

## Reaction of Cd68<sup>+</sup>, Cd45RO<sup>+</sup>, and Catecholamine-Containing Spleen Cells to the Development of a Colon Tumor in the Offspring of Splenectomized Rat Females

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The global problem of recent decades is the high prevalence of immunodeficiency states. The factors leading to immune deficiency are manifold. One of them is removal of the spleen. It was shown that splenectomy leads to the development of post-splenectomy syndrome. It is characterized by manifestations of secondary immunodeficiency and accidental involution of the thymus. This can negatively affect the reactivity of the cells of the offspring's immune system. The aim of the research was to study the reactivity of populations of CD68<sup>+</sup>, CD45RO<sup>+</sup>, and cells containing catecholamines in the spleen of the offspring of splenectomized female rats at the age of 3 and 6 months in response to tumor development in the colon. It was shown that in the offspring of splenectomized rats against the background of a low level of catecholamines in the luminescent structures of the white and red pulp of the spleen, the reactivity of cells of the macrophage-monocytic system and spleen T-lymphocytes to tumor development in the colon is less pronounced than in the offspring of intact rats. Thus, the course of pregnancy in a state of immunodeficiency caused by splenectomy leads to a decrease in the level of catecholamines in the spleen of the offspring against the background of carcinogenesis, which is accompanied by low reactivity of macrophages and T-lymphocytes.

**Keywords:** immunodeficiency, carcinogenesis, catecholamines, offspring, spleen, splenectomy, CD68<sup>+</sup>-cells, CD45RO<sup>+</sup>-cells