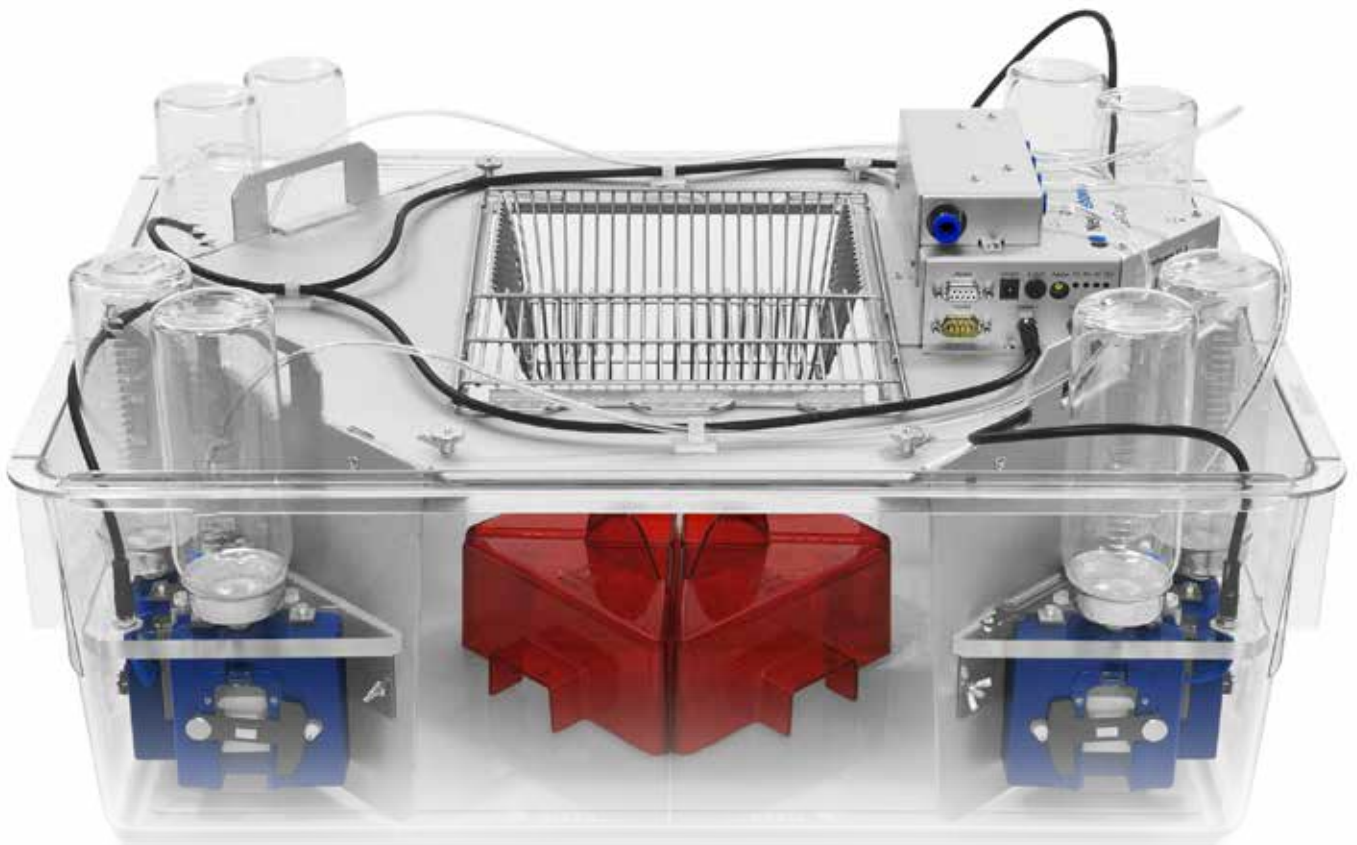


Sophisticated Life Science Research Instrumentation



IntelliCage

Reference List



Publications for IntelliCage (Mouse & Rat)

2014

- **Benner S, Endo T, Endo N, Kakeyama M, Tohyama C.** Early deprivation induces competitive subordination in C57BL/6 male mice. *Physiol Behav* 2014; 137C:42-52
<http://www.ncbi.nlm.nih.gov/pubmed/25089814>
- **de Hoz L, Nelken I.** Frequency Tuning in the Behaving Mouse: Different Bandwidths for Discrimination and Generalization. *PLoS One* 2014; 9(3):e91676
<http://www.ncbi.nlm.nih.gov/pubmed/24632841>
- **Gapp K, Soldado-Magraner S, Alvarez-Sánchez M, Bohacek J, Vernaz G, Shu H, Franklin TB, Wolfer D, Mansuy IM.** Early life stress in fathers improves behavioural flexibility in their offspring. *Nat Commun* 2014; 5:5466
<http://www.ncbi.nlm.nih.gov/pubmed/25405779>
- **Kuleskaya N, Karpova NN, Ma L, Tian L, Voikar V.** Mixed housing with DBA/2 mice induces stress in C57BL/6 mice: implications for interventions based on social enrichment. *Front Behav Neurosci* 2014, 8:257
<http://www.ncbi.nlm.nih.gov/pubmed/25147512>
- **Patrikainen M, Pan P, Kuleskaya N, Voikar V, Parkkila S.** The role of carbonic anhydrase VI in bitter taste perception: evidence from the Car6^{-/-} mouse model. *J Biomed Sci* 2014; 21:82
<http://www.ncbi.nlm.nih.gov/pubmed/25134447>
- **Puscian A, Łęski S, Górkiewicz T, Meyza K, Lipp HP, Knapska E.** A novel automated behavioral test battery assessing cognitive rigidity in two genetic mouse models of autism. *Front Behav Neurosci* 2014; 8:140
<http://www.ncbi.nlm.nih.gov/pubmed/24808839>
- **Smutek M, Turbasa M, Sikora M, Piechota M, Zajdel J, Przewlocki R, Parkitna JR.** A Model of Alcohol Drinking under an Intermittent Access Schedule Using Group-Housed Mice. *PLoS One* 2014; 9(5):e96787
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4013044/>
- **Too LK, Ball HJ, McGregor IS, Hunt NH.** The pro-inflammatory cytokine interferon-gamma is an important driver of neuropathology and behavioural sequelae in experimental pneumococcal meningitis. *Brain Behav Immun* 2014; 40:262-68
<http://www.ncbi.nlm.nih.gov/pubmed/24607660>
- **Too LK, McQuillan JA, Ball HJ, Kanai M, Nakamura T, Funakoshi H, McGregor IS, Hunt NH.** The kynurenine pathway contributes to long-term neuropsychological changes in experimental pneumococcal meningitis. *Behav Brain Res* 2014; 270:179-95
<http://www.ncbi.nlm.nih.gov/pubmed/24844751>
- **Urbach YK, Raber KA, Canneva F, Plank AC, Andreasson T, Ponten H, Kullingsjö J, Nguyen HP, Riess O, von Hörsten S.** Automated phenotyping and advanced data mining exemplified in rats transgenic for Huntington's disease. *J Neurosci Methods* 2014; 234:38-53
<http://www.ncbi.nlm.nih.gov/pubmed/25020253>

- **Vannoni E, Voikar V, Colacicco G, Sánchez MA, Lipp HP, Wolfer DP.** Spontaneous behavior in the social homecage discriminates strains, lesions and mutations in mice. *J Neurosci Methods* 2014; 234:26-37
<http://www.ncbi.nlm.nih.gov/pubmed/24792526>

2013

- **Albuquerque B, Häussler A, Vannoni E, Wolfer DP, Tegeder I.** Learning and memory with neuropathic pain: impact of old age and progranulin deficiency. *Front Behav Neurosci* 2013; 7:174
<http://www.ncbi.nlm.nih.gov/pubmed/24319417>
- **Branchi I, Santarelli S, Capoccia S, Poggini S, D'Andrea I, Cirulli F, Alleva E.** Antidepressant treatment outcome depends on the quality of the living environment: a pre-clinical investigation in mice. *PlosOne* 2013; 8(4): e62226
<http://www.ncbi.nlm.nih.gov/pubmed/23653679>
- **Kalm M, Karlsson N, Nilsson MK, Blomgren K.** Loss of hippocampal neurogenesis, increased novelty-induced activity, decreased home cage activity, and impaired reversal learning one year after irradiation of the young mouse brain. *Exp Neurol* 2013; 247:402-9
<http://www.ncbi.nlm.nih.gov/pubmed/23333566>
- **Knapska E, Lioudyno V, Kiryk A, Mikosz M, Górkiewicz T, Michaluk P, Gawlak M, Chaturvedi M, Mochol G, Balcerzyk M, Wojcik DK, Wilczynski GM, Kaczmarek L.** Reward learning requires activity of matrix metalloproteinase-9 in the central amygdala. *J Neurosci* 2013; 33(36):14591-600
<http://www.ncbi.nlm.nih.gov/pubmed/24005309>
- **Knapska E, Lioudyno V, Kiryk A, Mikosz M, Górkiewicz T, Michaluk P, Gawlak M, Chaturvedi M, Mochol G, Balcerzyk M, Wojcik DK, Wilczynski GM, Kaczmarek L.** Measuring basal and complex behaviors of rats in automated social home cage systems using IntelliCage for rat technology. *J Neurosci* 2013; 33(36): 14591-600
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3398388/>
- **Kobayashi Y, Sano Y, Vannoni E, Goto H, Suzuki H, Oba A, Kawasaki H, Kanba S, Lipp HP, Murphy NP, Wolfer DP, Itohara S.** Genetic dissection of medial habenula-interpeduncular nucleus pathway function in mice. *Front Behav Neurosci* 2013; 07: 17
<http://www.ncbi.nlm.nih.gov/pubmed/23487260>
- **Kuleskaya N, Vöikar V, Peltola M, Yegutkin GG, Salmi M, Jalkanen S, Rauvala H.** CD73 is a major regulator of adenosinergic signalling in mouse brain. *PLoS One* 2013; 8(6):e66896
<http://www.ncbi.nlm.nih.gov/pubmed/23776700>
- **Ogi H, Itoh K, Fushiki S.** Social behavior is perturbed in mice after exposure to bisphenol A: a novel assessment employing an IntelliCage. *Brain Behav* 2013; 3(3):223-8
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3683282/>
- **Osman AM, Zhou K, Zhu C, Blomgren K.** Transplantation of enteric neural stem/progenitor cells into the irradiated young mouse hippocampus. *Cell Transplant* 2013 [Epub ahead of print]
<http://www.ncbi.nlm.nih.gov/pubmed/24152680>

- **Parkitna JR, Sikora M, Gołda S, Gołombiowska K, Bystrowska B, Engblom D, Bilbao A, Przewlocki R.** Novelty-seeking behaviors and the escalation of alcohol drinking after abstinence in mice are controlled by metabotropic glutamate receptor 5 on controlled by metabotropic glutamate receptor 5 on neurons expressing dopamine D1 receptors. *Biological Psychiatry* 2013; 73(3): 263-70
<http://www.ncbi.nlm.nih.gov/pubmed/22902169>
- **Ryan D, Koss D, Porcu E, Woodcock H, Robinson L, Platt B, Riedel G.** Spatial learning impairments in PLB1Triple knock-in Alzheimer mice are task-specific and age-dependent. *Cell Mol Life Sci* 2013; 70(14):2603-19
<http://www.ncbi.nlm.nih.gov/pubmed/23535719>
- **Too LK, Ball HJ, McGregor IS, Hunt NH.** A novel automated test battery reveals enduring behavioural alterations and cognitive impairments in survivors of murine pneumococcal meningitis. *Brain Behav Immun* 2013; Epub
<http://www.ncbi.nlm.nih.gov/pubmed/24060586>
- **Voikar V, Kuleskaya N, Laakso T, Lauren J, Strittmatter SM, Airaksinen MS.** LRRTM1-deficient mice show a rare phenotype of avoiding small enclosures--a tentative mouse model for claustrophobia-like behavior. 2013; 238:69-78
<http://www.ncbi.nlm.nih.gov/pubmed/23089646>

2012

- **Codita A, Mohammed AH, Willuweit A, Reichelt A, Alleva E, Branchi I, Cirulli F, Colacicco G, Voikar V, Wolfer DP, Buschmann FJ, Lipp HP, Vannoni E, Krackow S.** Effects of spatial and cognitive enrichment on activity pattern and learning performance in three strains of mice in the IntelliMaze. *Behav Genet* 2012; 42(3):449-60
<http://www.ncbi.nlm.nih.gov/pubmed/22187051>
- **Endo T, Kakeyama M, Uemura Y, Haijima A, Okuno H, Bito H, Tohyama C.** Executive function deficits and social-behavioral abnormality in mice exposed to a low dose of dioxin in utero and via lactation. *PLoS One* 2012; 7(12):e50741
<http://www.ncbi.nlm.nih.gov/pubmed/23251380>
- **Huo K, Sun Y, Li H, Du X, Wang X, Karlsson N, Zhu C, Blomgren K.** Lithium reduced neural progenitor apoptosis in the hippocampus and ameliorated functional deficits after irradiation to the immature mouse brain. *Mol Cell Neurosci* 2012; 51(1-2):32-42
<http://www.ncbi.nlm.nih.gov/pubmed/22800605>
- **Jedynak P, Jaholkowski P, Wozniak G, Sandi C, Kaczmarek L, Filipkowski RK.** Lack of cyclin D2 impairing adult brain neurogenesis alters hippocampal-dependent behavioral tasks without reducing learning ability. *Behavioural Brain Research* 2012; 227: 159-166
<http://www.ncbi.nlm.nih.gov/pubmed/22101301>
- **Radwanska K, Kaczmarek L.** Characterization of an alcohol addiction-prone phenotype in mice. *Addict Biol* 2012; 17(3):601-12
<http://www.ncbi.nlm.nih.gov/pubmed/22017485>

- **Ramakers GJ, Wolfer D, Rosenberger G, Kuchenbecker K, Kreienkamp HJ, Prange-Kiel J, Rune G, Richter K, Langnaese K, Masneuf S, Bösl MR, Fischer KD, Krugers HJ, Lipp HP, van Galen E, Kutsche K.** Dysregulation of Rho GTPases in the α Pix/Arhgef6 mouse model of X-linked intellectual disability is paralleled by impaired structural and synaptic plasticity and cognitive deficits. *Hum Mol Genet* 2011; 21(2): 268-86
<http://www.ncbi.nlm.nih.gov/pubmed/21989057>
- **Roughton K, Kalm M, Blomgren K.** Sex-dependent differences in behavior and hippocampal neurogenesis after irradiation to the young mouse brain. *Eur J Neurosci* 2012; 36(6): 2763-72
<http://www.ncbi.nlm.nih.gov/pubmed/22758785>

2011

- **d'Isa R, Clapcote SJ, Voikar V, Wolfer DP, Giese KP, Brambilla R, Fasano S.** Mice Lacking Ras-GRF1 Show Contextual Fear Conditioning but not Spatial Memory Impairments: Convergent Evidence from Two Independently Generated Mouse Mutant Lines. *Front Behav Neurosci* 2011; 5: 78
<http://www.ncbi.nlm.nih.gov/pubmed/22164138>
- **Endo T, Maekawa F, Vöikar V, Haijima A, Uemura Y, Zhan Y, Miyazaki W, Suyama S, Shimazaki K, Wolfer DP, Yada T, Tohyama C, Lipp HP, Kakeyama.** Automated test of behavioral flexibility in mice using a behavioral sequencing task in IntelliCage. *Behav Brain Res* 2011; 221(1): 172-81
<http://www.ncbi.nlm.nih.gov/pubmed/21377499>
- **Ermakova O, Piszczek L, Luciani L, Cavalli FMG, Ferreira T, Farley D, Rizzo S, Paolicelli RC, Al-Banchaabouchi M, Nerlov C, Moriggi R, Luscombe NM, Gross C.** Sensitized phenotypic screening identifies gene dosage sensitive region on chromosome 11 that predisposes to disease in mice. *EMBO Mol Med* 2011; 3: 50-66
<http://www.ncbi.nlm.nih.gov/pubmed/21204268>
- **Faizi M, Bader PL, Tun C, Encarnacion A, Kleschevnikov A, Belichenko P, Saw N, Priestley M, Tsien RW, Mobley WC, Shamloo M.** Comprehensive behavioral phenotyping of Ts65Dn mouse model of down syndrome: Activation of beta1-adrenergic receptor by xamoterol as a potential cognitive enhancer. *Neurobiol Dis* 2011; 43(2): 397-413
<http://www.ncbi.nlm.nih.gov/pubmed/21527343>
- **Karlsson N, Kalm M, Nilsson MK, Mallard C, Björk-Eriksson T, Blomgren K.** Learning and activity after irradiation of the young mouse brain analyzed in adulthood using unbiased monitoring in a home cage environment. *Radiat Res* 2011; 175(3): 336-346
<http://www.ncbi.nlm.nih.gov/pubmed/21388277>
- **Kiryk A, Mochol G, Filipkowski RK, Wawrzyniak M, Lioudyno V, Knapska E, Gorkiewicz T, Balcerzsk M, Lski S, Van Leuven F, Lipp HP, Wójcik DK, Kaczmarek L.** Cognitive abilities of Alzheimer's disease transgenic mice are modulated by social context and circadian rhythm. *Curr Alzheimer Res* 2011; 8(8): 883-892
<http://www.ncbi.nlm.nih.gov/pubmed/22171952>
- **Lan WCJ, Priestley M, Mayoral SR, Tian L, Shamloo M, Penn AA.** Sex-specific cognitive deficits and regional brain volume loss in mice exposed to chronic, sublethal hypoxia. *Pediatr Res* 2011; 70(1): 15-20

<http://www.ncbi.nlm.nih.gov/pubmed/21436761>

- **Oakeshott S, Balci F, Filippov I, Murphy C, Port R, Connor D, Paintdakhi A, LeSauter J, Menalled L, Ramboz S, Kwak S, Howland D, Silver R, Brunner D.** Circadian abnormalities in motor activity in a BAC transgenic mouse model of huntington's disease. PLoS Currents 2011; 3: RRN1225
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3072044/>
- **Radwanska K, Kaczmarek L.** Characterization of an alcohol addiction-prone phenotype in mice. Addict Biol 2011; 17(3): 601-12
<http://www.ncbi.nlm.nih.gov/pubmed/22017485>
- **Sekiguchi K, Imamura S, Yamaguchi T, Tabuchi M, Kanno H, Terawaki K, Kase Y, Ikarashi Y.** Effects of yokukansan and donepezil on learning disturbance and aggressiveness induced by intracerebroventricular injection of amyloid beta protein in mice. Phytother Res 2011; 25: 501-7
<http://www.ncbi.nlm.nih.gov/pubmed/20803480>
- **Weyer SW, Klevanski M, Delekate A, Voikar V, Aydin D, Hick M, Filippov M, Drost N, Schaller KL, Saar M, Vogt MA, Gass P, Samanta A, Jäschke A, Korte M, Wolfer DP, Caldwell JH, Müller UC.** APP and APLP2 are essential at PNS and CNS synapses for transmission, spatial learning and LTP. EMBO Journal 2011; 30(11): 2266-80
<http://www.ncbi.nlm.nih.gov/pubmed/21522131>

2010

- **Barlind A, Karlsson N, Björk-Eriksson T, Isgaard J, Blomgren K.** Decreased cytogenesis in the granule cell layer of the hippocampus and impaired place learning after irradiation of the young mouse brain evaluated using the IntelliCage platform. Exp Brain Res 2010; 201(4): 781-787
<http://www.ncbi.nlm.nih.gov/pubmed/19943037>
- **Codita A, Gumucio A, Lannfelt L, Gellerfors P, Winblad B, Mohammed AH, Nilsson LNG.** Impaired behavior of female tg-ArcSwe APP mice in the IntelliCage: a longitudinal study. Behav Brain Res 2010; 215: 83-94
<http://www.ncbi.nlm.nih.gov/pubmed/20615433>
- **Konopka W, Kiryk A, Novak M, Herwerth M, Parkitna JR, Wawrzyniak M, Kowarsch A, Michaluk P, Dzwonek J, Arnsperger T, Wilczynski G, Merckenschlager M, Theis FJ, Köhr G, Kaczmarek L, Schütz G.** MicroRNA loss enhances learning and memory in mice. J Neurosci 2010; 30(44): 14835-42
<http://www.ncbi.nlm.nih.gov/pubmed/21048142>
- **Krackow S, Vannoni E, Codita A, Mohammed AH, Cirulli F, Branchi I, Alleva E, Reichelt A, Willuweit A, Voikar V, Colacicco G, Wolfer DP, Buschmann JU, Safi K, Lipp HP.** Consistent behavioral phenotype differences between inbred mouse strains in the IntelliCage. Genes Brain Behav 2010; 9(7): 722-731
<http://www.ncbi.nlm.nih.gov/pubmed/20528956>

- **Ludolph AC, Bendotti C, Blaugrund E, Chio A, Greensmith L, Loeffler JP, Mead R, Niessen HG, Petri S, Pradat PF, Robberecht W, Ruegg M, Schwalenstöcker B, Stiller D, Van Den Berg L, Vieira F, Von Horsten S.** Guidelines for preclinical animal research in ALS/MND: A consensus meeting. *Amyotroph Lateral Scler* 2010; 11: 38-45
<http://www.ncbi.nlm.nih.gov/pubmed/20184514>
- **Urbach YK, Bode FJ, Jguyen HP, Riess O, von Hörsten S.** Neurobehavioral tests in rat models of degenerative brain diseases. *Methods Mol Biol* 2010; 597: 333-52
<http://www.ncbi.nlm.nih.gov/pubmed/20013245>
- **Voikar V, Colacicco G, Gruber O, Vannoni E, Lipp HP, Wolfer DP.** Conditioned response suppression in the IntelliCage: assessment of mouse strain differences and effects of hippocampal and striatal lesions on acquisition and retention of memory. *Behav Brain Res* 2010; 213: 304-312
<http://www.ncbi.nlm.nih.gov/pubmed/20493907>

2009

- **Branchi I, D'Andrea I, Cirulli F, Lipp HP, Alleva E.** Shaping brain development: mouse communal nesting blunts adult neuroendocrine and behavioral response to social stress and modifies chronic antidepressant treatment outcome. *Psychoneuroendocrinology* 2009; 35(5): 743-751
<http://www.ncbi.nlm.nih.gov/pubmed/19945226>
- **Jaholkowski P, Kiryk A, Jedynak P, Ben Abdallah NM, Knapska E, Kowalczyk A, Piechal A, Blecharz-Klin K, Figiel I, Lioudyno V, Widy-Tyszkiewicz E, Wilczynski GM, Lipp HP, Kaczmarek L, Filipkowski RK.** New hippocampal neurons are not obligatory for memory formation; cyclin D2 knockout mice with no adult brain neurogenesis show learning. *Learn Mem* 2009; 16(7): 439-451
<http://www.ncbi.nlm.nih.gov/pubmed/19553382>
- **Mechan AO, Wyss A, Rieger H, Mohajeri MH.** A comparison of learning and memory characteristics of young and middle-aged wild-type mice in the IntelliCage. *J Neurosci Methods* 2009; 180(1): 43-51
<http://www.ncbi.nlm.nih.gov/pubmed/19427528>
- **Rudenko O, Tkach V, Berezin V, Bock E.** Detection of early behavioral markers of Huntington's disease in R6/2 mice employing an automated social home cage. *Behav Brain Res* 2009; 203(2): 188-199
<http://www.ncbi.nlm.nih.gov/pubmed/19410605>
- **Viosca J, Schuhmacher AJ, Guerra C, Barco A.** Germline expression of H-Ras(G12V) causes neurological deficits associated to Costello syndrome. *Genes Brain Behav* 2009; 8(1): 60-71
<http://www.ncbi.nlm.nih.gov/pubmed/18823404>
- **Zhu C, Gao J, Karlsson N, Li Q, Zhang Y, Huang Z, Li H, Kuhn HG, Blomgren K.** Isoflurane anesthesia induced persistent, progressive memory impairment, caused a loss of neural stem cells, and reduced neurogenesis in young, but not adult, rodents. *Journal of Cerebral Blood Flow & Metabolism* 2009; 30(5): 1017-1030
<http://www.ncbi.nlm.nih.gov/pubmed/20068576>

2008

- **Appl T, Vannoni E, Buschmann F, Urbach YK, Raber KA, Lipp HP, von Hörsten S.** Measuring basal and complex behaviors of rats in automated social home cage systems using IntelliCage for rat technology. Proceedings of Measuring Behavior 2008; 26-29: 265-266
http://www.newbehavior.com/appl-et-al_mb08.pdf
- **Goulding, EH, Schenk AK, Juneja P, MacKay AW, Wade JM, Tecott LH.** A robust automated system elucidates mouse home cage behavioral structure. Proc Natl Acad Sci 2008; 105 (52): 20575-20582
<http://www.ncbi.nlm.nih.gov/pubmed/19106295>
- **Kiryk A, Aida T, Tanaka K, Banerjee P, Wilczynski GM, Meyza K, Knapska E, Filipkowski RK, Kaczmarek L, Danysz W.** Behavioral characterization of GLT1 (+/-) mice as a model of mild glutamatergic hyperfunction. Neurotox Res 2008; 13(1): 19-30
<http://www.ncbi.nlm.nih.gov/pubmed/18367437>

2007

- **Onishchenko N, Tamm C, Vahter M, Hökfelt T, Johnson JA, Johnson DA, Ceccatelli S.** Developmental exposure to methylmercury alters learning and induces depression-like behavior in male mice. Toxicol Sci 2007; 97(2): 428-437
<http://www.ncbi.nlm.nih.gov/pubmed/17204583>

2006

- **Knapska E, Walasek G, Nikolaev E, Neuhäusser-Wespy F, Lipp HP, Kaczmarek L, Werka T.** Differential involvement of the central amygdala in appetitive versus aversive learning. Learn Mem 2006; 13(2): 192-200
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1409843/>
- **Safi K, Neuhäusser-Wespy F, Welzl H, Lipp HP.** Mouse anxiety models and an example of an experimental setup using unconditioned avoidance in an automated system - IntelliCage. Cognition, Brain, Behavior 2006; 10: 475-488
- **Spruijt BM, DeVisser L.** Advanced behavioral screening: automated home cage ethology. Drug Discov Today Technol 2006; 3(2): 231-237
<http://www.ncbi.nlm.nih.gov/pubmed/24980412>

2005

- **Galsworthy MJ, Amrein I, Kuptsov PA, Poletaeva II, Zinn P, Rau A, Vyssotski A, Lipp HP.** A comparison of wild-caught wood mice and bank voles in the IntelliCage: assessing exploration, daily activity patterns and place learning paradigms. Behav Brain Res 2005; 157: 211-217
<http://www.ncbi.nlm.nih.gov/pubmed/15639172>
- **Lipp HP.** High-throughput and automated behavioral screening of normal and genetically modified mice. Business Briefing: Future Drug Discovery 2005 2005; 1-5

2002

- **Bohannon J.** Can a mouse be standardized? Science 2002; 298: 2320-2321
<http://www.ncbi.nlm.nih.gov/pubmed/12493894>

Sophisticated Life Science Research Instrumentation





Service & Warranty

TSE Systems offers a Two (2) Years ALL-IN Premium Warranty with all new products, including:

- 24/7 technical hotline
- Remote maintenance and update function
- On-site visits upon necessity
- Free replacement parts

After the expiry of the warranty period, TSE Systems offers comprehensive extensions of the warranty or economical maintenance and repair contracts to ensure the continued smooth running of your instruments. Please contact us for further details.

