

Laura Carim Todd, PhD, RYT

Profile

I hold a PhD in Genetics from the University of Barcelona (Spain) and a 200-hour Yoga Alliance yoga teacher certification (Frederick MD, USA).

My experience in scientific research combines 5-years of postdoctoral work on neural development at The National Cancer Institute and 5 plus years of clinical research studying the impact of mind-body practices on the neurophysiology of stress and nicotine addiction. I am currently an affiliate assistant professor at Oregon Health & Science University.

Education

- **Certificate in Human Investigations** (includes courses such as Clinical Research Design, Biostatistics, Human Subject Ethics, Scientific Writing and Communication, Proposal Development, Data Management, Evidence-based Medicine, and others), Oregon Health & Science University, Portland, OR, USA. *September 2010 to September 2012*
- **Yoga Teacher Training: 200-hour Yoga for the People**, Sol Yoga (RYS), Frederick, MD, USA. *May 2009 to March 2010*
- **PhD in Genetics**, Universitat de Barcelona, Catalunya, Spain. Genetics Graduate Program in the Institut de Recerca Oncològica (IRO) and the Center for Genomic Regulation (Centre de Regulació Genòmica-CRG). *October 2004*
- **BS in Biology**, Universitat de Barcelona, Catalunya, Spain. *June 1997*

Professional Experience

- **Assistant professor** in the Department of Neurology, Oregon Health & Science University. Principal investigator on an R21 NIH funded project to study the impact of yoga practice on self-control in nicotine-dependent smokers (1R21DA035877-01A1). *May 2014 to June 2016*
- **Affiliate assistant professor** in the Department of Neurology, Oregon Health & Science University, Portland, OR. *July 2013 to April 2014*
- **Postdoctoral fellow** in the T32 training grant on Complementary and Alternative Medicine in Neuroscience and Stress. Department of Neurology and Oregon Center for Complementary & Alternative Medicine in Neurological Disorders (ORCCAMIND), Oregon Health & Science University, Portland, OR, USA. Research: "Stress response in tobacco chippers (non nicotine-dependent smokers): a pilot project to use yoga to relieve stress and aid smoking cessation". Supervisors: Dr. Barry S. Oken and Dr. Suzanne H. Mitchell. *June 2010 to June 2013*
- **Postdoctoral fellow** in the Neural Development Group, Mouse Cancer Genetics Program, National Cancer Institute, NIH, Frederick, MD, USA. Research: "*In vivo* study of neurotrophin receptor signaling using genetically modified mouse models". Supervisor: Dr. Lino Tessarollo. *March 2005 to March 2010*
- **PhD graduate student** in the Microarray Laboratory, Center for Genomic Regulation (Centre de Regulació Genòmica-CRG), Barcelona, Spain. Research: "Analysis and characterization of human transcripts in 15q24-q26, a region of genomic instability associated to panic and anxiety syndrome. Characterization of a novel nervous system specific gene, LRRN6A/LERN1". Supervisor: Dr. Xavier Estivill and Dr. Lauro Sumoy. *February 1998 to October 2004*
- **Research Assistant**, School of Biological Sciences, University of Manchester, Manchester, UK. Research: "Study of gene content conservation in the FSH muscular dystrophy region of human chromosome 4 using comparative genetics in mouse and puffer fish". Supervisor: Dr. Jane E. Hewitt. *April 1997 to November 1997*
- **Undergraduate student (Exchange Program for European Undergraduates (ERASMUS))** in the School of Biological Sciences, University of Manchester, Manchester, UK. Final year Research Project: "Analysis of protein phosphatase 1 mutants in *Drosophila melanogaster*". Supervisor: Dr. Luke Alphey. *September 1996 to April 1997*
- **Voluntary work as research assistant** in the Evolutionary Genetics Group in the Departament of Genetics Facultat de Biologia, Universitat de Barcelona, Barcelona, Spain. Supervisor: Dr. Montserrat Aguadé. *1994 to 1996*

Additional Experience

- **Yoga teacher**, Portland OR, USA. *September 2010 to present*
- **Abstract reviewer for the International Research Congress on Integrative Medicine and Health (IRCIMH 2012)**, Portland OR, USA. *January 2012*
- **Scientific article peer-reviewer**. *March 2005 to present*
- **Reviewer for the National Center for Complementary and Alternative Medicine's consumer fact sheet *Yoga: An Introduction***, Portland OR, USA. *October 2011*
- **Facilitator for the course *Principles of Clinical Medicine***, OHSU School of Medicine, Portland, OR, USA. *September to December 2010 and 2013*

Continued Education

- **2016 International Congress on Integrative Medicine and Health (ICIMH 2016)**, Las Vegas NV, USA. Communication: *Acute effects of yoga on mood and withdrawal symptoms in abstinent nicotine dependent smokers*. *May 2016*
- **2015 Mindfulness and Compassion: The Art and Science of Contemplative Practice**, San Francisco CA, USA. Communication: *Addiction, self-control, and yoga*. *June 2015*
- **2014 Symposium on Yoga Research (SYR)**, Kripalu Center for Yoga and Health, Stockbridge MA, USA. *September 2014*
- **Yoga of Awareness for Chronic Pain 2012: Yoga Professional Training**, a 7-day intensive course led by Dr. James Carson and the participation of a number of OHSU faculty focusing on chronic pain from a research and a clinical point of view. *May 2012*
- **2012 International Research Congress on Integrative Medicine and Health (IRCIMH 2012)**, Portland OR, USA. Communication: *Does yoga improve smoking cessation outcomes? A systematic review of the literature*. *May 2012*
- **2012 OHSU Research Week**, Portland OR, USA. Communication: *Does yoga improve smoking cessation outcomes? Addiction, stress, and mindfulness*. *May 2012*
- **2012 Society for Research on Nicotine and Tobacco 18th Annual Meeting**, Houston TX, USA. Communication: *Comparing different measures of impulsivity between regular smokers, chippers, and non-smokers*. *March 2012*
- **2011 Symposium on Yoga Research (SYR)**, Kripalu Center for Yoga and Health, Stockbridge MA, USA. *September 2011*
- **'Neuroscience, Mindfulness, and Yoga for transforming Trauma and Addiction'** 5-day course taught by Jim Hopper, PhD and Dana Moore. Kripalu Center for Yoga and Health, Stockbridge MA, USA. *May 2011*
- **Symposium for Portland Area Research on Complementary and Alternative Medicine (SPARC) 2011**, Portland OR, USA. Communication: *Yoga, stress relief and smoking cessation*. *May 2011*
- **Fundamentals in MatLab** workshop, Society for Psychophysiological Research Annual Meeting, Portland, OR, USA. *October 2010*
- **'Writing about Science' workshop**. 5-week course led by Maggie Meitzler, National Institutes of Health, NCI-Frederick, MD, USA. *May 2008*
- **Gordon Research Conference on Neurotrophic Factors, 2007**. Salve Regina University, Newport, RI, USA. Communication: *A conserved amino acid sequence that modulates TrkB signaling*. *Jun 2007*
- **Gordon Research Conference on Neurotrophic Factors, 2005**. Salve Regina University, Newport, RI, USA. *Jun 2005*
- **BE2003 Award Recipient** for research collaboration in Dr. Lynn D. Hudson's Laboratory of Developmental Neurogenetics, National Institute of Neurological Disorders and Stroke, National Institutes of Health (NIH), Bethesda, MD, United States. Research topic: *Molecular and functional characterization of the interaction between Myt1/Myt1-like and LRRN6A/LERN1, a novel protein with specific central nervous system expression*. *September to December 2003*

- **American Society of Human Genetics (ASHG) Annual Meeting 2003**, Los Angeles, United States. Communication: *LERN1, a novel leucine-rich repeat protein with specific expression in the limbic system. November 2003*
- **X Seminars on Molecular Biology and Developmental Biology**, Societat Catalana de Biologia, Canet de Mar, Barcelona, Catalunya, Spain. Communication: *Search for genes on 15q24-q26, a region associated to panic and anxiety disorders: Lern1. June 2002*
- **XXI National Meeting of Human Genetics**, Oviedo, Spain. Communication: *LERN1 is expressed in the limbic system and maps to DUP25, a region associated to panic and anxiety syndrome. October 2001*
- **Human Genome Meeting 2000**, Vancouver, Canada. Human Genome Organization. Communication: *Full length sequencing of 192 IMAGE cDNA clones from novel genes selected through assignment to 15q or 19p or by their expression profile using electronic differential display. April 2000*
- **12th Course of the European School of Medical Genetics**. European Genetics Foundation, Sestri, Italy. April 1999
- **UK HGMP RC Computing Courses**: 'Introduction to Bioinformatics' and 'Gene Identification and Protein Analysis'. HGMP Resource Centre, Hinxton, Cambridge, UK. September 1998

Publications

1. **Carim-Todd L**, Mitchell SH, Oken BS (2016) Impulsivity and Stress Response in Nondependent Smokers (Tobacco Chippers) in Comparison to Heavy Smokers and Nonsmokers. *Nicotine Tob Res*. 2016 May;18(5):547-56.
2. **Carim-Todd L**, Mitchell SH, Oken BS (2013) Mind-body practices: an alternative, drug-free treatment for smoking cessation? A systematic review of the literature. *Drug and Alcohol Dependence*, 2013 May 7th. PMID: 23664122
3. **Carim-Todd L**, Mitchell SH, Oken BS (2012) Does yoga improve smoking cessation outcomes? A systematic review of the literature. *BMC Complementary and Alternative Medicine*, 12(Suppl 1):P389. PMCID: PMC3373799
4. **Carim-Todd L**, Bath K. G., Fulgenzi G., Yanpallewar S., Jing D., Barrick C. A., Becker J., Buckley H., Dorsey S. G., Lee F. S. and Tessarollo L. (2009) Endogenous truncated TrkB.T1 receptor regulates neuronal complexity and TrkB kinase receptor function in vivo. *J Neurosci* **29**, 678-685.
5. Llorens F., Gil V., Iraola S., **Carim-Todd L**, Marti E., Estivill X., Soriano E., del Rio J. A. and Sumoy L. (2008) Developmental analysis of Lingo-1/Lern1 protein expression in the mouse brain: interaction of its intracellular domain with Myt1l. *Dev Neurobiol* **68**, 521-541.
6. Bong Y. S., Lee H. S., **Carim-Todd L**, Mood K., Nishanian T. G., Tessarollo L. and Daar I. O. (2007) ephrinB1 signals from the cell surface to the nucleus by recruitment of STAT3. *Proc Natl Acad Sci USA* **104**, 17305-17310.
7. Dorsey S. G., Renn C. L., **Carim-Todd L**, Barrick C. A., Bambrick L., Krueger B. K., Ward C. W. and Tessarollo L. (2006) In vivo restoration of physiological levels of truncated TrkB.T1 receptor rescues neuronal cell death in a trisomic mouse model. *Neuron* **51**, 21-28.
8. **Carim-Todd L**, Escarceller M., Estivill X. and Sumoy L. (2003) LRRN6A/LERN1 (leucine-rich repeat neuronal protein 1), a novel gene with enriched expression in limbic system and neocortex. *Eur J Neurosci* **18**, 3167-3182.
9. **Carim-Todd L**, Escarceller M., Estivill X. and Sumoy L. (2001) Characterization of human FSD1, a novel brain specific gene on chromosome 19 with paralogy to 9q31. *Biochim Biophys Acta* **1518**, 200-203.
10. **Carim-Todd L**, Sumoy L., Andreu N., Estivill X. and Escarceller M. (2001) Identification of C15orf5, a heart-enriched transcript on chromosome 15q23-q24. *DNA Seq* **12**, 67-69.
11. **Carim-Todd L**, Escarceller M., Estivill X. and Sumoy L. (2001) Identification and characterization of UBXD1, a novel UBX domain-containing gene on human chromosome 19p13, and its mouse ortholog. *Biochim Biophys Acta* **1517**, 298-301.
12. **Carim-Todd L**, Sumoy L., Andreu N., Estivill X. and Escarceller M. (2001) Identification and characterization of BTBD1, a novel BTB domain containing gene on human chromosome 15q24. *Gene* **262**, 275-281.
13. **Carim-Todd L**, Sumoy L., Andreu N., Estivill X. and Escarceller M. (2001) Cloning, mapping and expression analysis of C15orf4, a novel human gene with homology to the yeast mitochondrial ribosomal protein Ym130 gene. *DNA Seq* **12**, 91-96.
14. **Carim L**, Sumoy L., Andreu N., Estivill X. and Escarceller M. (2000) Cloning, mapping and expression analysis of VPS33B, the human orthologue of rat Vps33b. *Cytogenet Cell Genet* **89**, 92-95.
15. **Carim L**, Sumoy L., Andreu N., Estivill X. and Escarceller M. (2000) Identification and expression analysis of C15orf3, a novel gene on chromosome 15q21.1-->q21.2. *Cytogenet Cell Genet* **88**, 330-332.
16. Sumoy L., **Carim L**, Escarceller M., Nadal M., Gratacos M., Pujana M. A., Estivill X. and Peral B. (2000) HMG20A and HMG20B map to human chromosomes 15q24 and 19p13.3 and constitute a distinct class of HMG-box genes with ubiquitous expression. *Cytogenet Cell Genet* **88**, 62-67.
17. **Carim-Todd L**, Escarceller M., Estivill X. and Sumoy L. (2000) Cloning of the novel gene TM6SF1 reveals conservation of clusters of paralogous genes between human chromosomes 15q24-->q26 and 19p13.3-->p12. *Cytogenet Cell Genet* **90**, 255-260.
18. **Carim L**, Sumoy L., Nadal M., Estivill X. and Escarceller M. (1999) Cloning, expression, and mapping of PDCD9, the human homolog of Gallus gallus pro-apoptotic protein p52. *Cytogenet Cell Genet* **87**, 85-88.
19. Grewal P. K., **Todd L. C.**, van der Maarel S., Frants R. R. and Hewitt J. E. (1998) FRG1, a gene in the FSH muscular dystrophy region on human chromosome 4q35, is highly conserved in vertebrates and invertebrates. *Gene* **216**, 13-19.
20. Grewal P. K., Bolland D. J., **Todd L. C.** and Hewitt J. E. (1998) High-resolution mapping of mouse chromosome 8 identifies an evolutionary chromosomal breakpoint. *Mamm Genome* **9**, 603-607.