



# INIastress Consortium

## Publications 2015

Ashbrook DG, Williams RW, Lu L, Hager R. A cross-species genetic analysis identifies candidate genes for mouse anxiety and human bipolar disorder. *Front Behav Neurosci*. 2015 Jul 1;9:171. doi: 10.3389/fnbeh.2015.00171. eCollection 2015. PubMed PMID: 26190982; PubMed Central PMCID: PMC4486840.

Batman AM, Miles MF. Translating Alcohol Research: Opportunities and Challenges. *Alcohol Res*. 2015;37(1):7-14. Review. PubMed PMID: 26259085; PubMed Central PMCID: PMC4476605.

Becker HC. Challenges and exciting new opportunities to advance personalized treatment for alcohol use disorder. *Alcohol Clin Exp Res*. 2015 Apr;39(4):587-8. doi: 10.1111/acer.12664. PubMed PMID: 25833017; PubMed Central PMCID: PMC4482353.

Bell RL, Lopez MF, Cui C, Egli M, Johnson KW, Franklin KM, Becker HC. Ibudilast reduces alcohol drinking in multiple animal models of alcohol dependence. *Addict Biol*. 2015 Jan;20(1):38-42. doi: 10.1111/adb.12106. Epub 2013 Nov 11. PubMed PMID: 24215262; PubMed Central PMCID: PMC4017009.

Bubier JA, Phillips CA, Langston MA, Baker EJ, Chesler EJ. GeneWeaver: finding consilience in heterogeneous cross-species functional genomics data. *Mamm Genome*. 2015 Oct;26(9-10):556-66. doi: 10.1007/s00335-015-9575-x. Epub 2015 Jun 20. PubMed PMID: 26092690; PubMed Central PMCID: PMC4602068.

Cervera-Juanes R, Wilhem LJ, Park B, Lee R, Locke J, Helms C, Gonzales S, Wand G, Jones SR, Grant KA, Ferguson B. MAOA expression predicts vulnerability for alcohol use. *Mol Psychiatry*. 2016 Apr;21(4):472-9. doi: 10.1038/mp.2015.93. Epub 2015 Jul 7. PubMed PMID: 26148813; PubMed Central PMCID: MC4705001.

Colombo G, Lobina C, Maccioni P, Carai MA, Lorrain I, Zaru A, Contini A, Mugnaini C, Corelli F, Gessa GL. Anxiety-like behaviors at the end of the nocturnal period in sP rats with a "history" of unpredictable, limited access to alcohol. *Alcohol*. 2015 Nov;49(7):707-12. doi: 10.1016/j.alcohol.2015.04.010. Epub 2015 Jul 21. PubMed PMID: 26254964; PubMed Central PMCID: PMC4636466.

Cook MN, Baker JA, Heldt SA, Williams RW, Hamre KM, Lu L. Identification of candidate genes that underlie the QTL on chromosome 1 that mediates genetic differences in stress-ethanol interactions. *Physiol Genomics*. 2015 Aug;47(8):308-17. doi: 10.1152/physiolgenomics.00114.2014. Epub 2015 May 19. PubMed PMID: 25991709; PubMed Central PMCID: PMC4525077.

Crowley NA, Kash TL. Kappa opioid receptor signaling in the brain: Circuitry and implications for treatment. *Prog Neuropsychopharmacol Biol Psychiatry*. 2015 Oct 1;62:51-60. doi: 10.1016/j.pnpbp.2015.01.001. Epub 2015 Jan 12. PubMed PMID: 25592680; PubMed Central PMCID: PMC4465498.

Cui C, Noronha A, Warren KR, Koob GF, Sinha R, Thakkar M, Matochik J, Crews FT, Chandler LJ, Pfefferbaum A, Becker HC, Lovinger D, Everitt BJ, Egli M, Mandyam CD, Fein G, Potenza MN, Harris RA, Grant KA, Roberto M, Meyerhoff DJ, Sullivan EV. Brain pathways to recovery from alcohol dependence. *Alcohol*. 2015 Aug;49(5):435-52. doi: 10.1016/j.alcohol.2015.04.006. Epub 2015 May 14. PubMed PMID: 26074423; PubMed Central PMCID: PMC4468789.

Delprato A, Bonheur B, Algéo MP, Rosay P, Lu L, Williams RW, Crusio WE. Systems genetic analysis of hippocampal neuroanatomy and spatial learning in mice. *Genes Brain Behav.* 2015 Nov;14(8):591-606. doi: 10.1111/gbb.12259. Epub 2015 Nov 8. PubMed PMID: 26449520; PubMed Central PMCID: PMC4837474.

Farris SP, Pietrzykowski AZ, Miles MF, O'Brien MA, Sanna PP, Zakhari S, Mayfield RD, Harris RA. Applying the new genomics to alcohol dependence. *Alcohol.* 2015 Dec;49(8):825-36. doi: 10.1016/j.alcohol.2015.03.001. Epub 2015 Mar 28. PubMed PMID: 25896098; PubMed Central PMCID: PMC4586299.

Ford MM, Nickel JD, Kaufman MN, Finn DA. Null mutation of 5 $\alpha$ -reductase type I gene alters ethanol consumption patterns in a sex-dependent manner. *Behav Genet.* 2015 May;45(3):341-53. doi: 10.1007/s10519-014-9694-2. Epub 2014 Nov 23. PubMed PMID: 25416204; PubMed Central PMCID: PMC4425631.

Gardini GW, Grant KA, Woodall A, Stull C, Maddalozzo GF, Zhang B, Turner RT, Iwaniec UT. Twelve months of voluntary heavy alcohol consumption in male rhesus macaques suppresses intracortical bone remodeling. *Bone.* 2015 Feb;71:227-36. doi: 10.1016/j.bone.2014.10.025. Epub 2014 Nov 7. PubMed PMID: 25451322; PubMed Central PMCID: PMC4291183.

Hahn YK, Podhaizer EM, Farris SP, Miles MF, Hauser KF, Knapp PE. Effects of chronic HIV-1 Tat exposure in the CNS: heightened vulnerability of males versus females to changes in cell numbers, synaptic integrity, and behavior. *Brain Struct Funct.* 2015 Mar;220(2):605-23. doi: 10.1007/s00429-013-0676-6. Epub 2013 Dec 19. PubMed PMID: 24352707; PubMed Central PMCID: PMC4341022.

Hardaway JA, Crowley NA, Bulik CM, Kash TL. Integrated circuits and molecular components for stress and feeding: implications for eating disorders. *Genes Brain Behav.* 2015 Jan;14(1):85-97. doi: 10.1111/gbb.12185. Review. PubMed PMID: 25366309; PubMed Central PMCID: PMC4465370.

Heffner JL, McClure JB, Mull KE, Anthenelli RM, Bricker JB. Acceptance and Commitment Therapy and nicotine patch for smokers with bipolar disorder: preliminary evaluation of in-person and telephone-delivered treatment. *Bipolar Disord.* 2015 Aug;17(5):560-6. doi: 10.1111/bdi.12300. Epub 2015 Apr 25. PubMed PMID: 25912192; PubMed Central PMCID: PMC4526426.

Hibar DP, Stein JL et al, ...Rosen GD, Lu L, Hager R, Williams RW, et al... Thompson PM, Medland SE. Common genetic variants influence human subcortical brain structures. *Nature.* 2015 Apr 9;520(7546):224-9. doi: 10.1038/nature14101. Epub 2015 Jan 21. PubMed PMID: 25607358; PubMed Central PMCID: PMC4393366.

Jiao K, Niu LN, Li QH, Ren GT, Zhao CM, Liu YD, Tay FR, Wang MQ.  $\beta$ 2-Adrenergic signal transduction plays a detrimental role in subchondral bone loss of temporomandibular joint in osteoarthritis. *Sci Rep.* 2015 Jul 29;5:12593. doi: 10.1038/srep12593. PubMed PMID: 26219508; PubMed Central PMCID: PMC4518212.

Karkhanis AN, Alexander NJ, McCool BA, Weiner JL, Jones SR. Chronic social isolation during adolescence augments catecholamine response to acute ethanol in the basolateral amygdala. *Synapse.* 2015 Aug;69(8):385-95. doi: 10.1002/syn.21826. Epub 2015 May 28. PubMed PMID: 25963724; PubMed Central PMCID: PMC4578716.

Karkhanis AN, Locke JL, McCool BA, Weiner JL, Jones SR. Social isolation rearing increases nucleus accumbens dopamine and norepinephrine responses to acute ethanol in adulthood. *Alcohol Clin Exp Res.* 2014 Nov;38(11):2770-9. doi:10.1111/acer.12555. PubMed PMID: 25421514; PubMed Central PMCID: PMC4519347.

Karkhanis AN, Rose JH, Huggins KN, Konstantopoulos JK, Jones SR. Chronic intermittent ethanol exposure reduces presynaptic dopamine neurotransmission in the mouse nucleus accumbens. *Drug Alcohol Depend.*

2015 May 1;150:24-30. doi: 10.1016/j.drugalcdep.2015.01.019. Epub 2015 Feb 16. PubMed PMID: 25765483; PubMed Central PMCID: PMC4387104.

Kash TL, Pleil KE, Marcinkiewicz CA, Lowery-Gionta EG, Crowley N, Mazzone C, Sugam J, Hardaway JA, McElligott ZA. Neuropeptide regulation of signaling and behavior in the BNST. *Mol Cells*. 2015 Jan 31;38(1):1-13. doi: 10.14348/molcells.2015.2261. Epub 2014 Dec 4. PubMed PMID: 25475545; PubMed Central PMCID: PMC4314126.

Ketchesin KD, Seasholtz AF. Novel Roles for CRF-Binding Protein and CRF Receptor 2 in Binge Drinking. *Alcohol Clin Exp Res*. 2015 Dec;39(12):2296-8. doi:10.1111/acer.12897. Epub 2015 Oct 28. PubMed PMID: 26509254; PubMed Central PMCID: PMC4712107.

Liu X, Zhang J, Liu Q, Tang G, Wang H, Fan C, Yin S. Bioactive cembranoids from the South China Sea soft coral *Sarcophyton elegans*. *Molecules*. 2015 Jul 22;20(7):13324-35. doi: 10.3390/molecules200713324. PubMed PMID: 26205057; PubMed Central PMCID: PMC6331945.

Lopez MF, Laber K. Impact of social isolation and enriched environment during adolescence on voluntary ethanol intake and anxiety in C57BL/6J mice. *Physiol Behav*. 2015 Sep 1;148:151-6. doi: 10.1016/j.physbeh.2014.11.012. Epub 2014 Nov 8. PubMed PMID: 25446196; PubMed Central PMCID: PMC4425642.

Lovinger DM, Kash TL. Mechanisms of Neuroplasticity and Ethanol's Effects on Plasticity in the Striatum and Bed Nucleus of the Stria Terminalis. *Alcohol Res*. 2015;37(1):109-24. PubMed PMID: 26259092; PubMed Central PMCID: PMC4476598.

Lowery-Gionta EG, Marcinkiewicz CA, Kash TL. Functional alterations in the dorsal raphe nucleus following acute and chronic ethanol exposure. *Neuropsychopharmacology*. 2015 Feb;40(3):590-600. doi: 10.1038/npp.2014.205. Epub 2014 Aug 14. PubMed PMID: 25120075; PubMed Central PMCID: PMC4289946.

Luderman KD, Chen R, Ferris MJ, Jones SR, Gnegy ME. Protein kinase C beta regulates the D<sub>2</sub>-like dopamine autoreceptor. *Neuropharmacology*. 2015 Feb;89:335-41. PubMed PMID: 25446677; PubMed Central PMCID: PMC4293343.

Maccioni P, Lorrain I, Marras MF, Contini A, Capra A, Piras G, Caboni P, Gessa GL, Colombo G. Elevated reinforcing and motivational properties of alcohol at the end of the nocturnal period in sP rats. *Psychopharmacology (Berl)*. 2015 Oct;232(19):3585-95. doi: 10.1007/s00213-015-4010-2. Epub 2015 Jul 7. PubMed PMID: 26146016; PubMed Central PMCID: PMC4561583.

Mamdani M, Williamson V, McMichael GO, Blevins T, Aliev F, Adkins A, Hack L, Bigdeli T, D van der Vaart A, Web BT, Bacanu SA, Kalsi G; COGA Consortium, Kendler KS, Miles MF, Dick D, Riley BP, Dumur C, Vladimirov VI. Integrating mRNA and miRNA Weighted Gene Co-Expression Networks with eQTLs in the Nucleus Accumbens of Subjects with Alcohol Dependence. *PLoS One*. 2015 Sep 18;10(9):e0137671. doi: 10.1371/journal.pone.0137671. eCollection 2015. PubMed PMID: 26381263; PubMed Central PMCID: PMC4575063.

McCool BA, Chappell AM. Chronic intermittent ethanol inhalation increases ethanol self-administration in both C57BL/6J and DBA/2J mice. *Alcohol*. 2015 Mar;49(2):111-20. doi: 10.1016/j.alcohol.2015.01.003. Epub 2015 Jan 21. PubMed PMID: 25659650; PubMed Central PMCID: PMC4339516.

McGuier NS, Padula AE, Lopez MF, Woodward JJ, Mulholland PJ. Withdrawal from chronic intermittent alcohol exposure increases dendritic spine density in the lateral orbitofrontal cortex of mice. *Alcohol*. 2015 Feb;49(1):21-7. doi: 10.1016/j.alcohol.2014.07.017. Epub 2014 Nov 3. PubMed PMID: 25468278; PubMed Central PMCID: PMC4314373.

McGuier NS, Padula AE, Mulholland PJ, Chandler LJ. Homer2 deletion alters dendritic spine morphology but not alcohol-associated adaptations in GluN2B-containing N-methyl-D-aspartate receptors in the nucleus accumbens. *Front Pharmacol*. 2015 Feb 23;6:28. doi: 10.3389/fphar.2015.00028. eCollection 2015. PubMed PMID: 25755642; PubMed Central PMCID: PMC4337331.

Melchior JR, Ferris MJ, Stuber GD, Riddle DR, Jones SR. Optogenetic versus electrical stimulation of dopamine terminals in the nucleus accumbens reveals local modulation of presynaptic release. *J Neurochem*. 2015 Sep;134(5):833-44. doi: 10.1111/jnc.13177. Epub 2015 Jun 19. PubMed PMID: 26011081; PubMed Central PMCID: PMC4537642.

Muldoon PP, Chen J, Harenza JL, Abdullah RA, Sim-Selley LJ, Cravatt BF, Miles MF, Chen X, Lichtman AH, Damaj MI. Inhibition of monoacylglycerol lipase reduces nicotine withdrawal. *Br J Pharmacol*. 2015 Feb;172(3):869-82. doi:10.1111/bph.12948. PubMed PMID: 25258021; PubMed Central PMCID: PMC4301695.

Niu LN, Watson D, Thames K, Primus CM, Bergeron BE, Jiao K, Bortoluzzi EA, Cutler CW, Chen JH, Pashley DH, Tay FR. Effects of a discoloration-resistant calcium aluminosilicate cement on the viability and proliferation of undifferentiated human dental pulp stem cells. *Sci Rep*. 2015 Nov 30;5:17177. doi: 10.1038/srep17177. PubMed PMID: 26617338; PubMed Central PMCID: PMC4663481.

Osterndorff-Kahanek EA, Becker HC, Lopez MF, Farris SP, Tiwari GR, Nunez YO, Harris RA, Mayfield RD. Chronic ethanol exposure produces time- and brain region-dependent changes in gene coexpression networks. *PLoS One*. 2015 Mar 24;10(3):e0121522. doi: 10.1371/journal.pone.0121522. eCollection 2015. PubMed PMID: 25803291; PubMed Central PMCID: PMC4372440.

Padula CB, Anthenelli RM, Eliassen JC, Nelson E, Lisdahl KM. Gender effects in alcohol dependence: an fMRI pilot study examining affective processing. *Alcohol Clin Exp Res*. 2015 Feb;39(2):272-81. doi: 10.1111/acer.12626. PubMed PMID: 25684049; PubMed Central PMCID: PMC5303611.

Padula AE, Griffin WC 3rd, Lopez MF, Nimitvilai S, Cannady R, McGuier NS, Chesler EJ, Miles MF, Williams RW, Randall PK, Woodward JJ, Becker HC, Mulholland PJ. KCNN Genes that Encode Small-Conductance Ca<sup>2+</sup>-Activated K<sup>+</sup> Channels Influence Alcohol and Drug Addiction. *Neuropsychopharmacology*. 2015 Jul;40(8):1928-39. doi:10.1038/npp.2015.42. Epub 2015 Feb 9. PubMed PMID: 25662840, PubMed Central PMCID: PMC4839516.

Peterson VL, McCool BA, Hamilton DA. Effects of ethanol exposure and withdrawal on dendritic morphology and spine density in the nucleus accumbens core and shell. *Brain Res*. 2015 Jan 12;1594:125-35. doi: 10.1016/j.brainres.2014.10.036. Epub 2014 Oct 27. PubMed PMID: 25452024; PubMed Central PMCID: PMC4267557.

Pleil KE, Lowery-Gionta EG, Crowley NA, Li C, Marcinkiewicz CA, Rose JH, McCall NM, Maldonado-Devincci AM, Morrow AL, Jones SR, Kash TL. Effects of chronic ethanol exposure on neuronal function in the prefrontal cortex and extended amygdala. *Neuropharmacology*. 2015 Dec;99:735-49. doi:10.1016/j.neuropharm.2015.06.017. Epub 2015 Jul 16. PubMed PMID: 26188147; PubMed Central PMCID: PMC4781662.

Pleil KE, Rinker JA, Lowery-Gionta EG, Mazzone CM, McCall NM, Kendra AM, Olson DP, Lowell BB, Grant KA, Thiele TE, Kash TL. NPY signaling inhibits extended amygdala CRF neurons to suppress binge alcohol drinking. *Nat Neurosci*. 2015 Apr;18(4):545-52. doi: 10.1038/nn.3972. Epub 2015 Mar 9. PubMed PMID: 25751534; PubMed Central PMCID: PMC4376619.

Robinson SL, McCool BA. Microstructural analysis of rat ethanol and water drinking patterns using a modified operant self-administration model. *Physiol Behav*. 2015 Oct 1;149:119-30. doi: 10.1016/j.physbeh.2015.05.034. Epub 2015 May 31. PubMed PMID: 26037631; PubMed Central PMCID: PMC4506870.

Shorey-Kendrick LE, Ford MM, Allen DC, Kuryatov A, Lindstrom J, Wilhelm L, Grant KA, Spindel ER. Nicotinic receptors in non-human primates: Analysis of genetic and functional conservation with humans. *Neuropharmacology*. 2015 Sep;96(Pt B):263-73. doi: 10.1016/j.neuropharm.2015.01.023. Epub 2015 Feb 7. Review. PubMed PMID: 25661700; PubMed Central PMCID: PMC4486519.

Siciliano CA, Calipari ES, Cuzon Carlson VC, Helms CM, Lovinger DM, Grant KA, Jones SR. Voluntary ethanol intake predicts  $\kappa$ -opioid receptor supersensitivity and regionally distinct dopaminergic adaptations in macaques. *J Neurosci*. 2015 Apr 15;35(15):5959-68. doi: 10.1523/JNEUROSCI.4820-14.2015. PubMed PMID: 25878269; PubMed Central PMCID: PMC4397597.

Üner A, Gonçalves GH, Li W, Porceban M, Caron N, Schönke M, Delpire E, Sakimura K, Bjørnbæk C. The role of GluN2A and GluN2B NMDA receptor subunits in AgRP and POMC neurons on body weight and glucose homeostasis. *Mol Metab*. 2015 Jul 6;4(10):678-91. doi: 10.1016/j.molmet.2015.06.010. PubMed PMID: 26500840; PubMed Central PMCID: PMC4588453.

Uys JD, McGuier NS, Gass JT, Griffin WC 3rd, Ball LE, Mulholland PJ. Chronic intermittent ethanol exposure and withdrawal leads to adaptations in nucleus accumbens core postsynaptic density proteome and dendritic spines. *Addict Biol*. 2016 May;21(3):560-74. doi: 10.1111/adb.12238. Epub 2015 Mar 17. PubMed PMID: 25787124; PubMed Central PMCID: PMC4573771.

Vardy E, Robinson JE, Li C, Olsen RH, DiBerto JF, Giguere PM, Sassano FM, Huang XP, Zhu H, Urban DJ, White KL, Rittiner JE, Crowley NA, Pleil KE, Mazzone CM, Mosier PD, Song J, Kash TL, Malanga CJ, Krashes MJ, Roth BL. A New DREADD Facilitates the Multiplexed Chemogenetic Interrogation of Behavior. *Neuron*. 2015 May 20;86(4):936-46. doi: 10.1016/j.neuron.2015.03.065. Epub 2015 Apr 30. PubMed PMID: 25937170; PubMed Central PMCID: PMC4441592.

YYang H, Spence JS, Briggs RW, Rao U, North C, Devous MD Sr, Xiao H, Adinoff B. Interaction between early life stress and alcohol dependence on neural stress reactivity. *Addict Biol*. 2015 May;20(3):523-33. doi: 10.1111/adb.12135. Epub 2014 Mar 7. PubMed PMID: 24602036; PubMed Central PMCID: PMC4893323.

Yorgason JT, Rose JH, McIntosh JM, Ferris MJ, Jones SR. Greater ethanol inhibition of presynaptic dopamine release in C57BL/6J than DBA/2J mice: Role of nicotinic acetylcholine receptors. *Neuroscience*. 2015 Jan 22;284:854-64. doi: 10.1016/j.neuroscience.2014.10.052. Epub 2014 Nov 4. PubMed PMID: 25451295; PubMed Central PMCID: PMC4274184.

Zhang W, Luo XJ, Niu LN, Yang HY, Yiu CK, Wang TD, Zhou LQ, Mao J, Huang C, Pashley DH, Tay FR. Biomimetic Intrafibrillar Mineralization of Type I Collagen with Intermediate Precursors-loaded Mesoporous Carriers. *Sci Rep*. 2015 Jun 8;5:11199. doi: 10.1038/srep11199. PubMed PMID: 26053330; PubMed Central PMCID: PMC4459175.

Zhu X, Zhu Y, Ye S, Wang Q, Xu W, Su S, Sun Z, Yu F, Liu Q, Wang C, Zhang T, Zhang Z, Zhang X, Xu J, Du L, Liu K, Lu L, Zhang R, Jiang S. Improved Pharmacological and Structural Properties of HIV Fusion Inhibitor AP3 over Enfuvirtide: Highlighting Advantages of Artificial Peptide Strategy. *Sci Rep*. 2015 Aug 19;5:13028. doi: 10.1038/srep13028. PubMed PMID: 26286358; PubMed Central PMCID: PMC4541410.