

Nanotoxicology

Šimečková P, Hubatka F, Kotouček J, Turánek Knötigová P, Mašek J, Slavík J, Kováč O, Neča J, Kulich P, Hrebík D, Stráská J, Pěnčíková K, Procházková J, Diviš P, Macaulay S, Mikulík R, Raška M, Machala M, Turánek J. Gadolinium labelled nanoliposomes as the platform for MRI theranostics: in vitro safety study in liver cells and macrophages. *Sci Rep.* 2020, 10, 4780. doi: 10.1038/s41598-020-60284-z.

Rössner P Jr, Vrbova K, Rossnerova A, Zavodna T, Milcova A, Klema J, Vecera Z, Mikuska P, Coufalik P, Capka L, Krumal K, Docekal B, Holan V, Machala M, Topinka J. Gene expression and epigenetic changes in mice following inhalation of copper(II) oxide nanoparticles. *Nanomaterials (Basel).* 2020, 10, 550. doi: 10.3390/nano10030550.

Knötigová PT, Mašek J, Hubatka F, Kotouček J, Kulich P, Šimečková P, Bartheldyová E, Machala M, Švadláková T, Krejsek J, Vaškovicová N, Skoupý R, Krzyžánek V, Macaulay S, Katzuba M, Fekete L, Ashcheulov P, Raška M, Kratochvílová I, Turánek J. Application of advanced microscopic methods to study the interaction of carboxylated fluorescent nanodiamonds with membrane structures in THP-1 cells: Activation of inflammasome NLRP3 as the result of lysosome destabilization. *Mol Pharm.* 2019, 16, 3441-3451. doi: 10.1021/acs.molpharmaceut.9b00225.

Švadláková T, Hubatka F, Turánek Knötigová P, Kulich P, Mašek J, Kotouček J, Macák J, Motola M, Kalbac M, Koláčková M, Vaňková R, Vicherková P, Málková A, Šimečková P, Volkov Y, Prina-Mello A, Kratochvílová I, Fiala Z, Raška M, Krejsek J, Turánek J. Proinflammatory effect of carbon-based nanomaterials: in vitro study on stimulation of inflammasome NLRP3 via destabilisation of lysosomes. *Nanomaterials (Basel).* 2020 Feb 27;10(3):418. doi: 10.3390/nano10030418. PMID: 32120988

Holan V, Javorková E, Vrbová K, Večeřa Z, Mikuška P, Coufalík P, Kulich P, Skoupý R, Machala M, Zajícová A, Rössner P. A murine model of the effects of inhaled CuO nanoparticles on cells of innate and adaptive immunity - a kinetic study of a continuous three-month exposure. *Nanotoxicology.* 2019, 13, 952-963. doi: 10.1080/17435390.2019.1602679.

Rössner P, Vrbová K, Strapáčová S, Rössnerová A, Ambrož A, Brzicová T, Líbalová H, Javorková E, Kulich P, Večeřa Z, Mikuška P, Coufalík P, Křúmal K, Čapka L, Dočekal B, Moravec P, Šerý O, Míšek I, Fictum P, Fišer K, Machala M, Topinka J. Inhalation of ZnO nanoparticles: splice junction expression and alternative splicing in mice. *Toxicol Sci.* 2019, 168, 190-200. doi: 10.1093/toxsci/kfy288.