

## REVIEW

on the dissertation by Sergei Alexandrovich Zujkov 'The value of free-radical oxidation in the pathogenesis of gastric cancer,' presented to the official thesis defence for the degree Doctor of Philosophy in Pathological Physiology (the speciality 14.03.03)

The reviewed study is devoted to specify and detail nucleotide metabolism pathway in connection to free-radical oxidation in patients with gastric cancer. The applicant revised the problem and applied methodical approaches to clarify the role of metabolic disorders in the development of malignant diseases and prediction their clinical courses. The above demonstrates the relevance of the study and its high potential importance for practical health care.

The work is presented as a completed comprehensive study. The materials show that the author revealed new scientific data that amplify current knowledge about the pathogenesis of malignant transformation of epithelial cells.

Special attention is needed to clarify the resemblance in pathogenesis for metabolic changes with aging and tumor progression, which has been drawn by the author. That part of the results needs more research and argumentation. In particular, further studies are required to explain the loss-of- age-specific changes phenomenon in malignant tissues that the author found in enzyme activities of free-radical oxidation system.

In conclusion, the reviewed dissertation 'The value of free-radical oxidation in the pathogenesis of gastric cancer,' by Sergei Alexandrovich Zujkov is a complete scientific study with new promising scientific results, that fully satisfies the regulations to be qualified the degree Doctor of Philosophy in Pathological Physiology.

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