

BOOK OF ABSTRACTS



2ND INTERNATIONAL CONFERENCE FOR YOUNG SCIENTISTS
„BIOMARKERS OF CIVILIZATION DISEASES”

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2ND INTERNATIONAL CONFERENCE
FOR YOUNG SCIENTISTS
„BIOMARKERS OF CIVILIZATION DISEASES”

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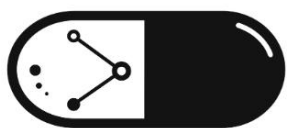
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Role of immune function of intestinal barrier in cancer

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The components of gastrointestinal system (GIS) are a hurdle for penetration of different microorganisms to the host organism. The intestinal barrier is a part of immune protection of human organism and has crucial impact to the metabolic regulation of immune system. Cancer is an opposite process of protective mechanisms. Thus, these systems have polar role in maintenance of human health. The intestinal barrier consists of the outer (mucus), middle (intestinal epithelial cells) and inner (immune cells) layers. Gut flora located in intestinal mucus – vital environment for their existence. Microbiota encoded thousands of genes which influence to the regulation of the metabolic processes in human organism. Therefore, through years of evolution the excellent symbiose was established between host organism and opportunistic microorganisms. That means, the pathogenic flora has the same function, but in this case is an initial risk factor in development of cancer. Malignant tumor are outcomes of a chronic disfunction of immune response or significant lesions of several compensatory mechanisms. Indeed, the basic event of tumor survival is reprogramming the normal metabolic pathway. As a result, advent of a disbalance between proinflammatory mediators and anti-inflammatory mediators. In fact, a chronic immune-related inflammatory disease is a constant source of civilization diseases. Diagnosis of chronic immune-related inflammatory disease is a first step in prediction of appearance of cancer.

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