## CONTENTS

| O.V.Bazilyuk, A.V.Kotsuruba, L.G.Stepanenco, S.A.Talanow, Yu.P.Korkach, V.F.Sagach. Age-dependence of alterations in nitric oxide synthesis in cardiovascular system during adaptation to physical training   | 3   |
|---|-----|
| S.V. Chorna, S.O. Talanov, N.A. Strutynska, G.L. Vavilova, A.V. Kotsuruba, N.M. Gaidai, V.F. Sagach. The functional state of the rat heart during ischemia-reperfusion, the sensitivity of calcium-induced NO-dependent mitochondrial permeability transition pore opening and the uncoupling protein 3 expression following long exercise training | 13  |
| A.N. Parkhomenko, Ya.M. Lutay, V.E. Dosenko, V.L. Gurianova, A.A. Moibenko, A.A.Skarzevskiy. Influence of endothelial nitric oxide synthase T <sup>-786</sup> →C promoter polymorphism on integral parameters of functional condition of arterial vessels   | 22  |
| I.M. Pishel, O.O. Yevtushenko, Yu.I. Leonov, N.V. Grygoryeva, T.V. Orlyk, D.V.Shytikov, V.V. Povoroznyuk, G.M. Butenko. The association of $^{-1082}A \rightarrow G$ polymorphism of IL-10 AND ( $^{-308}A \rightarrow G$ ) polymorphism of TNF $\alpha$ genes with bone density in elderly women   | 30  |
| O.I. Voitychuk, O.O. Moibenko, Y.M. Shuba. ATP-dependent potassium channel opener flocalin regulates cardiac excitability   | 41  |
| I.P. Pasteur, I.A. Balla, A.Ye. Kovalenko, M.D. Tronko. Histological and hormonal characteristic of microencapsulated human parathyroid tissue in the remote terms after xenotransplantation to rats with experimental hypoparathyroidism   | 54  |
| L.M.Shapoval, LS.Pobigailo, LG.Stepanenko, OV.Dmytrenko, VO.Bury, VF.Sagach. Influence of intrrmittent hypoxic training on haemodynamic effects of nNOS activation in medullary cardiovascular neurons of rats  | 62  |
| Iu.V. Danylovych. The action of nitrogen oxides and hydrogen peroxide on Ca <sup>2+</sup> transport in sarcoplasmic reticulum of permeabilizated myocytes of utera  | 72  |
| V.Y. Berezovski, K.V. Yatsenko. The instrumental orotherapy in therapy of child's cerebral palsy  | 79  |
| A.S. Kost, B.D. Lutsyk, , L.Ye. Lapovets , M.S. Bilobrin. Cytokine profile in dynamics of acute period of ischemic stroke   | 87  |
| G.A. Zadorozhnaya, V.P. Lyashenko, O.Z. Melnikova. The influence of the vortical impulsive magnetic fields of right and left directions of rotation on hypotalamic bioelectric activity in rats   | 91  |
| P. Ye. Grigoryev, K. V. Tsygankov, A. M. Vaiserman, V. N. Pavlenko, I. V. Kuzhevskiy. Heliogeophysical risk factors of mortality from cerebral strokes  | 101 |
| T.M. Savka, G.M Tolstanova, Ja.M. Savitsky. V.I. Kimakovich. The role of nitric oxide in the regulation of colonic water and electrolyte transport in normal colon and during acetic acid experimental colitis in rats  | 109 |
| O.P. Mizerna, S.A. Fedulova, N.S. Veselovsky. Calcium-dependent regulation of depression of inhibitory synaptic transmission by blocker of N-type Ca <sup>2+</sup> channels in cultured hippocampal neurons   | 118 |
| E.P. Kostyuk, T.Y. Korol, P.G. Kostyuk. Molecular and cellular mechanisms of Alzheimer's disease development  | 127 |
| S. Gaidar, M. Chashchyn. A hopping model for one-dimensional diffusion of nanoparticles and motor proteins along microtubules   | 143 |
| JUBILEE DATES   |     |
| M.S. Veselovsky (on the 60-th Aniversary of His Birthday)   | 151 |
| V.V. Bezrukov (on the 70-th Aniversary of His Birthday)   | 153 |
| V.A. Mikhnyov (on the 70-th Aniversary of His Birthday)   | 157 |
|   |     |