

# **EXPERIMENTAL JUSTIFICATION OF THE APPROACH OF MEDICAL GENETICS TO INDIVIDUAL PROPHYLAXIS OF OCCUPATIONAL DISEASES OF RESPIRATORY ORGANS**

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## **SUMMARY**

The effect of inhalation of paprine dust on the bronchopulmonary tract and antibody-forming function of the spleen was studied experimentally on two lines of mice: CBA and CC57W, differing from each other by haplotype H-2 and antioxidant status of the organisms under study. During comparative histomorphological examination of lungs and bronchi of the experimental animals a more intensive reaction was found in mice of the CBA line, whereas in mice of the CC57W line vascular changes prevailed without any reactions in the bronchioles. Reactions of the spleen to paprine dust in animals of different lines were also different: the quality of antibody-forming cells in the spleen of CBA line mice with comparatively higher antioxidant status increased under experimental conditions, while it decreased in those of the CC57W line.

The data obtained showed dependence of the sensitivity of the organism to action of operational dust on individual genetic properties, demonstrating thus the necessity of applying principles of medical genetics in order to prevent effectively the development of occupational diseases in exposed teams of workers.

*Key words:* genetic, dust, prophylaxis, respiratory organs, spleen

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