox. *Discover Magazine* (November, 2008).
- 10. Interviewed by John Colapinto. Brain Games. The New Yorker (May, 2009).
- 11. Featured in Newspaper article. Magnetic fields test 'reflexes' of autism, Method may pave way for treatment. *The Boston Globe* (June 8, 2009).
- 12. Interviewed by Bonnie Prescott for BIDMC website (January 21, 2010).
- 13. Interviewed by Alex Plank for Autism Talk TV (October 28, 2010).
- 14. Appearance on *Ingenious Minds*. Discovery Science Channel (February, 2011).
- 15. Interviewed by Amy Harmon. Navigating Love and Autism. *The New York Times* (December 26, 2011).
- 16. Highlighted in the Harvard Catalyst Newsletter (September, 2012).
- 17. Guest Blogger for SFARI Blog (February, 2013)
- 18. Interviewed by anil ananthaswamy Brain Stimulation Boosts Social Skills in Autism. *New Scientist (November, 2013).*

INVITED PRESENTATIONS

- 1. Series of 'Science Cafés' sponsored by Public Broadcasting Service in San Diego, CA; Minneapolis, MN; and Charlotte, NC. (2005-2006).
- 2. Neurology Grand Rounds, University of Vermont Medical School (March, 2008). Current theories and developments in autism spectrum disorders.
- 3. International Meeting for Autism Research, London, England. (May, 2008). EEG investigations of the mirror neuron system in typically developing individuals and individuals with autism spectrum disorder.
- 4. National Academy of Science France-U.S. Frontiers of Science symposium, Roscoff, France (November, 2008) The Mirror Neuron System.
- 5. Psychology Department, University of Amsterdam, (November, 2008). Understanding the Mirror Neuron System in Autism.
- 6. Psychology Department, University of Colorado, Denver (July, 2009). Dysfunction of developmental mechanisms in autism.
- 7. Psychology Department, University of Denver, (July, 2009). Dysfunction of the mirror neuron system in autism.
- 8. Grand Rounds, Leonard Morse Hospital, Metrowest Medical Center (November, 2009). The Mirror Neuron System and Its Role in Autism Spectrum Disorders.
- 9. Autism Society of America, Greater Long Beach/ San Gabriel Valley Chapter (January, 2010). The role of the mirror neuron system in Autism Spectrum Disorders.
- 10. Psychiatry Grant Rounds, Boston Medical Center (January, 2010). Physiological studies into the neurological basis of autism spectrum disorders.
- 11. Boston Neurorehabilitation Group (January, 2010). Autism from underlying mechanism to novel treatment strategies.

- 12. LADDERS (October, 2010). Diagnostic and Therapeutic Potential of Noninvasive Transcranial Magnetic Stimulation in Neurodevelopmental and Neurodegenerative Disorders.
- 13. University of Massachusetts, Boston (December, 2010). A Unifying Hypothesis of the Neurobiology of Autism Spectrum Disorders.
- Emmanuel College, Boston (March, 2012). Discovering the Brain Mechanisms underlying Autism Spectrum Disorders Provides Novel Targets for Therapeutic Interventions.
- 15. Seaside Therapeutics (September, 2012). TMS studies reveal atypical plasticity and metaplasticity mechanisms in Autism and Fragile X.
- 16. Lurie Center for Autism (November, 2012). Translational Techniques Pave Way from Novel Biomarkers to Brain Based Treatments for Autism Spectrum Disorders.
- 17. Brown University (April, 2013). The use of Transcranial Magnetic Stimulation as a biomarker and potential therapeutic intervention for Autism Spectrum Disorders.
- 18. Johns Hopkins University School of Medicine (May, 2013). Translational Techniques Pave Way from Novel Biomarkers to Brain Based Treatments for Autism Spectrum Disorders.
- 19. Asperger Autism Spectrum Education Network Annual Conference, Key Note Speaker, Iselin, New Jersey (October 2013). Transcranial Magnetic Stimulation: Its Significance for ASD.
- 20. TMS Therapy for Autism Consensus Conference (May, 2014). Pathophysiologic Model: Why TMS modifies disease.
- 21. University of Parma, Department of Neuroscience (July 2014). Cortical Plasticity in Autism Spectrum Disorders: From Mechanism to Treatment.
- 22. Federation of European Neuroscience Societies Forum (July, 2014). Use of mGluR and GABA agonists as novel pharmacological agents for the treatment of ASD.
- 23. Phelan McDermid Syndrome Foundation Family Conference (July, 2014). Characterization of Autism Phenotype in Children with PMS.

GRANTS

- F32 MH804932 Oberman (Fellow) Pascual-Leone (Sponsor) 7/01/07 9/30/10 NIH/NIMH
 - Plasticity in Autism Spectrum Disorders: Magnetic Stimulation Studies Role: Fellow
- 2. Harvard Catalyst Pilot Grant Award 2/15/09 2/15/10
 Harvard Clinical and Translational Science Center
 Measuring neural plasticity as a potential endophenotype and clinical outcome measure in Fragile X by transcranial magnetic stimulation
- Role: Co-Investigator

 3. KL2 Medical Research Investigator Training grant 10/1/09 9/30/11 Plasticity mechanisms in Children with Autism Spectrum Disorders Oberman (PI) Pascual-Leone (Mentor) Alexander Rotenberg (Mentor) The Harvard Clinical and Translational Science Center (NIH grant #1KL2RR025757-01)
 - Role: Principal Investigator
- 4. Investigator-initiated Industry Sponsored Trial 4/1/10 9/30/11

Oberman (PI), Pascual-Leone (Co-I)

Pharmacological Mediation of Plasticity

Role: Principal Investigator

5. New Therapy-Commercialization Grant

4/1/12-3/31/14

Prospective blinded study of 1 Hz rTMS for treatment of temporal lobe epilepsy

Epilepsy Research Foundation

Role: Co-I

6. SHRINE Pilot Funding Program

2/1/13-1/31/14

Hyperplasticity in Autism Spectrum Disorders confers protection from

Alzheimer's

Harvard Clinical and Translational Science Center (NIH grant #

8UL1TR000170-05)

Role: Principal Investigator

7. Simons Center for the Social Brain Seed Grant 6/1/13-5/31/14

Characterization of the role of Shank3 in Autism Spectrum Disorder in Phelan-McDermid syndrome

Simons Foundation

Role: Co-Investigator

8. Career Development Award

11/1/13-10/31/15

Development of Behavioral and Physiological Indices of Plasticity in Individuals with

Autism Spectrum Disorders Nancy Lurie Marks Foundation

Role: Principal Investigator

9. R01MH100186

9/1/14-8/31/19

NIH/NIMH

Investigations of Neuroplasticity Mechanisms in Autism Spectrum Disorders

Role: Consultant

10. U54 NS092090-01

9/1/14-8/31/19

NIH/NIMH

Mapping the Genotype, Phenotype, and Natural History of Phelan

McDermid Syndrome

Role: Co-I

UNIVERSITY TEACHING ROLES

Instructor-University of California, San Diego

Summer 2006: Social Cognition

Instructor-Harvard Medical School

- Spring 2008-Spring 2009: Induction of Plasticity with TMS
- Summer 2008-Fall 2008: Safety and Ethics of TMS; Induction of Plasticity with TMS
- Summer 2009-Fall 2010: Screening and Assessment for TMS
- Summer 2010: Theta Burst Stimulation
- Fall 2010-Summer 2014: Plasticity inducing Protocols

- Fall 2011: rTMS Protocols
- Summer 2012-Fall 2012: Paired Pulse to One Brain Region; Theta Burst Stimulation
- Spring-Summer 2013: Noninvasive Speech and Language Mapping with Navigated TMS
- Spring-Summer 2013: Noninvasive Speech and Language Mapping with Navigated TMS

Instructor-Emmanuel College

- Spring 2008-Spring 2012: Research Methods
- Fall 2011-Spring 2012: General Psychology
- Spring 2012: Applied Research
- Fall 2012-Spring 2013: Statistics and Methods, Physiological Psychology Instructor-Brown Medical School
 - Spring 2014: Highlights of Clinical Neuroscience
 - Spring 2015: Neuroscience of Autism Spectrum Disorders