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References

1. Abdelaal HM, Kim HO, Wagstaff R, Sawahata R, Southern PJ, Skinner PJ. Comparison of Vibratome and Compresstome sectioning of fresh primate lymphoid and genital tissues for *in situ* MHC-tetramer and immunofluorescence staining. Biol Proced Online. 2015 Jan 7;17(1):2. PMID: 25657614; PMCID: PMC4318225.
2. Bai Y, Krishnamoorthy N, Patel KR, Rosas I, Sanderson MJ, Ai X. Cryopreserved Human Precision-Cut Lung Slices as a Bioassay for Live Tissue Banking. A Viability Study of Bronchodilation with Bitter-Taste Receptor Agonists. Am J Respir Cell Mol Biol. 2016 May;54(5):656-63. PMID: 26550921; PMCID: PMC4942196.
3. Bai Y, Li G, Yung L, Yu PB, Ai X. Intrapulmonary arterial contraction assay reveals region-specific deregulation of vasoreactivity to lung injuries. Am J Physiol Lung Cell Mol Physiol. 2023 Aug 1;325(2):L114-L124. Epub 2023 Jun 6. PMID: 37278410; PMCID: PMC10393320.
4. Barrios J, Patel KR, Aven L, Achey R, Minns MS, Lee Y, Trinkaus-Randall VE, Ai X. Early life allergen-induced mucus overproduction requires augmented neural stimulation of pulmonary neuroendocrine cell secretion. FASEB J. 2017 Sep;31(9):4117-4128. Epub 2017 May 31. PMID: 28566470; PMCID: PMC5572694.
5. Barry KC, Hsu J, Broz ML, Cueto FJ, Binnewies M, Combes AJ, Nelson AE, Loo K, Kumar R, Rosenblum MD, Alvarado MD, Wolf DM, Bogunovic D, Bhardwaj N, Daud AI, Ha PK, Ryan WR, Pollack JL, Samad B, Asthana S, Chan V, Krummel MF. A natural killer-dendritic cell axis defines checkpoint therapy-responsive tumor microenvironments. Nat Med. 2018 Aug;24(8):1178-1191. Epub 2018 Jun 25. PMID: 29942093; PMCID: PMC6475503.

6. Bojovic D, Stackhouse TL, Mishra A. Assaying activity-dependent arteriole and capillary responses in brain slices. *Neurophotonics*. 2022 Jul;9(3):031913. Epub 2022 May 4. PMID: 35558646; PMCID: PMC9089234.
7. Cao P, Tan X, Donovan G, Sanderson MJ, Sneyd J. A deterministic model predicts the properties of stochastic calcium oscillations in airway smooth muscle cells. *PLoS Comput Biol*. 2014 Aug 14;10(8):e1003783. PMID: 25121766; PMCID: PMC4133161.
8. Castro-Piedras I, Perez-Zoghbi JF. Hydrogen sulphide inhibits Ca²⁺ release through InsP3 receptors and relaxes airway smooth muscle. *J Physiol*. 2013 Dec 1;591(23):5999-6015. Epub 2013 Oct 21. PMID: 24144878; PMCID: PMC3872766.
9. Chang AJ, Ortega FE, Riegler J, Madison DV, Krasnow MA. Oxygen regulation of breathing through an olfactory receptor activated by lactate. *Nature*. 2015 Nov 12;527(7577):240-4. PMID: 26560302; PMCID: PMC4765808.
10. Chen-Roetling J, Lu X, Regan KA, Regan RF. A rapid fluorescent method to quantify neuronal loss after experimental intracerebral hemorrhage. *J Neurosci Methods*. 2013 Jun 15;216(2):128-36. Epub 2013 Apr 10. PMID: 23583700; PMCID: PMC3679307.
11. Chen G, Lai S, Bao G, Ke J, Meng X, Lu S, Wu X, Xu H, Wu F, Xu Y, Xu F, Bi GQ, Peng G, Zhou K, Zhu Y. Distinct reward processing by subregions of the nucleus accumbens. *Cell Rep*. 2023 Feb 6;42(2):112069. Epub ahead of print. PMID: 36753418.
12. Chen J, Sanderson MJ. Store-operated calcium entry is required for sustained contraction and Ca²⁺ oscillations of airway smooth muscle. *J Physiol*. 2017 May 15;595(10):3203-3218. Epub 2016 Aug 2. PMID: 27396568; PMCID: PMC5430234.
13. Chung DJ, Madison GP, Aponte AM, Singh K, Li Y, Pirooznia M, Bleck CKE, Darmani NA, Balaban RS. Metabolic design in a mammalian model of extreme metabolism, the North American least shrew (*Cryptotis parva*). *J Physiol*. 2022 Feb;600(3):547-567. Epub 2021 Dec 13. PMID: 34837710.
14. Cuddy LK, Alia AO, Salvo MA, Chandra S, Grammatopoulos TN, Justman CJ, Lansbury PT Jr, Mazzulli JR, Vassar R. Farnesyltransferase inhibitor LNK-754 attenuates axonal dystrophy and reduces amyloid pathology in mice. *Mol Neurodegener*. 2022 Aug 20;17(1):54. PMID: 35987691; PMCID: PMC9392365.
15. Dahlgren MW, Jones SW, Cautivo KM, Dubinin A, Ortiz-Carpena JF, Farhat S, Yu KS, Lee K, Wang C, Molofsky AV, Tward AD, Krummel MF, Peng T, Molofsky AB. Adventitial Stromal Cells Define Group 2 Innate Lymphoid Cell Tissue Niches. *Immunity*. 2019 Mar 19;50(3):707-722.e6. Epub 2019 Feb 26. PMID: 30824323; PMCID: PMC6553479.

16. Danielsson J, Perez-Zoghbi J, Bernstein K, Barajas MB, Zhang Y, Kumar S, Sharma PK, Gallos G, Emala CW. Antagonists of the TMEM16A calcium-activated chloride channel modulate airway smooth muscle tone and intracellular calcium. *Anesthesiology*. 2015 Sep;123(3):569-81. PMID: 26181339; PMCID: PMC4543527.
17. Fox ME, Bucher ES, Johnson JA, Wightman RM. Medullary Norepinephrine Projections Release Norepinephrine into the Contralateral Bed Nucleus of the Stria Terminalis. *ACS Chem Neurosci*. 2016 Dec 21;7(12):1681-1689. Epub 2016 Sep 27. PMID: 27617735; PMCID: PMC5177450.
18. Friedrichsen K, Ramakrishna P, Hsiang JC, Valkova K, Kerschensteiner D, Morgan JL. Reconstructing neural circuits using multiresolution correlated light and electron microscopy. *Front Neural Circuits*. 2022 Oct 21;16:753496. PMID: 36338333; PMCID: PMC9635852.
19. Gaige S, Barbouche R, Barbot M, Boulaire S, Dallaporta M, Abysique A, Troadec JD. Constitutively active microglial populations limit anorexia induced by the food contaminant deoxynivalenol. *J Neuroinflammation*. 2022 Nov 19;19(1):280. PMID: 36403004; PMCID: PMC9675145.
20. Gallos G, Yocum GT, Siviski ME, Yim PD, Fu XW, Poe MM, Cook JM, Harrison N, Perez-Zoghbi J, Emala CW Sr. Selective targeting of the α 5-subunit of GABA_A receptors relaxes airway smooth muscle and inhibits cellular calcium handling. *Am J Physiol Lung Cell Mol Physiol*. 2015 May 1;308(9):L931-42. pub 2015 Feb 6. PMID: 25659897; PMCID: PMC4421780.
21. Hoffman JJ, Johnson BL, Holland MR, Fedewa RJ, Nair A, Miller JG. Layer- dependent variation in the anisotropy of apparent integrated backscatter from human coronary arteries. *Ultrasound Med Biol*. 2011 Apr;37(4):632-41. Epub 2011 Mar 3. PMID: 21376456; PMCID: PMC3063363.
22. Hu KH, Eichorst JP, McGinnis CS, Patterson DM, Chow ED, Kersten K, Jameson SC, Gartner ZJ, Rao AA, Krummel MF. ZipSeq: barcoding for real-time mapping of single cell transcriptomes. *Nat Methods*. 2020 Aug;17(8):833-843. Epub 2020 Jul 6. PMID: 32632238; PMCID: PMC7891292.
23. Johnson BP, Vitek RA, Geiger PG, Huang W, Jarrard DF, Lang JM, Beebe DJ. Vital ex vivo tissue labeling and pathology-guided micropunching to characterize cellular heterogeneity in the tissue microenvironment. *Biotechniques*. 2018 Jan 1;64(1):13-19. PMID: 29384072; PMCID: PMC5814138.
24. Kasaragod DK, Aizawa H. Deep ultraviolet fluorescence microscopy of three- dimensional structures in the mouse brain. *Sci Rep*. 2023 May 26;13(1):8553. PMID: 37237102; PMCID: PMC10219975.

25. Kolluru C, Todd A, Upadhye AR, Liu Y, Berezin MY, Fereidouni F, Levenson RM, Wang Y, Shoffstall AJ, Jenkins MW, Wilson DL. Imaging peripheral nerve micro-anatomy with MUSE, 2D and 3D approaches. *Sci Rep.* 2022 Jun 17;12(1):10205. PMID: 35715554; PMCID: PMC9205958.
26. Koveal D, Rosen PC, Meyer DJ, Díaz-García CM, Wang Y, Cai LH, Chou PJ, Weitz DA, Yellen G. A high-throughput multiparameter screen for accelerated development and optimization of soluble genetically encoded fluorescent biosensors. *Nat Commun.* 2022 May 25;13(1):2919. PMID: 35614105; PMCID: PMC9133083.
27. Liu CH, Yang J, Ren JQ, Liu CM, You Z, Liu PK. MRI reveals differential effects of amphetamine exposure on neuroglia in vivo. *FASEB J.* 2013 Feb;27(2):712-24. Epub 2012 Nov 12. PMID: 23150521; PMCID: PMC3545538.
28. Mamani S, Shi L, Ahmed T, Karnik R, Rodríguez-Contreras A, Nolan D, Alfano R. Transmission of classically entangled beams through mouse brain tissue. *J Biophotonics.* 2018 Dec;11(12):e201800096. Epub 2018 Sep 5. PMID: 30027681.
29. 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.
30. Mason H, Rai G, Kozyr A, De Jonge N, Gliniewicz E, Berg LJ, Wald G, Dorrier C, Henderson MJ, Zakharov A, Dyson T, Audley J, Pettinato AM, Padilha EC, Shah P, Xu X, Leto TL, Simeonov A, Zaremba KA, McGavern DB, Gallin JL. Development of an improved and specific inhibitor of NADPH oxidase 2 to treat traumatic brain injury. *Redox Biol.* 2023 Apr;60:102611. Epub 2023 Jan 18. PMID: 36709665; PMCID: PMC9894920.
31. Ma L, Haga-Yamanaka S, Yu QE, Qiu Q, Kim S, Yu CR. Imaging neuronal responses in slice preparations of vomeronasal organ expressing a genetically encoded calcium sensor. *J Vis Exp.* 2011 Dec 6;(58):3404. PMID: 22157702; PMCID: PMC3369649.
32. Meyer DJ, Díaz-García CM, Nathwani N, Rahman M, Yellen G. The Na^{+} / K^{+} pump dominates control of glycolysis in hippocampal dentate granule cells. *Elife.* 2022 Oct 12;11:e81645. PMID: 36222651; PMCID: PMC9592084.
33. Nakano H, Lyons-Cohen MR, Whitehead GS, Nakano K, Cook DN. Distinct functions of CXCR4, CCR2, and CX3CR1 direct dendritic cell precursors from the bone marrow to the lung. *J Leukoc Biol.* 2017 May;101(5):1143-1153. Epub 2017 Feb 1. PMID: 28148720; PMCID: PMC5380375.

34. Nakano Y, Wiechert S, Bánfi B. Overlapping Activities of Two Neuronal Splicing Factors Switch the GABA Effect from Excitatory to Inhibitory by Regulating REST. *Cell Rep.* 2019 Apr 16;27(3):860-871.e8. PMID: 30995482; PMCID: PMC6556397.
35. Nylk J, McCluskey K, Aggarwal S, Tello JA, Dholakia K. Enhancement of image quality and imaging depth with Airy light-sheet microscopy in cleared and non- cleared neural tissue. *Biomed Opt Express.* 2016 Sep 14;7(10):4021-4033. PMID: 27867712; PMCID: PMC5102539.
36. Nylk J, McCluskey K, Preciado MA, Mazilu M, Yang Z, Gunn-Moore FJ, Aggarwal S, Tello JA, Ferrier DEK, Dholakia K. Light-sheet microscopy with attenuation- compensated propagation-invariant beams. *Sci Adv.* 2018 Apr 6;4(4):eaar4817. PMID: 29740614; PMCID: PMC5938225.
37. Ozgur A, Park SB, Flores AY, Oijala M, Lur G. A Comprehensive, Affordable, Open-Source Hardware-Software Solution for Flexible Implementation of Complex Behaviors in Head-Fixed Mice. *eNeuro.* 2023 Jun 27;10(6):ENEURO.0018-23.2023. PMID: 37286343; PMCID: PMC10306125.
38. Parlaklıgil G, Arruda AP, Pang S, Cagampang E, Min N, Güney E, Lee GY, Inouye K, Hess HF, Xu CS, Hotamışlıgil GS. Regulation of liver subcellular architecture controls metabolic homeostasis. *Nature.* 2022 Mar;603(7902):736-742. Epub 2022 Mar 9. PMID: 35264794; PMCID: PMC9014868.
39. Qian Y, Cosio DMO, Piatkevich KD, Aufmkolk S, Su WC, Celiker OT, Schohl A, Murdock MH, Aggarwal A, Chang YF, Wiseman PW, Ruthazer ES, Boyden ES, Campbell RE. Improved genetically encoded near-infrared fluorescent calcium ion indicators for in vivo imaging. *PLoS Biol.* 2020 Nov 24;18(11):e3000965. PMID: 33232322; PMCID: PMC7723245.
40. Qu M, Lu P, Bellve K, Lifshitz LM, ZhuGe R. Mode Switch of Ca^{₂₊} Oscillation-Mediated Uterine Peristalsis and Associated Embryo Implantation Impairments in Mouse Adenomyosis. *Front Physiol.* 2021 Nov 4;12:744745. PMID: 34803733; PMCID: PMC8599363.
41. Rietdorf K, Bootman MD, Sanderson MJ. Spontaneous, pro-arrhythmic calcium signals disrupt electrical pacing in mouse pulmonary vein sleeve cells. *PLoS One.* 2014 Feb 20;9(2):e88649. PMID: 24586364; PMCID: PMC3930634.
42. Seibel AJ, Kelly OM, Dance YW, Nelson CM, Tien J. Role of Lymphatic Endothelium in Vascular Escape of Engineered Human Breast Microtumors. *Cell Mol Bioeng.* 2022 Nov 7;15(6):553-569. PMID: 36531861; PMCID: PMC9751254.

43. Shi L, Rodríguez-Contreras A, Budansky Y, Pu Y, Nguyen TA, Alfano RR. Deep two-photon microscopic imaging through brain tissue using the second singlet state from fluorescent agent chlorophyll α in spinach leaf. *J Biomed Opt.* 2014 Jun;19(6):066009. PMID: 24967915; PMCID: PMC4071303.
44. Shi W, Xue M, Wu F, Fan K, Chen QY, Xu F, Li XH, Bi GQ, Lu JS, Zhuo M. Whole-brain mapping of efferent projections of the anterior cingulate cortex in adult male mice. *Mol Pain.* 2022 Jan-Dec;18:17448069221094529. PMID: 35354345; PMCID: PMC9083044.
45. 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.
46. Vitek RA, Huang W, Geiger PG, Heninger E, Lang JM, Jarrard DF, Beebe DJ, Johnson BP. Fresh tissue procurement and preparation for multicompartment and multimodal analysis of the prostate tumor microenvironment. *Prostate.* 2022 May;82(7):836-849. Epub 2022 Feb 28. PMID: 35226381; PMCID: PMC9010374.
47. Wang C, Hyams B, Allen NC, Cautivo K, Monahan K, Zhou M, Dahlgren MW, Lizama CO, Matthay M, Wolters P, Molofsky AB, Peng T. Dysregulated lung stroma drives emphysema exacerbation by potentiating resident lymphocytes to suppress an epithelial stem cell reservoir. *Immunity.* 2023 Mar 14;56(3):576-591.e10. Epub 2023 Feb 22. PMID: 36822205.
48. Wang H, Zhu Q, Ding L, Shen Y, Yang CY, Xu F, Shu C, Guo Y, Xiong Z, Shan Q, Jia F, Su P, Yang QR, Li B, Cheng Y, He X, Chen X, Wu F, Zhou JN, Xu F, Han H, Lau PM, Bi GQ. Scalable volumetric imaging for ultrahigh-speed brain mapping at synaptic resolution. *Natl Sci Rev.* 2019 Oct;6(5):982-992. Epub 2019 Apr 24. PMID: 34691959; PMCID: PMC8291554.
49. Wang J, Li T, Wang JL, Xu Z, Meng W, Wu QF. Talpid3-Mediated Centrosome Integrity Restrains Neural Progenitor Delamination to Sustain Neurogenesis by Stabilizing Adherens Junctions. *Cell Rep.* 2020 Dec 15;33(11):108495. PMID: 33326788.
50. Wang WY, Kent RN 3rd, Huang SA, Jarman EH, Shikanov EH, Davidson CD, Hiraki HL, Lin D, Wall MA, Matera DL, Shin JW, Polacheck WJ, Shikanov A, Baker BM. Direct comparison of angiogenesis in natural and synthetic biomaterials reveals that matrix porosity regulates endothelial cell invasion speed and sprout diameter. *Acta Biomater.* 2021 Nov;135:260-273. Epub 2021 Aug 29. PMID: 34469789; PMCID: PMC8595798.
51. Wen Q, Gandhi K, Capel RA, Hao G, O'Shea C, Neagu G, Pearcey S, Pavlovic D, Terrar DA, Wu J, Faggian G, Camelliti P, Lei M. Transverse cardiac slicing and optical imaging for analysis of transmural gradients in membrane potential and Ca^{2+} transients in murine heart. *J Physiol.* 2018 Sep;596(17):3951-3965. Epub 2018 Jul 26. PMID: 29928770; PMCID: PMC6117587.

52. Yu CR. Calcium imaging of vomeronasal organ response using slice preparations from transgenic mice expressing G-CaMP2. *Methods Mol Biol.* 2013;1068:211-20. PMID: 24014364; PMCID: PMC4492248.
53. Zhou Y, Pereira G, Tang Y, James M, Zhang M. 3D Porous Scaffold-Based High-Throughput Platform for Cancer Drug Screening. *Pharmaceutics.* 2023 Jun 9;15(6):1691. PMID: 37376138; PMCID: PMC10304563.