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BOOK OF ABSTRACTS

ANTIOXIDANT ACTION OF BIO-NORMALIZER ON ASBESTOS- AND COBALT-
INDUCED LUNG INJURY

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We have previously demonstrated in *in vivo* experiments that asbestos fibers and cobalt ions stimulate ROS production by neutrophils and macrophages hence causing inflammation and lung injury. To elucidate the antioxidant action of Bio-normalizer (BN) on asbestos- and cobalt-induced lung inflammation, two groups of Wistar rats were given intratracheal administration of 15 mg of chrysotile asbestos and 2.5 mM of CoSO₄, respectively, combined with 10-50 mg/ml of BN. BN administration substantially ameliorated the inflammation and fibrosis of lung tissue by suppressing free radical-mediated lung injury caused by lipid peroxidation and over production of ROS by pulmonary phagocytes post-induction with asbestos and cobalt. Analyses revealed that BN inhibited ·OH production, enhanced reduced GSH, and stimulated SOD activities in either RBC or WBC and macrophage. These findings show that BN may be an important anti-inflammatory and anti-fibrotic agent.