

## CONTENTS

O.O.Krishtal, V.F Sagach, A.M. Shevko. World - wide fame of the science and pride of the Ukrainian people – Platon Grigorovich Kostyuk	3
<b>Kostyuk P.G.</b> Ion calcium in cell nucleus	10
A.V. Savrasova, I.V. Lushnikova, E.V. Isaeva, G.G. Skibo, D.S. Isaev, <b>P.G. Kostyuk.</b> The effect of neuraminidase blocker on gabazine-induced seizures in rat hippocampus	14
S.V. Chorna, V.E. Dosenko, N.A. Strutynska, G.L. Vavilova, V.F. Sagach. Increased expression of voltage-dependent anion channel and adenine nucleotide translocase and the sensitivity of $\text{Ca}^{2+}$ -induced mitochondrial permeability transition opening pore in old rat heart	19
M. S. Shipshina, N. S. Veselovsky. Characteristics of sensory neurotransmission in co-culture of both the rat dorsal root ganglion and the rat dorsal horn spinal cord neurons	26
V.O. Kyrychenko, V.S. Nagibin, L.V. Tumanovska, V.E. Dosenko, V.K. Rybalchenko, O.O. Moibenko. Effects of ubiquitin gene silencing in anoxia-rexygenation of neonatal cardiomyocytes	37
M.N. Tkachenko, A.V. Kotsjuruba, O.V. Bazilyuk, I.V. Gorot, V.F. Sagach. Changes in vascular reactivity and reactive forms of oxygen during permanent stay in the alienation Chernobyl zone	47
R.B. Strutynskyi. The vasodilatatory effects of flocalin, a fluorine-containing $\text{K}_{\text{ATP}}$ channel opener	59
Y.V. Lebed, V.E. Dosenko, G.G. Skibo. Expression of proteasome subunits PSMB5 and PSMB9 mRNA in hippocampal neurons: link with apoptosis and necrosis	66
O.V. Akopova, A.V. Kotsjuruba, O.N. Kharlamova, Yu.P. Korkach, V.F. Sagach. The role of mito- chondria in the NO-dependent regulation of $\text{Na}^+$ , $\text{K}^+$ -ATPase activity in rat aorta	76
O.V. Vlasenko, O.V. Dovgan', V.A. Maisky, A.I. Pilyavskii, A.V. Maznychenko. Laminar distribution of the active rat spinal neurons activated during the feeding-related stereotyped movements	86
T.Voznesenskaya1, T. Bryzgina, V. Sukhina, N. Makogon, I. Alexeyeva. the influence of an inhibi- tor of NF- $\kappa$ B activation curcumin on the oogenesis and follicular cell death in immune ovarian failure in mice	96
T.M. Falalyeyeva, V.M. Kukharskyy, T.V. Beregovaya. The influence of long-term monosodium glutamate feeding on structure and functional state of stomach and body weight in rats	102
O.A.Grinchenco, P.I.Yanchuk. The pathways of taurine influences on gastric secretion	111
V.V. Kiroshka, J.O. Tischenko. The effect of initial hormonal status of recipient animals for morphological state and endocrine function of ovarian tissue transplant	121
<b>REVIEW</b>	
E.P. Kostyuk, T.Yu. Korol, S.V. Korol, C. Romanenko, V.O.Pinchenko, <b>P.G. Kostyuk.</b> Alteration of calcium signaling as one of the pathogenesis mechanisms of such neudegenerative diseases as Alzheimer's disease and diabetic polyneuropathy	130
<b>MEMORIALS</b>	
E.A.Lukyanetz. In memory of academician P.G.Kostyuk	139