

## Contents

V.F. Sagach, O.V. Rudyk, G.L. Vavilova, A.V. Kotsiuruba, Ju.P. Tkachenko Melatonin recovers ischemic tolerance and decreases the sensitivity of mitochondrial permeability transition pore opening in old rat heart	3
V.E. Dosenko, V.S.Nagibin, L.V.Tumanovskaya, V.Yu. Zagoriy, A.A. Moibenko, J. Vaage Proteasome inhibitors eliminate protective effect of postconditioning in cultured neonatal cardiomyocytes	15
S.N Pyvovar, V.I. Korzhov., R.B Strutinskii, L.M. Yagupolskii, A.A. Moibenko The influence of the fluor-containing mitochondrial $K_{ATP}$ channels openers on the oxidative phosphorylation	25
A.I. Bondarenko, V.F. Sagach Electrogenicity of $Na^+, K^+$ ATPase in endothelial cells	34
T.V. Beregova, T.M. Falalyeyeva The role of short chain fatty acids and lactic acid in regulation of gastric secretion	42
T.Yu. Voznesenskaya, N.V. Makogon, T.M. Bryzgina, V.S. Sukhina, N.G. Grushka, I.N. Alexeyeva The paths of follicular cell damage in mice ovaries under the immune impairment of oogenesis	52
L.V. Natrus Transformation of the impulse activity character of the rostral hypothalamic neurons in reply to physiological fluctuations of the homeostasis constants	57
Lisyany N.I., Lyubych L.D., Cherchenko A.P., Verhoglyadov Yu.P. The study of neurospecific autoantibodies' level in rabbits after allogenic intracranial transplantation of embryonal neural precursors	64
Busel B.I., Mamontov S.M. The participation of inhibitional reactions of motor cortex neurons in the triggering of conditioned reflex organization in cats/	70
B. S. Sushko Development of visceral pain under influence of the nociceptive stimule and genetic factors	78
O.V.Yasinska Age-dependent reaction of blood plasma oxidative and antioxidative systems to the hypobaric hypoxia and different duration of the photoperiod	84
M.R. Gzhegotsky, U.V. Konyk, L.P. Kozak, V.I. Kovalyshyn The influence of amaranth oil and intermittent hypoxic training on liver ultrastructural and metabolic changes induced by fluorine intoxication and low doses of ionizing radiation	90
V.I. Schvetz, R.I. Yanchyi The influence of vascular tissue on rats plattelet functional activity in case of water and salt loading	99
M.V. Storozhuk Retrograde signaling at gabaergic and glutamatergic synapses of the brain	103
Z.A. Serebrovska, T.V. Serebrovsckaya, R.L.Pyle, M.L. Di Pietro Transmission of male infertility and intracytoplasmic sperm injection (mini-review)	110