

Alev Erisir, MD PhD

University of Virginia
 Department of Psychology
 102 Gilmer Hall (PO 400400),
 Charlottesville, VA 22904-4400
 Tel: (434) 243-3549 (office)
 (434) 982-4753 (lab)
 e-mail: erisir@virginia.edu

webpage: <https://uva.theopenscholar.com/erisir-lab/>

Education

1996	PhD	Behavioral Neuroscience Program, Department of Psychology, SUNY at Stony Brook, NY.
1986	MD	Istanbul University, School of Medicine, Turkey.

Postdoctoral Training

1996-1998	New York University, Center for Neural Science.
1998-1999	New York Medical College, Department of Physiology

Academic Positions

2016-	Department Chair, Department of Psychology, University of Virginia
2013-	Professor, University of Virginia
2011- 2015	Director of Neuroscience Undergraduate Program, UVA
2007- 2013	Associate Professor, Department of Psychology, University of Virginia
2008- 2011	Director of Cognitive Science Undergraduate Program, UVA.
2007 - 2009	Associate Director, Neuroscience Graduate Program, UVA
2000- 2007	Assistant Professor, Department of Psychology, University of Virginia
1999- 2000	Research Assistant Professor, Center for Neural Science, NYU, NY

University and National Service

2020-	SCHEV-sponsored Internship Taskforce
2020	Race and Equality Cluster Executive Committee
2019-	Associate Editor, Frontiers in Cellular Neuroscience
2016-2017	UVA Curriculum Quantitative Subcommittee
2015-2017	VPR Internal Review Committee
2015, 2016	A&S Dean's P&T Committee
2015	Provost's Committee for Research Integrity
2015	A&S Diversity Committee
2014	National Science Foundation, Division of IOS, Panel Member.
2013-2016	Central Virginia Chapter of Society for Neuroscience, Council Member.
2011-	Nu Rho Psi National Honor Society UVA Chapter Faculty Advisor.
2010-2016	UVA Center for Undergraduate Excellence Review Panels for Harrison, Double Hoo and Fulbright Fellowships.
2008- 2014	Institutional Animal Care and Use Committee, Scientific Member.

Honors

2014	Faculty for Undergraduate Neuroscience – Recognition
2013	Nu Rho Psi Chapter of the Year Award- Faculty Advisor
2012	Visiting Scholar, Downing College University of Cambridge
2010	Leadership in Academic Matters
2008-2009	Mead Endowment Honored Faculty

2005-2006 University of Virginia Teaching Fellow Award
1992 NRSA Postdoctoral Fellowship
1991 Sigma-Xi Travel Award

Teaching Experience

University of Virginia, Department of Psychology

Neural Mechanisms of Behavior (PSYC 420/4200); at least once a year since 2001.
Psychobiology Lab (PSYC3210), team-taught, every semester, since 2016
Psychopharmacology (PSYC 325); ~ 5-6 times
Sensory Plasticity (PSYC 525/5500) ~5-6 times
Neural Mechanisms of Behavior (PSYC 720/7200); Once a year since 2001.
Neuroplasticity (PSYC 5500); 6-8 times
Neuropsychopharmacology (PSYC 582/581/5500/5999); 6-8 times.
Forum on Scientific and Professional Ethics (PSYC8040); S17, S18, S19
Functional Neuroanatomy S21

University of Virginia, Neuroscience Undergraduate Major

Current Topics in Neuroscience (NESC3980): once a year, 2011-2016.
Distinguished Major Thesis (NESC 4980/4985): every term 2011-2015.
Research in Neuroscience (NESC 3960/3995): every term 2011-2015.

University of Virginia, Neuroscience Graduate Program

Synaptic Plasticity (NESC 825)
Neurobiology (NESC 703; team-taught graduate course) 2001-2008

New York University

Cellular Molecular Neuroscience
Laboratory for Cellular Molecular Neuroscience
Neuroscience I (team-taught graduate course)

State University of New York, Stony Brook

Human Neuroanatomy Laboratory (Medical School; Assistant Instructor). 1993-1995.

Graduate Mentees:

Francesca Sciacotta, Psychology Graduate Program, 2019-
Tiana Hairston, Psychology Graduate Program, 2019-
Erin Maher. Psychology Graduate Program, PhD 2020. Postdoctoral Fellow UKy, KY
Anqi Fu, MA 2012 Psychology Graduate Program. Research intern, U Wisconsin Madison.
James Corson, PhD 2011 Psychology Graduate Program. Software Support Engineer at Enthought, TX.
Marc Nahmani, PhD 2008 Psychology Graduate Program. Assistant Professor U Washington, Tacoma.
Nadia Badr, MA Neuroscience Graduate Program 2007
Tiffany Adams, MA Psychology Graduate Program, 2007

Publications

Maher EE, Prillaman ME, Keskinöz EN, Petry HM, Erisir A [Immunocytochemical and ultrastructural organization of the taste thalamus of the tree shrew \(*Tupaia belangeri*\)](#). J Comp Neurol. 2021 Jan 18. doi: 10.1002/cne.25109. Online ahead of print. PMID: 33458823

Campbell C, Lindhartsen S, Knyaz A, Erisir A, Nahmani M. [eNeuro Cortical Presynaptic Boutons Progressively Engulf Spinules as They Mature](#). . 2020 Oct 15;7(5): ENEURO.0426-19.2020. doi: 10.1523/ENEURO.0426-19.2020. Print 2020 Sep/Oct. PMID: 32958478

- Sanchez V, Bakhti-Suroosh A, Chen A, Brunzell DH, **Erisir A**, Lynch WJ. 2019 [Exercise during abstinence normalizes ultrastructural synaptic plasticity associated with nicotine-seeking following extended access self-administration](#). *Eur J Neurosci*. 2019 Aug;50(4):2707-2721. doi: 10.1111/ejn.14408. Epub 2019 Apr 9. PMID: 30888721
- Wang L, Kloc M, Maher E, **Erisir A**, Maffei A. 2019 [Presynaptic GABAA Receptors Modulate Thalamocortical Inputs in Layer 4 of Rat V1](#). *Cereb Cortex*. 2019 Mar 1;29(3):921-936. doi: 10.1093/cercor/bhx364. PMID: 29373653
- Schecter RW, Maher EE, Welsh CA, Stevens B, **Erisir A**, Bear MF. 2017. [Experience-Dependent Synaptic Plasticity in V1 Occurs without Microglial CX3CR1](#). *J Neurosci*. 2017 Nov 1;37(44):10541-10553.
- Yao J, McHedlishvili D, McIntire WE, Guagliardo NA, **Erisir A**, Coburn CA, Santarelli VP, Bayliss DA, Barrett PQ. 2017. [Functional TASK-3-Like Channels in Mitochondria of Aldosterone-Producing Zona Glomerulosa Cells. Hypertension](#). 2017 Aug;70(2):347-356.
- Morris AD, **Erisir A**, Criswell SJ, Kucenas S. 2017 [Transmission electron microscopy of zebrafish spinal motor nerve roots](#). *Dev Dyn*. 2017 Nov;246(11):956-962.
- Garage KK, Cheng I, Park RE, Karim MS, Edamura K, Hughes C, Spano AJ, **Erisir A**, **Deppmann CD**. [Death Receptor Promotes Wallerian Degeneration in Peripheral Axons](#). *Mar 20*;27(6):890-896.
- Irwin JA, Erisir A, Kwon I. Oral Triphenylmethane Food Dye Analog, Brilliant Blue G, Prevents Neuronal Loss in APPSwDI/NOS2-/- Mouse Model. *Curr Alzheimer Res*. 2016 Feb 8. [Epub ahead of print]
- Wang G, Bochorishvili G, Chen Y, Salvati KA, Zhang P, Dubel SJ, Perez-Reyes E, Snutch TP, Stornetta RL, Deisseroth K, Erisir A, Todorovic SM, Luo JH, Kapur J, Beenhakker MP, Zhu JJ. CaV3.2 calcium channels control NMDA receptor-mediated transmission: a new mechanism for absence epilepsy. *Genes Dev*. 2015 Jul 15;29(14):1535-51.
- Lunardi N, Oklopcic A, Prillaman M, Erisir A, Jevtovic-Todorovic V. Early Exposure to General Anesthesia Disrupts Spatial Organization of Presynaptic Vesicles in Nerve Terminals of the Developing Rat Subiculum. *Mol Neurobiol*. 2015 Oct;52(2):942-51
- Ito W, Erisir A, Morozov A. Observation of Distressed Conspecific as a Model of Emotional Trauma Generates Silent Synapses in the Prefrontal-Amygdala Pathway and Enhances Fear Learning, but Ketamine Abolishes those Effects. *Neuropsychopharmacology*. 2015 Oct;40(11):2536-45
- Holtz SL, Fu A, Loflin W, Corson JA, Erisir A. Morphology and connectivity of parabrachial and cortical inputs to gustatory thalamus in rats. *J Comp Neurol*. 2015 Jan 1;523(1):139-61. doi: 10.1002/cne.23673. Epub 2014 Oct 7. PMID: 25186035 [PubMed - in process]
- Holloway BB, Stornetta RL, Bochorishvili G, Erisir A, Viar KE, Guyenet PG. Monosynaptic glutamatergic activation of locus coeruleus and other lower brainstem noradrenergic neurons by the C1 cells in mice. *J Neurosci*. 2013 Nov 27;33(48):18792-805. doi: 10.1523/JNEUROSCI.2916-13.2013.PMID: 24285886
- Sun C, Sun J, Erisir A, Kapur J. Loss of cholecystokinin-containing terminals in temporal lobe epilepsy. *Neurobiol Dis*. 2014 Feb; 62:44-55. PMID: 24051276
- Holloway BB, Stornetta RL, Bochorishvili G, Erisir A, Viar KE, Guyenet PG. Monosynaptic glutamatergic activation of locus coeruleus and other lower brainstem noradrenergic neurons by the C1 cells in mice. *J Neurosci*. 2013 Nov 27;33(48):18792-805. PMID: 24285886
- Rose KE, Lunardi N, Boscolo A, Dong X, Erisir A, Jevtovic-Todorovic V, Todorovic SM. Immunohistological demonstration of CaV3.2 T-type voltage-gated calcium channel expression in soma of dorsal root ganglion neurons and peripheral axons of rat and mouse. *Neuroscience*. 2013 Oct 10;250:263-74.
- Corson JA, Erisir A. Monosynaptic convergence of chorda tympani and glossopharyngeal afferents onto ascending relay neurons in the nucleus of the solitary tract: A high-resolution confocal and correlative electron microscopy approach. *J Comp Neurol*. 2013 May 3. doi: 10.1002/cne.23357.
- Owe SG, Erisir A, Heggelund P. Terminals of the major thalamic input to visual cortex are devoid of synapsin proteins. *Neuroscience*. 2013 July 23; 243: 115-25.
- Wang S, Corson J, Hill D, Erisir A. Postnatal development of chorda tympani axons in the rat nucleus of the solitary tract. *J Comp Neurol*. 2012 Mar 20. doi: 10.1002/cne.23093. PMID: 22430892
- Boscolo A, Starr JA, Sanchez V, Lunardi N, DiGruccio MR, Ori C, Erisir A, Trimmer P, Bennett J, Jevtovic-Todorovic V. The abolishment of anesthesia-induced cognitive impairment by timely protection of mitochondria in the developing rat brain: the importance of free oxygen radicals and mitochondrial integrity. 2012. *Neurobiol Dis*. 2012 Mar;45(3):1031-41. Epub 2011 Dec 14. PMID: 22198380
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- Comp Neurol. 2012 Feb 15;520(3):495-527. doi: 10.1002/cne.22715. PMID: 21800298
- Angeline S. Lillard, Alev Erisir. Old dogs learning new tricks: Neuroplasticity beyond the juvenile period, *Developmental Review*, Volume 31, Issue 4, December 2011, Pages 207-239, ISSN 0273-2297, 10.1016/j.dr.2011.07.008.
- Li J, Erisir A, Cline H. 2011. In vivo time-lapse imaging and serial section electron microscopy reveal developmental synaptic rearrangements. *Neuron*. 2011 Jan 27;69(2):273-86.
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- Lunardi N, Ori C, Erisir A, Jevtovic-Todorovic V. General anesthesia causes long-lasting disturbances in the ultrastructural properties of developing synapses in young rats. *Neurotox Res*. 2010 Feb;17(2):179-88.
- Corson J, Nahmani M, Lubarsky K, Badr N, Wright C, Erisir A. Sensory activity differentially modulates N-methyl-D-aspartate receptor subunits 2A and 2B in cortical layers. *Neuroscience*. 2009 Oct 20;163(3):920-32.
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- Sun C, Mchedlishvili Z, Erisir A, Kapur J. 2007 Diminished neurosteroid sensitivity of synaptic inhibition and altered location of the alpha4 subunit of GABA(A) receptors in an animal model of epilepsy. *J Neurosci*. 2007 Nov 14;27(46):12641-50.
- May OL, Erisir A, Hill DL. 2007 Ultrastructure of primary afferent terminals and synapses in the rat nucleus of the solitary tract: Comparison among the greater superficial petrosal, chorda tympani, and glossopharyngeal nerves. *Journal of Comparative Neurology*, 20;502(6):1066-78.
- Sun C, Mchedlishvili Z, Bertram EH, Erisir A, Kapur J. 2007 Time course of loss of hilar interneurons and reduction of inhibitory synaptic inputs on hippocampal dentate granule cells in an animal model of temporal lobe epilepsy. *Journal of Comparative Neurology*, Feb 10;500(5):876-93.
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- Kielland A, Erisir A, Walaas SI, Heggelund P. 2006. Synapsin utilization differs among functional classes of synapses on thalamocortical cells. *Journal of Neuroscience*. May 24;26(21):5786-93.
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- Erisir A and Dreusicke M. 2005 Quantitative morphology and postsynaptic targets of thalamocortical axons in critical period and adult ferret visual cortex. *Journal of Comparative Neurology* 485:11-31
- Nahmani M and Erisir A. 2005 VGLUT2 immunocytochemistry identifies thalamocortical terminals in layer 4 of adult and developing visual cortex. *Journal of Comparative Neurology* 484:458-473.
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- Erisir A, Levey AI, Aoki C. 2001 Muscarinic receptor M2 in cat visual cortex: Laminal distribution, relationship to γ -aminobutyric acidergic neurons, and effect of cingulate lesions. *Journal of Comparative Neurology* 441: 168-185.
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- Bickford ME, Ramcharan E, Godwin DW, Erisir A, Gnadt J and Sherman SM. 2000. Neurotransmitters Contained in the Subcortical Extraretinal Inputs to the Monkey Lateral Geniculate Nucleus. *Journal of Comparative Neurology* 424:704-717.
- VanHorn S, Erisir A, Sherman SM 2000. The relative distribution of synapses in the A-laminae of the lateral geniculate nucleus of the cat. *Journal of Comparative Neurology* 416:509-520.

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- Erisir A and Aoki C. 1998. A method of combining biocytin tract-tracing with avidin-biotin-peroxidase complex immunocytochemistry. *Journal of Neuroscience Methods*. 18:189-197.
- Erisir A, Van Horn S C, and Sherman S M. 1998. Distribution of synapses in the lateral geniculate nucleus of the cat: differences between laminae A and A1 and between relay cells and interneurons. *Journal of Comparative Neurology*, 390:24-255.
- Erisir A, Van Horn S C, and Sherman S M. 1997. Relative numbers of cortical and brainstem inputs to the LGN. *Proceedings of National Academy of Sciences. U.S.A.* 94(4):1517-1520.
- Erisir A, Van Horn S C, Bickford M E and Sherman S M, 1997. Immunocytochemistry and distribution of parabrachial terminals in the lateral geniculate nucleus of the cat; A comparison with corticogeniculate terminals. *Journal of Comparative Neurology*. 377(4):535-549.
- Godwin D W, Van Horn S C, Erisir A, Sesma M, Carmelo R and Sherman S M. 1997. Ultrastructural localization suggests that retinal and cortical inputs access different metabotropic glutamate receptors in the lateral geniculate nucleus. *Journal of Neuroscience* 16(24):8181-8192.
- Gunluk (Erisir) A, Bickford M E and Sherman S M, 1994. Rearing with monocular lid suture induces abnormal NADPH-diaphorase staining in the lateral geniculate nucleus of cats. *Journal of Comparative Neurology*, 350:215-228.
- Bickford M E, Gunluk (Erisir) A, Van Horn S C and Sherman S M, 1994. A GABAergic projection from the basal forebrain to the visual sector of the thalamic reticular nucleus in the cat. *Journal of Comparative Neurology*, 348:481-510.
- Bickford M E, Gunluk (Erisir) A, Guido W and Sherman S M, 1993. Evidence that cholinergic axons from the parabrachial region of the brainstem are the exclusive source of nitric oxide in the lateral geniculate nucleus of the cat. *Journal of Comparative Neurology*, 334:410-430.
- Agarwala S, Gunluk (Erisir) A, May GM III and Petry HM, 1992. Immunohistochemical Organization of the Ventral Lateral Geniculate Nucleus in the Tree Shrew. *Journal of Comparative Neurology*, 318:267-276.

Book Chapters:

- Experience Dependent Synaptic Plasticity in the Developing Cerebral Cortex. 2013 Chiye Aoki and Alev Erisir. In *The Synapse: Structure and Function*. Eds. Virginia Pickel and Menahem Segal. Elsevier.
- Contributions of Kv3 channels to neuronal excitability. Rudy B, Chow A, Lau D, Amarillo Y, Ozaita A, Saganich M, Moreno H, Nadal MS, Hernandez-Pineda R, Hernandez-Cruz A, Erisir A, Leonard C, Vega-Saenz de Miera E. *Ann N Y Acad Sci*. 1999 Apr 30;868:304-43.