

СВЕДЕНИЯ ОБ ОФИЦИАЛЬНОМ ОПШОНЕНТЕ

по диссертации Белозор Ольги Сергеевны выполненной на тему «РОЛЬ АСТРОГЛИИ В ПАТОГЕНЕЗЕ СПИНОЦЕРЕБЕЛЛЯРНОЙ АТАКСИИ ПЕРВОГО ТИПА», представленной на соискание ученой степени кандидата/доктора биологических/медицинских наук по специальности 3.3.3. Патологическая физиология.

Фамилия, Имя, Отчество; год рождения и гражданство	Место основной работы (с указанием организации, министерства (ведомства), города), должность	Ученая степень (с указанием шифра специальности, по которой защищена диссертация, и отрасли науки)	Ученое звание (по специальности, кафедре)	Основные работы по профилю диссертации (за последние 5 лет, не менее 5)
Семьянов Алексей Васильевич, РФ	Государственный Научный Центр. Федеральное государственное бюджетное учреждение науки. Институт биоорганической химии. им. академиков М.М. Шемякина и Ю.А., Заместитель директора по научной работе	Доктор биологических наук, специальность 03.00.13	Член-корреспондент РАН	<ol style="list-style-type: none"> 1) Alexander Porov, Nadezda Brazhe, Anna Fedotova, Alisa Tiaglik, Maxim Burchkov, Ksenia Morozova, Alexey Brazhe, Dmitry Aronov, Ekaterina Lyukmanova, Natalia Lazareva, Li Li, Evgeni Romimaskin, Alexei Verkhvatsky, Alexey Semyanov A high-fat diet changes astrocytic metabolism to promote synaptic plasticity and behavior. <i>Acta Physiol.</i> 2022; 00:e13847. doi: 10.1111/apha.13847 2) Olga Turchikova, Rei-Yu Shin, Yulia Dembitskaya, Leonid P. Savchenko, Thomas J. McNugh, Dmitri A. Rusakov, Alexey Semyanov K+ efflux through postsynaptic NMDA receptors suppresses local astrocytic glutamate uptake. <i>Glia</i> 2022, 70(5), 961 – 974 doi: 10.1002/glia.24150 3) Yulia Dembitskaya, Nikolay Gavrilov, Igor Kraev, Maxim Doronin, Yong Tang, Li Li, Alexey Semyanov Attenuation of the extracellular matrix increases the number of synapses but suppresses synaptic plasticity through upregulation of SK channels. <i>Cell Calcium</i>, 2021 V.96 doi: 10.1016/j.ceca.2021.102406 4) Pavel Denisov, Alexander Porov, Alexey Brazhe, Natalia Lazareva, Alexei Verkhvatsky, Alexey Semyanov Caloric restriction modifies spatiotemporal calcium dynamics in

				<p>hippocampal mouse astrocytes. <i>Biochimica et Biophysica Acta (BBA) - Molecular Cell Research</i>, 2021, 1868(7):119034. doi: 10.1016/j.bbamcr.2021.119034</p> <p>5) Alexander Popov, Alexey Brazhe, Pavel Denisov, Oksana Sutyagina, Li Li, Natalia Lazareva, Alexei Verkhatsky, Alexey Semyanov Astrocytes dystrophy in ageing brain parallels impaired synaptic plasticity. <i>Aging Cell</i>, 2021, 20: e13334. doi:10.1111/accel.13334</p> <p>6) Olga Tyurikova, Kaiyu Zheng, Elizabeth Nicholson, Yulia Timofeeva, Alexey Semyanov, Kirill Volynski, Dmitri A. Rusakov Fluorescence lifetime imaging reveals regulation of presynaptic Ca²⁺ by glutamate uptake and mGluRs, but not somatic voltage in cortical neurons. <i>J. Neurochem.</i> 2021, 156:48–58 doi:10.1111/jnc.15094</p> <p>7) Yulia Dembitskaya, Yu-Wei Wu, Alexey Semyanov Tonic GABA conductance favors spike-timing-dependent over theta-burst-induced long-term potentiation in the hippocampus. <i>J. Neurosci</i> 2020, 40(22):4266–4276. doi: 10.1523/JNEUROSCI.2118-19.2020</p> <p>8) Alexander Popov, Pavel Denisov, Maxim Bychkov, Alexey Brazhe, Ekaterina Lyukmanova, Zakhar Shenkarev, Natalia Lazareva, Alexei Verkhatsky, Alexey Semyanov Caloric restriction triggers morphofunctional remodeling of astrocytes and enhances synaptic plasticity in the mouse hippocampus. <i>Cell Death Dis</i> 2020, 11:208. doi: 10.1038/s41419-020-2406-3</p> <p>9) Nephthali Marina, Isabel N Christie, Alla Korsak, Maxim Doronin, Alexey Brazhe, Patrick S Hosford, Jack A Wells, Shahriar Sheikhabaei, Ibrahim Humoud, Julian FR Paton, Mark F Lythgoe, Alexey Semyanov, Sergey Kasparov, Alexander V Gourine Astrocytes monitor cerebral perfusion and control systemic circulation to maintain brain blood flow. <i>Nature Commun</i> 2020, 11:131 doi: 10.1038/s41467-019-13956-y</p>
--	--	--	--	---

			<p>10) Yu-Wei Wu, Susan Gordleeva, Xiaofang Tang, Pie-Yu Shih, Yulia Dembitskaya, Alexey Semyanov Morphological profile determines the frequency of spontaneous calcium events in thin astrocytic processes. <i>Glia</i> 2019, 67:246–262 doi:10.1002/glia.23537</p> <p>11) Nikolay Gavrilov, Inna Golyagina, Alexey Brazhe, Annalisa Scimemi, Vadim Turlapov and Alexey Semyanov Astrocytic coverage of dendritic spines, dendritic shafts and axonal boutons in hippocampal neuropil. <i>Front. Cell. Neurosci.</i> 2018, 12:248 doi: 10.3389/fncel.2018.00248</p> <p>12) Alex Plata, Albina Lebedeva, Pavel Denisov, Olga Nosova, Tatiana Y. Postnikova, Alexey Pimashkin, Alexey Brazhe, Aleksey V Zaitsev, Dmitri A Rusakov and Alexey Semyanov Astrocytic atrophy following status epilepticus parallels reduced Ca²⁺ activity and impaired synaptic plasticity in the rat hippocampus. <i>Front. Mol. Neurosci.</i>, 2018 11:215 doi: 10.3389/fnmol.2018.00215</p> <p>13) 13. Lebedeva A, Plata A, Nosova O, Tyurikova O, Semyanov A. Activity-dependent changes in transporter and potassium currents in hippocampal astrocytes. <i>Brain Res Bull.</i> 2018 136: 37-43 doi: 10.1016/j.brainresbull.2017.08.015.</p> <p>14) Alexey Semyanov, Alexei Verkhratsky Inclusive brain: from neuronal doctrine to the active milieu. <i>Function</i>, 2022; zqab069, doi: 10.1093/function/zqab069</p> <p>15) Verkhratsky A, Lazareva N, Semyanov A. Glial decline and loss of homeostatic support rather than inflammation defines cognitive aging. <i>Neural Regen Res.</i> 2022, 17(3):565-566. doi: 10.4103/1673-5374.320979</p> <p>16) Alexey Semyanov & Alexei Verkhratsky Astrocytic processes: from tripartite synapses to the active milieu / <i>Trends in Neurosciences</i> 2021 V.44(10), P781-792 doi: 10.1016/j.tins.2021.07.006</p>
--	--	--	---

			<p>17) Wang T, Ulrich H, Semyanov A, Illes P, Tang Y. Optical control of purinergic signaling. <i>Purinergic Signalling</i> 2021, 17(3):385-392 doi: 10.1007/s11302-021-09799-2</p> <p>18) Zhao Huang, Na Xie, Peter Illes, Francesco Di Virgilio, Henning Ulrich, Alexey Semyanov, Alexei Verkhratsky, Beata Sperlagh, Shu-Guang Yu, Canhua Huang & Yong Tang From purines to purinergic signalling: molecular functions and human diseases. <i>Sig Transduct Target Ther</i> 6(1):162 (2021). doi:10.1038/s41392-021-00553-z</p> <p>19) Xin Cao, Hai-Yan Yin, Henning Ulrich, Alexey Semyanov, Yong Tang A Neural Circuit for Gut-Induced Sugar Preference/ <i>Neurosci Bull</i> 2021, 37(6):754-756 doi: 10.1007/s12264-021-00692-x</p> <p>20) Verkhratsky A, Illes P, Tang Y, Semyanov A. The anti-inflammatory astrocyte revealed: the role of the microbiome in shaping brain defences. <i>Signal Transduct Target Ther</i> 2021 Apr 10;6(1):150. doi: 10.1038/s41392-021-00577-5.</p> <p>21) Carole Escartin et al. Reactive astrocyte nomenclature, definitions, and future directions. <i>Nature Neurosci</i> 2021, 24, 312–325 doi: 10.1038/s41593-020-00783-4</p> <p>22) Talita Glaser, Roberta Andrejew, Ágatha Oliveira-Giacomelli, Deidiane Elisa Ribeiro, Lucas Bonfim Marques, Qing Ye, Wen-Jing Ren, Alexey Semyanov, Peter Illes, Yong Tang & Henning Ulrich Purinergic Receptors in Basal Ganglia Diseases: Shared Molecular Mechanisms between Huntington's and Parkinson's Disease. <i>Neurosci Bull</i> 2020, 36(11):1299-1314. doi: 10.1007/s12264-020-00582-8</p> <p>23) Alexei Verkhratsky, Marcus Augusto-Oliveira, Augustas Pivorūnas, Alexander Popov, Alexey Brazhe & Alexey Semyanov. Astroglial asthenia and loss of function, rather than reactivity, contribute to the ageing of the brain. <i>Pflugers Arch - Eur J Physiol</i> 2020, 473(5):753-774 doi: 10.1007/s00424-020-02465-3</p>
--	--	--	--

				<p>24) Alexei Verkhratsky, Alexey Semyanov, Robert Zorec, Physiology of astroglial excitability, Function 2020, zqaa016, https://doi.org/10.1093/function/zqaa016</p> <p>25) Alexey Semyanov, Christian Henneberger, Amit Agarwal Making sense of astrocytic calcium signals — from acquisition to interpretation / Nature Reviews Neurosci 21, 551–564 (2020), doi: 10.1038/s41583-020-0361-8</p> <p>26) Wen-jing Ren, Henning Ulrich, Alexey Semyanov, Peter Iles, Yong Tang TASK-3: New Target for Pain-Relief. Neuroscience Bulletin 2020, 36(8):951-954. doi: 10.1007/s12264-020-00516-4</p> <p>27) Verkhratsky A, Rodrigues JJ, Pivoriunas A, Zorec R, Semyanov A. Astroglial atrophy in Alzheimer's disease. Pflugers Arch - Eur J Physiol 2019, 471, 1247–1261 doi: 10.1007/s00424-019-02310-2.</p> <p>28) Verkhratsky A, Semyanov A. Astroglial Ca2+ signals trigger pathological behaviour in orthogenetic mouse / Cell Calcium. 2019 82:102062. doi: 10.1016/j.ceca.2019.102062.</p> <p>29) Alexey Semyanov Spatiotemporal pattern of calcium activity in astrocytic network / Cell Calcium 2019 V. 78 P15-25 doi: 10.1016/j.ceca.2018.12.007</p>
--	--	--	--	---

Дано согласие на обработку персональных данных.

16.01.02023

Семьянов А.В.

