

## Content:

Andrea Rossnerova, et al.: Effect of Nanoparticles Exposure on miRNA Expression: a mini-review of current knowledge	2
Pavel Rossner, Jr., et al.: Effects of nanoparticles Exposure on mRNA Expression in Mice: a review of literature	18
Vladimír Mára, Elena Čižmárová: Composites in Biomaterials Engineering	32
Vladimír Starý, et al.: Growth and Characterization of Thermal Oxide Layers on Beta TiNb Alloys	40
Pavla Jendelova, Eva Syková: Labeling Efficiency and Viability of Stem Cells Cultured with Poly-L-Lysine coated Iron Oxide Nanoparticles	62
Jiri Ruzicka, et al.: Biomaterials for Spinal Cord Injury Implantation	78
Serhiy Forostyak, et.al.: Amyotrophic Lateral Sclerosis: Current Diagnosis, Treatment and Management	93
Karolína Turnovcová: Stroke and Stem Cell-based Therapy	107
Pavla Bohacova, et al.: Regulatory Effects of Mesenchymal Stem Cells on the Reactivity of T and B Lymphocytes	121
Barbora Hermankova, et al.: Mesenchymal Stem Cells and Therapy of Neurological Autoimmune Diseases	131
Jan KossI, et al.: A Potential of Stem Cells for the Treatment of Retinal Degenerative Diseases	141
Matej Buzgo, Michala Rampichova: Electrospun Nanofibers as Drug Delivery Systems	152
Andrea Mickova, Vera Sovkova: Platelets, as a Natural Source of Growth Factors, for Tissue Healing and Regeneration	164
Martin Plencner: Abdominal Hernias: a General Description	173
Eva Filova: Composite Hydrogel Scaffolds for the Regeneration of Osteochondral Defects	188
Elena Čižmárová, Vladimír Mára: Composite Materials Test Methods	199

## Content

Vladimír Mára, Elena Čižmárová: Composite NDT Testing	213
Jana Dankova, Evžen Amler: Methods in Tissue Engineering <i>In Vitro</i>	220
Pavel Rossner Jr., et al.: Macrophages and Toxicity of Nanomaterials: a mini-review	230
Andrea Míčková, et al.: Coaxial Nanofibers for Drug Delivery of Bioactive Molecules	246
Jana Horváthová, Karel Kabele: Thermal Comfort in the Office Room after Reconstruction of Lightweight Building Envelope	252
Karel Kabele, et al.: Indoor Environmental Quality and Building Performance Assessment in NZEB	264