

Contents

P.G. Kostyuk, V.F. Sagach, V.M. Kiyenko, M.N. Tkachenko. 75 years to O.O. Bogomoletz Institute of Physiology NAS of Ukraine	3
Y.V. Goshovska, O.O. Lisovyi, T.V. Shimanskaya, V.F. Sagach. UCP2 and UCP3 genes expression, heart function and oxygen cost of myocardial work changes during aging and ischemia-reperfusion	26
O.O. Lisovyy, V.S. Nagibin, O.V. Surova, L.V Tumanovska., V.E. Dosenko, A.A. Moibenko. siRNA-mediated silencing of 5-lipoxygenase gene (ALOX5) reduces necrosis of cardiomyocytes in anoxia-reoxygenation	37
N. A. Strutynska, S.V. Timoshchuk, G.L.Vavilova, A.V. Kotsuruba, V.F.Sagach. Expression of mitochondrial uncoupling protein 3 and the sensitivity of mitochondrial permeability transition pore opening to Ca ²⁺ in old rat heart under activation of biosynthesis of coenzyme Q.	44
O.I. Voitychuk, V.S. Asmolkova, N.M. Gula, G.V. Sotkis, M. Oz, Y.M. Shuba. Regulation of the excitability of neonatal cardiomyocytes by N-stearyl- and N-oleylethanolamines	55
L.A. Latyshenko, E.M.Reshetnik, S.P.Veselsky, M.Yu.Makarchuk. The influence of ley-enkephalin on the bile secretion function in rat liver during pharmacological modulation of the autonomous nervous system	67
L.L.Vavilova, T.A.Krjachok, T.V.Talaieva. Modelling of insulin resistance and accompanying metabolic disturbances with dexametazone	75
Z.A. Tamarova, Yu.P. Limansky, S.A. Gulyar. Antinociceptive effects of color polarized light in animal formalin test	81
N.V. Bogdanovskaya, A.N. Svyatodouh A., A.V. Kotsuruba, Yu.P. Korkach, N.V. Malikov. Nitric oxide synthesis in girls during long-term adaptation to intensive muscular work	94
Zh.A.Kruchenko. The effect of D2-receptors blockade on the normal and stress-induced activity of SHR rats prefrontal cortex neurons	100
I.V.Lushnikova. Morphological plasticity of hippocampal CA1 neurons in vitro after short-term anoxia/hypoglycemia followed by reoxygenation	109
J. Khalili, H.F. Biloklytska, H.V. Pogrebnyak. Acid-base status and fructose diphosphatase activity in rats exposed to fluoride and induced periodontitis	118
I.G. Kushnir, G.I. Kokoshchuk. Influence of citalopram, a selective serotonin reuptake inhibitor, on circadian rhythms of excretory function of kidneys	125
P. Ye. Grigoryev, L. V. Poskotinova, P. A. Tsandekov, A. M. Vaiserman. Dependence of acoustic-motor reaction of healthy individuals from geomagnetic activity	128
V.V. Korpachev, N.M. Gurina, T.I. Korpacheva, A.A. Shuprovich, I.A. Mosendz. Peculiarities of uric acid balance disorders in patients with type 2 diabetes and metabolic syndrome	133