



# PRECISIONARY

## REFERENCES FOR ELECTROPHYSIOLOGY

All of these **peer-reviewed publications** have used the Compresstome® for successful tissue slices. If you have any questions, please contact us:

[www.precisionary.com](http://www.precisionary.com)

E-mail: [info@precisionary.com](mailto:info@precisionary.com)

Phone: 617-683-0586

### References

1. Abdelfattah AS, Zheng J, Singh A, Huang YC, Reep D, Tsegaye G, Tsang A, Arthur BJ, Rehorova M, Olson CVL, Shuai Y, Zhang L, Fu TM, Milkie DE, Moya MV, Weber TD, Lemire AL, Baker CA, Falco N, Zheng Q, Grimm JB, Yip MC, Walpita D, Chase M, Campagnola L, Murphy GJ, Wong AM, Forest CR, Mertz J, Economo MN, Turner GC, Koyama M, Lin BJ, Betzig E, Novak O, Lavis LD, Svoboda K, Korff W, Chen TW, Schreiter ER, Hasseman JP, Kolb I. Sensitivity optimization of a rhodopsin-based fluorescent voltage indicator. *Neuron*. 2023 May 17;111(10):1547-1563.e9. Epub 2023 Apr 3. PMID: 37015225; PMCID: PMC10280807.
2. Avelar AJ, Akers AT, Baumgard ZJ, Cooper SY, Casinelli GP, Henderson BJ. Why flavored vape products may be attractive: Green apple tobacco flavor elicits reward-related behavior, upregulates nAChRs on VTA dopamine neurons, and alters midbrain dopamine and GABA neuron function. *Neuropharmacology*. 2019 Nov 1;158:107729. Epub 2019 Jul 29. PMID: 31369741; PMCID: PMC6751572.
3. Benites NM, Rodrigues B, da Silveira CH, Kushmerick C, Leão RM. Development of electrophysiological properties of fusiform neurons from the dorsal cochlear nucleus of mice before and after hearing onset. *J Neurophysiol*. 2023 Jul 1;130(1):5-22. Epub 2023 May 24. PMID: 37222444.
4. Berg J, Sorensen SA, Ting JT, Miller JA, Chartrand T, Buchin A, Bakken TE, Budzillo A, Dee N, Ding SL, Gouwens NW, Hodge RD, Kalmbach B, Lee C, Lee BR, Alfiler L, Baker K, Barkan E, Beller A, Berry K, Bertagnolli D, Bickley K, Bomben J, Braun T, Brouner K, Casper T, Chong P, Crichton K, Dalley R, de Frates R, Desta T, Lee SD, D'Orazi F, Dotson N, Egdorf T, Enstrom R, Farrell C, Feng D, Fong O, Furdan S, Galakhova AA, Gamlin C, Gary A, Glandon A, Goldy J, Gorham M, Goriounova NA, Gratiy S, Graybuck L, Gu H, Hadley K, Hansen N, Heistek TS, Henry AM, Heyer DB, Hill D, Hill C, Hupp M, Jarsky T, Kebede S, Keene L, Kim L, Kim MH, Kroll M, Latimer C, Levi BP, Link KE, Mallory M, Mann

R, Marshall D, Maxwell M, McGraw M, McMillen D, Melief E, Mertens EJ, Mezei L, Mihut N, Mok S, Molnar G, Mukora A, Ng L, Ngo K, Nicovich PR, Nyhus J, Olah G, Oldre A, Omstead V, Ozsvar A, Park D, Peng H, Pham T, Pom CA, Potekhina L, Rajanbabu R, Ransford S, Reid D, Rimorin C, Ruiz A, Sandman D, Sulc J, Sunkin SM, Szafer A, Szemenyei V, Thomsen ER, Tieu M, Torkelson A, Trinh J, Tung H, Wakeman W, Waleboer F, Ward K, Wilbers R, Williams G, Yao Z, Yoon JG, Anastassiou C, Arkhipov A, Barzo P, Bernard A, Cobbs C, de Witt Hamer PC, Ellenbogen RG, Esposito L, Ferreira M, Gwinn RP, Hawrylycz MJ, Hof PR, Idema S, Jones AR, Keene CD, Ko AL, Murphy GJ, Ng L, Ojemann JG, Patel AP, Phillips JW, Silbergeld DL, Smith K, Tasic B, Yuste R, Segev I, de Kock CPJ, Mansvelder HD, Tamas G, Zeng H, Koch C, Lein ES. Human neocortical expansion involves glutamatergic neuron diversification. *Nature*. 2021 Oct;598(7879):151-158. Epub 2021 Oct 6. Erratum in: *Nature*. 2022 Jan;601(7893):E12. PMID: 34616067; PMCID: PMC8494638.

5. Bittar A, Bhatt N, Hasan TF, Montalbano M, Puangmalai N, McAllen S, Ellsworth A, Carretero Murillo M, Tagliatalata G, Lucke-Wold B, Logsdon A, Rosen C, Turner RC, Kaye R. Neurotoxic tau oligomers after single versus repetitive mild traumatic brain injury. *Brain Commun*. 2019;1(1):fcz004. Epub 2019 Jun 28. PMID: 31608324; PMCID: PMC6777515.
6. Bittar A, Al-Lahham R, Bhatt N, Moore K, Montalbano M, Jerez C, Fung L, McAllen S, Ellsworth A, Kaye R. Passive Immunotherapy Targeting Tau Oligomeric Strains Reverses Tauopathy Phenotypes in Aged Human-Tau Mice in a Mouse Model-Specific Manner. *J Alzheimers Dis*. 2022;90(3):1103-1122. PMID: 36189593.
7. Borodovitsyna O, Flamini MD, Chandler DJ. Acute Stress Persistently Alters Locus Coeruleus Function and Anxiety-like Behavior in Adolescent Rats. *Neuroscience*. 2018 Mar 1;373:7-19. Epub 2018 Jan 16. PMID: 29341884.
8. Bourne KZ, Natarajan C, Perez CXM, Tumurbaatar B, Tagliatalata G, Krishnan B. Suppressing aberrant phospholipase D1 signaling in 3xTg Alzheimer's disease mouse model promotes synaptic resilience. *Sci Rep*. 2019 Dec 4;9(1):18342. PMID: 31797996; PMCID: PMC6892889.
9. Brymer KJ, Hurley EP, Barron JC, Mukherjee B, Barnes JR, Nafar F, Parsons MP. Asymmetric dysregulation of glutamate dynamics across the synaptic cleft in a mouse model of Alzheimer's disease. *Acta Neuropathol Commun*. 2023 Feb 14;11(1):27. PMID: 36788598; PMCID: PMC9926626.
10. Buffington SA, Di Prisco GV, Auchtung TA, Ajami NJ, Petrosino JF, Costa-Mattioli M. Microbial Reconstitution Reverses Maternal Diet-Induced Social and Synaptic Deficits in Offspring. *Cell*. 2016 Jun 16;165(7):1762-1775. PMID: 27315483; PMCID: PMC5102250.
11. Bunner W, Landry T, Laing BT, Li P, Rao Z, Yuan Y, Huang H. ARC<sup>AgRP/NPY</sup> Neuron Activity Is Required for Acute Exercise-Induced Food Intake in Un-Trained Mice. *Front Physiol*. 2020 May 6;11:411. PMID: 32435204; PMCID: PMC7218131.

12. Burman RJ, Selfe JS, Lee JH, van den Berg M, Calin A, Codadu NK, Wright R, Newey SE, Parrish RR, Katz AA, Wilmschurst JM, Akerman CJ, Trevelyan AJ, Raimond JV. Excitatory GABAergic signalling is associated with benzodiazepine resistance in status epilepticus. *Brain*. 2019 Nov 1;142(11):3482-3501. PMID: 31553050; PMCID: PMC6904319.
13. Caballero-Florán RN, Bendahmane M, Gupta JP, Chen X, Wu X, Morales A Anantharam A, Jenkins PM. Synaptotagmin-7 facilitates acetylcholine release in splanchnic nerve-chromaffin cell synapses during nerve activity. *Neurosci Lett*. 2023 Mar 13;800:137129. Epub 2023 Feb 14. PMID: 36796621; PMCID: PMC10145958.
14. Calovi S, Mut-Arbona P, Tod P, Iring A, Nicke A, Mato S, Vizi ES, Tønnese J, Sperlagh B. P2X7 Receptor-Dependent Layer-Specific Changes in Neuron Microglia Reactivity in the Prefrontal Cortex of a Phencyclidine Induced Mouse Model of Schizophrenia. *Front Mol Neurosci*. 2020 Nov 11;13:566251. PMID: 33262687; PMCID: PMC7686553.
15. Cao JW, Guan W, Yu YC, Fu Y. Synaptic Transmission from Somatostatin-expressing Interneurons to Excitatory Neurons Mediated by  $\alpha 5$ -subunit-containing GABA<sub>A</sub> Receptors in the Developing Visual Cortex. *Neuroscience*. 2020 Nov 21;449:147-156. Epub 2020 Sep 11. PMID: 32926954.
16. Carr GV, Chen J, Yang F, Ren M, Yuan P, Tian Q, Bebensee A, Zhang GY, Du J, Glineburg P, Xun R, Akhile O, Akuma D, Pickel J, Barrow JC, Papaleo F, Weinberger DR. KCNH2-3.1 expression impairs cognition and alters neuronal function in a model of molecular pathology associated with schizophrenia. *Mol Psychiatry*. 2016 Nov;21(11):1517-1526. Epub 2016 Feb 9. PMID: 26857598; PMCID: PMC4980295.
17. Caudill MS, Eggebrecht AT, Gruberg ER, Wessel R. Electrophysiological properties of isthmus neurons in frogs revealed by in vitro and in vivo studies. *J Comp Physiol A Neuroethol Sens Neural Behav Physiol*. 2010 Apr;196(4):249-62. Epub 2010 Feb 24. PMID: 20179943; PMCID: PMC2860605.
18. Cetin A, Callaway EM. Optical control of retrogradely infected neurons using drug-regulated "TLoop" lentiviral vectors. *J Neurophysiol*. 2014 May;111(10):2150-9. Epub 2014 Feb 26. PMID: 24572099; PMCID: PMC4044340.
19. Chadwick SR, Güler AD. Local Drd1-neurons input to subgroups of arcuate AgRP/NPY-neurons. *iScience*. 2022 Jun 15;25(7):104605. PMID: 35789850; PMCID: PMC9250019.
20. Cheng M, Ye C, Tian C, Zhao D, Li H, Sun Z, Miao Y, Zhang Q, Wang J, Dou Y. Engineered macrophage-biomimetic versatile nanoantidotes for inflammation-targeted therapy against Alzheimer's disease by neurotoxin neutralization and immune recognition suppression. *Bioact Mater*. 2023 Mar 15;26:337-352. PMID: 36950153; PMCID: PMC10027514.

21. Chen AN, Meliza CD. Phasic and tonic cell types in the zebra finch auditory caudal mesopallium. *J Neurophysiol.* 2018 Mar 1;119(3):1127-1139. Epub 2017 Dec 6. PMID: 29212920.
22. Chen AN, Meliza CD. Experience- and Sex-Dependent Intrinsic Plasticity in the Zebra Finch Auditory Cortex during Song Memorization. *J Neurosci.* 2020 Mar 4;40(10):2047-2055. Epub 2020 Jan 14. PMID: 31937558; PMCID: PMC7055144.
23. Chen S, Kadakia F, Davidson S. Group II metabotropic glutamate receptor expressing neurons in anterior cingulate cortex become sensitized after inflammatory and neuropathic pain. *Mol Pain.* 2020 Jan-Dec;16:1744806920915339. PMID: 32326814; PMCID: PMC7227149.
24. Chou SM, Li KX, Huang MY, Chen C, Lin King YH, Li GG, Zhou W, Teo CF, Jan YN, Jan LY, Yang SB. Kv1.1 channels regulate early postnatal neurogenesis in mouse hippocampus via the TrkB signaling pathway. *Elife.* 2021 May 21;10:e58779. PMID: 34018923; PMCID: PMC8208815.
25. Christie BR, Gross A, Willoughby A, Grafe E, Brand J, Bosdachin E, Reid HMO, Acosta C, Eyoifson E. Assessing Changes in Synaptic Plasticity Using an Awake Closed-Head Injury Model of Mild Traumatic Brain Injury. *J Vis Exp.* 2023 Jan 20;(191). PMID: 36744774.
26. Chun YS, Kim MY, Lee SY, Kim MJ, Hong TJ, Jeon JK, Ganbat D, Kim HT, Kim SS, Kam TI, Han S. MEK1/2 inhibition rescues neurodegeneration by TFEB-mediated activation of autophagic lysosomal function in a model of Alzheimer's Disease. *Mol Psychiatry.* 2022 Nov;27(11):4770-4780. Epub 2022 Aug 10. PMID: 35948663; PMCID: PMC9734062.
27. Comerota MM, Tumurbaatar B, Krishnan B, Kayed R, Tagliatela G. Near Infrared Light Treatment Reduces Synaptic Levels of Toxic Tau Oligomers in Two Transgenic Mouse Models of Human Tauopathies. *Mol Neurobiol.* 2019 May;56(5):3341-3355. Epub 2018 Aug 17. PMID: 30120733; PMCID: PMC6476871.
28. Cooper SY, Akers AT, Henderson BJ. Green Apple e-Cigarette Flavorant Farnesene Triggers Reward-Related Behavior by Promoting High-Sensitivity nAChRs in the Ventral Tegmental Area. *eNeuro.* 2020 Aug 12;7(4):ENEURO.0172-20.2020. PMID: 32747456; PMCID: PMC7433896.
29. Cooper SY, Willis CV, Richardson MR, Hill SP, Wright SK, Elmore MB, Mitchell ZB, González Castro AK, Henderson BJ. Chemical Flavorants in Vaping Products Alter Neurobiology in a Sex-Dependent Manner to Promote Vaping-Related Behaviors. *J Neurosci.* 2023 Feb 22;43(8):1360-1374. Epub 2023 Jan 23. PMID: 36690450; PMCID: PMC9987575.

30. Copits BA, Gowrishankar R, O'Neill PR, Li JN, Girven KS, Yoo JJ, Meshik X, Parker KE, Spangler SM, Elerding AJ, Brown BJ, Shirley SE, Ma KKL, Vasquez AM, Stander MC, Kalyanaraman V, Vogt SK, Samineni VK, Patriarchi T, Tian L, Gautam N, Sunahara RK, Gereau RW 4th, Bruchas MR. A photoswitchable GPCR-based opsin for presynaptic inhibition. *Neuron*. 2021 Jun 2;109(11):1791-1809.e11. Epub 2021 May 11. PMID: 33979635; PMCID: PMC8194251.
31. Dao NC, Brockway DF, Crowley NA. In Vitro Optogenetic Characterization of Neuropeptide Release from Prefrontal Cortical Somatostatin Neurons. *Neuroscience*. 2019 Nov 1;419:1-4. Epub 2019 Sep 2. PMID: 31487544.
32. Dao NC, Suresh Nair M, Magee SN, Moyer JB, Sendao V, Brockway DF, Crowley NA. Forced Abstinence From Alcohol Induces Sex-Specific Depression-Like Behavioral and Neural Adaptations in Somatostatin Neurons in Cortical and Amygdalar Regions. *Front Behav Neurosci*. 2020 May 27;14:86. PMID: 32536856; PMCID: PMC7266989.
33. de Siqueira DVF, Strazza PS Jr, Benites NM, Leão RM. Salicylate activates K<sub>ATP</sub> channels and reduces spontaneous firing in glycinergic cartwheel neurons in the dorsal cochlear nucleus of rats. *Eur J Pharmacol*. 2022 Jul 5;926:175026. Epub 2022 May 13. PMID: 35569546.
34. Deng C, Li KY, Zhou C, Ye JH. Ethanol enhances glutamate transmission by retrograde dopamine signaling in a postsynaptic neuron/synaptic bouton preparation from the ventral tegmental area. *Neuropsychopharmacology*. 2009 Apr;34(5):1233-44. Epub 2008 Sep 10. PMID: 18784647; PMCID: PMC2761034.
35. Dergacheva O, Boychuk CR, Mendelowitz D. Developmental changes in GABAergic neurotransmission to presympathetic and cardiac parasympathetic neurons in the brainstem. *J Neurophysiol*. 2013 Aug;110(3):672-9. Epub 2013 May 8. PMID: 23657280; PMCID: PMC3742984.
36. Díaz-García CM, Meyer DJ, Nathwani N, Rahman M, Martínez-François JR, Yellen G. The distinct roles of calcium in rapid control of neuronal glycolysis and the tricarboxylic acid cycle. *Elife*. 2021 Feb 8;10:e64821. PMID: 33555254; PMCID: PMC7870136.
37. Dongelmans M, Durand-de Cuttoli R, Nguyen C, Come M, Duranté EK, Lemoine D, Brito R, Ahmed Yahia T, Mondoloni S, Didienne S, Bousseynol E, Hanneke B, Reynolds LM, Torquet N, Dalkara D, Marti F, Mourot A, Naudé J, Faure P. Chronic nicotine increases midbrain dopamine neuron activity and biases individual strategies towards reduced exploration in mice. *Nat Commun*. 2021 Nov 26;12(1):6945. PMID: 34836948; PMCID: PMC8635406.
38. Driessens SLW, Galakhova AA, Heyer DB, Pieterse IJ, Wilbers R, Mertens EJ, Waleboer F, Heistek TS, Coenen L, Meijer JR, Idema S, de Witt Hamer PC, Noske DP, de Kock CPJ, Lee BR, Smith K, Ting JT, Lein ES, Mansvelder HD, Goriounova NA. Genes associated with

cognitive ability and HAR show overlapping expression patterns in human cortical neuron types. *Nat Commun.* 2023 Jul 13;14(1):4188. PMID: 37443107; PMCID: PMC10345092.

39. Durand-de Cuttoli R, Mondoloni S, Marti F, Lemoine D, Nguyen C, Naudé J, d'Izarny-Gargas T, Pons S, Maskos U, Trauner D, Kramer RH, Faure P, Mourot A. Manipulating midbrain dopamine neurons and reward-related behaviors with light-controllable nicotinic acetylcholine receptors. *Elife.* 2018 Sep 4;7:e37487. PMID: 30176987; PMCID: PMC6122951.
40. Egawa K, Watanabe M, Shiraishi H, Sato D, Takahashi Y, Nishio S, Fukuda A. Imbalanced expression of cation-chloride cotransporters as a potential therapeutic target in an Angelman syndrome mouse model. *Sci Rep.* 2023 Apr 17;13(1):5685. PMID: 37069177; PMCID: PMC10110603.
41. Feng T, Alicea C, Pham V, Kirk A, Pieraut S. Experience-Dependent Inhibitory Plasticity Is Mediated by CCK+ Basket Cells in the Developing Dentate Gyrus. *J Neurosci.* 2021 May 26;41(21):4607-4619. Epub 2021 Apr 27. PMID: 33906898; PMCID: PMC8260240.
42. Fisher NM, Gogliotti RG, Vermudez SAD, Stansley BJ, Conn PJ, Niswender CM. Genetic Reduction or Negative Modulation of mGlu<sub>7</sub> Does Not Impact Anxiety and Fear Learning Phenotypes in a Mouse Model of MECP2 Duplication Syndrome. *ACS Chem Neurosci.* 2018 Sep 19;9(9):2210-2217. Epub 2017 Dec 14. PMID: 29227625; PMCID: PMC6002927.
43. Fisher NM, Gould RW, Gogliotti RG, McDonald AJ, Badivuku H, Chennareddy S, Buch AB, Moore AM, Jenkins MT, Robb WH, Lindsley CW, Jones CK, Conn PJ, Niswender CM. Phenotypic profiling of mGlu<sub>7</sub> knockout mice reveals new implications for neurodevelopmental disorders. *Genes Brain Behav.* 2020 Sep;19(7):e12654. Epub 2020 Apr 14. PMID: 32248644; PMCID: PMC8034495.
44. Fleming RL, Li Q, Risher ML, Sexton HG, Moore SD, Wilson WA, Acheson SK, Swartzwelder HS. Binge-pattern ethanol exposure during adolescence, but not adulthood, causes persistent changes in GABAA receptor-mediated tonic inhibition in dentate granule cells. *Alcohol Clin Exp Res.* 2013 Jul;37(7):1154-60. Epub 2013 Feb 15. PMID: 23413887; PMCID: PMC3754782.
45. Forget B, Scholze P, Langa F, Morel C, Pons S, Mondoloni S, Besson M, Durand-de Cuttoli R, Hay A, Tricoire L, Lambomez B, Mourot A, Faure P, Maskos U. A Human Polymorphism in CHRNA5 Is Linked to Relapse to Nicotine Seeking in Transgenic Rats. *Curr Biol.* 2018 Oct 22;28(20):3244-3253.e7. Epub 2018 Oct 4. PMID: 30293722.
46. Franklin W, Krishnan B, Tagliatalata G. Chronic synaptic insulin resistance after traumatic brain injury abolishes insulin protection from amyloid beta and tau oligomer-induced synaptic dysfunction. *Sci Rep.* 2019 Jun 3;9(1):8228. PMID: 31160730; PMCID: PMC6546708.

47. Garcia I, Huang L, Ung K, Arenkiel BR. Tracing synaptic connectivity onto embryonic stem cell-derived neurons. *Stem Cells*. 2012 Oct;30(10):2140-51. PMID: 22996827; PMCID: PMC3458586.
48. Garcia I, Bhullar PK, Tepe B, Ortiz-Guzman J, Huang L, Herman AM, Chaboub L, Deneen B, Justice NJ, Arenkiel BR. Local corticotropin releasing hormone (CRH) signals to its receptor CRHR1 during postnatal development of the mouse olfactory bulb. *Brain Struct Funct*. 2016 Jan;221(1):1-20. Epub 2014 Sep 16. PMID: 25224546; PMCID: PMC4362939.
49. Garrido-Charad F, Vega-Zuniga T, Gutiérrez-Ibáñez C, Fernandez P, López-Jury L, González-Cabrera C, Karten HJ, Luksch H, Marín GJ. "Shepherd's crook" neurons drive and synchronize the enhancing and suppressive mechanisms of the midbrain stimulus selection network. *Proc Natl Acad Sci U S A*. 2018 Aug 7;115(32):E7615-E7623. Epub 2018 Jul 19. PMID: 30026198; PMCID: PMC6094151.
50. George AA, Lyons-Warren AM, Ma X, Carlson BA. A diversity of synaptic filters are created by temporal summation of excitation and inhibition. *J Neurosci*. 2011 Oct 12;31(41):14721-34. PMID: 21994388; PMCID: PMC3214667.
51. George NM, Gentile Polese A, Merle L, Macklin WB, Restrepo D. Excitable Axonal Domains Adapt to Sensory Deprivation in the Olfactory System. *J Neurosci*. 2022 Feb 23;42(8):1491-1509. Epub 2022 Jan 12. PMID: 35022219; PMCID: PMC8883855.
52. Godino A, Salery M, Durand-de Cuttoli R, Estill MS, Holt LM, Futamura R, Browne CJ, Mews P, Hamilton PJ, Neve RL, Shen L, Russo SJ, Nestler EJ. Transcriptional control of nucleus accumbens neuronal excitability by retinoid X receptor alpha tunes sensitivity to drug rewards. *Neuron*. 2023 May 3;111(9):1453-1467.e7. Epub 2023 Mar 7. PMID: 36889314; PMCID: PMC10164098.
53. Goussakov I, Synowiec S, Yarnykh V, Drobyshevsky A. Immediate and delayed decrease of long term potentiation and memory deficits after neonatal intermittent hypoxia. *Int J Dev Neurosci*. 2019 May;74:27-37. Epub 2019 Mar 9. PMID: 30858028; PMCID: PMC6461389.
54. Gouwens NW, Sorensen SA, Berg J, Lee C, Jarsky T, Ting J, Sunkin SM, Feng D, Anastassiou CA, Barkan E, Bickley K, Blesie N, Braun T, Brouner K, Budzillo A, Caldejon S, Casper T, Castelli D, Chong P, Crichton K, Cuhaciyán C, Daigle TL, Dalley R, Dee N, Desta T, Ding SL, Dingman S, Doperalski A, Dotson N, Egdorf T, Fisher M, de Frates RA, Garren E, Garwood M, Gary A, Gaudreault N, Godfrey K, Gorham M, Gu H, Habel C, Hadley K, Harrington J, Harris JA, Henry A, Hill D, Josephsen S, Kebede S, Kim L, Kroll M, Lee B, Lemon T, Link KE, Liu X, Long B, Mann R, McGraw M, Mihalas S, Mukora A, Murphy GJ, Ng L, Ngo K, Nguyen TN, Nicovich PR, Oldre A, Park D, Parry S, Perkins J, Potekhina L, Reid D, Robertson M, Sandman D, Schroedter M, Slaughterbeck C, Soler-Llavina G, Sulc J, Szafer A, Tasic B, Taskin N, Teeter C, Thatra N, Tung H, Wakeman W, Williams G, Young R, Zhou Z, Farrell C, Peng H, Hawrylycz MJ, Lein E, Ng L, Arkhipov A, Bernard A, Phillips JW, Zeng H, Koch C. Classification of electrophysiological and morphological neuron types

in the mouse visual cortex. *Nat Neurosci.* 2019 Jul;22(7):1182-1195. Epub 2019 Jun 17. PMID: 31209381; PMCID: PMC8078853.

55. Gouwens NW, Sorensen SA, Baftizadeh F, Budzillo A, Lee BR, Jarsky T, Alfiler L, Baker K, Barkan E, Berry K, Bertagnolli D, Bickley K, Bomben J, Braun T, Brouner K, Casper T, Crichton K, Daigle TL, Dalley R, de Frates RA, Dee N, Desta T, Lee SD, Dotson N, Egdorf T, Ellingwood L, Enstrom R, Esposito L, Farrell C, Feng D, Fong O, Gala R, Gamlin C, Gary A, Glandon A, Goldy J, Gorham M, Graybuck L, Gu H, Hadley K, Hawrylycz MJ, Henry AM, Hill D, Hupp M, Kebede S, Kim TK, Kim L, Kroll M, Lee C, Link KE, Mallory M, Mann R, Maxwell M, McGraw M, McMillen D, Mukora A, Ng L, Ngo K, Nicovich PR, Oldre A, Park D, Peng H, Penn O, Pham T, Pom A, Popović Z, Potekhina L, Rajanbabu R, Ransford S, Reid D, Rimorin C, Robertson M, Ronellenfitch K, Ruiz A, Sandman D, Smith K, Sulc J, Sunkin SM, Szafer A, Tieu M, Torkelson A, Trinh J, Tung H, Wakeman W, Ward K, Williams G, Zhou Z, Ting JT, Arkhipov A, Sümbül U, Lein ES, Koch C, Yao Z, Tasic B, Berg J, Murphy GJ, Zeng H. Integrated Morphoelectric and Transcriptomic Classification of Cortical GABAergic Cells. *Cell.* 2020 Nov 12;183(4):935-953.e19. PMID: 33186530; PMCID: PMC7781065.
56. Grannan MD, Mielnik CA, Moran SP, Gould RW, Ball J, Lu Z, Bubser M, Ramsey AJ, Abe M, Cho HP, Nance KD, Blobaum AL, Niswender CM, Conn PJ, Lindsley CW, Jones CK. Prefrontal Cortex-Mediated Impairments in a Genetic Model of NMDA Receptor Hypofunction Are Reversed by the Novel M<sup>1</sup> PAM VU6004256. *ACS Chem Neurosci.* 2016 Dec 21;7(12):1706-1716. Epub 2016 Oct 5. PMID: 27617634; PMCID: PMC5231396.
57. Graybuck LT, Daigle TL, Sedeño-Cortés AE, Walker M, Kalmbach B, Lenz GH, Morin E, Nguyen TN, Garren E, Bendrick JL, Kim TK, Zhou T, Mortrud M, Yao S, Siverts LA, Larsen R, Gore BB, Szelenyi ER, Trader C, Balaram P, van Velthoven CTJ, Chiang M, Mich JK, Dee N, Goldy J, Cetin AH, Smith K, Way SW, Esposito L, Yao Z, Gradinaru V, Sunkin SM, Lein E, Levi BP, Ting JT, Zeng H, Tasic B. Enhancer viruses for combinatorial cell-subclass-specific labeling. *Neuron.* 2021 May 5;109(9):1449-1464.e13. Epub 2021 Mar 30. PMID: 33789083; PMCID: PMC8610077.
58. Grippo RM, Tang Q, Zhang Q, Chadwick SR, Gao Y, Altherr EB, Sipe L, Purohit AM, Purohit NM, Sunkara MD, Cios KJ, Sidikpramana M, Spano AJ, Campbell JN, Steele AD, Hirsh J, Deppmann CD, Wu M, Scott MM, Güler AD. Dopamine Signaling in the Suprachiasmatic Nucleus Enables Weight Gain Associated with Hedonic Feeding. *Curr Biol.* 2020 Jan 20;30(2):196-208.e8. Epub 2020 Jan 2. Erratum in: *Curr Biol.* 2020 Apr 6;30(7):1352-1355. PMID: 31902720; PMCID: PMC6981074.
59. Guan W, Cao JW, Liu LY, Zhao ZH, Fu Y, Yu YC. Eye opening differentially modulates inhibitory synaptic transmission in the developing visual cortex. *Elife.* 2017 Dec 11;6:e32337. PMID: 29227249; PMCID: PMC5746341.
60. Guan YZ, Ye JH. Glycine blocks long-term potentiation of GABAergic synapses in the ventral tegmental area. *Neuroscience.* 2016 Mar 24;318:134-42. Epub 2016 Jan 19. PMID: 26806277; PMCID: PMC4753108.



61. Guan YZ, Ye JH. Ethanol blocks long-term potentiation of GABAergic synapses in the ventral tegmental area involving mu-opioid receptors. *Neuropsychopharmacology*. 2010 Aug;35(9):1841-9. Epub 2010 Apr 14. PMID: 20393452; PMCID: PMC2904870.
62. Guan Y, Xiao C, Krnjevic K, Xie G, Zuo W, Ye JH. GABAergic actions mediate opposite ethanol effects on dopaminergic neurons in the anterior and posterior ventral tegmental area. *J Pharmacol Exp Ther*. 2012 Apr;341(1):33-42. Epub 2011 Dec 30. PMID: 22209891; PMCID: PMC3310705.
63. Hage TA, Bosma-Moody A, Baker CA, Kratz MB, Campagnola L, Jarsky T, Zeng H, Murphy GJ. Synaptic connectivity to L2/3 of primary visual cortex measured by two-photon optogenetic stimulation. *Elife*. 2022 Jan 21;11:e71103. PMID: 35060903; PMCID: PMC8824465.
64. Hejazi N, Zhou C, Oz M, Sun H, Ye JH, Zhang L. Delta9-tetrahydrocannabinol and endogenous cannabinoid anandamide directly potentiate the function of glycine receptors. *Mol Pharmacol*. 2006 Mar;69(3):991-7. Epub 2005 Dec 6. PMID: 16332990.
65. Herman AM, Huang L, Murphey DK, Garcia I, Arenkiel BR. Cell type-specific and time-dependent light exposure contribute to silencing in neurons expressing Channelrhodopsin-2. *Elife*. 2014;3:e01481. Epub 2014 Jan 28. PMID: 24473077; PMCID: PMC3904216.
66. Hodge RD, Miller JA, Novotny M, Kalmbach BE, Ting JT, Bakken TE, Aebermann BD, Barkan ER, Berkowitz-Cerasano ML, Cobbs C, Diez-Fuertes F, Ding SL, McCarrison J, Schork NJ, Shehata SI, Smith KA, Sunkin SM, Tran DN, Venepally P, Yanny AM, Steemers FJ, Phillips JW, Bernard A, Koch C, Lasken RS, Scheuermann RH, Lein ES. Transcriptomic evidence that von Economo neurons are regionally specialized extratelencephalic-projecting excitatory neurons. *Nat Commun*. 2020 Mar 3;11(1):1172. PMID: 32127543; PMCID: PMC7054400.
67. Hoffpauir BK, Kolson DR, Mathers PH, Spirou GA. Maturation of synaptic partners: functional phenotype and synaptic organization tuned in synchrony. *J Physiol*. 2010 Nov 15;588(Pt 22):4365-85. Epub 2010 Sep 20. PMID: 20855433; PMCID: PMC3008845.
68. Holcomb PS, Hoffpauir BK, Hoyson MC, Jackson DR, Deerinck TJ, Marrs GS, Dehoff M, Wu J, Ellisman MH, Spirou GA. Synaptic inputs compete during rapid formation of the calyx of Held: a new model system for neural development. *J Neurosci*. 2013 Aug 7;33(32):12954-69. PMID: 23926251; PMCID: PMC3735879.
69. Hori K, Tsujikawa S, Novakovic MM, Yamashita M, Prakriya M. Regulation of chemoconvulsant-induced seizures by store-operated Orai1 channels. *J Physiol*. 2020 Dec;598(23):5391-5409. Epub 2020 Sep 17. PMID: 32851638; PMCID: PMC7896430.

70. Howell RD, Dominguez-Lopez S, Ocañas SR, Freeman WM, Beckstead MJ. Female mice are resilient to age-related decline of substantia nigra dopamine neuron firing parameters. *Neurobiol Aging*. 2020 Nov;95:195-204. Epub 2020 Aug 3. PMID: 32846275; PMCID: PMC7606778.
71. Huang L, Garcia I, Jen HI, Arenkiel BR. Reciprocal connectivity between mitral cells and external plexiform layer interneurons in the mouse olfactory bulb. *Front Neural Circuits*. 2013 Mar 1;7:32. PMID: 23459611; PMCID: PMC3584718.
72. Huang L, Ung K, Garcia I, Quast KB, Cordiner K, Saggau P, Arenkiel BR. Task Learning Promotes Plasticity of Interneuron Connectivity Maps in the Olfactory Bulb. *J Neurosci*. 2016 Aug 24;36(34):8856-71. PMID: 27559168; PMCID: PMC4995301.
73. Huang W, Zuo W, Chen L, Wang L, Tewfik G, Fu R, Zheng J, Li D, Ye JH. Acetaldehyde Excitation of Lateral Habenular Neurons via Multiple Cellular Mechanisms. *J Neurosci*. 2021 Sep 8;41(36):7532-7545. Epub 2021 Jul 29. PMID: 34326141; PMCID: PMC8425984.
74. Huang W, Placzek AN, Viana Di Prisco G, Khatiwada S, Sidrauski C, Krnjević K, Walter P, Dani JA, Costa-Mattioli M. Translational control by eIF2 $\alpha$  phosphorylation regulates vulnerability to the synaptic and behavioral effects of cocaine. *Elife*. 2016 Mar 1;5:e12052. PMID: 26928234; PMCID: PMC4786430.
75. Jaafari N, Henson M, Graham J, Canepari M. Economic and simple system to combine single-spot photolysis and whole-field fluorescence imaging. *J Biomed Opt*. 2013 Jun;18(6):60505. PMID: 23764747; PMCID: PMC3894447.
76. Jaafari N, De Waard M, Canepari M. Imaging fast calcium currents beyond the limitations of electrode techniques. *Biophys J*. 2014 Sep 16;107(6):1280-8. PMID: 25229136; PMCID: PMC4167530.
77. Jaafari N, Marret E, Canepari M. Using simultaneous voltage and calcium imaging to study fast Ca(2+) channels. *Neurophotonics*. 2015 Apr;2(2):021010. Epub 2015 Feb 11. PMID: 26158000; PMCID: PMC4479034.
78. Jalan-Sakrikar N, Field JR, Klar R, Mattmann ME, Gregory KJ, Zamorano R, Engers DW, Bollinger SR, Weaver CD, Days EL, Lewis LM, Utley TJ, Hurtado M, Rigault D, Acher F, Walker AG, Melancon BJ, Wood MR, Lindsley CW, Conn PJ, Xiang Z, Hopkins CR, Niswender CM. Identification of positive allosteric modulators VU0155094 (ML397) and VU0422288 (ML396) reveals new insights into the biology of metabotropic glutamate receptor 7. *ACS Chem Neurosci*. 2014 Dec 17;5(12):1221-37. Epub 2014 Oct 9. PMID: 25225882; PMCID: PMC4306484.
79. Jameson H, Bateman R, Byrne P, Dyavanapalli J, Wang X, Jain V, Mendelowitz D. Oxytocin neuron activation prevents hypertension that occurs with chronic intermittent

hypoxia/hypercapnia in rats. *Am J Physiol Heart Circ Physiol*. 2016 Jun 1;310(11):H1549-57. Epub 2016 Mar 25. PMID: 27016581; PMCID: PMC4935509.

80. Jeffry JA, Yu SQ, Sikand P, Parihar A, Evans MS, Premkumar LS. Selective targeting of TRPV1 expressing sensory nerve terminals in the spinal cord for long lasting analgesia. *PLoS One*. 2009 Sep 15;4(9):e7021. PMID: 19753113; PMCID: PMC2737142.
81. Jhang J, Lee H, Kang MS, Lee HS, Park H, Han JH. Anterior cingulate cortex and its input to the basolateral amygdala control innate fear response. *Nat Commun*. 2018 Jul 16;9(1):2744. PMID: 30013065; PMCID: PMC6048069.
82. Jiang SN, Cao JW, Liu LY, Zhou Y, Shan GY, Fu YH, Shao YC, Yu YC. Sncg, Mybpc1, and Parm1 Classify subpopulations of VIP-expressing interneurons in layers 2/3 of the somatosensory cortex. *Cereb Cortex*. 2023 Apr 4;33(8):4293-4304. PMID: 36030380.
83. Joseph DJ, Liu C, Peng J, Liang G, Wei H. Isoflurane mediated neuropathological and cognitive impairments in the triple transgenic Alzheimer's mouse model are associated with hippocampal synaptic deficits in an age-dependent manner. *PLoS One*. 2019 Oct 10;14(10):e0223509. PMID: 31600350; PMCID: PMC6786564.
84. Kalmbach BE, Buchin A, Long B, Close J, Nandi A, Miller JA, Bakken TE, Hodge RD, Chong P, de Frates R, Dai K, Maltzer Z, Nicovich PR, Keene CD, Silbergeld DL, Gwinn RP, Cobbs C, Ko AL, Ojemann JG, Koch C, Anastassiou CA, Lein ES, Ting JT. h-Channels Contribute to Divergent Intrinsic Membrane Properties of Supragranular Pyramidal Neurons in Human versus Mouse Cerebral Cortex. *Neuron*. 2018 Dec 5;100(5):1194-1208.e5. Epub 2018 Nov 1. PMID: 30392798; PMCID: PMC6447369.
85. Kalmbach BE, Hodge RD, Jorstad NL, Owen S, de Frates R, Yanny AM, Dalley R, Mallory M, Graybuck LT, Radaelli C, Keene CD, Gwinn RP, Silbergeld DL, Cobbs C, Ojemann JG, Ko AL, Patel AP, Ellenbogen RG, Bakken TE, Daigle TL, Dee N, Lee BR, McGraw M, Nicovich PR, Smith K, Sorensen SA, Tasic B, Zeng H, Koch C, Lein ES, Ting JT. Signature morpho-electric, transcriptomic, and dendritic properties of human layer 5 neocortical pyramidal neurons. *Neuron*. 2021 Sep 15;109(18):2914-2927.e5. PMID: 34534454; PMCID: PMC8570452.
86. Kim S, Ma L, Yu CR. Requirement of calcium-activated chloride channels in the activation of mouse vomeronasal neurons. *Nat Commun*. 2011 Jun 21;2:365. PMID: 21694713; PMCID: PMC3156823.
87. Kim S, Ma L, Jensen KL, Kim MM, Bond CT, Adelman JP, Yu CR. Paradoxical contribution of SK3 and GIRK channels to the activation of mouse vomeronasal organ. *Nat Neurosci*. 2012 Sep;15(9):1236-44. Epub 2012 Jul 29. PMID: 22842147; PMCID: PMC3431453.

88. Kim S, Ma L, Unruh J, McKinney S, Yu CR. Intracellular chloride concentration of the mouse vomeronasal neuron. *BMC Neurosci.* 2015 Dec 15;16:90. PMID: 26667019; PMCID: PMC4678706.
89. Kim Y, Jang YN, Kim JY, Kim N, Noh S, Kim H, Queenan BN, Bellmore R, Mun JY, Park H, Rah JC, Pak DTS, Lee KJ. Microtubule-associated protein 2 mediates induction of long-term potentiation in hippocampal neurons. *FASEB J.* 2020 May;34(5):6965-6983. Epub 2020 Apr 1. PMID: 32237183.
90. Kirkpatrick DC, Walton LR, Edwards MA, Wightman RM. Quantitative analysis of iontophoretic drug delivery from micropipettes. *Analyst.* 2016 Mar 21;141(6):1930-8. PMID: 26890395; PMCID: PMC4783294.
91. Kirkpatrick DC, McKinney CJ, Manis PB, Wightman RM. Expanding neurochemical investigations with multi-modal recording: simultaneous fast-scan cyclic voltammetry, iontophoresis, and patch clamp measurements. *Analyst.* 2016 Aug 2;141(16):4902-11. PMID: 27314130; PMCID: PMC5134327.
92. Klar R, Walker AG, Ghose D, Grueter BA, Engers DW, Hopkins CR, Lindsley CW, Xiang Z, Conn PJ, Niswender CM. Activation of Metabotropic Glutamate Receptor 7 Is Required for Induction of Long-Term Potentiation at SC-CA1 Synapses in the Hippocampus. *J Neurosci.* 2015 May 13;35(19):7600-15. PMID: 25972184; PMCID: PMC4429158.
93. Klipec WD, Burrow KR, O'Neill C, Cao JL, Lawyer CR, Ostertag E, Fowler M, Bachtell RK, Illig KR, Cooper DC. Loss of the *trpc4* gene is associated with a reduction in cocaine self-administration and reduced spontaneous ventral tegmental area dopamine neuronal activity, without deficits in learning for natural rewards. *Behav Brain Res.* 2016 Jun 1;306:117-27. Epub 2016 Mar 14. PMID: 26988269.
94. Kloos M, Weigel S, Luksch H. Anatomy and Physiology of Neurons in Layer 9 of the Chicken Optic Tectum. *Front Neural Circuits.* 2019 Oct 14;13:63. PMID: 31680877; PMCID: PMC6802604.
95. Kohashi T, Carlson BA. A fast BK-type K<sub>Ca</sub> current acts as a postsynaptic modulator of temporal selectivity for communication signals. *Front Cell Neurosci.* 2014 Sep 17;8:286. PMID: 25278836; PMCID: PMC4166317.
96. Kolb I, Landry CR, Yip MC, Lewallen CF, Stoy WA, Lee J, Felouzis A, Yang B, Boyden ES, Rozell CJ, Forest CR. PatcherBot: a single-cell electrophysiology robot for adherent cells and brain slices. *J Neural Eng.* 2019 Aug;16(4):046003. Epub 2019 Apr 10. PMID: 30970335; PMCID: PMC7144284.

97. Kole K, Zhang Y, Jansen EJR, Brouns T, Bijlsma A, Calcini N, Yan X, Lantyer ADS, Celikel T. Assessing the utility of Magneto to control neuronal excitability in the somatosensory cortex. *Nat Neurosci.* 2020 Sep;23(9):1044-1046. Epub 2019 Sep 30. PMID: 31570861.
98. Kolson DR, Wan J, Wu J, Dehoff M, Brandebura AN, Qian J, Mathers PH, Spirou GA. Temporal patterns of gene expression during calyx of held development. *Dev Neurobiol.* 2016 Feb;76(2):166-89. Epub 2015 Jul 8. PMID: 26014473; PMCID: PMC4851834.
99. Krishnan B, Kayed R, Tagliatela G. Elevated phospholipase D isoform 1 in Alzheimer's disease patients' hippocampus: Relevance to synaptic dysfunction and memory deficits. *Alzheimers Dement (N Y).* 2018 Feb 14;4:89-102. PMID: 29560412; PMCID: PMC5857521.
100. Krishnan B, Sallam HS, Tumurbataar B, Saieva S, Baymon D, Tuvdendorj D, Micci MA, Abate N, Tagliatela G. Amelioration of hippocampal dysfunction by adipose tissue-targeted stem cell transplantation in a mouse model of type 2 diabetes. *J Neurochem.* 2020 Apr;153(1):51-62. Epub 2020 Jan 19. PMID: 31730234.
101. Krishnan B, Natarajan C, Bourne KZ, Alikhani L, Wang J, Sowa A, Groen K, Perry B, Dickstein DL, Baulch JE, Limoli CL, Britten RA. Chronic Low Dose Neutron Exposure Results in Altered Neurotransmission Properties of the Hippocampus-Prefrontal Cortex Axis in Both Mice and Rats. *Int J Mol Sci.* 2021 Apr 1;22(7):3668. PMID: 33915974; PMCID: PMC8036585.
102. Kubota J, Mikami Y, Kanemaru K, Sekiya H, Okubo Y, Iino M. Whisker experience-dependent mGluR signaling maintains synaptic strength in the mouse adolescent cortex. *Eur J Neurosci.* 2016 Aug;44(3):2004-14. Epub 2016 Jun 13. PMID: 27225340.
103. Kurz A, Xu W, Wiegel P, Leukel C, N Baker S. Non-invasive assessment of superficial and deep layer circuits in human motor cortex. *J Physiol.* 2019 Jun;597(12):2975-2991. Epub 2019 May 22. PMID: 31045242; PMCID: PMC6636705.
104. Laing BT, Li P, Schmidt CA, Bunner W, Yuan Y, Landry T, Prete A, McClung JM, Huang H. AgRP/NPY Neuron Excitability Is Modulated by Metabotropic Glutamate Receptor 1 During Fasting. *Front Cell Neurosci.* 2018 Sep 3;12:276. PMID: 30233321; PMCID: PMC6129575.
105. Lee JH, Kim JY, Noh S, Lee H, Lee SY, Mun JY, Park H, Chung WS. Astrocytes phagocytose adult hippocampal synapses for circuit homeostasis. *Nature.* 2021 Feb;590(7847):612-617. Epub 2020 Dec 23. PMID: 33361813.
106. Linghu C, Johnson SL, Valdes PA, Shemesh OA, Park WM, Park D, Piatkevich KD, Wassie AT, Liu Y, An B, Barnes SA, Celiker OT, Yao CC, Yu CJ, Wang R, Adamala KP, Bear MF, Keating AE, Boyden ES. Spatial Multiplexing of Fluorescent Reporters for Imaging Signaling Network Dynamics. *Cell.* 2020 Dec 10;183(6):1682-1698.e24. Epub 2020 Nov 23. PMID: 33232692; PMCID: PMC7771521.

107. Lin X, Fisher NM, Dogra S, Senter RK, Reed CW, Kalbfleisch JJ, Lindsley CW, Asher WB, Xiang Z, Niswender CM, Javitch JA. Differential activity of mGlu<sub>7</sub> allosteric modulators provides evidence for mGlu<sub>7/8</sub> heterodimers at hippocampal Schaffer collateral-CA1 synapses. *J Biol Chem*. 2022 Oct;298(10):102458. Epub 2022 Sep 5. PMID: 36063995; PMCID: PMC9531177.
108. Liu H, Caballero-Florán RN, Hergenreder T, Yang T, Hull JM, Pan G, Li R, Veling MW, Isom LL, Kwan KY, Huang ZJ, Fuerst PG, Jenkins PM, Ye B. DSCAM gene triplication causes excessive GABAergic synapses in the neocortex in Down syndrome mouse models. *PLoS Biol*. 2023 Apr 20;21(4):e3002078. PMID: 37079499; PMCID: PMC10118173.
109. Liu YW, Li J, Ye JH. Histamine regulates activities of neurons in the ventrolateral preoptic nucleus. *J Physiol*. 2010 Nov 1;588(Pt 21):4103-16. Epub 2010 Aug 19. PMID: 20724362; PMCID:PMC3002444.
110. Liu YW, Zuo W, Ye JH. Propofol stimulates noradrenalin-inhibited neurons in the ventrolateral preoptic nucleus by reducing GABAergic inhibition. *Anesth Analg*. 2013 Aug;117(2):358-63. Epub 2013 Jun 18. PMID: 23780420; PMCID: PMC3845501.
111. Liu Y, Du S, Lv L, Lei B, Shi W, Tang Y, Wang L, Zhong Y. Hippocampal Activation of Rac1 Regulates the Forgetting of Object Recognition Memory. *Curr Biol*. 2016 Sep 12;26(17):2351-7. Epub 2016 Sep 1. PMID: 27593377.
112. Liu Y, Wang HY, Zhou L, Su Y, Shen WC. Biodistribution, activation, and retention of proinsulin-transferrin fusion protein in the liver: Mechanism of liver-targeting as an insulin prodrug. *J Control Release*. 2018 Apr 10;275:186-191. Epub 2018 Feb 20. PMID: 29471040.
113. Liu Y, Huang D, Wen R, Chen X, Yi H. Glycine receptor-mediated inhibition of medial prefrontal cortical pyramidal cells. *Biochem Biophys Res Commun*. 2015 Jan 9;456(2):666-9. Epub 2014 Dec 12. PMID: 25511697.
114. Li G, Yang K, Zheng C, Liu Q, Chang Y, Kerrigan JF, Wu J. Functional rundown of gamma-aminobutyric acid(A) receptors in human hypothalamic hamartomas. *Ann Neurol*. 2011 Apr;69(4):664-72. Epub 2011 Mar 9. PMID: 21391233; PMCID: PMC3082609.
115. Li J, Zuo W, Fu R, Xie G, Kaur A, Bekker A, Ye JH. High Frequency Electrical Stimulation of Lateral Habenula Reduces Voluntary Ethanol Consumption in Rats. *Int J Neuropsychopharmacol*. 2016 May 27;19(10):pyw050. PMID: 27234303; PMCID: PMC5091825.
116. Li J, Kang S, Fu R, Wu L, Wu W, Liu H, Gregor D, Zuo W, Bekker A, Ye JH. Inhibition of AMPA receptor and CaMKII activity in the lateral habenula reduces depressive-like behavior

and alcohol intake in rats. *Neuropharmacology*. 2017 Nov;126:108-120. Epub 2017 Aug 31. PMID: 28865912; PMCID: PMC5634930.

117. Li KY, Guan YZ, Krnjević K, Ye JH. Propofol facilitates glutamatergic transmission to neurons of the ventrolateral preoptic nucleus. *Anesthesiology*. 2009 Dec;111(6):1271-8. PMID: 19934872; PMCID: PMC2798160.
118. Li KY, Xiao C, Xiong M, Delphin E, Ye JH. Nanomolar propofol stimulates glutamate transmission to dopamine neurons: a possible mechanism of abuse potential? *J Pharmacol Exp Ther*. 2008 Apr;325(1):165-74. Epub 2008 Jan 23. PMID: 18216287.
119. Li L, Durand-de Cuttoli R, Aubry AV, Burnett CJ, Cathomas F, Parise LF, Chan KL, Morel C, Yuan C, Shimo Y, Lin HY, Wang J, Russo SJ. Social trauma engages lateral septum circuitry to occlude social reward. *Nature*. 2023 Jan;613(7945):696-703. Epub 2022 Nov 30. PMID: 36450985; PMCID: PMC9876792.
120. Li W, Zuo W, Wu W, Zuo QK, Fu R, Wu L, Zhang H, Ndukwe M, Ye JH. Activation of glycine receptors in the lateral habenula rescues anxiety- and depression-like behaviors associated with alcohol withdrawal and reduces alcohol intake in rats. *Neuropharmacology*. 2019 Oct;157:107688. Epub 2019 Jun 27. PMID: 31254534; PMCID: PMC6677595.
121. Lloyd JT, Martini A, McDouall A, Sood R, Freestone PS, Mercuri NB, Lipski J. Electrophysiological Characterization of Novel Effects of the Uptake-2 Blocker Decynium-22 (D-22) on Dopaminergic Neurons in the Substantia Nigra Pars Compacta. *Neuroscience*. 2019 Jan 1;396:154-165. Epub 2018 Nov 14. PMID: 30447392.
122. Lloyd JT, Yee AG, Kalligappa PK, Javed A, Cheung PY, Todd KL, Karunasinghe RN, Vlajkovic SM, Freestone PS, Lipski J. Dopamine Dysregulation and Altered Responses to Drugs Affecting Dopaminergic Transmission in a New Dopamine Transporter Knockout (DAT-KO) Rat Model. *Neuroscience*. 2022 May 21;491:43-64. Epub 2022 Mar 21. PMID: 35331847.
123. Long B, Zhou Z, Cetin A, Ting J, Gwinn R, Tasic B, Daigle T, Lein E, Zeng H, Saggau P, Hawrylycz M, Peng H. SmartScope2: Simultaneous Imaging and Reconstruction of Neuronal Morphology. *Sci Rep*. 2017 Aug 24;7(1):9325. PMID: 28839271; PMCID: PMC5571186.
124. Lovelace JW, Corches A, Vieira PA, Hiroto AS, Mackie K, Korzus E. An animal model of female adolescent cannabinoid exposure elicits a long-lasting deficit in presynaptic long-term plasticity. *Neuropharmacology*. 2015 Dec;99:242-55. Epub 2015 May 13. PMID: 25979486; PMCID: PMC4644105.

125. Lu Y, Ye JH. Glycine-activated chloride currents of neurons freshly isolated from the prefrontal cortex of young rats. *Brain Res.* 2011 Jun 1;1393:17-22. Epub 2011 Apr 9. PMID: 21524730; PMCID: PMC3199135.
126. Lv L, Liu Y, Xie J, Wu Y, Zhao J, Li Q, Zhong Y. Interplay between  $\alpha$ 2-chimaerin and Rac1 activity determines dynamic maintenance of long-term memory. *Nat Commun.* 2019 Nov 22;10(1):5313. PMID: 31757963; PMCID: PMC6876637.
127. Mancia Leon WR, Spatazza J, Rakela B, Chatterjee A, Pande V, Maniatis T, Hasenstaub AR, Stryker MP, Alvarez-Buylla A. Clustered gamma-protocadherins regulate cortical interneuron programmed cell death. *Elife.* 2020 Jul 7;9:e55374. PMID: 32633719; PMCID: PMC7373431.
128. Maneshi MM, Toth AB, Ishii T, Hori K, Tsujikawa S, Shum AK, Shrestha N, Yamashita M, Miller RJ, Radulovic J, Swanson GT, Prakriya M. Orai1 Channels Are Essential for Amplification of Glutamate-Evoked  $Ca^{2+}$  Signals in Dendritic Spines to Regulate Working and Associative Memory. *Cell Rep.* 2020 Dec 1;33(9):108464. Erratum in: *Cell Rep.* 2021 Mar 30;34(13):108911. PMID: 33264616; PMCID: PMC7832685.
129. Mann RS, Allman BL, Schmid S. Developmental changes in electrophysiological properties of auditory cortical neurons in the *Cntnap2* knockout rat. *J Neurophysiol.* 2023 Apr 1;129(4):937-947. Epub 2023 Mar 22. PMID: 36947880; PMCID: PMC10110732.
130. Marrs GS, Spirou GA. Embryonic assembly of auditory circuits: spiral ganglion and brainstem. *J Physiol.* 2012 May 15;590(10):2391-408. Epub 2012 Feb 27. PMID: 22371481; PMCID: PMC3424760.
131. Mathis VP, Williams M, Fillinger C, Kenny PJ. Networks of habenula-projecting cortical neurons regulate cocaine seeking. *Sci Adv.* 2021 Nov 5;7(45):eabj2225. Epub 2021 Nov 5. PMID: 34739312; PMCID: PMC8570600.
132. Ma Y, Qin GH, Guo X, Hao N, Shi Y, Li HF, Zhao X, Li JG, Zhang C, Zhang Y. Activation of  $\delta$ -opioid Receptors in Anterior Cingulate Cortex Alleviates Affective Pain in Rats. *Neuroscience.* 2022 Jul 1;494:152-166. Epub 2022 May 13. PMID: 35569643.
133. Meyer U, Shao J, Chakrabarty S, Brandt SF, Luksch H, Wessel R. Distributed delays stabilize neural feedback systems. *Biol Cybern.* 2008 Jul;99(1):79-87. Epub 2008 Jun 4. PMID: 18523798.
134. Micci MA, Krishnan B, Bishop E, Zhang WR, Guptarak J, Grant A, Zolochovska O, Tumurbaatar B, Franklin W, Marino C, Widen SG, Luthra A, Kernie SG, Tagliatela G. Hippocampal stem cells promotes synaptic resistance to the dysfunctional impact of amyloid beta oligomers via secreted exosomes. *Mol Neurodegener.* 2019 Jun 14;14(1):25. PMID: 31200742; PMCID: PMC6570890.



135. Micheva KD, Kiraly M, Perez MM, Madison DV. Conduction Velocity Along the Local Axons of Parvalbumin Interneurons Correlates With the Degree of Axonal Myelination. *Cereb Cortex*. 2021 Jun 10;31(7):3374-3392. PMID: 33704414; PMCID: PMC8196249.
136. Micheva KD, Kiraly M, Perez MM, Madison DV. Extensive Structural Remodeling of the Axonal Arbors of Parvalbumin Basket Cells during Development in Mouse Neocortex. *J Neurosci*. 2021 Nov 10;41(45):9326-9339. Epub 2021 Sep 28. PMID: 34583957; PMCID: PMC8580153.
137. Moehle MS, Pancani T, Byun N, Yohn SE, Wilson GH 3rd, Dickerson JW, Remke DH, Xiang Z, Niswender CM, Wess J, Jones CK, Lindsley CW, Rook JM, Conn PJ. Cholinergic Projections to the Substantia Nigra Pars Reticulata Inhibit Dopamine Modulation of Basal Ganglia through the M<sub>4</sub> Muscarinic Receptor. *Neuron*. 2017 Dec 20;96(6):1358-1372.e4. PMID: 29268098; PMCID: PMC5753765.
138. Mondoloni S, Nguyen C, Vicq E, Ciscato M, Jehl J, Durand-de Cuttoli R, Torquet N, Tolu S, Pons S, Maskos U, Marti F, Faure P, Mouro A. Prolonged nicotine exposure reduces aversion to the drug in mice by altering nicotinic transmission in the interpeduncular nucleus. *Elife*. 2023 May 30;12:e80767. PMID: 37249215; PMCID: PMC10259488.
139. Natarajan C, Cook C, Ramaswamy K, Krishnan B. Phospholipase D1 Attenuation Therapeutics Promotes Resilience against Synaptotoxicity in 12-Month-Old 3xTg-AD Mouse Model of Progressive Neurodegeneration. *Int J Mol Sci*. 2023 Feb 8;24(4):3372. PMID: 36834781; PMCID: PMC9967100.
140. Nelson AD, Caballero-Florán RN, Rodríguez Díaz JC, Hull JM, Yuan Y, Li J, Chen K, Walder KK, Lopez-Santiago LF, Bennett V, McInnis MG, Isom LL, Wang C, Zhang M, Jones KS, Jenkins PM. Ankyrin-G regulates forebrain connectivity and network synchronization via interaction with GABARAP. *Mol Psychiatry*. 2020 Nov;25(11):2800-2817. Epub 2018 Nov 30. Erratum in: *Mol Psychiatry*. 2019 Jan 31;: PMID: 30504823; PMCID: PMC6542726.
141. Nguyen C, Mondoloni S, Le Borgne T, Centeno I, Come M, Jehl J, Solié C, Reynolds LM, Durand-de Cuttoli R, Tolu S, Valverde S, Didienne S, Hanneke B, Fiancette JF, Pons S, Maskos U, Deroche-Gamonet V, Dalkara D, Hardelin JP, Mouro A, Marti F, Faure P. Nicotine inhibits the VTA-to-amygdala dopamine pathway to promote anxiety. *Neuron*. 2021 Aug 18;109(16):2604-2615.e9. Epub 2021 Jul 8. PMID: 34242565.
142. Nguyen HT, Li KY, daGraca RL, Delphin E, Xiong M, Ye JH. Behavior and cellular evidence for propofol-induced hypnosis involving brain glycine receptors. *Anesthesiology*. 2009 Feb;110(2):326-32. PMID: 19194159; PMCID: PMC2703185.
143. Niederleitner B, Luksch H. Neuronal morphology in subdivisions of the inferior colliculus of chicken (*Gallus gallus*). *J Chem Neuroanat*. 2012 May;44(1):24-33. Epub 2012 Apr 13. PMID: 22525356.

144. Niederleitner B, Gutierrez-Ibanez C, Krabichler Q, Weigel S, Luksch H. A novel relay nucleus between the inferior colliculus and the optic tectum in the chicken (*Gallus gallus*). *J Comp Neurol*. 2017 Feb 15;525(3):513-534. Epub 2016 Aug 2. PMID: 27434677.
145. Pan BX, Dong Y, Ito W, Yanagawa Y, Shigemoto R, Morozov A. Selective gating of glutamatergic inputs to excitatory neurons of amygdala by presynaptic GABA<sub>B</sub> receptor. *Neuron*. 2009 Mar 26;61(6):917-29. PMID: 19324000; PMCID: PMC2673456.
146. Papaleo F, Yang F, Paterson C, Palumbo S, Carr GV, Wang Y, Floyd K, Huang W, Thomas CJ, Chen J, Weinberger DR, Law AJ. Behavioral, Neurophysiological, and Synaptic Impairment in a Transgenic Neuregulin1 (NRG1-IV) Murine Schizophrenia Model. *J Neurosci*. 2016 Apr 27;36(17):4859-75. PMID: 27122041; PMCID: PMC4846677.
147. Peça J, Feliciano C, Ting JT, Wang W, Wells MF, Venkatraman TN, Lascola CD, Fu Z, Feng G. Shank3 mutant mice display autistic-like behaviours and striatal dysfunction. *Nature*. 2011 Apr 28;472(7344):437-42. Epub 2011 Mar 20. PMID: 21423165; PMCID: PMC3090611.
148. Pekala D, Baginskas A, Szkudlarek HJ, Raastad M. Components of action potential repolarization in cerebellar parallel fibres. *J Physiol*. 2014 Nov 15;592(22):4911-29. Epub 2014 Sep 19. PMID: 25239461; PMCID: PMC4259535.
149. Pekala D, Szkudlarek H, Raastad M. Typical gray matter axons in mammalian brain fail to conduct action potentials faithfully at fever-like temperatures. *Physiol Rep*. 2016 Oct;4(19):e12981. PMID: 27707780; PMCID: PMC5064137.
150. Piatkevich KD, Bensussen S, Tseng HA, Shroff SN, Lopez-Huerta VG, Park D, Jung EE, Shemesh OA, Straub C, Gritton HJ, Romano MF, Costa E, Sabatini BL, Fu Z, Boyden ES, Han X. Population imaging of neural activity in awake behaving mice. *Nature*. 2019 Oct;574(7778):413-417. Epub 2019 Oct 9. PMID: 31597963; PMCID: PMC6858559.
151. Piñol RA, Jameson H, Popratiloff A, Lee NH, Mendelowitz D. Visualization of oxytocin release that mediates paired pulse facilitation in hypothalamic pathways to brainstem autonomic neurons. *PLoS One*. 2014 Nov 7;9(11):e112138. PMID: 25379676; PMCID: PMC4224401.
152. Placzek AN, Molfese DL, Khatiwada S, Viana Di Prisco G, Huang W, Sidrauski C, Krnjević K, Amos CL, Ray R, Dani JA, Walter P, Salas R, Costa-Mattioli M. Translational control of nicotine-evoked synaptic potentiation in mice and neuronal responses in human smokers by eIF2 $\alpha$ . *Elife*. 2016 Mar 1;5:e12056. PMID: 26928076; PMCID: PMC4786418.
153. Placzek AN, Prisco GV, Khatiwada S, Sgritta M, Huang W, Krnjević K, Kaufman RJ, Dani JA, Walter P, Costa-Mattioli M. eIF2 $\alpha$ -mediated translational control regulates the

persistence of cocaine-induced LTP in midbrain dopamine neurons. *Elife*. 2016 Dec 13;5:e17517. PMID: 27960077; PMCID: PMC5154759.

154. Premkumar LS. Methods Used for Studying TRP Channel Functions in Sensory Neurons. In: Zhu MX, editor. *TRP Channels*. Boca Raton (FL): CRC Press/Taylor & Francis; 2011. Chapter 13. PMID: 22593954.
155. Priya R, Rakela B, Kaneko M, Spatazza J, Larimer P, Hoseini MS, Hasenstaub AR, Alvarez-Buylla A, Stryker MP. Vesicular GABA Transporter Is Necessary for Transplant-Induced Critical Period Plasticity in Mouse Visual Cortex. *J Neurosci*. 2019 Apr 3;39(14):2635-2648. Epub 2019 Jan 31. PMID: 30705101; PMCID: PMC6445995.
156. Qian Y, Piatkevich KD, Mc Larney B, Abdelfattah AS, Mehta S, Murdock MH, Gottschalk S, Molina RS, Zhang W, Chen Y, Wu J, Drobizhev M, Hughes TE, Zhang J, Schreiter ER, Shoham S, Razansky D, Boyden ES, Campbell RE. A genetically encoded near-infrared fluorescent calcium ion indicator. *Nat Methods*. 2019 Feb;16(2):171-174. Epub 2019 Jan 21. PMID: 30664778; PMCID: PMC6393164.
157. Rose HM, Ferrán B, Ranjit R, Masingale AM, Owen DB, Hussong S, Kinter MT, Galvan V, Logan S, Díaz-García CM. Mitochondrial calcium uniporter deficiency in dentate granule cells remodels neuronal metabolism and impairs reversal learning. *J Neurochem*. 2023 Jul 6. Epub ahead of print. PMID: 37415312.
158. Rukundo P, Feng T, Pham V, Pieraut S. Moderate effect of early-life experience on dentate gyrus function. *Mol Brain*. 2022 Nov 21;15(1):92. PMID: 36411441; PMCID: PMC9677655.
159. Russell TL, Zhang J, Okoniewski M, Franke F, Bichet S, Hierlemann A. Medullary Respiratory Circuit Is Reorganized by a Seasonally-Induced Program in Preparation for Hibernation. *Front Neurosci*. 2019 Apr 26;13:376. PMID: 31080399; PMCID: PMC6497738.
160. Russo S, Cathomas F, Lin HY, Chan K, Li L, Cuttoli RD, Parise L, Aubry A, Muhareb S, Desland F, Shimo Y, Ramakrishnan A, Estill M, Ferrer-Perez C, Parise E, Wang J, Sowa A, Janssen W, Costi S, Rahman A, Fernandez N, Swirski F, Nestler E, Shen L, Merad M, Murrough J. Peripheral immune-derived matrix metalloproteinase promotes stress susceptibility. *Res Sq [Preprint]*. 2023 Jan 30:rs.3.rs-1647827. PMID: 36778505; PMCID: PMC9915787.
161. Salile SS, Lee HJ, Alberts PSF, Abula T, Raimondo JV, Stafford GI. In vitro and in vivo anti-seizure activity of hydromethanolic extract and fractions of *Pterolobium stellatum*. *J Ethnopharmacol*. 2023 Mar 25;304:116073. Epub 2022 Dec 18. PMID: 36543277.
162. Saviuk N, Chong Y, Wang P, Bermudez S, Zhao Z, Bhaskaran AA, Bowie D, Sonenberg N, Cooper E, Haghghi AP. Loss of 4E-BP converts cerebellar long-term depression to long-term potentiation. *Cell Rep*. 2022 Jun 7;39(10):110911. PMID: 35675781.

163. Seeman SC, Campagnola L, Davoudian PA, Hoggarth A, Hage TA, Bosma-Moody A, Baker CA, Lee JH, Mihalas S, Teeter C, Ko AL, Ojemann JG, Gwinn RP, Silbergeld DL, Cobbs C, Phillips J, Lein E, Murphy G, Koch C, Zeng H, Jarsky T. Sparse recurrent excitatory connectivity in the microcircuit of the adult mouse and human cortex. *Elife*. 2018 Sep 26;7:e37349. PMID: 30256194; PMCID: PMC6158007.
164. Shao J, Lai D, Meyer U, Luksch H, Wessel R. Generating oscillatory bursts from a network of regular spiking neurons without inhibition. *J Comput Neurosci*. 2009 Dec;27(3):591-606. Epub 2009 Jul 2. PMID: 19572191; PMCID: PMC2860425.
165. Shao LR, Stafstrom CE. Glycolytic inhibition by 2-deoxy-d-glucose abolishes both neuronal and network bursts in an in vitro seizure model. *J Neurophysiol*. 2017 Jul 1;118(1):103-113. Epub 2017 Apr 12. PMID: 28404824; PMCID: PMC5494374.
166. Shao LR, Wang G, Stafstrom CE. The Glycolytic Metabolite, Fructose-1,6-bisphosphate, Blocks Epileptiform Bursts by Attenuating Voltage-Activated Calcium Currents in Hippocampal Slices. *Front Cell Neurosci*. 2018 Jun 15;12:168. PMID: 29962940; PMCID: PMC6013557.
167. Shao LR, Janicot R, Stafstrom CE. Na<sup>+</sup>-K<sup>+</sup>-ATPase functions in the developing hippocampus: regional differences in CA1 and CA3 neuronal excitability and role in epileptiform network bursting. *J Neurophysiol*. 2021 Jan 1;125(1):1-11. Epub 2020 Nov 18. PMID: 33206576.
168. Shao LR, Janicot R, Stafstrom CE. Antiseizure effect of 2-deoxyglucose is not dependent on the presynaptic vacuole ATP pump or the somatic ATP-sensitive K<sup>+</sup> channel. *J Neurophysiol*. 2023 Jun 1;129(6):1423-1433. Epub 2023 May 24. PMID: 37222440.
169. Shemesh OA, Linghu C, Piatkevich KD, Goodwin D, Celiker OT, Gritton HJ, Romano MF, Gao R, Yu CJ, Tseng HA, Bensussen S, Narayan S, Yang CT, Freifeld L, Siciliano CA, Gupta I, Wang J, Pak N, Yoon YG, Ullmann JFP, Guner-Ataman B, Noamany H, Sheinkopf ZR, Park WM, Asano S, Keating AE, Trimmer JS, Reimer J, Tolia AS, Bear MF, Tye KM, Han X, Ahrens MB, Boyden ES. Precision Calcium Imaging of Dense Neural Populations via a Cell-Body-Targeted Calcium Indicator. *Neuron*. 2020 Aug 5;107(3):470-486.e11. Epub 2020 Jun 26. PMID: 32592656; PMCID: PMC7415598.
170. Shi Y, Lv J, Chen L, Luo G, Tao M, Pan J, Hu X, Sheng J, Zhang S, Zhou M, Fan H. Phosphodiesterase-4D Knockdown in the Prefrontal Cortex Alleviates Memory Deficits and Synaptic Failure in Mouse Model of Alzheimer's Disease. *Front Aging Neurosci*. 2021 Sep 3;13:722580. PMID: 34539384; PMCID: PMC8446525.
171. Sicher AR, Starnes WD, Griffith KR, Dao NC, Smith GC, Brockway DF, Crowley NA. Adolescent binge drinking leads to long-lasting changes in cortical microcircuits in mice.

Neuropharmacology. 2023 Aug 15;234:109561. Epub 2023 May 1. PMID: 37137354; PMCID: PMC10386078.

172. Singh M, Sapkota K, Sakimura K, Kano M, Cowell RM, Overstreet-Wadiche L, Hablitz JJ, Nakazawa K. Maturation of GABAergic Synaptic Transmission From Neocortical Parvalbumin Interneurons Involves N-methyl-D-aspartate Receptor Recruitment of Cav2.1 Channels. *Neuroscience*. 2023 Mar 1;513:38-53. Epub 2023 Jan 20. PMID: 36682446.
173. Stansley BJ, Fisher NM, Gogliotti RG, Lindsley CW, Conn PJ, Niswender CM. Contextual Fear Extinction Induces Hippocampal Metaplasticity Mediated by Metabotropic Glutamate Receptor 5. *Cereb Cortex*. 2018 Dec 1;28(12):4291-4304. PMID: 29136107; PMCID: PMC6454528.
174. Stowe TA, Pitts EG, Leach AC, Iacino MC, Niere F, Graul B, Raab-Graham KF, Yorgason JT, Ferris MJ. Diurnal rhythms in cholinergic modulation of rapid dopamine signals and associative learning in the striatum. *Cell Rep*. 2022 Apr 5;39(1):110633. PMID: 35385720; PMCID: PMC9148619.
175. Subramanian D, Pralong E, Daniel RT, Chacko AG, Stoop R, Babu KS. Gamma oscillatory activity in vitro: a model system to assess pathophysiological mechanisms of comorbidity between autism and epilepsy. *Transl Psychiatry*. 2018 Jan 10;8(1):16. PMID: 29317612; PMCID: PMC5802508.
176. Sullivan BJ, Kipnis PA, Carter BM, Shao LR, Kadam SD. Targeting ischemia-induced KCC2 hypofunction rescues refractory neonatal seizures and mitigates epileptogenesis in a mouse model. *Sci Signal*. 2021 Nov 9;14(708):eabg2648. Epub 2021 Nov 9. PMID: 34752143; PMCID: PMC8763016.
177. Suresh Nair M, Dao NC, Lopez Melean D, Griffith KR, Starnes WD, Moyer JB, Sicher AR, Brockway DF, Meeks KD, Crowley NA. Somatostatin neurons in the bed nucleus of the stria terminalis play a sex-dependent role in binge Drinking. *Brain Res Bull*. 2022 Aug;186:38-46. Epub 2022 May 25. PMID: 35643257.
178. Takahashi A, Durand-de Cuttoli R, Flanigan ME, Hasegawa E, Tsunematsu T, Aleyasin H, Cherasse Y, Miya K, Okada T, Keino-Masu K, Mitsui K, Li L, Patel V, Blitzler RD, Lazarus M, Tanaka KF, Yamanaka A, Sakurai T, Ogawa S, Russo SJ. Lateral habenula glutamatergic neurons projecting to the dorsal raphe nucleus promote aggressive arousal in mice. *Nat Commun*. 2022 Jul 21;13(1):4039. PMID: 35864121; PMCID: PMC9304121.
179. Tarr JC, Turlington ML, Reid PR, Utley TJ, Sheffler DJ, Cho HP, Klar R, Pancani T, Klein MT, Bridges TM, Morrison RD, Blobaum AL, Xiang Z, Daniels JS, Niswender CM, Conn PJ, Wood MR, Lindsley CW. Targeting selective activation of M(1) for the treatment of Alzheimer's disease: further chemical optimization and pharmacological characterization of the M(1) positive allosteric modulator ML169. *ACS Chem Neurosci*. 2012 Nov 21;3(11):884-95. Epub 2012 Jul 18. PMID: 23173069; PMCID: PMC3503349.

180. Terburg D, Scheggia D, Triana Del Rio R, Klumpers F, Ciobanu AC, Morgan B, Montoya ER, Bos PA, Giobellina G, van den Burg EH, de Gelder B, Stein DJ, Stoop R, van Honk J. The Basolateral Amygdala Is Essential for Rapid Escape: A Human and Rodent Study. *Cell*. 2018 Oct 18;175(3):723-735.e16. PMID: 30340041; PMCID: PMC6198024.
181. Thevalingam D, Naik AA, Hrabe J, McCloskey DP, Hrabětová S. Brain extracellular space of the naked mole-rat expands and maintains normal diffusion under ischemic conditions. *Brain Res*. 2021 Nov 15;1771:147646. Epub 2021 Sep 6. PMID: 34499876.
182. Ting JT, Daigle TL, Chen Q, Feng G. Acute brain slice methods for adult and aging animals: application of targeted patch clamp analysis and optogenetics. *Methods Mol Biol*. 2014;1183:221-42. PMID: 25023312; PMCID: PMC4219416.
183. Ting JT, Lee BR, Chong P, Soler-Llavina G, Cobbs C, Koch C, Zeng H, Lein E. Preparation of Acute Brain Slices Using an Optimized N-Methyl-D-glucamine Protective Recovery Method. *J Vis Exp*. 2018 Feb 26;(132):53825. PMID: 29553547; PMCID: PMC5931343.
184. Ting JT, Kalmbach B, Chong P, de Frates R, Keene CD, Gwinn RP, Cobbs C, Ko AL, Ojemann JG, Ellenbogen RG, Koch C, Lein E. A robust ex vivo experimental platform for molecular-genetic dissection of adult human neocortical cell types and circuits. *Sci Rep*. 2018 May 30;8(1):8407. PMID: 29849137; PMCID: PMC5976666.
185. Toth AB, Hori K, Novakovic MM, Bernstein NG, Lambot L, Prakriya M. CRAC channels regulate astrocyte  $Ca^{2+}$  signaling and gliotransmitter release to modulate hippocampal GABAergic transmission. *Sci Signal*. 2019 May 21;12(582):eaaw5450. PMID: 31113852; PMCID: PMC6837172.
186. Tsujikawa S, DeMeulenaere KE, Centeno MV, Ghazisaeidi S, Martin ME, Tapies MR, Maneshi MM, Yamashita M, Stauderman KA, Apkarian AV, Salter MW, Prakriya M. Regulation of neuropathic pain by microglial Orai1 channels. *Sci Adv*. 2023 Jan 27;9(4):eade7002. Epub 2023 Jan 27. PMID: 36706180; PMCID: PMC9883051.
187. Viviani D, Terrettaz T, Magara F, Stoop R. Oxytocin enhances the inhibitory effects of diazepam in the rat central medial amygdala. *Neuropharmacology*. 2010 Jan;58(1):62-8. Epub 2009 Jul 7. PMID: 19589347.
188. Wang F, Xiao C, Ye JH. Taurine activates excitatory non-synaptic glycine receptors on dopamine neurones in ventral tegmental area of young rats. *J Physiol*. 2005 Jun 1;565(Pt 2):503-16. Epub 2005 Apr 7. PMID: 15817633; PMCID: PMC1464534.

189. Wang QW, Wang YH, Wang B, Chen Y, Lu SY, Yao J. Synaptotagmin-7-mediated activation of spontaneous NMDAR currents is disrupted in bipolar disorder susceptibility variants. *PLoS Biol.* 2021 Jul 6;19(7):e3001323. PMID: 34228711; PMCID: PMC8284830.
190. Weigel S, Luksch H. Spatiotemporal analysis of electrically evoked activity in the chicken optic tectum: a VSDI study. *J Neurophysiol.* 2012 Jan;107(2):640-8. Epub 2011 Oct 26. PMID: 22031774.
191. Werner CT, Mitra S, Auerbach BD, Wang ZJ, Martin JA, Stewart AF, Gobira PH, Iida M, An C, Cobb MM, Caccamise A, Salvi RJ, Neve RL, Gancarz AM, Dietz DM. Neuroadaptations in the dorsal hippocampus underlie cocaine seeking during prolonged abstinence. *Proc Natl Acad Sci U S A.* 2020 Oct 20;117(42):26460-26469. Epub 2020 Oct 5. PMID: 33020308; PMCID: PMC7585028.
192. Wu 吳秋兩 Q, Kolb I, Callahan BM, Su Z, Stoy W, Kodandaramaiah SB, Neve R, Zeng H, Boyden ES, Forest CR, Chubykin AA. Integration of autpatching with automated pipette and cell detection in vitro. *J Neurophysiol.* 2016 Oct 1;116(4):1564-1578. Epub 2016 Jul 6. PMID: 27385800; PMCID: PMC5144721.
193. Xiang Z, Lv X, Maksymetz J, Stansley BJ, Ghoshal A, Gogliotti RG, Niswender CM, Lindsley CW, Conn PJ. mGlu<sub>5</sub> Positive Allosteric Modulators Facilitate Long-Term Potentiation via Disinhibition Mediated by mGlu<sub>5</sub>-Endocannabinoid Signaling. *ACS Pharmacol Transl Sci.* 2019 Jun 14;2(3):198-209. Epub 2019 May 15. PMID: 31259318; PMCID: PMC6591772.
194. Xiao C, Zhou C, Li K, Ye JH. Presynaptic GABAA receptors facilitate GABAergic transmission to dopaminergic neurons in the ventral tegmental area of young rats. *J Physiol.* 2007 May 1;580(Pt.3):731-43. Epub 2007 Feb 15. PMID: 17303643; PMCID: PMC2075446.
195. Xiao C, Zhang J, Krnjević K, Ye JH. Effects of ethanol on midbrain neurons: role of opioid receptors. *Alcohol Clin Exp Res.* 2007 Jul;31(7):1106-13. PMID: 17577392.
196. Xiao C, Zhou C, Atlas G, Delphin E, Ye JH. Labetalol facilitates GABAergic transmission to rat periaqueductal gray neurons via antagonizing beta1-adrenergic receptors--a possible mechanism underlying labetalol-induced analgesia. *Brain Res.* 2008 Mar 10;1198:34-43. Epub 2008 Jan 18. PMID: 18262504; PMCID: PMC2276360.
197. Xiao C, Zhou C, Li K, Davies DL, Ye JH. Purinergic type 2 receptors at GABAergic synapses on ventral tegmental area dopamine neurons are targets for ethanol action. *J Pharmacol Exp Ther.* 2008 Oct;327(1):196-205. Epub 2008 Jun 26. PMID: 18583548; PMCID: PMC2861430.
198. Xiao C, Shao XM, Olive MF, Griffin WC 3rd, Li KY, Krnjević K, Zhou C, Ye JH. Ethanol facilitates glutamatergic transmission to dopamine neurons in the ventral tegmental area.

Neuropsychopharmacology. 2009 Jan;34(2):307-18. Epub 2008 Jul 2. PMID: 18596684; PMCID: PMC2676579.

199. Xiao C, Yang KC, Zhou CY, Jin GZ, Wu J, Ye JH. Nicotine modulates GABAergic transmission to dopaminergic neurons in substantia nigra pars compacta. *Acta Pharmacol Sin.* 2009 Jun;30(6):851-8. PMID: 19498424; PMCID: PMC4002363.
  
200. Xiao C, Miwa JM, Henderson BJ, Wang Y, Deshpande P, McKinney SL, Lester HA. Nicotinic receptor subtype-selective circuit patterns in the subthalamic nucleus. *J Neurosci.* 2015 Mar 4;35(9):3734-46. PMID: 25740504; PMCID: PMC4348180.
  
201. Xiao C, Ye JH. Ethanol dually modulates GABAergic synaptic transmission onto dopaminergic neurons in ventral tegmental area: role of mu-opioid receptors. *Neuroscience.* 2008 Apr 22;153(1):240-8. Epub 2008 Feb 6. PMID: 18343590; PMCID: PMC2424267.
  
202. Xiao Y, Chen X, Zhang PA, Xu Q, Zheng H, Xu GY. TRPV1-mediated presynaptic transmission in basolateral amygdala contributes to visceral hypersensitivity in adult rats with neonatal maternal deprivation. *Sci Rep.* 2016 Jul 1;6:29026. PMID: 27364923; PMCID: PMC4929564.
  
203. Xiao Y, Xie L, Xu QY, Chen L, Chen H, Xu GY, Zhang PA. Transcranial direct current stimulation relieves visceral hypersensitivity via normalizing GluN2B expression and neural activity in anterior cingulate cortex. *J Neurophysiol.* 2021 May 1;125(5):1787-1797. Epub 2021 Mar 24. PMID: 33760644; PMCID: PMC8356761.
  
204. Xie G, Hipólito L, Zuo W, Polache A, Granero L, Krnjevic K, Ye JH. Salsolinol stimulates dopamine neurons in slices of posterior ventral tegmental area indirectly by activating  $\mu$ -opioid receptors. *J Pharmacol Exp Ther.* 2012 Apr;341(1):43-50. Epub 2011 Dec 30. PMID: 22209890; PMCID: PMC3310697.
  
205. Xie G, Ye JH. Salsolinol facilitates glutamatergic transmission to dopamine neurons in the posterior ventral tegmental area of rats. *PLoS One.* 2012;7(5):e36716. Epub 2012 May 10. PMID: 22590592; PMCID: PMC3349709.
  
206. Xie Z, Li G, Ye JH. Acute effects of ethanol on GABA<sub>A</sub> and glycine currents in the lateral habenula neurons of young rats. *Open J Neurosci.* 2013;3:5. Epub 2013 Aug 21. PMID: 28066680; PMCID: PMC5218823.
  
207. Xu W, Baker SN. In vitro characterization of intrinsic properties and local synaptic inputs to pyramidal neurons in macaque primary motor cortex. *Eur J Neurosci.* 2018 Aug;48(4):2071-2083. Epub 2018 Aug 4. PMID: 30019413; PMCID: PMC6175011.
  
208. Yang WZ, Liu TT, Cao JW, Chen XF, Liu X, Wang M, Su X, Zhang SQ, Qiu BL, Hu WX, Liu LY, Ma L, Yu YC. Fear Erasure Facilitated by Immature Inhibitory Neuron



Transplantation. *Neuron*. 2016 Dec 21;92(6):1352-1367. Epub 2016 Dec 8. PMID: 27939579.

209. Yao XH, Wang M, He XN, He F, Zhang SQ, Lu W, Qiu ZL, Yu YC. Electrical coupling regulates layer 1 interneuron microcircuit formation in the neocortex. *Nat Commun*. 2016 Aug 11;7:12229. PMID: 27510304; PMCID: PMC4987578.
210. Ye JH, Zhang J, Xiao C, Kong JQ. Patch-clamp studies in the CNS illustrate a simple new method for obtaining viable neurons in rat brain slices: glycerol replacement of NaCl protects CNS neurons. *J Neurosci Methods*. 2006 Dec 15;158(2):251-9. Epub 2006 Jul 13. PMID: 16842860.
211. Ye JH, Wang F, Krnjevic K, Wang W, Xiong ZG, Zhang J. Presynaptic glycine receptors on GABAergic terminals facilitate discharge of dopaminergic neurons in ventral tegmental area. *J Neurosci*. 2004 Oct 13;24(41):8961-74. PMID: 15483115; PMCID: PMC6730073.
212. Yin S, Noetzel MJ, Johnson KA, Zamorano R, Jalan-Sakrikar N, Gregory KJ, Conn PJ, Niswender CM. Selective actions of novel allosteric modulators reveal functional heteromers of metabotropic glutamate receptors in the CNS. *J Neurosci*. 2014 Jan 1;34(1):79-94. PMID: 24381270; PMCID: PMC3866496.
213. Yu Q, Shao D, Zhang R, Ouyang W, Zhang Z. Effects of drinking water fluorosis on L-type calcium channel of hippocampal neurons in mice. *Chemosphere*. 2019 Apr;220:169-175. Epub 2018 Dec 10. PMID: 30583209.
214. Yu W, Yen YC, Lee YH, Tan S, Xiao Y, Lokman H, Ting AKT, Ganegala H, Kwon T, Ho WK, Je HS. Prenatal selective serotonin reuptake inhibitor (SSRI) exposure induces working memory and social recognition deficits by disrupting inhibitory synaptic networks in male mice. *Mol Brain*. 2019 Apr 1;12(1):29. PMID: 30935412; PMCID: PMC6444596.
215. Zhang C, Xu Y, Chowdhary A, Fox D 3rd, Gurney ME, Zhang HT, Auerbach BD, Salvi RJ, Yang M, Li G, O'Donnell JM. Memory enhancing effects of BPN14770, an allosteric inhibitor of phosphodiesterase-4D, in wild-type and humanized mice. *Neuropsychopharmacology*. 2018 Oct;43(11):2299-2309. Epub 2018 Aug 14. PMID: 30131563; PMCID: PMC6135860.
216. Zhao S, Ting JT, Atallah HE, Qiu L, Tan J, Gloss B, Augustine GJ, Deisseroth K, Luo M, Graybiel AM, Feng G. Cell type-specific channelrhodopsin-2 transgenic mice for optogenetic dissection of neural circuitry function. *Nat Methods*. 2011 Sep;8(9):745-52. PMID: 21985008; PMCID: PMC3191888.
217. Zheng Y, Dou JR, Gao Y, Dong L, Li G. Effects of 15 Hz square wave magnetic fields on the voltage-gated sodium and potassium channels in prefrontal cortex pyramidal neurons. *Int J Radiat Biol*. 2017 Apr;93(4):449-455. Epub 2016 Dec 7. PMID: 27924669.

218. Zheng Y, Ma XX, Dong L, Gao Y, Tian L. Effects of single- and hybrid- frequency extremely low-frequency electromagnetic field stimulations on long-term potentiation in the hippocampal Schaffer collateral pathway. *Int J Radiat Biol.* 2019 Sep;95(9):1319-1325. Epub 2019 Jun 13. PMID: 31140893.
219. Zheng Y, Cheng J, Dong L, Ma X, Kong Q. Effects of exposure to extremely low frequency electromagnetic fields on hippocampal long-term potentiation in hippocampal CA1 region. *Biochem Biophys Res Commun.* 2019 Sep 24;517(3):513-519. Epub 2019 Jul 31. PMID: 31376941.
220. Zheng Y, Xia P, Dong L, Tian L, Xiong C. Effects of modulation on sodium and potassium channel currents by extremely low frequency electromagnetic fields stimulation on hippocampal CA1 pyramidal cells. *Electromagn Biol Med.* 2021 Apr 3;40(2):274-285. Epub 2021 Feb 17. PMID: 33594919.
221. Zhou C, Xiao C, McArdle JJ, Ye JH. Mefloquine enhances nigral gamma-aminobutyric acid release via inhibition of cholinesterase. *J Pharmacol Exp Ther.* 2006 Jun;317(3):1155-60. Epub 2006 Feb 24. PMID: 16501066.
222. Zhou C, Xiao C, Deng C, Hong Ye J. Extracellular proton modulates GABAergic synaptic transmission in rat hippocampal CA3 neurons. *Brain Res.* 2007 May 11;1145:213-20. Epub 2007 Feb 3. PMID: 17321506; PMCID: PMC1894887.
223. Zions M, Meehan EF, Kress ME, Thevalingam D, Jenkins EC, Kaila K, Puskarjov M, McCloskey DP. Nest Carbon Dioxide Masks GABA-Dependent Seizure Susceptibility in the Naked Mole-Rat. *Curr Biol.* 2020 Jun 8;30(11):2068-2077.e4. Epub 2020 Apr 30. PMID: 32359429.
224. Zuo W, Chen L, Wang L, Ye JH. Cocaine facilitates glutamatergic transmission and activates lateral habenular neurons. *Neuropharmacology.* 2013 Jul;70:180-9. Epub 2013 Jan 21. PMID: 23347950; PMCID: PMC3644336.
225. Zuo W, Zhang Y, Xie G, Gregor D, Bekker A, Ye JH. Serotonin stimulates lateral habenula via activation of the post-synaptic serotonin 2/3 receptors and transient receptor potential channels. *Neuropharmacology.* 2016 Feb;101:449-59. Epub 2015 Oct 22. PMID: 26471419; PMCID: PMC4681642.
226. Zuo W, Wang L, Chen L, Krnjević K, Fu R, Feng X, He W, Kang S, Shah A, Bekker A, Ye JH. Ethanol potentiates both GABAergic and glutamatergic signaling in the lateral habenula. *Neuropharmacology.* 2017 Feb;113(Pt A):178-187. Epub 2016 Sep 25. PMID: 27678415.
227. Zuo W, Wu L, Mei Q, Zuo Q, Zhou Z, Fu R, Li W, Wu W, Matthew L, Ye JH. Adaptation in 5-HT<sub>2</sub> receptors-CaMKII signaling in lateral habenula underlies increased

nociceptive-sensitivity in ethanol-withdrawn rats. *Neuropharmacology*. 2019 Nov 1;158:107747. Epub 2019 Aug 22. PMID: 31445991.

228. Zuo W, Zuo Q, Wu L, Mei Q, Shah M, Zheng J, Li D, Xu Y, Ye JH. Roles of corticotropin-releasing factor signaling in the lateral habenula in anxiety-like and alcohol drinking behaviors in male rats. *Neurobiol Stress*. 2021 Sep 13;15:100395. PMID: 34568522; PMCID: PMC8449174.