

Contents

Review articles

Genetically engineered CAR T-immune cells for cancer therapy: recent clinical developments, challenges, and future directions
(SHERIEN M. EL-DALY, JIHAN HUSSEIN) 1

Takayasu arteritis – epidemiology, pathogenesis, diagnosis and treatment
(DOMINIKA PODGÓRSKA, RAFAŁ PODGÓRSKI, DAVID AEBISHER, PIOTR DĄBROWSKI)..... 12

Cobalt in athletes: hypoxia and doping – new crossroads
(ANATOLY V. SKALNY, IRINA P. ZAITSEVA, YORDANKA G. GLUHCHEVA, ANDREY A. SKALNY, EVGENY E. ACHKASOV, MARGARITA G. SKALNAYA, ALEXEY A. TINKOV) 21

Selected rare paediatric communication neurological disorders
(BLANKA KLIMOVA, MARTIN VALIS, JAKUB HORT, KAMIL KUČA) 29

Original research articles

A cardiac troponin I study in a minimally invasive myocardial infarction canine model
(REYAJ MIKRANI, CUILAN LIANG, MUHAMMAD NAVEED, ASGHAR ALI KAMBOH, MUHAMMAD ABBAS, BIRENDRA CHAURASIYA, LI XUE, ZHOU XIAOHUI) 34

Endocrine responses after a single bout of moderate aerobic exercise in healthy adult humans
(MARIA DOURIDA, MARINELLA TZANELA, ATHINA ASIMAKOPOULOU, EFI BOTOULA, MICHAEL KOUTSILIERIS, ANASTASSIOS PHILIPPOU) 40

Three-layer collagen-based vascular graft designed for low-flow peripheral vascular reconstructions
(MIROSLAV ŠPAČEK, HYNEK CHLUP, PETR MITÁŠ, JAN VESELÝ, LUKAS LAMBERT, MIKULÁŠ MLČEK, MILAN KRAJÍČEK, JAROSLAV LINDNER, TOMÁŠ GRUS) 47

Pharmacotherapy as major risk factor of falls – analysis of 12 months experience in hospitals in South Bohemia
(JOSEF MALÝ, MARTIN DOSEDEL, JAN VOSATKA, KATERINA MALA-LADOVA, ALES ANTONIN KUBENA, IVA BRABCOVA, HANA HAJDUCHOVA, SYLVA BARTLOVA, VALERIE TOTHOVA, JIRI VLCEK) 53

Volatile organic compounds of biofluids for detecting lung cancer by an electronic nose based on artificial neural network
(EHAB I. MOHAMED, MARWA A. MOHAMED, SAMIR M. ABDEL-MAGEED, TAHER S. ABDEL-MOHDY, MOHAMED I. BADAWI, SAMY H. DARWISH) 61

Deep stacked sparse auto-encoders for prediction of post-operative survival expectancy in thoracic lung cancer surgery
(MOHAMMAD SABER IRAJI) 68

Improved prediction of CPAP failure using T90, age and gender
(DAVID SLOUKA, MONIKA HONNEROVA, PETR HOSEK, BRETISLAV GAL, ONDREJ TRCKA, TOMAS KOSTLIVY, JANA LANDSMANOVA, DAVID HAVEL, MARTINA BANECKOVA, RADEK KUCERA) 76

Pre-treatment with Empagliflozin ameliorates Cisplatin induced acute kidney injury by suppressing apoptosis
(MAALY A. ABD ELMAABOUD, AHMED M. KABEL, MOHAMED ELRASHIDY)..... 82