

Евгений Евгеньевич Никольский



(11 апреля 1947 - 14 июня 2018)

Общественность Татарстана понесла невосполнимую утрату. 14 июня 2018 года на 72-м году после продолжительной болезни ушел из жизни выдающийся ученый Евгений Евгеньевич Никольский – действительный член Российской академии наук, профессор, доктор медицинских наук, заведующий лабораторией биофизики синаптических процессов Казанского института биохимии и биофизики федерального исследовательского центра «Казанский научный центр РАН».

Е.Е. Никольский родился в семье военного 11 апреля 1947 года в городе Таллине. Окончив казанскую физико-математическую школу № 131, в 1965 году поступил и в 1971 году окончил лечебно-профилактический факультет Казанского государственного медицинского института. В 1974 году в том же вузе стал ассистентом кафедры нормальной физиологии и защитил кандидатскую диссертацию. В 1983 году был утвержден в должности заведующего кафедрой медицинской и биологической физики КГМУ, а в 1990 году защитил в Институте эволюционной физиологии и биохимии имени И.М. Сеченова Академии наук СССР докторскую диссертацию.

Е.Е. Никольский – организатор и бессменный руководитель Межведомственной лаборатории «Биологические мембраны в норме и патологии». В Казанском федеральном университете он занимался привлечением высококвалифицированных специалистов, сферой научных интересов которых являются молекулярные механизмы действия природных и синтезированных соединений, обладающих нейротропной активностью. Их изучают с целью поиска новых средств лечения заболеваний центральной и периферической нервной системы.

Е.Е. Никольский – крупный отечественный специалист в области физиологии синаптических процессов. Его труды связаны в том числе с решением актуальных проблем в здравоохранении. Кроме того, академик внес весомый вклад в исследование механизмов развития гипогравитационного синдрома, возникающего при нахождении организма в условиях невесомости.

Е.Е. Никольский – автор около трехсот научных работ, в том числе трех монографий. Под его руководством защищены три докторские и 13 кандидатских диссертаций. Ученый являлся заместителем главного редактора

«Российского физиологического журнала им. И.М. Сеченова», членом редакционных коллегий журнала «Биологические мембраны» и ряда других авторитетных периодических научных изданий.

Научно-исследовательская, педагогическая и организационная деятельность Е.Е. Никольского получила широкое признание коллег, а ее результаты отмечены многочисленными государственными наградами. Академик Е.Е. Никольский – заслуженный деятель науки Российской Федерации и Республики Татарстан, лауреат Государственной премии РТ 1995 года, он удостоен медалей имени Йозефа Главки и Яна Пуркинье Академии наук Чехии. Кабинет Министров Республики Татарстан выражает искренние соболезнования родным и близким Е.Е. Никольского. Светлая память о Евгении Евгеньевиче Никольском навсегда сохранится в наших сердцах.

Источник: <http://rt-online.ru/nikolskij-evgenij-evgenevich/>

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Основные научные публикации Е.Е. Никольского

1. Samigullin, DV; Zhilyakov, NV; Khaziev, EF; Bukharaeva, EA; **Nikolsky, EE.**

Calcium Transient and Quantal Release in Mouse Neuromuscular Junction Under Extracellular Calcium Concentration Change

BIONANOSCIENCE 8(4), 984-987 (2018)

2. Petrov, KA; **Nikolsky, EE;** Masson, P.

Autoregulation of Acetylcholine Release and Micro-Pharmacodynamic Mechanisms at Neuromuscular Junction: Selective Acetylcholinesterase Inhibitors for Therapy of Myasthenic Syndromes

FRONTIERS IN PHARMACOLOGY 9, - (2018)

3. Zueva, I; Semenov, V; Petrov, K; **Nikolsky, E.**

Novel dual binding site inhibitor for treatment of Alzheimer's disease

EUROPEAN JOURNAL OF CLINICAL INVESTIGATION 48, 113-113 (2018)

4. Malomouzh, AI; **Nikolsky, EE.**

Modern Concepts of Cholinergic Neurotransmission at Motor Synapses

BIOLOGICHESKIE MEMBRANY 35(3), 169-185 (2018)

5. Khaziev, EF; Samigullin, DV; Tsentsevitsky, AN; Bukharaeva, EA; **Nikolsky, EE.**

ATP Reduces the Entry of Calcium Ions into the Nerve Ending by Blocking L-type Calcium Channels

ACTA NATURAE 10(2), 93-96 (2018)

6. Petrov, K; Zueva, I; Kovyazina, I; Sedov, I; Lushchekina, S; Kharlamova, A; Lenina, O; Koshkin, S; Shtyrilin, Y; **Nikolsky, E;** Masson, P.

C-547, a 6-methyluracil derivative with long-lasting binding and rebinding on acetylcholinesterase: Pharmacokinetic

and pharmacodynamic studies

NEUROPHARMACOLOGY 131, 304-315 (2018)

7. Petrov, KA; Kharlamova, AD; Lenina, OA; Nurtdinov, AR; Sitdykova, ME; Ilyin, VI; Zueva, IV; **Nikolsky, EE.**

Specific inhibition of acetylcholinesterase as an approach to decrease muscarinic side effects during myasthenia gravis treatment

SCIENTIFIC REPORTS 8, - (2018)

8. Kovyazina, IV; Kopylova, NV; Utkin, YN; Bukharaeva, EA; **Nikolsky, EE;** Vulfius, CA.

Depression of the Evoked Quantal Acetylcholine Secretion in Frog Neuromuscular Junction by Phospholipases A2 from the Venom of Steppe Viper *Vipera ursinii renardi*

BIOLOGICHESKIE MEMBRANY 35(1), 71-78 (2018)

9. Larionov, IA; Larionov, AL; **Nikolsky, EE.**

Can the Ampere Forces Be a Factor of the Ion Channels' Lateral Mobility? Mathematical Modeling

BIOLOGICHESKIE MEMBRANY 35(1), 3-+ (2018)

10. Nurullin, LF; **Nikolsky, EE;** Malomouzh, AI.

Elements of molecular machinery of GABAergic signaling in the vertebrate cholinergic neuromuscular junction

ACTA HISTOCHEMICA 120(3), 298-301 (2018)

11. Proskurina, S E; Petrov, K A; **Nikolsky, E E.**

Influence of the Activation of NMDA Receptors on the Resting Membrane Potential of the Postsynaptic Cell at the Neuromuscular Junction.

Acta naturae 10(3), - (2018)

12. Lushchekina, S; Kots, E; Nachon, F; Petrov, K; Kharlamova, A; **Nikolsky, E;** Masson, P.

Slow-binding inhibition of acetylcholinesterase by an alkylammonium derivative of 6-methyluracil: molecular modeling, X-ray crystallography and kinetic study of the inhibition mechanism

JOURNAL OF NEUROCHEMISTRY 142, 195-196 (2017)

13. Tsentsevitsky, A; Nurullin, L; **Nikolsky, E;** Malomouzh, A.

Metabotropic and Ionotropic Glutamate Receptors Mediate the Modulation of Acetylcholine Release at the Frog Neuromuscular Junction

JOURNAL OF NEUROSCIENCE RESEARCH 95(7), 1391-1401 (2017)

14. Samigullin, DV; Khaziev, EF; Zhilyakov, NV; Bukharaeva, EA; **Nikolsky, EE.**

Z Loading a Calcium Dye into Frog Nerve Endings Through the Nerve Stump: Calcium Transient Registration in the Frog Neuromuscular Junction

JOVE-JOURNAL OF VISUALIZED EXPERIMENTS (125), - (2017)

15. Pashirova, TN; Zueva, IV; Petrov, KA; Babaev, VM; Lukashenko, SS; Rizvanov, IK; Souto, EB; **Nikolsky**, EE; Zakharova, LY; Masson, P; Sinyashin, OG.

Nanoparticle-Delivered 2-PAM for Rat Brain Protection against Paraoxon Central Toxicity

ACS APPLIED MATERIALS & INTERFACES 9(20), 16923-16933 (2017)

16. Tsentsevitsky, AN; Kovyazina, IV; Nurullin, LF; **Nikolsky**, EE.

Muscarinic cholinergic receptors (M1-, M2-, M3- and M4-type) modulate the acetylcholine secretion in the frog neuromuscular junction

NEUROSCIENCE LETTERS 649, 62-69 (2017)

17. Shelukhina, I; Mikhailov, N; Abushik, P; Nurullin, L; **Nikolsky**, EE; Giniatullin, R.

Cholinergic Nociceptive Mechanisms in Rat Meninges and Trigeminal Ganglia: Potential Implications for Migraine Pain

FRONTIERS IN NEUROLOGY 8, - (2017)

18. Samigullin, DV; Khaziev, EF; Zhilyakov, NV; Sudakov, IA; Bukharaeva, EA; **Nikolsky**, EE.

Calcium Transient Registration in Response to Single Stimulation and During Train of Pulses in Mouse Neuromuscular Junction

BIONANOSCIENCE 7(1), 162-166 (2017)

19. Khaziev, E; Bukharaeva, E; **Nikolsky**, E; Samigullin, D.

Contribution of Ryanodine Receptors in Forming Presynaptic Ca²⁺ Level and Cholinergic Modulation in Response to Single Potential in Frog Neuromuscular Junction

BIONANOSCIENCE 7(1), 106-108 (2017)

20. Khaziev, E; Golovyahina, A; Bukharaeva, E; **Nikolsky**, E; Samigullin, D.

Action of ATP on Ca²⁺-Transient in Different Parts of the Frog Motor Nerve Ending

BIONANOSCIENCE 7(1), 254-257 (2017)

21. Khaziev, E; Samigullin, D; Zhilyakov, N; Fatikhov, N; Bukharaeva, E; Verkhatsky, A; **Nikolsky**, E.

Acetylcholine-Induced Inhibition of Presynaptic Calcium Signals and Transmitter Release in the Frog Neuromuscular Junction

FRONTIERS IN PHYSIOLOGY 7, - (2016)

22. Strel'nik, AD; Petukhov, AS; Zueva, IV; Zobov, VV; Petrov, KA; **Nikolsky**, EE; Balakin, KV; Bachurin, SO; Shtyrlin, YG.

Novel potent pyridoxine-based inhibitors of AChE and BChE, structural analogs of pyridostigmine, with improved in vivo safety profile

BIOORGANIC & MEDICINAL CHEMISTRY LETTERS 26(16), 4092-4094 (2016)

23. Kharlamova, AD; Lushchekina, SV; Petrov, KA; Kots, ED; Nachon, F; Villard-Wandhammer, M; Zueva, IV; Krejci, E; Reznik, VS; Zobov, VV; **Nikolsky**, EE; Masson, P.

Slow-binding inhibition of acetylcholinesterase by an alkylammonium derivative of 6-methyluracil: mechanism and

possible advantages for myasthenia gravis treatment

BIOCHEMICAL JOURNAL 473, 1225-1236 (2016)

24. Shakirzyanova, A; Valeeva, G; Giniatullin, A; Naumenko, N; Fulle, S; Akulov, A; Atalay, M; **Nikolsky, E**; Giniatullin, R.

Age-dependent action of reactive oxygen species on transmitter release in mammalian neuromuscular junctions

NEUROBIOLOGY OF AGING 38, 73-81 (2016)

25. Povysheva, T V; Rezvyakov, P N; Shaimardanova, G F; **Nikolskii, E E**; Islamov, R R; Chelyshev, Yu A; Grygoryev, A I.
Myelinated fibers of the mouse spinal cord after a 30-day space flight.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections

469(1), - (2016)

26. Kovyazina, I V; Tsentsevitsky, A N; **Nikolsky, E E**.

Presynaptic nicotinic cholinergic receptors modulate velocity of the action potential propagation along the motor nerve endings at a high-frequency synaptic activity.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections

468(1), - (2016)

27. Khuzakhmetova, V F; Nurullin, L F; Bukharaeva, E A; **Nikolsky, E E**.

Involvement of dihydropyridine-sensitive calcium channels in high asynchrony of transmitter release in neuromuscular synapses of newborn rats.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections

470(1), - (2016)

28. Malomouzh, AI; Petrov, KA; Nurullin, LF; **Nikolsky, EE**.

Metabotropic GABA(B) receptors mediate GABA inhibition of acetylcholine release in the rat neuromuscular junction

JOURNAL OF NEUROCHEMISTRY 135(6), 1149-1160 (2015)

29. Semenov, VE; Zueva, IV; Mukhamedyarov, MA; Lushchekina, SV; Kharlamova, AD; Petukhova, EO; Mikhailov, AS;

Podyachev, SN; Saifina, LF; Petrov, KA; Minnekhanova, OA; Zobov, VV; **Nikolsky, EE**; Masson, P; Reznik, VS.

6-Methyluracil Derivatives as Bifunctional Acetylcholinesterase Inhibitors for the Treatment of Alzheimer's Disease

CHEMMEDCHEM 10(11), 1863-1874 (2015)

30. Saveliev, A; Khuzakhmetova, V; Samigullin, D; Skorinkin, A; Kovyazina, I; **Nikolsky, E**; Bukharaeva, E.

Bayesian analysis of the kinetics of quantal transmitter secretion at the neuromuscular junction

JOURNAL OF COMPUTATIONAL NEUROSCIENCE 39(2), 119-129 (2015)

31. Malomouzh, AI; Nurullin, LF; **Nikolsky, EE**.

Immunohistochemical evidence of the presence of metabotropic receptors for gamma-aminobutyric acid at the rat neuromuscular junctions

DOKLADY BIOCHEMISTRY AND BIOPHYSICS 463(1), 236-238 (2015)

32. Kovyazina, I V; Tsentsevitsky, A N; **Nikolsky**, E E.

Identification of the muscarinic receptor subtypes involved in autoregulation of acetylcholine quantal release from frog motor nerve endings.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 460, - (2015)

33. Zueva, I V; Semenov, V E; Mukhamedyarov, M A; Lushchekina, S V; Kharlamova, A D; Petukhova, E O; Mikhailov, A S; Podyachev, S N; Saifina, L F; Petrov, K A; Minnekhanova, O A; Zobov, V V; **Nikolsky**, E E; Masson, P; Reznik, V S. 6-Methyluracil derivatives as acetylcholinesterase inhibitors for treatment of Alzheimer's disease.

The International journal of risk & safety in medicine 27 Suppl 1, - (2015)

34. Semenov, VE; Giniyatullin, RK; Lushchekina, SV; Kots, ED; Petrov, KA; Nikitashina, AD; Minnekhanova, OA; Zobov, VV; **Nikolsky**, EE; Masson, P; Reznik, VS.

Macrocyclic derivatives of 6-methyluracil as ligands of the peripheral anionic site of acetylcholinesterase
MEDCHEMCOMM 5(11), 1729-1735 (2014)

35. Petrov, KA; Girard, E; Nikitashina, AD; Colasante, C; Bernard, V; Nurullin, L; Leroy, J; Samigullin, D; Colak, O; **Nikolsky**, E; Plaud, B; Krejci, E.

Schwann Cells Sense and Control Acetylcholine Spillover at the Neuromuscular Junction by alpha 7 Nicotinic Receptors and Butyrylcholinesterase

JOURNAL OF NEUROSCIENCE 34(36), 11870-11883 (2014)

36. Khuzakhmetova, V; Samigullin, D; Nurullin, L; Vyskocil, F; **Nikolsky**, E; Bukharaeva, E.

Kinetics of neurotransmitter release in neuromuscular synapses of newborn and adult rats

INTERNATIONAL JOURNAL OF DEVELOPMENTAL NEUROSCIENCE 34, 9-18 (2014)

37. Mukhamedshina, Ya O; Povysheva, T V; Nigmatzyanova, M V; Tyapkina, O V; Islamov, R R; **Nikolsky**, E E; Chelyshev, Yu A.

Astrocytes and microglia of the mouse spinal cord during hind limb suspension.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 456(1), - (2014)

38. Malomouzh, A I; Mukhitov, A R; Proskurina, S E; Vyskocil, F; **Nikolsky**, E E.

The effect of dynasore, a blocker of dynamin-dependent endocytosis, on spontaneous quantal and non-quantal release of acetylcholine in murine neuromuscular junctions.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 459, - (2014)

39. Mukhitov, A R; **Nikolsky**, E E.

The effect of electric stimulation of various frequencies and durations on microtubules in frog motor axon terminals.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 459, - (2014)

40. Tiapkina, O V; Nurullin, L F; Petrov, K A; Volkov, E M.

Influence of modeling of gravitational unloading on the postsynaptic acetylcholine receptor organization and acetylcholinesterase activity in neuromuscular synapses of rat fast and slow muscles.

Tsitologiya 56(10), - (2014)

42. Samigullin, Dmitry; Fatikhov, Nijaz; Khaziev, Eduard; Skorinkin, Andrey; **Nikolsky**, Eugeny; Bukharaeva, Ellya.

Estimation of presynaptic calcium currents and endogenous calcium buffers at the frog neuromuscular junction with two different calcium fluorescent dyes.

Frontiers in synaptic neuroscience 6, - (2014)

43. Tsentsevitsky, A; Kovyazina, I; **Nikolsky**, E; Bukharaeva, E; Giniatullin, R.

REDOX-SENSITIVE SYNCHRONIZING ACTION OF ADENOSINE ON TRANSMITTER RELEASE AT THE NEUROMUSCULAR JUNCTION

NEUROSCIENCE 248, 699-707 (2013)

44. Islamov, R R; Tiapkina, O V; **Nikol'skii**, E E; Kozlovskaya, I B; Grigor'ev, A I.

[The role of spinal motoneurons in the mechanisms of hypogravitational motor syndrome development].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 99(3), - (2013)

45. Petrov, KA; Malomouzh, AI; Kovyazina, IV; Krejci, E; Nikitashina, AD; Proskurina, SE; Zobov, VV; **Nikolsky**, EE.

Regulation of acetylcholinesterase activity by nitric oxide in rat neuromuscular junction via N-methyl-d-aspartate receptor activation

EUROPEAN JOURNAL OF NEUROSCIENCE 37(2), 181-189 (2013)

46. Islamov, R R; Lannik, N I; Shaimardanova, G F; Rezvyakov, P N; Tyapkina, O V; Rizvanov, A A; Chelyshev, Yu A; Kozlovskaya, I B; **Nikolskii**, E E.

Effect of hindlimb unloading on myelinated fibers in the mouse lumbar spinal cord.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 452, - (2013)

47. Nurullin, L F; Tsentsevitsky, A N; Malomouzh, A I; **Nikolsky**, E E.

Revealing of T-type low-voltage activated calcium channels (CaV3) in frog neuromuscular junctions.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 449, - (2013)

48. Nikitashina, A D; Petrov, K A; Zobov, V V; Reznik, V S; **Nikol'skii**, E E.

Specific inhibitory effects of the alkylammonium derivative 6-methyluracil on acetylcholinesterase of smooth and striated muscles in rats.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 449, - (2013)

49. Tyapkina, O V; Malomouzh, A I; Nurullin, L F; **Nikolsky**, E E.

Quantal and non-quantal acetylcholine release at neuromuscular junctions of muscles of different types in a model of hypogravity.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 448, - (2013)

50. Khuzakhmetova, B F; Samigullin, D V; Nurullin, L F; **Nikol'skii**, E E; Bukhareva, E A.

[Neuromuscular synaptic transmission at different stages of postnatal development in rats].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 98(12), - (2012)

51. Abramochkin, DV; Borodinova, AA; Rosenshtraukh, LV; **Nikolsky**, EE.

Both neuronal and non-neuronal acetylcholine take part in non-quantal acetylcholine release in the rat atrium
LIFE SCIENCES 91(21-22), 1023-1026 (2012)

52. Abramochkin, DV; Borodinova, AA; **Nikolsky**, EE; Rosenshtraukh, LV.

Nitric Oxide Modulates Intensity of Non-Quantal Acetylcholine Release in Myocardium of the Rat Right Atrium
BIOLOGICHESKIE MEMBRANY 29(5), 317-323 (2012)

53. Lindovsky, J; Petrov, K; Krusek, J; Reznik, VS; **Nikolsky**, EE; Vyskocil, F.

Effect of tissue-specific acetylcholinesterase inhibitor C-547 on alpha 3 beta 4 and alpha beta epsilon delta acetylcholine receptors in COS cells

EUROPEAN JOURNAL OF PHARMACOLOGY 688(1-3), 22-26 (2012)

54. Abramochkin, DV; Tapilina, SV; Sukhova, GS; **Nikolsky**, EE; Nurullin, LF.

Functional M3 cholinergic receptors are present in pacemaker and working myocardium of murine heart
PFLUGERS ARCHIV-EUROPEAN JOURNAL OF PHYSIOLOGY 463(4), 523-529 (2012)

55. Shneider, MN; Gimatdinov, RS; Skorinkin, AI; Kovyazina, IV; **Nikolsky**, EE.

Hydrodynamic flow in a synaptic cleft during exocytosis

EUROPEAN BIOPHYSICS JOURNAL WITH BIOPHYSICS LETTERS 41(1), 73-78 (2012)

56. Tyapkina, O V; Nurullin, L F; Rezviakov, P N; Kozlovskaya, I B; **Nikol'skii**, E E; Islamov, R R.

[Myelination disorders in mechanism of hypogravity motor syndrome development].

Biofizika 57(5), - (2012)

57. Khaziev, E F; Fatikhov, N F; Samigullin, D V; Barrett, G L; Bukharaeva, E A; **Nikolsky**, E E.

Decreased entry of calcium into motor nerve endings upon activation of presynaptic cholinergic receptors.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 446, - (2012)

58. Bukharaeva, E.A.; **Nikolsky**, E.E..

Changes in the kinetics of evoked secretion of transmitter quanta-an effective mechanism modulating the synaptic

transmission of excitation

Neurosci. Behav. Physiol. 42(2), 153 (2012)

59. Malomouzh, AI; Nurullin, LF; Arkhipova, SS; **Nikolsky**, EE.

NMDA RECEPTORS AT THE ENDPLATE OF RAT SKELETAL MUSCLES: PRECISE POSTSYNAPTIC LOCALIZATION
MUSCLE & NERVE 44(6), 987-989 (2011)

60. Malomouzh, AI; **Nikolsky**, EE; Vyskocil, F.

Purine P2Y receptors in ATP-mediated regulation of non-quantal acetylcholine release from motor nerve endings of rat diaphragm

NEUROSCIENCE RESEARCH 71(3), 219-225 (2011)

61. Valeeva, G R; Khazipov, R N; **Nikol'skii**, E E.

[Excitatory action of GABA in ontogenesis].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 97(11), - (2011)

62. Khuzakhmetova, V F; Fatikhov, N F; Bukharaeva, E A; **Nikol'skii**, E E.

[Calcium modulation of the release kinetics of the acetylcholine quanta generating multiquantal postsynaptic response].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 97(10), - (2011)

63. Tsentsevitsky, A; **Nikolsky**, E; Giniatullin, R; Bukharaeva, E.

OPPOSITE MODULATION OF TIME COURSE OF QUANTAL RELEASE IN TWO PARTS OF THE SAME SYNAPSE BY REACTIVE OXYGEN SPECIES

NEUROSCIENCE 189, 93-99 (2011)

64. Petrov, KA; Yagodina, LO; Valeeva, GR; Lannik, NI; Nikitashina, AD; Rizvanov, AA; Zobov, VV; Bukharaeva, EA; Reznik, VS; **Nikolsky**, EE; Vyskocil, F.

Different sensitivities of rat skeletal muscles and brain to novel anti-cholinesterase agents, alkylammonium derivatives of 6-methyluracil (ADEMS)

BRITISH JOURNAL OF PHARMACOLOGY 163(4), 732-744 (2011)

65. Volkov, EM; Nurullin, LF; Volkov, ME; **Nikolsky**, EE; Vyskocil, F.

Mechanisms of carbacholine and GABA action on resting membrane potential and Na⁺/K⁺-ATPase of Lumbricus terrestris body wall muscles

COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY A-MOLECULAR & INTEGRATIVE PHYSIOLOGY 158(4), 520-524 (2011)

66. Malomouzh, AI; Arkhipova, SS; **Nikolsky**, EE; Vyskocil, F.

Immunocytochemical Demonstration of M-1 Muscarinic Acetylcholine Receptors at the Presynaptic and Postsynaptic Membranes of Rat Diaphragm Endplates

PHYSIOLOGICAL RESEARCH 60(1), 185-188 (2011)

67. Nurullin, LF; Mukhitov, AR; Tsentsevitsky, AN; Petrova, NV; Samigullin, DV; Malomouzh, AI; Bukharaeva, EA; Vyskocil, F; **Nikolsky**, EE.

Voltage-Dependent P/Q-Type Calcium Channels at the Frog Neuromuscular Junction

PHYSIOLOGICAL RESEARCH 60(5), 815-823 (2011)

68. Kravtsova, V V; Mikhailov, V M; Sokolova, A V; Mikhailova, E V; Timonina, N A; **Nikol'skii**, E E; Krivoi, I I.

Recovery of electrogenesis in skeletal muscles after cell therapy of myodystrophy in MDX mice.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 441, - (2011)

69. **Nikol'skii**, E E.

[Voltage-dependent calcium channels of different types in the neuro-muscular synapses of vertebrates and their contribution to modulation of the neurosecretion process].

Fiziologichnyi zhurnal (Kiev, Ukraine : 1994) 57(5), - (2011)

70. Kovyazina, IV; Tsentsevitsky, AN; **Nikolsky**, EE; Bukharaeva, EA.

Kinetics of acetylcholine quanta release at the neuromuscular junction during high-frequency nerve stimulation

EUROPEAN JOURNAL OF NEUROSCIENCE 32(9), 1480-1489 (2010)

71. Bukharaeva, E A; **Nikol'skii**, E E.

[Changes in the kinetics of quanta secretion-effective mechanism of synaptic transmission modulation].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 96(8), - (2010)

72. Valeeva, G; Abdullin, A; Tyzio, R; Skorinkin, A; **Nikolski**, E; Ben-Ari, Y; Khazipov, R.

Temporal coding at the immature depolarizing GABAergic synapse

FRONTIERS IN CELLULAR NEUROSCIENCE 4, - (2010)

73. Magazanik, LG; **Nikol'skii**, EE.

Molecular mechanisms of transneuronal interactions

HERALD OF THE RUSSIAN ACADEMY OF SCIENCES 80(3), 208-215 (2010)

74. Abramochkin, DV; Nurullin, LF; Borodinova, AA; Tarasova, NV; Sukhova, GS; **Nikolsky**, EE; Rosenshtaukh, LV.

Non-quantal release of acetylcholine from parasympathetic nerve terminals in the right atrium of rats

EXPERIMENTAL PHYSIOLOGY 95(2), 265-273 (2010)

75. Samigullin, D. V.; Vasin, A. L.; Bukharaeva, E. A.; **Nikolsky**, E. E..

Calcium transient in different parts of the nerve terminal of the frog in the response of the nerve pulse

Doklady Akademii Nauk 431(5), 711 (2010)

76. Islamov, R R; Tiapkina, O V; Ereemeev, A A; Shaimardanova, G F; Chakkaeva, E A; Kozlovskaya, I B; **Nikolskii**, E E.

[About possible specialization of different compartments of a motoneuron axon for synthesis of specific proteins].

Biofizika 55(5), - (2010)

77. Malomouzh, A I; **Nikolsky**, E E.

Non-quantal acetylcholine release in the mammalian neuromuscular junction: dependence on the extracellular concentration of magnesium and calcium ions.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 430, - (2010)

78. Malomuzh, A I; **Nikol'skii**, E E.

[Non-quantal mediator release: myth or reality?].

Uspekhi fiziologicheskikh nauk 41(2), - (2010)

79. Kravtsova, V V; Shenkman, B S; Mikhailov, V M; **Nikol'skii**, E E; Krivoi, I I.

[Effect of functional unloading and dystrophin deficit on the local hyperpolarization of the postsynaptic membrane of a skeletal muscle fiber].

Biofizika 55(5), - (2010)

80. Kravtsova, V V; Ogneva, I V; Altaeva, E G; Razgovorova, I A; Tiapkina, O V; **Nikol'skii**, E E; Shenkman, B S; Krivoi, I I.

[Electrogenic activity of Na-K-ATPase and calcium ions in m. soleus fibers of rats and Mongolian gerbil during simulation of gravitational unloading].

Aviakosmicheskaya i ekologicheskaya meditsina = Aerospace and environmental medicine 44(2), - (2010)

81. Samigullin, D V; Vasin, A L; Bukharaeva, E A; **Nikolsky**, E E.

Characteristics of calcium transient in different parts of frog nerve terminal in response to nerve impulse.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 431, - (2010)

82. Malomuzh, A. I.; **Nikolsky**, E. E..

Nonquantal Release of Acetylcholine in the Mammalian Neuromuscular Junction: the Dependency on Extracellular Concentration of Magnesium and Calcium ions

Doklady Akademii Nauk 430(2), 277 (2010)

83. Shaihutdinova, AR; **Nikolsky**, EE; Vyskocil, F; Skorinkin, AI.

Mechanisms of the inhibition of endplate acetylcholine receptors by antiseptic chlorhexidine (experiments and models)

NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY 380(6), 551-560 (2009)

84. Abramochkin, DV; Petrov, KA; Zobov, VV; Yagodina, LO; **Nikolsky**, EE; Rosenshtaukh, LV.

Mechanisms of Cardiac Muscle Insensitivity to a Novel Acetylcholinesterase Inhibitor C-547

JOURNAL OF CARDIOVASCULAR PHARMACOLOGY 53(2), 162-166 (2009)

85. Petrov, K; Kovyazina, I; Zobov, V; Bukharaeva, E; **Nikolsky**, EE; Vyskocil, F.

Different Sensitivity of Miniature Endplate Currents in Rat External and Internal Intercostal Muscles to the

Acetylcholinesterase Inhibitor C-547 as Compared with Diaphragm and Extensor Digitorum Longus
PHYSIOLOGICAL RESEARCH 58(1), 149-153 (2009)

86. Vyskocil, F; Malomouzh, AI; **Nikolsky**, EE.

Non-Quantal Acetylcholine Release at the Neuromuscular Junction
PHYSIOLOGICAL RESEARCH 58(6), 763-784 (2009)

87. Nurullin, L; Tyapkina, O; **Nikolsky**, E.

CHANGING OF OPERATION MEMBRANE Na,K-ATPase OF FAST AND SLOW RAT SKELETAL MUSCLES AT SIMULATION
OF HYPOGRAVITY
JOURNAL OF PHYSIOLOGICAL SCIENCES 59, 357-357 (2009)

88. Tyapkina, O; Volkov, E; Nurullin, L; Shenkman, B; Kozlovskaya, I; **Nikolsky**, E; Vyskocil, F.

Resting Membrane Potential and Na⁺,K⁺-ATPase of Rat Fast and Slow Muscles during Modeling of Hypogravity
PHYSIOLOGICAL RESEARCH 58(4), 599-603 (2009)

89. Abramochkin, DV; Petrov, KA; Zobov, VV; Yagodina, LO; **Nikolsky**, EE; Rosenshtraukh, LV.

The Study of Effects of a Novel Acetylcholinesterase Inhibitor on Electrical Activity of the Heart
KARDIOLOGIYA 49(1), 47-50 (2009)

90. Abramochkin, DV; Petrov, KA; Nurullin, LF; Yagodina, LO; **Nikolsky**, EE; Rosenshtraukh, LV.

Effects of the first tissue-specific acetylcholinesterase inhibitor c-547 in the rat atrium
JOURNAL OF PHYSIOLOGICAL SCIENCES 59, 172-172 (2009)

91. Sal'nikov, V V; Mishagina, E A; Kozlovskaya, I B; **Nikolsky**, E E; Islamov, R R.

Immunohistochemical confirmation of localization of the ribosomal protein L26 in the terminal buttons of rat motor axon.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 427, -
(2009)

92. Shakirzyanova, A V; Malomouzh, A I; Naumenko, N V; **Nikolsky**, E E.

The effect of hydrogen peroxide on spontaneous quantal and nonquantal acetylcholine release from rat motor nerve endings.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 424, -
(2009)

93. Nurullin, L F; Abramochkin, D V; Tarasova, N V; Rosenshtraukh, L V; **Nikolsky**, E E.

Endo- and exocytosis of vesicles in the intramural nerve fibers of the rat right atrium.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 428, -
(2009)

94. Gilmanov, IR; Samigullin, DV; Vyskocil, F; **Nikolsky**, EE; Bukharaeva, EA.
Modeling of quantal neurotransmitter release kinetics in the presence of fixed and mobile calcium buffers
JOURNAL OF COMPUTATIONAL NEUROSCIENCE 25(2), 296-307 (2008)
95. Abramochkin, D.V.; **Nikol'skii**, E.E.; Rozenshtraukh, L.V..
Effects of inhibitors of acetylcholinesterase on the parameters of the electric activity of rat atrial myocardium
Dokl. Biol. Sci. 420, 1 (2008)
96. Krivoi, I I; Kravtsova, V V; Altaeva, E G; Kubasov, I V; Prokof'ev, A V; Drabkina, T M; **Nikol'skii**, E E; Shenkman, B S.
[Decrease in the electrogenic contribution of Na,K-ATPase and resting membrane potential as a possible mechanism of calcium ion accumulation in filaments of the rat musculus soleus subjected to the short-term gravity unloading].
Biofizika 53(6), - (2008)
97. Tsentsevitsky, A N; Vasin, A L; Bukharaeva, E A; **Nikolsky**, E E.
Participation of different types of voltage-dependent calcium channels in evoked quantal transmitter release in frog neuromuscular junctions.
Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 423, - (2008)
98. Malomouzh, AI; Mukhtarov, MR; **Nikolsky**, EE; Vyskocil, F.
Muscarinic M1 acetylcholine receptors regulate the non-quantal release of acetylcholine in the rat neuromuscular junction via NO-dependent mechanism
JOURNAL OF NEUROCHEMISTRY 102(6), 2110-2117 (2007)
99. Bukharaeva, EA; Samigullin, D; **Nikolsky**, EE; Magazanik, LG.
Modulation of the kinetics of evoked quantal release at mouse neuromuscular junctions by calcium and strontium
JOURNAL OF NEUROCHEMISTRY 100(4), 939-949 (2007)
100. Volkov, EM; Nurullin, LF; **Nikolsky**, E; Vyskocil, F.
Miniature excitatory synaptic ion currents in the earthworm Lumbricus terrestris body wall muscles
PHYSIOLOGICAL RESEARCH 56(5), 655-658 (2007)
101. Islamov, R R; Tyapkina, O V; Bukharaeva, E A; Yagodina, L O; Ibragimova, N N; Valiullina, V V; Kozlovskaya, I B; **Nikolsky**, E E.
Expression of choline acetyltransferase in rat spinal motoneurons after antiorthostatic suspension.
Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 414, - (2007)
102. Islamov, PR; Tyapkina, OV; Bukharaeva, EA; Yagodina, LO; Ibragimova, NN; Valiullin, VV; Kozlovskaya, IB; **Nikolsky**, EE.
Choline acetyl transferase expression in spinal motoneurons of rats following tail-suspension
Dokl Akad Nauk 414, 1 (2007)

103. Malomouzh, A I; Mukhtarov, M R; **Nikolsky**, E E.

Role of muscarinic cholinergic receptors in the control of the intensity of nonquantal acetylcholine release from rat motor nerve endings.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 414, - (2007)

104. Petrov, K A; Kovyazina, I V; Zobov, V V; Bukharaeva, E A; Reznik, V S; **Nikolsky**, E E.

Effect of a tetraalkylammonium derivative of 6-methyluracil from a new class of acetylcholinesterase inhibitors on the endplate potential amplitude in muscles of different function types under high-frequency nerve stimulation.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 415, - (2007)

105. Shakirzyanova, A; **Nikolsky**, E; Giniatullin, R.

Reactive oxygen species regulate quantal mediator release at the mouse neuromuscular junction

BEHAVIOURAL PHARMACOLOGY 17(5-6), 556-556 (2006)

106. Tyapkina, OV; Bukharaeva, EA; Nikolsky, EE.

The influence of hindlimb unloading on the effectiveness of mediator secretion modulation via the system of autoreceptors

BIOFIZIKA 51(5), 827-832 (2006)

107. Shakirzyanova, AV; Bukharaeva, EA; **Nikolsky**, EE; Giniatullin, RA.

Negative cross-talk between presynaptic adenosine and acetylcholine receptors

EUROPEAN JOURNAL OF NEUROSCIENCE 24(1), 105-115 (2006)

108. Shakirzyanova, A V; Bukharaeva, E A; Giniatullin, R A; **Nikol'skii**, E E.

[Mechanism of carbachol and adenosine action on spontaneous quantal mediator release at frog neuromuscular junction].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 92(6), - (2006)

109. Petrov, KA; Kovyazina, IV; Zobov, VV; Bukharaeva, EA; **Nikolsky**, EE; Vyskocil, F.

Different sensitivity of miniature endplate currents of the rat extensor digitorum longus, soleus and diaphragm muscles to a novel acetylcholinesterase inhibitor C-547

PHYSIOLOGICAL RESEARCH 55(5), 585-589 (2006)

110. Tiapkina, O V; Bukharaeva, E A; **Nikol'skii**, E E.

[The influence of hindlimb unloading on the effectiveness of modulation of the mediator secretion via the autoreceptor system].

Biofizika 51(5), - (2006)

111. Malomouzh, AI; **Nikolsky**, EE; Lieberman, EM; Sherman, JA; Lubischer, JL; Grossfeld, RM; Urazaev, AK.

Effect of N-acetylaspartylglutamate (NAAG) on non-quantal and spontaneous quantal release of acetylcholine at the

neuromuscular synapse of rat

JOURNAL OF NEUROCHEMISTRY 94(1), 257-267 (2005)

112. Shakirzyanova, AV; **Nikol'skii**, EE; Giniatullin, RA.

Effects of carbachol and adenosine on neurotransmitter secretion induced by potassium chloride, ionomycin, and sucrose

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 139(2), 193-195 (2005)

113. Bukharaeva, EA; Salakhutdinov, RI; Vyskocil, F; **Nikolsky**, EE.

Spontaneous quantal and non-quantal release of acetylcholine at mouse endplate during onset of hypoxia

PHYSIOLOGICAL RESEARCH 54(2), 251-255 (2005)

114. Samigullin, D; Bukharaeva, EA; Vyskocil, F; **Nikolsky**, EE.

Calcium dependence of uni-quantal release latencies and quantal content at mouse neuromuscular junction

PHYSIOLOGICAL RESEARCH 54(1), 129-132 (2005)

115. Shajhutdinova, A R; **Nikol'sky**, E E; Giniatullin, R A; Skorinkin, A I.

The mechanisms underlying modulation of the receptor-channel complex functioning by chlorhexidine.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 402, - (2005)

116. **Nikolsky**, EE; Vyskocil, F; Bukharaeva, EA; Samigullin, D; Magazanik, LG.

Cholinergic regulation of the evoked quantal release at frog neuromuscular junction

JOURNAL OF PHYSIOLOGY-LONDON 560(1), 77-88 (2004)

117. Malomuzh, A I; Urazaev, A Kh; **Nikol'skii**, E E.

[Glutamatergic modulation of vertebrate neuromuscular transmission].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 90(8), - (2004)

118. Kovyazina, I V; Petrov, K A; Zobov, V V; Bukharaeva, E A; **Nikolsky**, E E.

Effect of tetraalkylammonium derivatives of 6-methyluracil on the endplate potentials of muscles of different functional types.

Doklady biological sciences : proceedings of the Academy of Sciences of the USSR, Biological sciences sections 399, - (2004)

119. Kovyazina, IV; **Nikolsky**, EE; Giniatullin, RA; Adamek, S; Vyskocil, F.

Dependence of miniature endplate current on kinetic parameters of acetylcholine receptors activation: A model study

NEUROCHEMICAL RESEARCH 28(3-4), 443-448 (2003)

120. Malomouzh, AI; Mukhtarov, MR; **Nikolsky**, EE; Vyskocil, F; Lieberman, EM; Urazaev, AK.

Glutamate regulation of non-quantal release of acetylcholine in the rat neuromuscular junction

JOURNAL OF NEUROCHEMISTRY 85(1), 206-213 (2003)

121. Samigullin, D; Bukharaeva, E; **Nikolsky**, E; Vyskocil, F.
Temperature effect on proximal to distal gradient of quantal release of acetylcholine at frog endplate
NEUROCHEMICAL RESEARCH 28(3-4), 507-514 (2003)
122. Samigullin, D; Bukharaeva, EA; **Nikolsky**, E; Adamek, S; Vyskocil, F.
Long release latencies are increased by acetylcholine at frog endplate
PHYSIOLOGICAL RESEARCH 52(4), 475-480 (2003)
123. Volkov, EM; Nurullin, LF; **Nikolsky**, E; Krusek, J; Vyskocil, F.
Chloride cotransport in the membrane of earthworm body wall muscles
PHYSIOLOGICAL RESEARCH 52(5), 587-592 (2003)
124. Volkov, EM; Nurullin, LF; Obukhova, AS; Chikin, AV; **Nikol'skii**, EE.
Calcium mechanism of norepinephrine activation of ionic pump in somatic cells of Lumbricus terrestris earthworm muscle wall
BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 134(1), 18-19 (2002)
125. Bukharaeva, EA; Samigullin, D; **Nikolsky**, E; Vyskocil, F.
Protein kinase A cascade regulates quantal release dispersion at frog muscle endplate
JOURNAL OF PHYSIOLOGY-LONDON 538(3), 837-848 (2002)
126. Malomuzh, A I; Mukhtarov, M R; Urazaev, A Kh; **Nikol'skii**, E E; Vyskocil, F.
The effects of glutamate on spontaneous acetylcholine secretion processes in the rat neuromuscular synapse.
Neuroscience and behavioral physiology 32(6), - (2002)
127. Gainulov, R Kh; Bukharaeva, E A; **Nikol'skii**, E E.
A method for assessing the kinetics of evoked secretion of transmitter quanta determining the generation of multiquantum endplate currents.
Neuroscience and behavioral physiology 32(6), - (2002)
128. **Nikol'kii**, E E; Bukharaeva, E A; Samigullin, D V; Gainulo, R Kh.
Characteristics of the time course of evoked secretion of transmitter quanta in different parts of the motor nerve ending in the frog.
Neuroscience and behavioral physiology 32(3), - (2002)
129. Bukharaeva, E A; Gainulov, R Kh; **Nikol'skii**, E E.
The effects of noradrenaline on the amplitude-time characteristics of multiquantum endplate currents and the kinetics of induced secretion of transmitter quanta.
Neuroscience and behavioral physiology 32(5), - (2002)
130. Strunsky, EG; Borisover, MD; **Nikolsky**, EE; Vyskocil, F.
Temperature effect on carbachol-induced depression of spontaneous quantal transmitter release in frog

neuromuscular junction

NEUROCHEMICAL RESEARCH 26(8-9), 891-897 (2001)

131. Volkov, EM; Nurullin, LF; **Nikol'skii**, EE; Blokhina, GI.

Effects of norepinephrine and epinephrine on resting membrane potential in body wall muscle cells of *Lumbricus terrestris* earthworm

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 132(3), 821-823 (2001)

132. Volkov, E M; Nurullin, L F; **Nikol'skii**, E E.

[Influence of sodium pump and Na(+), K(+), Cl(-)-cotransport on the resting membrane potential of somatic muscle cells of the earthworm *Lumbricus terrestris*].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 87(9), - (2001)

133. Gorshkova, OV; Zobov, VV; Bukharaeva, EA; **Nikol'skii**, EE; Akamsin, VD; Galyametdinova, IV; Reznik, VS.

Effect of tetraalkylammonium derivative of 6-methyluracil on amplitude and temporal parameters of miniature endplate potentials in frog neuromuscular junction

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 131(5), 446-450 (2001)

134. Malomuzh, A I; Mukhtarov, M R; Urazaev, A Kh; **Nikol'skii**, E E; Vyskocil, F.

[Effect of glutamate on spontaneous secretion of acetylcholine in the nerve-muscle synapse in rats].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 87(4), - (2001)

135. Bukharaeva, E A; Gainulov, R Kh; **Nikol'skii**, E E.

[Effect of noradrenaline on the amplitude and temporal parameters of multiquantal currents and on the kinetics of evoked quantal secretion of a transmitter].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 87(4), - (2001)

136. Gainulov, R Kh; Bukharaeva, E A; **Nikol'skii**, E E.

[Method for estimation of kinetics of evoked secretion of mediator quanta determining generation of multiquantal current in the motor endplate].

Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 87(4), - (2001)

137. Mukhtarov, M R; Urazaev, A K; **Nikolskii**, E E; Vyskocil, F.

Modulation by nitric oxide (NO) of the intensity of non-quantum mediator secretion in neuromuscular junctions in rats.

Neuroscience and behavioral physiology 31(4), - (2001)

138. Bukharaeva, E A; Samigullin, D V; **Nikol'skii**, E E; Vyskochil, F.

The role of intracellular cAMP in mediating the synchronizing action of noradrenaline on the evoked release of quanta of mediator in the frog synapse.

Neuroscience and behavioral physiology 31(5), - (2001)

139. **Nikol'skii**, E E; Bukharaeva, E A; Samigullin, D V; Gainulov, R Kh.
[The time course of the evoked secretion of the mediator quanta in various regions of the frog motor nerve ending].
Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 86(9), - (2000)
140. Urazaev, A; Naumenko, N; Malomough, A; **Nikolsky**, E; Vyskocil, F.
Carbachol and acetylcholine delay the early postdenervation depolarization of muscle fibres through M1-cholinergic receptors
NEUROSCIENCE RESEARCH 37(4), 255-263 (2000)
141. Kovyazina, IV; **Nikolsky**, EE; Gaynulov, RK.
Dynamics of acetylcholine release the frog neuromuscular junction during rhythmic stimulation and under choline deficiency
NEUROPHYSIOLOGY 32(3), 200-201 (2000)
142. Bukharaeva, EA; **Nikolsky**, E; Vyskocil, F.
Modulation of the time course of evoked quantum release in the nerve-muscle junction
NEUROPHYSIOLOGY 32(3), 206-207 (2000)
143. Bukharaeva, E A; Samigullin, D V; **Nikol'skii**, E E; Vyskocil, F.
[Intracellular cAMP involvement in the synchronized activity of noradrenaline in response to evoked release of the transmitter quanta in the frog synapses].
Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 86(4), - (2000)
144. Bukharaeva, E; Ipatova, T; **Nikolsky**, EE; Vyskocil, F.
The effect of carbachol and alpha-bungarotoxin on the frequency of miniature endplate potentials at the frog neuromuscular junction
EXPERIMENTAL PHYSIOLOGY 85(2), 125-131 (2000)
145. Mukhtarov, MR; Urazaev, AK; **Nikolsky**, EE; Vyskocil, F.
Effect of nitric oxide and NO synthase inhibition on nonquantal acetylcholine release in the rat diaphragm
EUROPEAN JOURNAL OF NEUROSCIENCE 12(3), 980-986 (2000)
146. Mukhtarov, M R; Urazaev, A Kh; **Nikol'skii**, E E; Vyskocil, F.
[Modulation of the intensity of the non-quantal transmitter release by nitric oxide (NO) at the neuromuscular junction].
Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 86(3), - (2000)
147. Volkov, E M; Nurullin, L F; **Nikol'skii**, E E.
[Effect of the medium composition on the resting membrane potential in the earthworm longitudinal somatic muscle fibers].
Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 86(3), - (2000)

148. Bukcharaeva, E; Samigullin, D; **Nikolsky**, EE; Vyskocil, F.
Cyclic AMP synchronizes evoked quantal release at frog neuromuscular junctions
PHYSIOLOGICAL RESEARCH 49(4), 475-479 (2000)
149. Volkov, EM; Nurullin, LF; Svandova, I; **Nikolsky**, EE; Vyskocil, F.
Participation of electrogenic Na⁺-K⁺-ATPase in the membrane potential of earthworm body wall muscles
PHYSIOLOGICAL RESEARCH 49(4), 481-484 (2000)
150. Bukharaeva, E A; Kim, K K; **Nikol'skii**, E E; Vyskochil, F.
Synchronization of evoked secretion of quanta of mediator as a mechanism facilitating the action of sympathomimetics.
Neuroscience and behavioral physiology 30(2), - (2000)
151. Bukcharaeva, EA; Kim, KC; Moravec, J; **Nikolsky**, EE; Vyskocil, F.
Noradrenaline synchronizes evoked quantal release at frog neuromuscular junctions
JOURNAL OF PHYSIOLOGY-LONDON 517(3), 879-888 (1999)
152. Urazaev, AK; Naumenko, NV; **Nikolsky**, EE; Vyskocil, F.
The glutamate and carbachol effects on the early post-denervation depolarization in rat diaphragm are directed towards furosemide-sensitive chloride transport
NEUROSCIENCE RESEARCH 33(2), 81-86 (1999)
153. Mukhtarov, MR; Vyskocil, F; Urazaev, AK; **Nikolsky**, EE.
Non-quantal acetylcholine release is increased after nitric oxide synthase inhibition
PHYSIOLOGICAL RESEARCH 48(4), 315-317 (1999)
154. Semina, I; Baichourina, A; Bukharaeva, E; Schilovskaya, E; **Nikolsky**, E.
The mechanism of action of CAPAH on cholinergic neurotransmission. Effects similar to substance P?
JOURNAL OF NEUROCHEMISTRY 73, S31-S31 (1999)
155. Baichourina, A; Semina, I; Bukharaeva, E; **Nikolsky**, E; Tarasova, R.
Memory enhancing effects of CAPAH. Original mechanisms of action on cholinergic neurotransmission. A promise for Alzheimer's disease
JOURNAL OF NEUROCHEMISTRY 73, S32-S32 (1999)
156. Bukharaeva, E A; Kim, K Kh; **Nikol'skii**, E E; Vyskocil, F.
[Synchronization of secretion of the evoked transmitter quanta as mechanism of the facilitating action of sympathomimetics].
Rossiiskii fiziologicheskii zhurnal imeni I.M. Sechenova 84(10), - (1998)
157. Kovyazina, I; **Nikolsky**, EE; Giniatullin, RA; Vyskocil, F.
Dependence of the time course of miniature endplate currents on kinetic constants k(-1) and alpha
JOURNAL OF PHYSIOLOGY-LONDON 511P, 143P-144P (1998)

158. Vyskocil, F; Bukharaeva, E; Giniatullin, R; **Nikolsky**, EE.

Quantal and non-quantal acetylcholine release in mammalian endplate during motor denervation and reinnervation
JOURNAL OF PHYSIOLOGY-LONDON 511P, 36S-37S (1998)

159. Bukharaeva, EA; **Nikolsky**, EE; Moravec, J; Vyskocil, F.

The action of adrenergic compounds on synchronization of the evoked release of quanta in frog endplate
JOURNAL OF PHYSIOLOGY-LONDON 511P, 142P-143P (1998)

160. Urazaev, AK; Naumenko, NV; Poletayev, GI; **Nikolsky**, EE; Vyskocil, F.

The effect of glutamate and inhibitors of NMDA receptors on postdenervation decrease of membrane potential in rat diaphragm
MOLECULAR AND CHEMICAL NEUROPATHOLOGY 33(3), 163-174 (1998)

161. Urazaev, AK; Naumenko, NV; **Nikolsky**, EE; Vyskocil, F.

Carnosine and other imidazole-containing compounds enhance the postdenervation depolarization of the rat diaphragm fibres
PHYSIOLOGICAL RESEARCH 47(4), 291-295 (1998)

162. Urazaev, A; **Nikolsky**, E; Vyskocil, F.

Muscarinic M-1-receptors are involved in neural regulation of membrane potential in rat muscles
JOURNAL OF NEUROCHEMISTRY 71, S22-S22 (1998)

163. Bukharaeva, E; **Nikolsky**, E; Kim, K; Gainulov, R; Vyskocil, F.

Catecholamines change the time course of the evoked quanta mediator release via beta(1)-adrenoreceptors
JOURNAL OF NEUROCHEMISTRY 71, S49-S49 (1998)

164. Urazaev, AK; Naumenko, NV; Poletayev, GI; **Nikolsky**, EE; Vyskocil, F.

Acetylcholine and carbachol prevent muscle depolarization in denervated rat diaphragm
NEUROREPORT 8(2), 403-406 (1997)

165. Urazaev, AK; Naumenko, NV; Poletayev, GI; **Nikolsky**, EE; Vyskocil, F.

Nitroprusside decreases the early post-denervation depolarization of diaphragm muscle fibres of the rat
EUROPEAN JOURNAL OF PHARMACOLOGY 316(2-3), 219-222 (1996)

166. Kovyazina, IV; Giniatullin, RA; **Nikolskii**, EE; Vyskocil, F.

Acetylcholinesterase inhibition in neuromuscular synapses in different background states: Model studies
NEUROPHYSIOLOGY 28(4-5), 145-150 (1996)

167. **Nikolsky**, EE; Oranska, TI; Vyskocil, F.

Non-quantal acetylcholine release in the mouse diaphragm after phrenic nerve crush and during recovery
EXPERIMENTAL PHYSIOLOGY 81(3), 341-348 (1996)

168. URAZAEV, AK; MAGSUMOV, ST; POLETAYEV, GI; **NIKOLSKY**, EE; VYSKOCIL, F.
MUSCLE NMDA RECEPTORS REGULATE THE RESTING MEMBRANE-POTENTIAL THROUGH NO-SYNTHASE
PHYSIOLOGICAL RESEARCH 44(3), 205-208 (1995)
169. VYSKOCIL, F; **NIKOLSKY**, EE; ZEMKOVA, H; KRUSEK, J.
THE ROLE OF NONQUANTAL RELEASE OF ACETYLCHOLINE IN REGULATION OF POSTSYNAPTIC MEMBRANE
ELECTROGENESIS
JOURNAL OF PHYSIOLOGY-PARIS 89(3), 157-162 (1995)
170. SHAKIRYANOVA, DM; ZEFIROV, AL; **NIKOLSKY**, EE; VYSKOCIL, F.
THE EFFECT OF ACETYLCHOLINE AND RELATED DRUGS ON CURRENTS AT THE FROG MOTOR-NERVE TERMINAL
EUROPEAN JOURNAL OF PHARMACOLOGY 263(1-2), 107-114 (1994)
171. **NIKOLSKY**, EE; ZEMKOVA, H; VORONIN, VA; VYSKOCIL, F.
ROLE OF NONQUANTAL ACETYLCHOLINE-RELEASE IN SURPLUS POLARIZATION OF MOUSE DIAPHRAGM FIBERS AT
THE END-PLATE ZONE
JOURNAL OF PHYSIOLOGY-LONDON 477(3), 497-502 (1994)
172. GINIATULLIN, RA; KHAZIPOV, RN; ORANSKA, TI; **NIKOLSKY**, EE; VORONIN, VA; VYSKOCIL, F.
THE EFFECT OF NONQUANTAL ACETYLCHOLINE-RELEASE ON QUANTAL MINIATURE CURRENTS AT MOUSE
DIAPHRAGM
JOURNAL OF PHYSIOLOGY-LONDON 466, 105-114 (1993)
173. ZEFIROV, AL; SHAKIRYANOVA, DM; KHALILOV, IA; **NIKOLSKII**, EE.
EFFECT OF EXOGENOUS ACETYLCHOLINE ON IONIC CURRENTS OF THE FROG AND MOUSE MOTOR-NERVE ENDING
BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 114(8), 1074-1076 (1992)ᵝ
174. **NIKOLSKY**, EE; ORANSKA, TI; VYSKOCIL, F.
NONQUANTAL ACETYLCHOLINE-RELEASE AFTER CHOLINESTERASE INHIBITION INVIVO
PHYSIOLOGICAL RESEARCH 41(4), 333-334 (1992)
175. **NIKOLSKY**, EE; BUKHARAEVA, EA; STRUNSKY, EG; VYSKOCIL, F.
DEPRESSION OF MINIATURE END-PLATE POTENTIAL FREQUENCY BY ACETYLCHOLINE AND ITS ANALOGS IN FROG
BRITISH JOURNAL OF PHARMACOLOGY 104(4), 1024-1032 (1991)
176. **NIKOLSKY**, EE; STRUNSKY, EG; VYSKOCIL, F.
TEMPERATURE-DEPENDENCE OF CARBACHOL-INDUCED MODULATION OF MINIATURE END-PLATE POTENTIAL
FREQUENCY IN RATS
BRAIN RESEARCH 560(1-2), 354-356 (1991)
177. **NIKOLSKY**, EE; VORONIN, VA; ORANSKA, TI; VYSKOCIL, F.
THE DEPENDENCE OF NONQUANTAL ACETYLCHOLINE-RELEASE ON THE CHOLINE-UPTAKE SYSTEM IN THE MOUSE

DIAPHRAGM

PFLUGERS ARCHIV-EUROPEAN JOURNAL OF PHYSIOLOGY 418(1-2), 74-78 (1991)

178. **NIKOLSKY**, EE; VORONIN, VA; VYSKOCIL, F.

KINETIC DIFFERENCES IN THE EFFECT OF CALCIUM ON QUANTAL AND NONQUANTAL ACETYLCHOLINE-RELEASE AT THE MURINE DIAPHRAGM

NEUROSCIENCE LETTERS 123(2), 192-194 (1991)

179. GINIATULLIN, RA; ORANSKAYA, TI; VORONIN, VA; **NIKOLSKII**, EE.

EFFECTS OF NONQUANTAL ACETYLCHOLINE ON MINIATURE END-PLATE CURRENTS IN MICE

NEUROPHYSIOLOGY 22(4), 378-383 (1990)

180. SNETKOV, VA; NIGMATULLIN, NR; **NIKOLSKII**, EE; MAGAZANIK, LG.

MODELING ACTION OF IONIC CHANNEL BLOCKERS ON POSTSYNAPTIC CURRENTS

NEUROPHYSIOLOGY 21(4), 339-346 (1989)

181. GINIATULLIN, RA; KHAMITOV, G; KHAZIPOV, R; MAGAZANIK, LG; **NIKOLSKY**, EE; SNETKOV, VA; VYSKOCIL, F.

DEVELOPMENT OF DESENSITIZATION DURING REPETITIVE ENDPLATE ACTIVITY AND SINGLE ENDPLATE CURRENTS IN FROG-MUSCLE

JOURNAL OF PHYSIOLOGY-LONDON 412, 113-122 (1989)

182. Snetkov, V A; Nigmatullin, N R; **Nikol'skii**, E E; Magazanik, L G.

[Simulation of the action of ion channel blockaders on post-synaptic currents].

Neirofiziologiya = Neurophysiology 21(4), - (1989)

183. **Nikol'skii**, E E; Bukharaeva, E A; Badrutdinov, L R.

[The effect of carbacholine on spontaneous quantum secretion of a mediator from frog motor nerve endings in the presence of ouabain and in a potassium-free medium].

Neirofiziologiya = Neurophysiology 21(4), - (1989)

184. Strunskii, E G; **Nikol'skii**, E E.

[A statistical analysis of the change in spontaneous quantum secretion of a mediator in the presence of carbacholine in rat neuromuscular synapse].

Neirofiziologiya = Neurophysiology 21(4), - (1989)

185. NIGMATULLIN, NR; SNETKOV, VA; **NIKOLSKII**, EE; MAGAZANIK, LG.

MODELING OF MINIATURE ENDPLATE CURRENT

NEUROPHYSIOLOGY 20(3), 289-295 (1988)

186. **Nikol'skii**, E E; Strunskii, E G.

[A micromanipulator for electrophysiological research].

Fiziologicheskii zhurnal SSSR imeni I. M. Sechenova 74(4), - (1988)

187. Urazaev, A. K.; Naumenko, N. V.; **Nikolsky**, E. E.; Vyskocil, F..

Carnosine and other imidazole- containing compounds enhance the post- denervation depolarization of the rat diaphragm fibers

Physiol. Res. 47, 291 (1988)

188. GINIATULLIN, RA; SHABUNOVA, IA; **NIKOLSKII**, EE; BUKHARAEVA, EA.

DIPYROXIME AS A BLOCKER OF ACETYLCHOLINE-ACTIVATED IONIC CHANNELS IN RAT SKELETAL-MUSCLE
BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 103(6), 782-784 (1987)

189. **NIKOLSKII**, EE; BUKHARAEVA, EA.

MUSCARINIC AGONISTS HAVE NO EFFECT ON SPONTANEOUS QUANTUM TRANSMITTER RELEASE FROM FROG MOTOR-NERVE ENDINGS

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 103(2), 207-209 (1987)

190. BUKHARAEVA, EA; **NIKOLSKII**, EE; GINIATULLIN, RA.

EFFECTS OF CHOLINERGIC COMPOUNDS ON SPONTANEOUS QUANTAL TRANSMITTER RELEASE AT THE FROG NEUROMUSCULAR-JUNCTION

NEUROPHYSIOLOGY 18(5), 409-414 (1986)

191. GINIATULLIN, RA; BALTSER, SK; **NIKOLSKII**, EE; MAGAZANIK, LG.

POSTSYNAPTIC POTENTIATION AND DESENSITIZATION AT THE FROG NEUROMUSCULAR-JUNCTION PRODUCED BY REPEATED STIMULATION OF THE MOTOR-NERVE

NEUROPHYSIOLOGY 18(5), 459-465 (1986)

192. **NIKOLSKII**, EE; VORONIN, VA.

TEMPERATURE-DEPENDENCE OF SPONTANEOUS QUANTAL AND NONQUANTAL TRANSMITTER RELEASE FROM MOTOR-NERVE ENDINGS IN THE MOUSE

NEUROPHYSIOLOGY 18(3), 267-271 (1986)

193. MAGAZANIK, LG; SNETKOV, VA; NIGMATULLIN, NR; **NIKOLSKII**, EE.

MATHEMATICAL-MODELING OF THE TIME COURSE OF MINIATURE POSTSYNAPTIC CURRENTS IN FAST AND SLOW MUSCLES OF THE FROG

DOKLADY AKADEMII NAUK SSSR 289(3), 733-737 (1986)

194. **NIKOLSKII**, EE; VORONIN, VA; ORANSKAIA, TI.

RESTORATION OF SPONTANEOUS QUANTUM AND NONQUANTUM TRANSMITTER RELEASE FROM MOTOR-NERVE TERMINALS IN THE COURSE OF THE REINNERVATION OF MOUSE DIAPHRAGMAL MUSCLE

DOKLADY AKADEMII NAUK SSSR 285(1), 246-249 (1985)

195. **NIKOLSKII**, EE; VORONIN, VA; ORANSKAIA, TI.

DYNAMICS OF THE CHANGES IN SPONTANEOUS QUANTUM AND NONQUANTUM ACETYLCHOLINE-RELEASE FROM

MOTOR-NERVE ENDINGS AFTER NERVE CUTTING

DOKLADY AKADEMII NAUK SSSR 281(3), 762-764 (1985)

196. VORONIN, VA; **NIKOLSKII**, EE.

THE ROLE OF CALCIUM IN NON-QUANTAL ACETYLCHOLINE-RELEASE FROM MOUSE MOTOR-NERVE TERMINALS

DOKLADY AKADEMII NAUK SSSR 285(4), 1019-1021 (1985)

197. MAGAZANIK, LG; **NIKOLSKY**, EE; GINIATULLIN, RA.

ENDPLATE CURRENTS EVOKED BY PAIRED STIMULI IN FROG-MUSCLE FIBERS

PFLUGERS ARCHIV-EUROPEAN JOURNAL OF PHYSIOLOGY 401(2), 185-192 (1984)

198. **NIKOLSKII**, EE; GINIATULLIN, RA.

PRESYNAPTIC ACTION OF CARBACHOLINE ON FROG NERVE-MUSCLE PREPARATION AFTER MOTOR-NERVE

TRANSECTION

DOKLADY AKADEMII NAUK SSSR 277(1), 250-252 (1984)

199. **NIKOLSKII**, EE.

EFFECT OF CARBACHOL ON SPONTANEOUS TRANSMITTER RELEASE FROM RAT MOTOR-NERVE ENDINGS DEPENDING

ON EXTRACELLULAR POTASSIUM CONCENTRATION

NEUROPHYSIOLOGY 16(4), 370-373 (1984)

200. **Nikol'skii**, E E.

Relation between the effect of carbacholine on spontaneous mediator release from motor nerve endings and extracellular potassium concentration in the rat.

Neirofiziologija = Neurophysiology 16(4), - (1984)

201. **Nikol'skii**, E E; Strunskii, E G.

Automation of the process of replacing solutions in a physiological experiment.

Fiziologicheskii zhurnal SSSR imeni I. M. Sechenova 69(9), - (1983)

202. MAGAZANIK, LG; **NIKOLSKII**, EE; GINIATULLIN, RA.

DEPENDENCE OF THE ENDPLATE CURRENT DECAY-RATE ON THE QUANTUM CONTENT AND ON THE PREVIOUS SYNAPTIC ACTIVITY

DOKLADY AKADEMII NAUK SSSR 271(2), 489-492 (1983)

203. **NIKOLSKIJ**, E; VYSKOCIL, F.

NON-QUANTAL RELEASE OF ACETYLCHOLINE IN THE MUSCLE .1. EFFECT OF CA-2+ AND K+ CONCENTRATION

PHYSIOLOGIA BOHEMOSLOVACA 32(6), 545-545 (1983)

204. VYSKOCIL, F; **NIKOLSKY**, E; EDWARDS, C.

AN ANALYSIS OF THE MECHANISMS UNDERLYING THE NON-QUANTAL RELEASE OF ACETYLCHOLINE AT THE MOUSE NEUROMUSCULAR-JUNCTION

NEUROSCIENCE 9(2), 429-435 (1983)

205. MAGAZANIK, LG; **NIKOLSKY**, E; VYSKOCIL, F.
EFFECT OF THE DESENSITIZATION-POTENTIATING AGENT SKF-525A ON FROG ENDPLATE CURRENTS
EUROPEAN JOURNAL OF PHARMACOLOGY 80(1), 115-119 (1982)
206. **NIKOLSKII**, EE.
EFFECT OF CARBACHOL ON MINIATURE ENDPLATE POTENTIALS AND CURRENTS OF RAT SKELETAL-MUSCLE
NEUROPHYSIOLOGY 14(2), 148-152 (1982)
207. VOLKOVA, IN; **NIKOLSKII**, EE; GINIATULLIN, RA.
IS THE PRE-SYNAPTIC ACTION OF CARBACHOL LINKED WITH ACTIVATION OF THE POSTSYNAPTIC MEMBRANE
BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 91(4), 419-422 (1981)
208. MAGAZANIK, LG; **NIKOLSKII**, EE.
PRESYNAPTIC AND POSTSYNAPTIC EFFECT OF CHOLINOMIMETIC (SUBERYLDICHOINE) UNDER THE VOLTAGE CLAMP
OF POSTSYNAPTIC MEMBRANE
DOKLADY AKADEMII NAUK SSSR 249(6), 1488 (1979)
209. **NIKOLSKII**, EE; GINIATULLIN, RA.
ABOLITION OF THE PRESYNAPTIC ACTION OF CARBACHOL BY TUBOCURARINE
BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE 87(2), 154 (1979)
210. REZVYAKOV N P; **NIKOL'SKII** E E.
CHANGES IN FAST AND SLOW MUSCLE PROPERTIES OF RATS DURING CROSS RE INNERVATION
Fiziologicheskii Zhurnal SSSR Imeni I M Sechenova 64(8), 1117 (1978)
211. **NIKOL'SKII** E E; POLETAEV G I.
THE MECHANISM OF NEURO MUSCULAR TRANSMISSION BLOCKING DURING LOW FREQUENCY NERVE STIMULATION
Neirofiziologiya 9(1), 78 (1977)
212. VOLKOVA I N; **NIKOL'SKII** E E; POLETAEV G I.
BLOCKING OF THE ACTION POTENTIALS AND THE SKELETAL MUSCLE CONTRACTIONS IN THE FROG BY MUSCLE FIBER
TRANSECTION
Fiziologicheskii Zhurnal SSSR Imeni I M Sechenova 61(9), 1433 (1975)