

List of publications

Books

Stuchlík, A., Sumiyoshi, T., eds. (2015). Cognitive Deficits in Schizophrenia and other Neuropsychiatric Disorders: Convergence of Preclinical and Clinical Evidence. Lausanne: Frontiers Media. doi: 10.3389/978-2-88919-679-1

Stuchlík A. (ed.): The Hippocampus: Plasticity and Functions. InTech Open, 2018, Published: July 11th 2018, ISBN: 978-1-78923-357-5, Print ISBN: 978-1-78923-356-8

Book chapters

Stuchlík A. Svět otištěný do paměťových stop. In: Horáček, J., Kesner, L., Höschl, C., Španiel, F. Mozek a jeho člověk, mysl i její nemoc. Praha: Galén, 2016, s. 33-40. ISBN: 978-80-7492-283-1.

Fajnerová I, Vlček K, Brom C, Dvorská K, Levčík D, Konrádová L, Mikoláš P, Ungrmanová M, Bída M, Blahna K, Španiel F, **Stuchlík A**, Horáček J, Rodriguez M. Virtual Spatial Navigation Tests Based on Animal Research: Spatial Cognition Deficit in First Episodes of Schizophrenia. Book chapter in: Recent Advances on Using Virtual Reality Technologies for Rehabilitation. Editors: PM Sharkey & J Merrick, Nova Publishing. Hauppauge NY, USA, ISBN: 978-1-63484-027-9.

Stuchlík A, Tomas Petrasek, Hana Hatalová, Lukas Rambousek, Tereza Nekovarova and Karel Vales (2012). Behavioral Tests for Evaluation of Information Processing and Cognitive Deficits in Rodent Animal Models of Neuropsychiatric Disorders, Schizophrenia in the 21st Century, Editors: THJ Burne, InTech, Rijeka, Croatia, ISBN: 978-953-51-0315-8

Nekovarova T, **Stuchlík A**, Vales K, Rambousek L, Sumiyoshi T: Cognitive Deficits in Pharmacological Rodent Models of Schizophrenia: Evaluation of Spatial Cognition: In "Schizophrenia Research: Recent Advances". Editors: T Sumiyoshi, Nova Publishing, 2011, Hauppauge NY, USA, pp. 291-319, ISBN: 978-1-61942-459-3

Patents

Czech Patent (ÚPV) - Pregnanolone derivatives substituted in position 3alpha, process for their preparation and use. 2012. Date: 25.01.2012. Patent No.: 303037

Czech Patent (ÚPV) - Pregnanolone derivatives substituted in position 3alpha with cationic group, process of their preparation, their use and composition containing them. Date: 02.08.2012. Patent No.: 303443.

PCT Patent: Steroid anionic compounds, method of their production, usage and pharmaceutical preparation involving them - WO2010136000 A3

EU Patent - Pregnanolone derivatives substituted in 3alpha-position with the cationic group, method of their production, usage and pharmaceutical preparation involving them - EP2675821 A1

PCT Patent - Pregnanolone derivatives substituted in 3alpha-position with the cationic group, method of their production, usage and pharmaceutical preparation involving them - WO 2012110010 A1

Impacted papers

Mikulecka, A., Druga, R., Stuchlik, A., Mares, P., Kubova, H. Comorbidities of early-onset temporal epilepsy: Cognitive, social, emotional, and morphologic dimensions. *Exp Neurol*, 2019, 113005. doi: 10.1016/j.expneurol.2019.113005. **IF = 4.562 (2018)**

Wesierska M, Svoboda J, Stuchlik A. A therapeutic dose of memantine improves the performance of rats in an active place avoidance task under the continuous dissociation of distal room and proximal arena cues. *Neurobiol Learn Mem.* 2019; 162: 59-66. doi: 10.1016/j.nlm.2019.03.011 **IF = 3.010 (2018)**

Krajčovič B, Fajnerová I, Horáček J, Kelemen E, Kubík Š, Svoboda J, Stuchlík A. Neural and neuronal discoordination in schizophrenia: From ensembles through networks to symptoms. *Acta Physiol (Oxf)*. 2019, 226(4):e13282. doi: 10.1111/apha.13282. **IF = 5.868 (2018)**

Janikova M, Brozka H, Radostova D, Svoboda J, Stuchlik A: No Effect of Riluzole and Memantine on Learning Deficit Following Quinpirole Sensitization – an Animal Model of Obsessive-Compulsive Disorder, *Physiology & Behavior*, 2019, 204:241-247 **IF = 2.635 (2018)**

Nepovimova E, Janockova J, Misik J, Kubik S, **Stuchlik A**, Vales K, Korabecny J, Mezeiova E, Dolezal R, Soukup O, Koblrova T, Pham NL, Nguyen TD, Konecny J, Kuca K. Orexin supplementation in narcolepsy treatment: A review. *Med Res Rev.* 2019, 39(3):961-975. doi: 10.1002/med.21550. **IF = 9.791 (2018)**

Petrasek T, Vojtechova I, Lobellova V, Popelikova A, Janikova M, Brozka H, Houdek P, Sladek M, Sumova A, Kristofikova Z, Vales K, Stuchlík A. The McGill Transgenic Rat Model of Alzheimer's Disease Displays Cognitive and Motor Impairments, Changes in Anxiety and Social Behavior, and Altered Circadian Activity. *Front Aging Neurosci.* 2018; 10:250. doi: 10.3389/fnagi.2018.00250. **IF = 3.633 (2018)**

Levcik D, Nekovarova T, Antosova E, Stuchlik A, Klement D. The role of the hippocampus in object discrimination based on visual features. *Neurobiol Learn Mem.* 155:127-135 2018 **IF = 3.010 (2018)**

Mutlu O, Páleníček T, Pinterová N, Šíchová K, Horáček J, Holubová K, Höschl C, **Stuchlík A**, Erden F, Valeš K. Effects of the adipokinetic hormone/red pigment-concentrating hormone (AKH/RPCH) family of peptides on MK-801-induced schizophrenia models. *Fundam Clin Pharmacol.* 2018 **IF = 2.229 (2018)**

Vojtechova I, Petrasek T, Maleninska K, Brozka H, Tejkalova H, Horacek J, Stuchlik A, Vales K. Neonatal immune activation by lipopolysaccharide causes inadequate emotional responses to novel situations but no changes in anxiety or cognitive behavior in Wistar rats. *Behav Brain Res.* 2018; 349:42-53. **IF = 2.770 (2018)**

Popelíková A, Bahník Š, Lobellová V, Svoboda J, Stuchlík A. Mnemonic and behavioral effects of biperiden, an M1-selective antagonist, in the rat. *Psychopharmacology (Berl)*. 2018. doi: 10.1007/s00213-018-4899-3. **IF = 3.424 (2017)**

Uttl L, Petrasek T, Sengul H, Svojanovska M, Lobellova V, Vales K, Radostova D, Tsenov G, Kubova H, Mikulecka A, Svoboda J and **Stuchlik A** (2018) Chronic MK-801 Application in Adolescence and

Early Adulthood: A Spatial Working Memory Deficit in Adult Long-Evans Rats But No Changes in the Hippocampal NMDA Receptor Subunits. *Front. Pharmacol.* 9:42. doi: 10.3389/fphar.2018.00042 **IF = 3.845 (2017)**

Svoboda J, Popelikova A, **Stuchlik A.** Drugs Interfering with Muscarinic Acetylcholine Receptors and Their Effects on Place Navigation. *Front Psychiatry.* 2017;8:215. doi: 10.3389/fpsy.2017.00215. **IF = 2.857 (2017)**

Szczurowska E, Ahuja N, Jiruška P, Kelemen E, **Stuchlík A.** Impairment of neural coordination in hippocampal neuronal ensembles after a psychotomimetic dose of dizocilpine. *Prog Neuropsychopharmacol Biol Psychiatry.* 2017. pii: S0278-5846(17)30246-4. doi: 10.1016/j.pnpbp.2017.09.013. **IF = 4.185 (2017)**

Pistikova A, Brozka H, Bencze M, Radostova D, Vales K, **Stuchlik A.** The effect of hypertension on adult hippocampal neurogenesis in young adult spontaneously hypertensive rats and Dahl rats. *Physiol Res.* 2017, 66(5):881-887. **IF = 1.324 (2017)**

Pistikova A, Brozka H, **Stuchlik A.** Adult neurogenesis in the hippocampus from a perspective of discrimination and generalization: a hypothesis. *Physiol Res.* 2017; 66(3):441-448. **IF = 1.324 (2017)**

Brozka H, Pistikova A, Radostova D, Vales K, Svoboda J, Grzyb AN, **Stuchlik A.** Adult Neurogenesis Reduction by a Cytostatic Treatment Improves Spatial Reversal Learning in Rats. *Neurobiol Learn Mem.* 2017 141: 93-100. doi: 10.1016/j.nlm.2017.03.018. **IF = 3.244 (2017)**

Horak M, Holubova K, Nepovimova E, Krusek J, Kaniakova M, Korabecny J, Vyklicky L, Kuca K, **Stuchlik A,** Ricny J, Vales K, Soukup O. The pharmacology of tacrine at N-methyl-d-aspartate receptors. *Prog Neuropsychopharmacol Biol Psychiatry.* 2017; 75:54-62. doi: 10.1016/j.pnpbp.2017.01.003 **IF = 4.185 (2017)**

Svoboda J, Lobellová V, Popelíková A, Ahuja N, Kelemen E, **Stuchlík A.** Transient inactivation of the anterior cingulate cortex in rats disrupts avoidance of a dynamic object. *Neurobiol Learn Mem.* 2017. **139** (2017) 144–148 doi: 10.1016/j.nlm.2017.01.003, **IF = 3.244 (2017)**

Buchtová H, Fajnerová I, **Stuchlík A,** Kubík Š. Acute systemic MK-801 induced functional uncoupling between hippocampal areas CA3 and CA1 with distant effect in the retrosplenial cortex. *Hippocampus.* 2017. **27**:134–144 (2017) doi: 10.1002/hipo.22678 **IF = 3.966 (2017).**

Laczo J, Markova H, Lobellova V, Gazova I, Parizkova M, Cerman J, Nekovarova T, Vales K, Klovrzova S, Harrison J, Windisch M, Vlcek K, Svoboda J, Hort J, **Stuchlik A.** Scopolamine disrupts place navigation in rats and humans: a translational validation of the Hidden Goal Task in the Morris water maze and a real maze for humans. *Psychopharmacology.* 2016. **234(4)**:535-547. doi: 10.1007/s00213-016-4488-2. **IF = 3.308 (2016).**

Zach P, Vales K, **Stuchlik A,** Cermakova P, Mrzilkova J, Koutela A, Kutova M. Effect of stress on structural brain asymmetry. *Neuroendocrinology Letters.* 2016; **37(4)**: 253-264. **IF = 0.918 (2016).**

Stuchlik A, Radostová D, Hatalova H, Vales K, Nekovarova T, Koprivova J, Svoboda J, Horacek J. Validity of Quinpirole Sensitization Rat Model of OCD: Linking Evidence from Animal and Clinical Studies. *Frontiers in Behavioral Neuroscience.* 2016; **10**: 209. doi: 10.3389/fnbeh.2016.00209. **IF = 3.104 (2016).**

Hatalova H, Radostova D, Pistikova A, Vales K, **Stuchlik A**. Detrimental effect of clomipramine on hippocampus-dependent learning in an animal model of obsessive-compulsive disorder induced by sensitization with D2/D3 agonist quinpirole. *Behavioural Brain Research*. 2017; **317**: 210-217. doi: 10.1016/j.bbr.2016.09.042. **IF = 3.002 (2016)**.

Duda W, Wesierska M, Ostaszewski P, Vales K, Nekovarova T, **Stuchlik A**. MK-801 and memantine act differently on short-term memory tested with different time-intervals in the Morris water maze test. *Behavioural Brain Research*. 2016; **311**: 15-23. doi: 10.1016/j.bbr.2016.05.024. **IF = 3.002 (2016)**.

Petrasek T, Skurlova M, Maleninska K, Vojtechova I, Kristofikova Z, Matuskova H, Sirova J, Vales K, Ripova D, **Stuchlik A**. A Rat Model of Alzheimer's Disease Based on Abeta42 and Pro-oxidative Substances Exhibits Cognitive Deficit and Alterations in Glutamatergic and Cholinergic Neurotransmitter Systems. *Frontiers in Aging Neuroscience*. 2016; **8**: 83. doi: 10.3389/fnagi.2016.00083. **IF = 4.504 (2016)**.

Holubova K, Kleteckova L, Skurlova M, Ricny J, **Stuchlik A**, Vales K. Rapamycin blocks the antidepressant effect of ketamine in task-dependent manner. *Psychopharmacology*. 2016; **233**(11): 2077-2097. **IF = 3.308 (2016)**.

Vojtechova I, Petrasek T, Hatalova H, Pistikova A, Vales K, **Stuchlik A**. Dizocilpine (MK-801) impairs learning in the active place avoidance task but has no effect on the performance during task/context alternation. *Behavioural Brain Research*. 2016; **305**: 247-57. doi: 10.1016/j.bbr.2016.03.020. **IF = 3.002 (2016)**.

Vevera J, Valeš K, Fišar Z, Hroudová J, Singh N, **Stuchlík A**, Kačer P, Nekovářová T. The effect of prolonged simvastatin application on serotonin uptake, membrane microviscosity and behavioral changes in the animal model. *Physiology & Behavior*. 2016; **158**: 112-120. doi: 10.1016/j.physbeh.2016.02.029. **IF = 2.341 (2016)**.

Svoboda J, Stankova A, Entlerova M, **Stuchlik A**. Corrigendum: Acute administration of MK-801 in an animal model of psychosis in rats interferes with cognitively demanding forms of behavioral flexibility on a rotating arena. *Frontiers in Behavioral Neuroscience*. 2015; **9**: 348. doi: 10.3389/fnbeh.2015.00348. **IF = 3.392 (2015)**.

Bahník Š, **Stuchlík A**. Temporal and spatial strategies in an active place avoidance task on Carousel: a study of effects of stability of arena rotation speed in rats. *PeerJ*. 2015; **3**: e1257. doi: 10.7717/peerj.1257. **IF = 2.183 (2015)**.

Šlamberová R, Pometlová M, Macúchová E, Nohejlová K, **Stuchlík A**, Valeš K. Do the effects of prenatal exposure and acute treatment of methamphetamine on anxiety vary depending on the animal model used? *Behavioural Brain Research*. 2015; **292**: 361-369. **IF = 3.002 (2015)**.

Svoboda J, Telensky P, Blahna K, Vodicka M, **Stuchlik A**. The role of rat posterior parietal cortex in coordinating spatial representations during place avoidance in dissociated reference frames on a continuously rotating arena (Carousel). *Behavioural Brain Research*. 2015; **292**: 1-9. **IF = 3.002 (2015)**.

Svoboda J, Stankova A, Entlerova M, **Stuchlik A**. Acute administration of MK-801 in an animal model of psychosis in rats interferes with cognitively demanding forms of behavioral flexibility on a rotating arena. *Frontiers in Behavioral Neuroscience*. 2015; **9**: 75. **IF = 3.392 (2015)**.

Lobellová V, Brichtová E, Petrásek T, Valeš K, **Stuchlík A**. Higher doses of (+)MK-801 (dizocilpine) induced mortality and procedural but not cognitive deficits in delayed testing in the active place avoidance with reversal on the Carousel. *Physiological Research*. 2015; **64**(2): 269-275. **IF = 1.643 (2015)**.

Stuchlík A, Sumiyoshi T. Editorial on “Cognitive deficits in schizophrenia and other neuropsychiatric disorders: Convergence of preclinical and clinical evidence”. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 444. doi: 10.3389/fnbeh.2014.00444. **IF = 3.270 (2014)**.

Fajnerová I, Rodriguez M, Levčík D, Konrádová L, Mikoláš P, Brom C, **Stuchlík A**, Vlček K, Horáček J. A virtual reality task based on animal research - spatial learning and memory in patients after the first episode of schizophrenia. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 157. **IF = 3.270 (2014)**.

Petrásek T, Prokopova I, Sladek M, Weisssova K, Vojtechova I, Bahnik S Zemanova A, Schonig K, Berger S, Tews B, Bartsch D, Schwab M E, Sumova A, **Stuchlík A**. Corrigendum: Nogo-A-deficient transgenic rats show deficits in higher cognitive functions, decreased anxiety, and altered circadian activity patterns. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 90. doi: 10.3389/fnbeh.2014.00442. **IF = 3.270 (2014)**.

Rambousek L, Palenicek T, Vales K, **Stuchlík A**. The effect of psilocin on memory acquisition, retrieval, and consolidation in the rat. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 180. **IF = 3.270 (2014)**.

Hatalova H, Radostova D, Pistikova A, Vales K, **Stuchlík A**. Spatial reversal learning in chronically sensitized rats and in undrugged sensitized rats with dopamine d2-like receptor agonist quinpirole. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 122. doi: 10.3389/fnbeh.2014.00122. **IF = 3.270 (2014)**.

Stuchlík A. Dynamic learning and memory, synaptic plasticity and neurogenesis: an update. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 106. doi: 10.3389/fnbeh.2014.00106. **IF = 3.270 (2014)**.

Mikulecká A, Subrt M, **Stuchlík A**, Kubová H. Consequences of early postnatal benzodiazepines exposure in rats. I. Cognitive-like behavior. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 101. doi: 10.3389/fnbeh.2014.00101. **IF = 3.270 (2014)**.

Nekovarova T, Yamamotova A, Vales K, **Stuchlík A**, Fricova J, Rokyta R. Common mechanisms of pain and depression: are antidepressants also analgesics? *Frontiers in Behavioral Neuroscience*. 2014; **8**: 99. doi: 10.3389/fnbeh.2014.00099 **IF = 3.270 (2014)**.

Fajnerova I, Kenney J, Lobellova V, Okrouhlicova S, **Stuchlík A**, Klement D. Can rats solve the active place avoidance task without the room-bound cues? *Behavioural Brain Research*. 2014; **267C**: 126-132. doi: 10.1016/j.bbr.2014.03.028. **IF = 3.028 (2014)**.

Petrásek T, Prokopova I, Sladek M, Weisssova K, Vojtechova I, Bahnik S, Zemanova A, Schönig K, Berger S, Tews B, Bartsch D, Schwab ME, Sumova A, **Stuchlík A**. Nogo-A-deficient Transgenic Rats Show Deficits in Higher Cognitive Functions, Decreased Anxiety, and Altered Circadian Activity Patterns. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 90. doi: 10.3389/fnbeh.2014.00090. **IF = 3.270 (2014)**.

Kubík S, Buchtová H, Valeš K, **Stuchlík A**. MK-801 Impairs Cognitive Coordination on a Rotating Arena (Carousel) and Contextual Specificity of Hippocampal Immediate-Early Gene Expression in a Rat Model of Psychosis. *Frontiers in Behavioral Neuroscience*. 2014; **8**: 75. doi: 10.3389/fnbeh.2014.00075. **IF = 3.270 (2014)**.

Stuchlík A, Kubik S, Vlcek K, Vales K. Spatial navigation: implications for animal models, drug development and human studies. *Physiological Research*. 2014; **63(1)**: S237-S249. **IF = 1.293 (2014)**.

Kleteckova L, Tsenov G, Kubova H, **Stuchlík A**, Vales K. Neuroprotective effect of the 3 α 5 β -pregnanolone glutamate treatment in the model of focal cerebral ischemia in immature rats. *Neuroscience Letters*. 2014; **564**: 11-15. doi: 10.1016/j.neulet.2014.01.057. **IF = 2.030 (2014)**.

Stuchlík A, Petrásek T, Prokopová I, Holubová K, Hatalová H, Valeš K, Kubík S, Dockery C, Wesierska M. Place avoidance tasks as tools in the behavioral neuroscience of learning and memory. *Physiological Research*. 2013; **62**: S1-S19. **IF = 1.487 (2013)**.

Petrásek T, Prokopova I, Bahník S, Schonig K, Berger S, Vales K, Tews B, Schwab ME, Bartsch D, **Stuchlík A**. Nogo-A downregulation impairs place avoidance in the Carousel maze but not spatial memory in the Morris water maze. *Neurobiology of Learning and Memory*. 2013; **6**: 42-49. **IF = 4.035 (2013)**.

Křištofiková Z, Vrajová M, Sírová J, Valeš K, Petrásek T, Schönig K, Tews B, Schwab M, Bartsch D, **Stuchlík A**, Ríповá D. N-Methyl-d-Aspartate Receptor - Nitric Oxide Synthase Pathway in the Cortex of Nogo-A-Deficient Rats in Relation to Brain Laterality and Schizophrenia. *Frontiers in Behavioral Neuroscience*. 2013; **7**: 90. doi: 10.3389/fnbeh.2013.00090. eCollection 2013. **IF = 4.160 (2013)**.

Entlerova M, Lobellova V, Hatalova H, Zemanova A, Vales K, **Stuchlik A**. Comparison of Long-Evans and Wistar rats in sensitivity to central cholinergic blockade with scopolamine in two spatial tasks: an active place avoidance and the Morris water maze. *Physiology & Behavior*. 2013; **120**: 11-18. **IF = 3.033 (2013)**.

Levčík D, **Stuchlík A**, Klement D. Effect of block of alpha(1)-adrenoceptors on overall motor activity but not on spatial cognition in the object-position recognition task. *Physiological Research*. 2013; **62(5)**: 561-567. **IF = 1.487 (2013)**.

Zemanova A, Stankova A, Lobellova V, Svoboda J, Vales K, Vlcek K, Kubik S, Fajnerova I, **Stuchlik A**. Visuospatial working memory is impaired in an animal model of schizophrenia induced by acute MK-801: An effect of pretraining. *Pharmacology Biochemistry and Behavior*. 2013; **106**: 117-123. **IF = 2.608 (2013)**.

Lobellova V, Entlerova M, Svojanovska B, Hatalova H, Prokopova I, Petrasek T, Vales K, Kubik S, Fajnerova I, **Stuchlik A**. Two learning tasks provide evidence for disrupted behavioural flexibility in an animal model of schizophrenia-like behaviour induced by acute MK-801: a dose-response study. *Behavioural Brain Research*. 2013; **246**: 55-62. **IF = 3.391 (2013)**.

Levcik D, Nekovarova T, **Stuchlik A**, Klement D. Rats use hippocampus to recognize positions of objects located in an inaccessible space. *Hippocampus*. 2012; **23(2)**: 153-161. doi: 10.1002/hipo.22076. **IF = 5.492 (2012)**.

Svoboda J, Telensky P, Blahna K, Bures J, **Stuchlik A**. Comparison of male and female rats in avoidance of a moving object: more thigmotaxis, hypolocomotion and fear-like reactions in females. *Physiological Research*. 2012; **61(6)**: 659-663. **IF = 1.531 (2012)**.

Vales K, Rambousek L, Holubova K, Svoboda J, Bubenikova-Valesova V, Chodounska H, Vyklicky L, **Stuchlik A**. $3\alpha 5\beta$ -Pregnanolone glutamate, a use-dependent NMDA antagonist, reversed spatial learning deficit in an animal model of schizophrenia. *Behavioural Brain Research*. 2012; **235(1)**: 82-88. **IF = 3.327 (2012)**.

Prokopova I, Bahník S, Doulames V, Vales K, Petrasek T, Svoboda J, **Stuchlik A**. Synergistic effects of dopamine D2-like receptor antagonist sulpiride and beta-blocker propranolol on learning in the Carousel maze, a dry-land spatial navigation task. *Pharmacology Biochemistry and Behavior*. 2012; **102(1)**: 151-156. **IF = 2.608 (2012)**.

Korinek M, Kapras V, Vyklicky V, Adamusova E, Borovska J, Vales K, **Stuchlik A**, Horak M, Chodounska H, Vyklicky L Jr. Neurosteroid modulation of N-methyl-D-aspartate receptors: molecular mechanism and behavioral effects. *Steroids*. 2011; **76(13)**: 1409-1418. **IF = 2.829 (2011)**.

Rambousek L, Bubenikova-Valesova V, Kacer P, Syslova K, Kenney J, Holubova K, Najmanova V, Zach P, Svoboda J, **Stuchlik A**, Chodounska H, Kapras V, Adamusova E, Borovska J, Vyklicky L,

Vales K. Cellular and behavioural effects of a new steroidal inhibitor of the N-methyl-d-aspartate receptor $3\alpha5\beta$ -pregnanolone glutamate. *Neuropharmacology*. 2011; **61(1-2)**: 61-68. doi: 10.1016/j.neuropharm.2011.02.018. **IF = 4.814 (2011)**.

Zach P, **Stuchlik A**, Vales K, Rezacova L. Delayed effect of chronic administration of corticoids on the taste aversion learning. *Neuroendocrinology Letters*. 2011; **32(1)**: 90-95. **IF = 1.296 (2011)**.

Rezacova L, Svoboda J, **Stuchlik A**, Vales K. Differential effects of stable elevated levels of corticotropin-releasing hormone and systemic corticosterone on various types of rat learning. *Neuroendocrinology Letters*. 2011; **32(1)**: 64-76. **IF = 1.296 (2011)**.

Telensky P, Svoboda J, Blahna K, Bures J, Kubik S, **Stuchlik A**. Functional inactivation of the rat hippocampus disrupts avoidance of a moving object. *Proceedings of the National Academy of Sciences of the USA*. 2011; **108(13)**: 5414-5418. **IF = 9.681 (2011)**.

Zach P, Mrzálková J, Rezáčová L, **Stuchlik A**, Valeš K. Delayed effects of elevated corticosterone level on volume of hippocampal formation in laboratory rat. *Physiological Research*. 2010; **59(6)**: 985-996. **IF = 1.646 (2010)**.

Petrasek T, Doulames V, Prokopova I, Vales K, **Stuchlik A**. Combined administration of alpha1-adrenoceptor antagonist prazosin and beta-blocker propranolol impairs spatial avoidance learning on a dry arena. *Behavioural Brain Research*. 2010; **208**: 112-117. **IF = 3.393 (2010)**.

Vales K, Svoboda J, Benkovicova K, Buebnikova-Valesova V, **Stuchlik A**. The difference in effect of mGluR 2/3 and mGluR5 agonists on cognitive impairment induced by MK-801. *European Journal of Pharmacology*. 2009; **639(1-3)**: 91-98. **IF = 2.585 (2009)**.

Stuchlik A, Petrasek T, Vales K. Effect of alpha1-adrenergic antagonist prazosin on behavioral alterations induced by MK-801 in a spatial memory task in Long Evans rats. *Physiological Research*. 2009; **58(5)**: 733-740. **IF = 1.430 (2009)**.

Stuchlik A, Vales K. Baclofen dose-dependently disrupts learning in a place avoidance task requiring cognitive coordination. *Physiology & Behavior*. 2009; **97**: 507-511. **IF = 3.295 (2009)**.

Stuchlik A, Petrasek T, Vales K. A dose-response study of the effects of pre-test administration of beta-adrenergic receptor antagonist propranolol on the learning of active place avoidance, a spatial cognition task, in rats. *Behavioural Brain Research*. 2009; **200**: 144-149. **IF = 3.220 (2009)**.

Petrasek T, **Stuchlik A**. Serotonin-depleted rats are capable of learning in active place avoidance, a spatial task requiring cognitive coordination. *Physiological Research*. 2009; **58(2)**: 299-303. **IF = 1.430 (2009)**.

Telensky P, Svoboda J, Pastalkova E, Blahna K, Bures J, **Stuchlik A**. Enemy avoidance task: A novel behavioral paradigm for assessing spatial avoidance of a moving subject. *Journal of Neuroscience Methods*. 2009; **180**: 29-33. **IF = 2.295 (2009)**.

Stuchlik A, Petrasek T, Vales K. Dopamine D2 receptors and alpha1-adrenoceptors synergistically modulate locomotion and behavior of rats in a place avoidance task. *Behavioural Brain Research*. 2008; **189(1)**: 139-144. **IF = 3.171 (2008)**.

Stuchlik A, Vales K. Role of alpha1- and alpha2-adrenoceptors in the regulation of locomotion and spatial behavior in the active place avoidance task: A dose-response study. *Neuroscience Letters*. 2008; **433(3)**: 235-240. **IF = 2.200 (2008)**.

Bubenikova-Valesova V, **Stuchlik A**, Svoboda J, Bures J, Vales K. Risperidone and ritanserin but not haloperidol block effect of dizocilpine on the active allothetic place avoidance task. *Proceedings of the National Academy of Sciences of the USA*. 2008; **105 (3)**: 1061-1066. **IF = 9.380 (2008)**.

Svoboda J, Telensky P, Blahna K, Zach P, Bures J, **Stuchlik A**. Lesion of posterior parietal cortex in rats does not disrupt place avoidance based on either distal or proximal orienting cues. *Neuroscience Letters*. 2008; **445(1)**: 73-77. **IF = 2.200 (2008)**.

Stuchlik A, Rehakova L., Telensky P, Vales K. Morris water maze learning in Long-Evans rats is differentially affected by blockade of D1-like and D2-like dopamine receptors. *Neuroscience Letters*. 2007; **422(3)**: 171-176. **IF = 2.085 (2007)**.

Stuchlik A, Rehakova L, Rambousek L, Svoboda J, Vales K. Manipulation of D2 receptors with quinpirole and sulpiride affects locomotor activity before spatial behavior of rats in an active place avoidance task. *Neuroscience Research*. 2007; **58(2)**: 233-239. **IF = 2.121 (2007)**.

Stuchlik A. Further study of the effects of dopaminergic D1 drugs on place avoidance behavior using pretraining: some negative evidence. *Behavioural Brain Research*. 2007; **178(1)**: 47-52. **IF = 2.626 (2007)**.

Kubík S, **Stuchlik A**, Fenton AA. Evidence for hippocampal role in place avoidance other than merely memory storage. *Physiological Research*. 2006; **55**: 445-452. **IF = 2.093 (2006)**.

Stuchlik A, Vales K. Effect of dopamine D1 receptor antagonist SCH23390 and agonist A77636 on active allothetic place avoidance, a spatial cognition task. *Behavioural Brain Research*. 2006; **172(2)**: 250-255. **IF = 2.591 (2006)**.

Vales K, Bubenikova-Valesova V, Klement D, **Stuchlik A**. Analysis of sensitivity to MK-801 treatment in a novel active allothetic place avoidance task and in the working memory version of the Morris water maze reveals differences between Long-Evans and Wistar rats. *Neuroscience Research*. 2006; **55(4)**: 383-388. **IF = 1.953 (2006)**.

Vales K, **Stuchlik A**. Central muscarinic blockade interferes with learning and retrieval of the Active Allothetic Place avoidance task despite spatial pretraining. *Behavioural Brain Research*. 2005; **161(2)**: 238-244. **IF = 2.865 (2009)**.

Stuchlik A, Vales, K. Systemic administration of MK-801, a non-competitive NMDA-receptor antagonist, elicits a behavioural deficit of rats in the Active Allothetic Place Avoidance (AAPA) task irrespectively of their intact spatial pretraining. *Behavioural Brain Research*. 2005; **159(1)**: 163-171. **IF = 2.865 (2005)**.

Stuchlik A, Rezacova L, Vales K, Bubenikova V, Kubik S. Application of a novel Active Allothetic Place Avoidance task (AAPA) in testing a pharmacological model of psychosis in rats: comparison with the Morris Water Maze. *Neuroscience Letters*. 2004; **366(2)**: 162-166. **IF = 2.019 (2004)**.

Stuchlik A and Bures J. Relative contribution of allothetic and idiothetic navigation to place avoidance on stable and rotating arenas in darkness. *Behavioural Brain Research*. 2002; **128(2)**: 179-88. **IF = 2.791 (2002)**.

Czeh B, **Stuchlik A**, Wesierska M, Cimadevilla JM, Pokorny J, Seress L, Bures J. Effect of neonatal dentate gyrus lesion on allothetic and idiothetic navigation in rats. *Neurobiology of Learning and Memory*. 2001; **75**: 190-213. **IF = 1.830 (2001)**.

Stuchlik A, Fenton AA, Bures J. Substratal idiothetic navigation of rats is impaired by removal or devaluation of extramaze and intramaze cues. *Proceedings of the National Academy of Sciences of the USA*. 2001; **98**: 3537-3542. **IF = 10.896 (2001)**.

Stuchlik A, Kubova H, Mares P. Single systemic dose of vigabatrin induces early proconvulsant effect in rats. *Neuroscience Letters*. 2001; **312(1)**: 37-40. **IF = 2.021 (2001)**.

Papers in compendia:

Fajnerova I, Rodriguez M, Spaniel F, Horacek J, Vlcek K, Levčík D, **Stuchlík A**, Brom C. Spatial navigation in virtual reality - from animal models towards schizophrenia: Spatial cognition tests based on animal research. *Virtual Rehabilitation Proceedings (ICVR) 2015*; 44- 50. IEEE Conference proceedings available at: <http://ieeexplore.ieee.org/>, doi: 10.1109/ICVR.2015.7358589

Stuchlík A, Petršsek T, Rambousek L, Vales K. [Study of cognitive functions of animals and place avoidance tasks] *Studium kognitivních schopností zvířat a úlohy vyhýbání se místu, Kognice a umělý život VIII. Opava : Slezská univerzita, Filozoficko-přirodovědecká fakulta, 2008 - (Kelemen, J.; Kvasnička, V.; Pstružina, K.) p. 301-305. ISBN 978-80-7248-462-1. [Kognice a umělý život /8./, Praha (CZ), 26.05.2008-29.05.2008]*

Rambousek L, Vales K, Kenney J, **Stuchlík A**. Active allothetic place avoidance task in study of cognitive disturbance in animal model of schizophrenia in rats. *Proceedings of Measuring Behavior 2008. Maastricht : Noldus, 2008 - (Spink, A.; Ballintijn, M.; Bogers, N.) p. 306-306. ISBN 978-90-74821-81-0. [International Conference on Methods and Techniques in Behavioral Research /6./, Maastricht (NL), 26.08.2008-29.08.2008]*

Svoboda J, Telensky P, Blahna K, Bures J, **Stuchlík A**. Effect of lesions to the posterior parietal or medial prefrontal cortices on navigation based on distal or proximal orienting cues in the rat. *Proceedings of Measuring Behavior 2008. Maastricht : Noldus, 2008 - (Spink, A.; Ballintijn, M.; Bogers, N.) p. 320-320. ISBN 978-90-74821-81-0. [International Conference on Methods and Techniques in Behavioral Research /6./, Maastricht (NL), 26.08.2008-29.08.2008]*

Papers in non-impacted peer-reviewed journals

Fajnerova I, Rodriguez M, Vlček K, Konrádová L, Mikoláš P, Dvorská K, Levčík D, Ungrmanová M, Brom C, Horáček J, **Stuchlík A**. Spatial memory in a virtual arena Human virtual analogue of the Morris water maze in schizophrenia (short paper). *International Conference of Virtual rehabilitation*. 26. - 29. 8. 2013; Philadelphia, USA: <http://ieeexplore.ieee.org/>, doi: 10.1109/ICVR.2013.6662118.

Dallal N L, Yin B, Nekovářová T, **Stuchlík A**, Meck W H. Vestibular inputs to spatial navigation and interval timing: The role of self-initiated motion in spatial-temporal integration. *Timing & Time Perception*. 2015; **3(3-4)**: 269-305. doi: 10.1163/22134468-03002053.

Svojanovská M, **Stuchlík A**. Animal Models of Schizophrenia with a Focus on Models Targeting NMDA Receptors. *Cognitive Remediation Journal*. 2015; **4(1)**: 3-18. ISSN 1805-7225.

Stuchlík A, Svojanovská M. Fyziologie glutamátu, dlouhodobá potenciace, schizofrenie a paměť. *Československá fyziologie*. 2014; **63(2)**: 84-91.

Felisi M, Padula R, Bartoloni F, Grosch-Wörner C, Kagedal B, Mellado Peña MJ, Parry J, **Stuchlík A**, Verhamme K, Ceci A. TEDDY EPMD: A European Paediatric Medicines Database. *Pharmaceuticals Policy and Law*. 2009; **11(1-2)**: 31-39. ISSN 1389-2827.

Levčík D, Klement D, Nekovářová T, Valeš K, **Stuchlík A**. Antagonista NMDA-receptorů MK-801 narušuje rozeznávání pozice vzdáleného objektu. *Psychiatrie*. 2010; **14(2)**: 15-18. ISSN 1211-7579.

Valeš K, Rambousek L, **Stuchlík A**, Chodounská H, Vyklický ml. L. Srovnání vlivu systémové aplikace non-kompetitivních a use-dependentních NMDA antagonistů na lokomoční aktivitu a kognitivní funkce u laboratorního potkana. *Psychiatrie*. 2010; **14(2)**: 26-30. ISSN 1211-7579.

Levčík D, Klement D, Nekovářová T, Petrásek T, **Stuchlík A**. Vliv antagonistů noradrenergických receptorů na rozeznávání pozice pohybujících se objektů. *Psychiatrie*. 2009; **13(4)**: 176-180. ISSN 1212-6845.

Petrásek T, Benkovičová K, Valeš K, **Stuchlík A**. Navigační úloha aktivního alotetického vyhýbání se místu (AAPA): užitečná metoda pro hodnocení prostorové kognice a chování laboratorních zvířat. *Psychiatrie*. 2009; **13(4)**: 195-200. ISSN 1211-7579.

Bubeníková-Valešová V, Svoboda J, **Stuchlík A**, Valeš K. Metabotropní glutamátové receptory v léčbě schizofrenie. *Psychiatrie*. 2008; **12(3)**: 17-20. ISSN 1211-7579.

Ort M, Křištofíková Z, Helešic V, Voříšek I, Vrbacký M, Majer E, Bureš J, **Stuchlík A**, Řípková D. Porovnání tří druhů negenetických animálních modelů demence. *Psychiatrie*. 2008; **12(3)**: 31-32. ISSN 1211-7579.

Bubeníková-Valešová V, Valeš K, **Stuchlík A**, Horáček J. Úloha serotoninových -1A receptorů na učení a paměť – význam pro schizofrenii. *Psychiatrie*. 2007; **11(3)**: 8-11. ISSN 1211-7579.

Křištofíková Z, Ort M, Helešic V, Vrbacký M, Majer E, Bureš J, **Stuchlík A**, Řípková D. Azid sodný a animální modely demence Alzheimerova typu. Část II – Chronická subkutánní aplikace mladým i starým zvířatům, shrnutí výsledků. *Psychiatrie*. 2007; **11(3)**: 30-33. ISSN 1211-7579.

Stuchlík A, Valeš K, Nekovářová T. Neurobiologické mechanismy formování paměťové stopy a metody studia jejího narušení. *Psychiatrie*. 2007; **11(2)**: 84-86. ISSN 1212-6845.

Valeš K, Bubeníková-Valešová V, **Stuchlík A**. Vliv dopaminových D1-like receptorů na kognitivní funkce. *Psychiatrie*. 2006; **10(3)**: 30-34. ISSN 1211-7579.

Stuchlík A. Úlohy aktivního a pasivního vyhýbání se místu: slibné nástroje v kognitivních neurovědách. *Psychiatrie*. 2004; **8(1)**: 17-20. ISSN 1211-7579.

Stuchlík A. Prostor a prostorová orientace. *Československá fyziologie*. 2003; **52(1)**: 22-33. ISSN 0009-0557