pan-ECM: live brain extracellular matrix imaging with protein-reactive dye BSK2

Xiaoqian Ge, Xueqi Xu, Qi Cai, Hejian Xiong, Xie Chen, Yi Hong, Xiaofei Gao, Yao Yao, Robert Bachoo, Zhenpeng Qin

bioRxiv 2023.03.29.534827;

doi: https://doi.org/10.1101/2023.03.29.534827

Scn2a severe hypomorphic mutation decreases excitatory synaptic input and causes autism-associated behaviors BSK2

Wang HG, Bavley CC, Li A, Jones RM, Hackett J, Bayleyen Y, Lee FS, Rajadhyaksha AM, Pitt GS.

JCI Insight. 2021 Aug 9;6(15):e150698.

doi: 10.1172/jci.insight.150698.

ARCAgRP/NPY neuron activity is required for acute exercise-induced food intake in un-trained mice BSK6

Chronic Stress Alters Synaptic Inhibition/Excitation Balance of Pyramidal Neurons But Not PV Interneurons in the Infralimbic and Prelimbic Cortices of C57BL/6J Mice BSK4

Bunner Wyatt , Landry Taylor , Laing Brenton Thomas , Li Peixin , Rao Zhijian , Yuan Yuan , Huang Hu Front. Physiol. , 05 May 2020 Sec. Exercise Physiology Volume 11 - 2020

https://doi.org/10.3389/fphys.2020.00411

A robust ex vivo experimental platform for molecular-genetic dissection of adult human neocortical cell types and circuits BSK4

Ting, J.T., Kalmbach, B., Chong, P. *et al.*

Sci Rep **8**, 8407 (2018).

https://doi.org/10.1038/s41598-018-26803-9

Acute brain slice methods for adult and aging animals: application of targeted patch clamp analysis and optogenetics BSK4

Ting, J.T., Daigle, T.L., Chen, Q., Feng, G.

In: Martina, M., Taverna, S. (eds) Patch-Clamp Methods and Protocols. Methods in Molecular Biology, vol 1183(2014). Humana Press, New York, NY.

https://doi.org/10.1007/978-1-4939-1096-0_14

An Open-Source 3D–Printed Recording Stage with Customizable Chambers for Ex Vivo Experiments BSK4

Preston C. Withers, Hunter J. Morrill and R. Ryley Parrish

eNeuro 28 August 2024, 11 (9) ENEURO.0257-24.2024;

https://doi.org/10.1523/ENEURO.0257-24.2024

Preparing Viable Hippocampal Slices from Adult Mice for the Study of Sharp Wave-ripples BSK4

Liu, L., Zhou, X. and Wu, J.
Bio-protocol 10(19): e3771(2020).
DOI: 10.21769/BioProtoc.3771.

Maintenance of optogenetic channel rhodopsin (ChR2) function in aging mice: Implications for pharmacological studies of inhibitory synaptic transmission, quantal … BSK4
Dustin W. DuBois, David A. Murchison, Amanda H. Mahnke, Eunyoung Bang, Ursula Winzer-Serhan, William H. Griffith, Karienn A. Souza,
Neuropharmacology,Volume 238,2023,109651,ISSN 0028-3908,
https://doi.org/10.1016/j.neuropharm.2023.109651.

Ephrin-A5 and EphA5 interaction induces synaptogenesis during early hippocampal development BSK4
Akaneya Y, Sohya K, Kitamura A, Kimura F, Washburn C, et al.
PLOS ONE 5(8): e12486(2010) .
https://doi.org/10.1371/journal.pone.0012486

BDNF-mediated regulation of GABAergic neurotransmission in hippocampus neurons BSC2 BSK1
Sutachan-Rubio, Jhon J,
New York University ProQuest Dissertations & Theses, 2011. 3445329.
https://www.proquest.com/openview/377d04a12fc7b9472fc4154a5f5a669b/1?pq-origsite=gscholar&cbl=18750

Mechanisms of APOE4-Driven Pathogenesis in Alzheimer's Disease and Related Therapeutic Approaches BSK5
Koutsodendris, Nicole,
University of California, San Francisco ProQuest Dissertations & Theses, 2022. 29398052;
https://www.proquest.com/openview/825586744ca6699bfc3d08866e91ab9e/1?pq-origsite=gscholar&cbl=18750&diss=y

Modulation of ischemia-reperfusion injury in mammalian hibernators and non-hibernators: a comparative study BSK4
Bhowmick, Saurav
University of Alaska Fairbanks ProQuest Dissertations & Theses, 2017. 10635136.
https://www.proquest.com/openview/00d5097cf5dcb9c48db87451c617bdb3/1?pq-origsite=gscholar&cbl=18750

The Role of Gap Junctions in Brain Glucose Deprivation and Glucose Reperfusion BSK4
S Sugumar
2014 - utoronto.scholaris.ca

http://hdl.handle.net/1807/65609

Testing the Gliocentric Hypothesis of Brain Pathology BSK1
Ellwood, S.
2019-Thesis. University of Plymouth.
https://pearl.plymouth.ac.uk/foh-theses-other/186

Teriflunomide preserves peripheral nerve mitochondria from oxidative stress-mediated alterations BSK6
Malla B, Cotten S, Ulshoefer R, et al.
Therapeutic Advances in Chronic Disease. 2020;11.
doi:10.1177/2040622320944773

Single-Walled Carbon Nanotube-Based Biosensors: Engineering Near-Infrared Fluorescent Nanosensors for Oxytocin Imaging in the Brain BSK2
Navarro, Nicole
University of California, Berkeley ProQuest Dissertations & Theses, 2022. 29999043.
https://www.proquest.com/openview/61c79f56ee412c82cad9339fe64d8d2f/1?pq-origsite=gscholar&cbl=18750&diss=y

Multimodal cell type correspondence by intersectional mFISH in intact tissues BSK12
Philip R. Nicovich, Michael J. Taormina, Christopher A. Baker, Thuc Nghi Nguyen, Elliot R. Thomsen, Emma Garren, Brian Long, Melissa Gorham, Jeremy A. Miller, Travis Hage, Alice Bosma-Moody, Gabe J. Murphy, Boaz P. Levi, Jennie L. Close, Bosiljka Tasic, Ed S. Lein, Hongkui Zeng
bioRxiv 525451;
doi: https://doi.org/10.1101/525451

Experimental and real-world evidence supporting the computational repurposing of bumetanide for APOE4-related Alzheimer's disease BSK5
Taubes, A., Nova, P., Zalocusky, K. A., Kosti, I., Bicak, M., Zilberter, M. Y., Hao, Y., Yoon, S. Y., Oskotsky, T., Pineda, S., Chen, B., Jones, E. A. A., Choudhary, K., Grone, B., Balestra, M. E., Chaudhry, F., Paranjpe, I., De Freitas, J., Koutsodendris, N., … Huang, Y.
Nature Aging, 1(10), 932–947(2021).
https://hdl.handle.net/20.500.14352/96873

Near infrared nanosensors enable optical imaging of oxytocin with selectivity over vasopressin in acute mouse brain slices BSK2
Nicole Navarro, Sanghwa Jeong, Nicholas Ouassil, Jaewan Mun, Esther Leem, Markita P. Landry
bioRxiv 2022.10.05.511026;
doi: https://doi.org/10.1101/2022.10.05.511026

Generation and on-demand initiation of acute ictal activity in rodent and human tissue BSK1
Chang, M., Dufour, S., Carlen, P. L., Valiante, T. A.
J. Vis.Exp. (143), e57952,
doi:10.3791/57952 (2019).

Arctic ground squirrel hippocampus tolerates oxygen glucose deprivation independent of hibernation season even when not hibernating and after ATP depletion … BSK1
Bhowmick, S., Moore, J.T., Kirschner, D.L. and Drew, K.L.
J. Neurochem., 142: 160-170(2017)
https://doi.org/10.1111/jnc.13996

Activity-dependent plasticity in the isolated embryonic avian brainstem following manipulations of rhythmic spontaneous neural activity BSK1
Michael A. Vincen-Brown, Ann L. Revill, Jason Q. Pilarski,
Respiratory Physiology & Neurobiology,Volume 229,2016,Pages 24-33,ISSN 1569-9048,
https://doi.org/10.1016/j.resp.2016.03.013.

Acidotoxicity via ASIC1a mediates cell death during oxygen glucose deprivation and abolishes excitotoxicity BSK1
Saurav Bhowmick, Jeanette T. Moore, Daniel L. Kirschner, Mary C. Curry, Emily G. Westbrook, Brian T. Rasley, and Kelly L. Drew
ACS Chemical Neuroscience **2017** *8* (6), 1204-1212
DOI: 10.1021/acschemneuro.6b00355

Sparse recurrent excitatory connectivity in the microcircuit of the adult mouse and human cortex BSK12
Stephanie C Seeman,Luke Campagnola,Pasha A Davoudian,Alex Hoggarth,Travis A Hage,Alice Bosma-Moody,Christopher A Baker,Jung Hoon Lee,Stefan Mihalas,Corinne Teeter,Andrew L Ko,Jeffrey G Ojemann,Ryder P Gwinn,Daniel L Silbergeld,Charles Cobbs,John Phillips,Ed Lein,Gabe Murphy,Christof Koch,Hongkui Zeng,Tim Jarsky
eLife **7**:e37349 (2018) .
https://doi.org/10.7554/eLife.37349

Chronic stress causes striatal disinhibition mediated by SOM-interneurons in male mice BSK4
Rodrigues, D., Jacinto, L., Falcão, M. *et al.*
Nat Commun **13**, 7355 (2022).
https://doi.org/10.1038/s41467-022-35028-4

Imaging striatal dopamine release using a nongenetically encoded near infrared fluorescent catecholamine nanosensor BSK2

Abraham G. Beyene *et al.;*

*Sci. Adv.***5**,eaaw3108(2019).

DOI:10.1126/sciadv.aaw3108

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading … BSK4

Sifat, A.E., Vaidya, B., Kaisar, M.A., Cucullo, L. and Abbruscato, T.J.

(2018), J. Neurochem., 147: 204-221.

https://doi.org/10.1111/jnc.14561

Nicotine and electronic cigarette (E-Cig) exposure decreases brain glucose utilization in ischemic stroke BSK4

Sifat, A.E., Vaidya, B., Kaisar, M.A., Cucullo, L. and Abbruscato, T.J.

(2018), J. Neurochem., 147: 204-221.

https://doi.org/10.1111/jnc.14561

High-throughput evolution of near-infrared serotonin nanosensors BSK2

Sanghwa Jeong *et al.*

*Sci. Adv.***5**,eaay3771(2019).

DOI:10.1126/sciadv.aay3771

Neuro-Oncology Advances BSK1 MS1

AJ Kirby, JP Lavrador, I Bodi, F Vergani, R Bhangoo…

Neuro-Oncology Advances 3(1), 1–10, 2021

doi:10.1093/noajnl/vdab026

Oxytocin suppresses basal glutamatergic transmission but facilitates activity-dependent synaptic potentiation in the medial prefrontal cortex BSK4

Ninan, I.

(2011), Journal of Neurochemistry, 119: 324-331.

https://doi.org/10.1111/j.1471-4159.2011.07430.x

Specific Role for GSK3α in Limiting Long-Term Potentiation in CA1 Pyramidal Neurons of Adult Mouse Hippocampus BSK12

Front. Mol. Neurosci. , 16 June 2022,Sec. Neuroplasticity and Development Volume 15 - 2022 | https://doi.org/10.3389/fnmol.2022.852171

Quantitative measurement of reactive oxygen species in ex vivo mouse brain slices BSK4

Chirag Vasavda, Solomon H. Snyder, Bindu D. Paul,

STAR Protocols,Volume 2, Issue 1,2021,100332,ISSN 2666-1667,

https://doi.org/10.1016/j.xpro.2021.100332.

Altered fear learning across development in both mouse and human BSK1
S.S. Pattwell,S. Duhoux,C.A. Hartley,D.C. Johnson,D. Jing,M.D. Elliott,E.J. Ruberry,A. Powers,N. Mehta,R.R. Yang,F. Soliman,C.E. Glatt,B.J. Casey,I. Ninan,& F.S. Lee,
Proc. Natl. Acad. Sci. U.S.A. 109 (40) 16318-16323,
https://doi.org/10.1073/pnas.1206834109 (2012).

Dual Infrared 2-Photon Microscopy Achieves Minimal Background Deep Tissue Imaging in Brain and Plant Tissues BSK2
M. M. Safaee, S. Nishitani, I. R. McFarlane, S. J. Yang, E. Sun, S. M. Medina, H. Squire, M. P. Landry,
Adv. Funct. Mater. 2024, 34, 2404709.
https://doi.org/10.1002/adfm.202404709

High-throughput evolution of near-infrared oxytocin nanosensors enables oxytocin imaging in mice and prairie voles BSK2 BSK4
Jaquesta A.M. Adams, Natsumi Komatsu, Nicole Navarro, Alexis M. Black, Esther Leem, Xiaoqi Sun, Jiaxuan Zhao, Octavio I. Arias-Soto, Annaliese K. Beery, Markita P. Landry
bioRxiv 2024.05.10.593556;
doi: https://doi.org/10.1101/2024.05.10.593556

Altered cognitive flexibility and synaptic plasticity in the rat prefrontal cortex after exposure to low (≤ 15 cGy) doses of 28Si radiation BSK12
Richard A. Britten, Vania D. Duncan, Arriyam Fesshaye, Emil Rudobeck, Gregory A. Nelson, Roman Vlkolinsky;
Radiat Res 1 March 2020; 193 (3): 223–235.
doi: https://doi.org/10.1667/RR15458.1

Preventing Axonal Sodium Overload or Mitochondrial Calcium Uptake Protects Axonal Mitochondria from Oxidative Stress-Induced Alterations BSK6
Ulshöfer, Rebecca, Bros, Helena, Hauser, Anja Erika, Niesner, Raluca Aura, Paul, Friedemann, Malla, Bimala, Infante-Duarte, Carmen,
Oxidative Medicine and Cellular Longevity, 2022, 6125711, 13 pages, 2022.
https://doi.org/10.1155/2022/6125711

Ionic mechanisms maintaining action potential conduction velocity at high firing frequencies in an unmyelinated axon BSK1 BSK4
K. P. Cross, R. M. Robertson.
Physiol Rep, 4 (10), 2016, e12814,
doi: 10.14814/phy2.12814

The ARMS/Kidins220 scaffold protein modulates synaptic transmission BSC2 BSK1

Juan Carlos Arévalo, Synphen H. Wu, Takuya Takahashi, Hong Zhang, Tao Yu, Hiroko Yano, Teresa A. Milner, Lino Tessarollo, Ipe Ninan, Ottavio Arancio, Moses V. Chao,
Molecular and Cellular Neuroscience,Volume 45, Issue 2,2010,Pages 92-100,ISSN 1044-7431, https://doi.org/10.1016/j.mcn.2010.06.002.

Environmental exposure to common pesticide induces synaptic deficit and social memory impairment driven by neurodevelopmental vulnerability of hippocampal … BSK4
Jessica Di Re, Leandra Koff, Yosef Avchalumov, Aditya K. Singh, Timothy J. Baumgartner, Mate Marosi, Lisa M. Matz, Lance M. Hallberg, Bill T. Ameredes, Erin H. Seeley, Shelly A. Buffington, Thomas A. Green, Fernanda Laezza,
Journal of Hazardous Materials,Volume 485,2025,136893,ISSN 0304-3894, https://doi.org/10.1016/j.jhazmat.2024.136893.

The BDNF Val66Met polymorphism impairs synaptic transmission and plasticity in the infralimbic medial prefrontal cortex BSK1
Siobhan S. Pattwell, Kevin G. Bath, Rosalia Perez-Castro, Francis S. Lee, Moses V. Chao and Ipe Ninan
Journal of Neuroscience 15 February,2012, 32 (7) 2410-2421; https://doi.org/10.1523/JNEUROSCI.5205-11.2012

Perineuronal nets enhance the excitability of fast-spiking neurons BSK2
Timothy S. Balmer
eNeuro 11 July 2016, 3 (4) ENEURO.0112-16.2016; DOI: 10.1523/ENEURO.0112-16.2016

Combinatorial targeting of distributed forebrain networks reverses noise hypersensitivity in a model of autism spectrum disorder BSK1
Nakajima, Miho et al.
Neuron, Volume 104, Issue 3, 488 - 500.e11
https://www.cell.com/neuron/fulltext/S0896-6273(19)30843-8

Neuronal APOE4 removal protects against tau-mediated gliosis, neurodegeneration and myelin deficits BSK5
Koutsodendris, N., Blumenfeld, J., Agrawal, A. *et al.*
Nat Aging **3**, 275–296 (2023).
https://doi.org/10.1038/s43587-023-00368-3

The TrkC-PTPσ complex governs synapse maturation and anxiogenic avoidance via synaptic protein phosphorylation BSK12
H Khaled, Z Ghasemi, M Inagaki, K Patel…
EMBO J (2024), 43: 5690 - 5717

https://doi.org/10.1038/s44318-024-00252-9

Experimental and real-world evidence supporting the computational repurposing of bumetanide for APOE4-related Alzheimer's disease BSK5

Taubes, A., Nova, P., Zalocusky, K. A., Kosti, I., Bicak, M., Zilberter, M. Y., Hao, Y., Yoon, S. Y., Oskotsky, T., Pineda, S., Chen, B., Jones, E. A. A., Choudhary, K., Grone, B., Balestra, M. E., Chaudhry, F., Paranjpe, I., De Freitas, J., Koutsodendris, N., … Huang, Y.

Nature Aging, 1(10), 932–947(2021).
https://hdl.handle.net/20.500.14352/96873