

Poster session I

Monday, August 11, 4-6 pm
West Atrium

- 1 **Dopamine modulates recurrent synaptic activity and enhances the signal-to-noise ratio in the prefrontal cortex.**
Kroener S, Phillips PEM, Chandler LJ, Seamans JK
- 2 **Phasic dopamine transmission following state-based reinforcer devaluation in a dual-reward detection task**
Martinez V, Walton ME, Gan JO, Phillips PEM
- 3 **The effect of corticotropin-releasing factor in the ventral tegmental area on behavior and phasic dopamine release**
Wanat MJ, Bonci A, Phillips PEM
- 4 ***In vivo* neurochemical and behavioral effects of GDNF related peptides**
Fuqua JL, Lundblad M, Surgener SP, Huettl P, Pomerleau F, Gerhardt GA
- 5 **Dopamine neurochemistry and behavior of heterozygous GFR α 1 knockout mice**
Surgener SP, Zaman V, Boger H, Quintero JE, Pomerleau F, Huettl P, Granholm AC, Gerhardt GA
- 6 **Effects of the mGluR_{2/3} agonist LY379268 on glutamate signaling in rat prefrontal cortex**
Davis VA, Quintero JE, Pomerleau F, Huettl P, Gerhardt GA
- 7 **Heterogeneity of glutamate systems in striatum of freely moving F344 rats in aging**
Epperly GD, Nickell JR, Quintero JE, Pomerleau F, Huettl P, Gerhardt GA
- 8 **Elevated resting glutamate and altered glutamate dynamics in the striatum and prefrontal cortex of dopamine D4 receptor knockout mice**
Glaser PEA, Thomas TC, Grandy DK, Gerhardt GA
- 9 **Characterization of the effects of dopamine neuron stimulating peptide (DNSP-11) on dopamine neuron function**
Littrell OM, Fuqua JL, Richardson A, Hascup ER, Pomerleau F, Huettl P, Gash DM, Gerhardt GA
- 10 **Determining the source of resting and physiologically -evoked L-glutamate levels using enzyme-based microelectrode arrays in awake rats**
Hascup ER, Hascup KN, Hinzman JM, Pomerleau F, Huettl P, Johnson KW, Strömberg I, Gerhardt GA, Kehr J
- 11 **L-Glutamate regulation in the prefrontal cortex and striatum of awake, freely moving C57BL/6 mice**
Hascup KN, Hascup ER, Pomerleau F, Huettl P, Gerhardt GA, Kehr J
- 12 **Subregional differences in hippocampal glutamate neurotransmission in Fischer 344 rats**
Talauliker PM, Pomerleau F, Huettl P, Gerhardt GA
- 13 **Regional analysis of acetylcholine neurotransmission in rat prefrontal cortex and striatum**
Werner CE, Burmeister JJ, Gash CR, Pomerleau F, Huettl P, Bruno JP, Gerhardt GA
- 14 **Application of fast scan cyclic voltammetry to *in vivo* 5-HT monitoring**
Hashemi P, Wightman RM
- 15 **Voltammetric and amperometric real-time measurements of chemical transmission in murine adrenal slices**
Petrović J, Wightman RM
- 16 **A quantitative approach to iontophoresis using electrochemistry, HPLC, and capillary electrophoresis**
Herr NR, Kile B, Daniel KB, Carelli RM, Wightman RM
- 17 ***In vivo* electrochemical monitoring of endogenous norepinephrine release in the rat ventral bed nucleus of the stria terminalis using fast scan cyclic voltammetry**
Park J, Wightman RM
- 18 **Glutamate plasticity in the subthalamic nucleus in an animal model of Parkinson's disease: Targeted drug delivery**
Meshul CK, Wiedemann JD, Moore C, Keyghobadi M, Koch RJ, Walker RH
- 19 **State-dependent effects upon dopamine metabolism of STN stimulation and ablation in a rat PD model**
Walker RH, Koch RJ, Moore C, Meshul CK

- 20 **Full and partial dopamine D2 receptor regulation of pallidal aspartate release and rotational behaviour in the 6-hydroxydopamine model of Parkinson's disease**
Duffy AM, Glennon JC, van Scharrenburg G, O'Connor WT
- 21 **Monitoring subthalamic nucleus-evoked dopamine release in the rat striatum using fast-scan cyclic voltammetry *in vivo***
Covey DP, Ramsson ES, Heidenreich BA, Blaha CD, Lee KH, Garris PA
- 22 **Amphetamine-induced behavioral changes in association with alterations in striatal dopamine neurotransmission**
Daberkow DP, Pakdeeronachit S, Doellman MA, Garris PA
- 23 **Amphetamine-induced dopamine efflux measured in the anesthetized rat by fast-scan cyclic voltammetry**
Ramsson ES, Howard CD, Garris PA
- 24 **Real-time measurement of glucose dynamics modulated by diverse physiological and pharmacological stimuli in rat limbic brain regions: Applications to neuroscience drug discovery**
Ardayfio PA, Perry KW, Katner JS, Svensson KA, Fitch TE, Benvenista MJ, Vasudeva R, Yang CR, Marek GJ
- 25 **Glutamate, GABA, and glycine levels in the oral part of rat pontine reticular formation are lower during sleep than during wakefulness**
Watson CJ, Lydic R, Baghdoyan HA
- 26 **Wireless fast scan cyclic voltammetry for rats**
Johnson D, Harmon H, Gabbert S, Johnson M, Wilson G
- 27 **Voltammetric detection of dopamine in striatum of freely moving mice: Effects of cocaine**
Oleson EB, Salek J, Bonin KD, Jones SR, Budygin EA
- 28 **Early life stress and chronic methylphenidate cross-sensitize dopaminergic responses in the adolescent medial prefrontal cortex and nucleus accumbens**
Gruss M, Jezierski G, Braun K
- 29 **The role of serotonin in the cortex in the mediation of the effects of cocaine: neurochemical and behavioural evidence**
Pum ME, Huston JP, Müller CP
- 30 **Differential regulation of extracellular dopamine on mesocortical and mesolimbic pathways**
Masana M, Artigas F, Bortolozzi A
- 31 **Cortical and hippocampal-evoked accumbens dopamine release: Neuronal plasticity mediated by glucocorticoid receptors in the midbrain**
Tye SJ, Lee KH, Blaha CD
- 32 **Rapid detection of serotonin release and reuptake in *Drosophila***
Borue X, Venton BJ
- 33 **Chemical mapping of synapse formation using imaging mass spectrometry**
Heien ML, Piehowski PD, Carado AJ, Winograd N, Ewing AG
- 34 **PK/PD modeling of atomoxetine- and methylphenidate-induced neurotransmitter release in rat prefrontal cortex**
Wang E, Tseng E, Gorczyca R, Horner W, Johnson D, Rollema H
- 35 **Synergistic augmentation of the effects of escitalopram by 5-HTP and carbidopa: a triple-synergy approach to enhancing clinical response to escitalopram**
Gundlach C, Poon P, Edwards T, Schnellker J, Pu Y, Ochoa Y, Sanchez C, Smith DG
- 36 **Endomorphin-1 enhances rat motor behavior and modulates local GABA and glutamate levels in the substantia nigra pars reticulata**
Mabrouk OS, Marti M, Guerrini R, Morari M
- 37 **The SK channel blocker AG525E1 increases locomotor activity and *in vivo* dopamine release in the rat nucleus accumbens**
Neny M, Lemmer Y, Graulich A, Alleva L, Piazza PV, Seutin V, Spampinato U, Liégeois JF
- 38 **Novel data analysis methods for neurochemical monitoring - dynamic changes in metabolism in head injury patients.**
Feuerstein D, Manning A, Hashemi P, Bhatia R, Tolias C, Fabricius M, Parker K, Strong A, Boutelle M
- 39 **Novel biosensor flow cell for continuous on-line microdialysis**
Rogers ML, Feuerstein D, Martindale JC, Sunter D, Boutelle MG

- 40** **Recent developments in neurotransmitter analysis**
Eysberg M, van Heerwaarden LM, Brouwer HJ, Reinhoud NJ
- 41** **Extending the delivery and sampling capabilities of microdialysis by transmembrane and interstitial convection**
Bungay PM, Wang T, Elmquist WF
- 42** **Measuring extracellular levels of the signaling molecule ATP using microdialysis coupled to an online analytical setup**
Carroll J, Mathews TA
- 43** **Predictions of miniaturized microdialysis probes performance**
Chen C, Drew K
- 44** **Novel MetaQuant microdialysis employed to quantitate extracellular glucose in different brain areas during euglycemia and insulin-induced hypoglycemia**
de Vries MG, van der Meer N, Kleijn J, van Loon JP, Cremers TI, Westerink BH
- 45** ***In vitro* and *in vivo* characterization of multiple polymers coated and glutamate oxidase based platinum glutamate sensor**
Qin S, vd Zeyden M, Cremers T, Westerink B
- 46** **Near real-time measurement of glutamate concentration changes using biosensors in place of traditional methodologies**
Aillon D, Johnson D, Johnson DA, Gabbert S, Naylor E, Wilson GS