

Name	Svetlana Pashkevich
Position	Ph.D., Head Laboratory of Neuroscience Institute of Physiology NAS of Belarus
Brief Statement of Carrier	1989 - 1995- Student of Belarusian State University 2000 – 2003 Graduate Student of Institute of Physiology, Minsk, Belarus and Pavlov Institute of Physiology, Russian Academy of Sciences, St.-Petersburg, Russia (PhD-Degree). Candidate of biology. Title of thesis: “The role of the vagal nervous system in the realization of visceral and somatic nociceptive reflexes” 2000 – Research Scientist of Institute of Physiology NAS of Belarus 2007- Head Laboratory of Neuroscience Institute of Physiology NAS of Belarus
E-mail	romana.sforza@gmail.com
Number of publications	217 (including 1 book, 126 papers, 90 abstracts and conference proceedings)
Major publications	<ol style="list-style-type: none"> 1. Kul'chitskii SV, Yakubovich NV, Emel'yanova AA, Garkun YS, <i>Pashkevich SG</i>, Kul'chitskii VA. Changes in Neuropil Ultrastructure in Hippocampal Field CA1 in Rat Pups after Application of Hyaluronidase // <i>Neurosci Behav Physiol</i>. 2009. V. 39, N 6. P.517–520 2. Moiseenok A.G., Katkovskaya I.N., Gurinovich V.A., Denisov A.A., <i>Pashkevich S.G.</i>, Kul'chitskii V.A. Absorption and Biotransformation of the Coenzyme A Precursor D-Pantethine in Rat Hippocampus // <i>Neurochemical Journal</i>. 2010. V. 4, N. 4. P. 257–264. 3. Navasiolava N.M., <i>Pashkevich S.G.</i>, Custaud M.A., Emelianova A.A., Kulchitsky V.A., Response to LPS injection after anti-ortostatic hypokinesia in rats, an hypothesis for endothelial dysfunction // <i>Journal of Gravitational Physiology</i>. 2010. V. 15(1). P. 69–70. 4. Koulchitsky S.V., <i>Pashkevich S.G.</i>, Navasiolava N.M., Custaud M-A., Kulchitsky V.A. Body temperature control in fever modeling after preliminary injection of glutamate receptors ligands into the solitary tract nucleus // <i>Advances in Bioscience and Biotechnology</i>. 2013. V.4. P.557–562 5. Potkin V., Shcharbin D., Denisov A., <i>Paschkevich S.</i>, Bryszewska M., Petkevich S., Kletskov A., Lapotko D., Kazbanov V., Gurinovich T., Kulchitsky V. The Influence of Heterocyclic Compound-PAMAM Dendrimer Complexes on Evoked Electrical Responses in Slices of Hypoxic Brain Tissue // <i>Cellular & Molecular Biology Letters</i>. 2014. V. 19. N 2. P. 243–248 6. Kulchitsky V.A., Alexandrova R., Suziedelis K., <i>Paschkevich S.G.</i>, Potkin V.I. Perspectives of Fullerenes, Dendrimers, and Heterocyclic Compounds application in Tumor Treatment // <i>Recent Patents on Nanomedicine</i>. 2014. V.4, №2. P.82-89 7. Kaliadzich Zh., Semenik T., Riazechkin A., Furmanchuk D., Andrianova T., Zaikina N., <i>Pashkevich S.</i>, Gudny G., Kulchitsky V. Chemoreceptor control of gas homeostasis in patients with obstructive sleep apnea. <i>Activitas Nervosa Superior Rediviva</i>. 2014. V.56. №3–4. P.73-78 8. Potkin V.A., Kletskov A.V., Petkevich S.K., <i>Pashkevich S.G.</i>, Kazbanov V.V., Denisov A.A., Kulchitsky V.A. Water soluble isoxazol-3-yl(isothiazol-3-yl) carboxamides and ureas containing amino acid residues – potential anticancer agents // <i>Heterocyclic Letters</i>. 2015. V.5. N 1. P. 11–19 9. Andrianov V.V., <i>Pashkevich S.G.</i>, Yafarova G.G., Denisov A.A., Iyudin V.S., Bogodvid T.Kh., Dosina M.O., Kulchitsky V.A., Gainutdinov Kh.L. Changes of Nitric Oxide Content in the Rat Hippocampus, Heart and Liver in Acute Phase of Ischemia // <i>Applied Magnetic Resonance</i>. 2016. P. 1-

	<p>12.</p> <p>10. Kulchitsky V.A., Arzumanyan G.M., Dosina M.O., Mamatkulov K.Z., Suziedelis K., Voskanyan K.Sh., Stukach Y.P., <i>Pashkevich S.G.</i>, Koulchitsky S.V. Raman spectroscopy: comparing the “fingerprints” of C6 glioma and mesenchymal stem cells // <i>Journal of Stem Cells and Regenerative Therapy (JSCRT)</i>. 2016. V. 1. Iss1. P. 1-9.</p> <p>11. Stukach Y., Gainutdinov Kh., Dosina M., <i>Pashkevich S.</i>, Andrianov V., Denisov A., Bogodvid T., Yafarova G., Bushuk S., Kuznetsova T., Kulchitsky V. Migration of neural stem cells in hippocampal slices in hypoxia modeling // <i>Journal of Stem Cells and Regenerative Therapy (JSCRT)</i>. 2016. Vol. 1, No 1. P. 1-8</p>
Major scientific results	<p><i>In vivo</i> and <i>in vitro</i> experiments in the neural network model demonstrated that neuroplasticity is the basis for both integrative and disintegrative processes in the brain:</p> <ul style="list-style-type: none"> • The cost-effective technology and the device for living cells electrical stimulation aimed at acceleration of differentiation processes in stem cells into neural-like units was developed. • The delivery of stem cells to injured brain region by cranial nerve fibers was accomplished. Brain stem cells were visualized and the acceleration of locomotor functions and memorizing processes recovery was stated after their injection (in partnership with Republican Research and Clinical Centre of Neurology and Neurosurgery, Minsk, Belarus). • It was proved that the decrease in brain chemoreceptors sensitivity to carbon dioxide during sleep is the main cause of breathing arrest in patients with obstructive sleep apnea syndrome (in partnership with Republican Scientific and Practical Centre of Otorhinolaryngology, Minsk, Belarus). • The relationships between the mechanisms of nociceptive reactions control and the processes of proliferation and apoptosis in tumor tissue after nanoparticles’ implantation were stated. • The effect of chemotherapeutic drugs’ antitumor action increase in their combination with heterocyclic compounds and/or neurotransmitters was revealed. It allowed lowering the dose of chemotherapy and its toxic effect on the organism.
Major achievements in teaching	<p>2012-2016 – scientific supervisor of 6 master’s of science (biological). From 2016 until present scientific supervisor of 1 doctor of philosophy (biological science).</p>
Grants, Awards, Fellowships	<p>2000 – Research Fellowship, Pavlov Institute of Physiology, Russian Academy of Sciences, St.-Petersburg, Russia. 2002 – Research Fellowship, Pavlov Institute of Physiology, Russian Academy of Sciences, St.-Petersburg, Russia. 2005-2007 – Grant of Belarusian Republican Fund of Fundamental Investigation for Young Scientists 2005-2006 – Grant of World Federation of Scientists National Scholarship Programme-Belarus 2005-2010 – The Chairman of the NASB Council of Young Scientists 2007-2010 – Minsk City Council of Deputy, the Secretary of the Council Permanent Commission for Education, Science, Culture and Sport 2007 – The Prize named of Academician V.F. Kuprevich for Young Scientists (NASB)</p>

	<p>2008-2010 – Grant of Belarusian Republican Fund of Fundamental Investigation</p> <p>2010-2013 – the Scientific Secretary of Government Programme “Fundamental and Applied Medicine and Pharmacy”</p> <p>2010 – Research Fellowship, Medical University, Angers, France</p> <p>2014-2016 – Grant of Belarusian Republican Fund of Fundamental Investigation (with Scientists of Armenia)</p> <p>2014 – Top 10 of fundamental researches in 2014 of NAS of Belarus</p> <p>2016 – Grant of the President of the Republic of Belarus in 2016</p>
Perspectives	<p>Scientific area:</p> <ul style="list-style-type: none"> • experimental substantiation of novel principles of diagnostics and correction of brain pathological processes; • clarification of conditions of brain plasticity processes activation in the modeling of injuries and brain attacks; • development of techniques of endogenous body reserves initiation during extreme conditions; • signal mechanisms and informative processes in tumor cells of nerve tissue; • biomedical aspects of nanomaterials, implants and heterocyclic compounds use. <p>Teaching area:</p> <p>Training of scientific personnel in the field of neurophysiology and ethology</p>