

Contents

Editorial. M. Nováková, J. Otáhal **S559**

Reviews

Cardiac sigma receptors – an update. T. Stracina, M. Novakova (*Dept. Physiol., Fac. Med., Masaryk Univ., Brno, Czech Republic*) **S561**

Variability of mitochondrial respiration in relation to sepsis-induced multiple organ dysfunction. M. Marková, J. Dejmek, Z. Tůma, J. Kuncová (*Inst. Physiol., Fac. Med. Plzeň, Charles Univ., Plzeň, Czech Republic*) **S577**

Twenty years of cerebellar degeneration research at the department of pathological physiology, Faculty of Medicine, Pilsen, Charles University. F. Vožeh (*Dept. Pathophysiol., Fac. Med. Pilsen, Charles Univ., Pilsen, Czech Republic*) **S593**

Original Articles

Outcome of resynchronization therapy on superficial and endocardial electrophysiological findings. O. Kittnar, L. Riedlbauchová, T. Adla, V. Suchánek, J. Tomis, M. Ložek, A. Valeriánová, M. Hrachovina, M. Popková, J. Veselka, J. Janoušek, L. Lhotská (*Inst. Physiol., First Fac. Med., Charles Univ. Prague, Czech Republic*) **S601**

Information domain analysis of respiratory sinus arrhythmia mechanisms. J. Krohova, B. Czippelova, Z. Turianikova, Z. Lazarova, R. Wiszt, M. Javorka, L. Faes (*Dept. Physiol., Jessenius Fac. Med. Martin, Comenius Univ. Bratislava, Martin, Slovakia*) **S611**

Beneficial effects of mesenchymal stem cells on adult porcine cardiomyocytes in non-contact co-culture. M. Miklíková, D. Jarkovská, M. Čedíková, J. Švíglerová, J. Kuncová, L. Nalos, T. Kubíková, V. Liška, M. Holubová, D. Lysák, M. Králíčková, L. Vištejnová, M. Štengl (*Dept. Histol. Embryol., Fac. Med. Pilsen, Charles Univ., Pilsen, Czech Republic, Biomed. Ctr., Fac. Med. Pilsen, Charles Univ., Pilsen, Czech Republic*) **S619**

Repeated exposure to hyperbaric hyperoxia affects mitochondrial functions of the lung fibroblasts. J. Dejmek, M. Marková, M. Kripnerová, M. Čedíková, Z. Tůma, V. Babuška, L. Bolek, J. Kuncová (*Dept. Med. Biophys., Fac. Med. Dent., Palacký Univ., Olomouc, Czech Republic, Biomed. Ctr., Fac. Med. Plzeň, Charles Univ., Plzeň, Czech Republic*) **S633**

Reduction of lung inflammation, oxidative stress and apoptosis by the PDE4 inhibitor roflumilast in experimental model of acute lung injury. P. Kosutova, P. Mikolka, M. Kolomaznik, S. Balentova, M. Adamkov, A. Calkovska, D. Mokra (*Biomed. Ctr. Martin Dept. Physiol., Jessenius Fac. Med. Martin, Comenius Univ. Bratislava, Slovakia*) **S645**

Ivabradine does not impair anxiety-like behavior and memory in both healthy and L-NAME-induced hypertensive rats. K. Krajcirovicova, S. Aziriova, T. Baka, K. Repova, M. Adamcova, L. Paulis, F. Simko (*Inst. Pathophysiol., Fac. Med., Comenius Univ., Bratislava, Slovak Republic*) **S655**

What is the role of subcutaneous single injections on the behavior of adult male rats exposed to drugs? R. Šlamberová, K. Nohejlová, A. Ochozková, L. Mihalčíková (*Dept. Physiol., Third Fac. Med., Charles Univ., Prague, Czech Republic*) **S665**

FLIM analysis of intracellular markers associated with the development of Parkinson's disease in cellular model. M. Pokusa, A. Kráľová Trančíková (*Biomed. Ctr. Martin, Jessenius Fac. Med. Martin, Comenius Univ. Bratislava, Martin, Slovakia*) **S673**

The glycation products before and after therapy for acute and chronic pain. R. Rokyta, J. Lejčko, K. Houdek, L. Trefil, J. Nedvídek, J. Fricová, V. Holeček (*Dept. Normal, Pathol. Clin. Physiol., Third Fac. Med., Charles University, Prague*) **S685**