

The implication of microbiome in lungs cancer: mechanisms and strategies of cancer growth, diagnosis and therapy

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Abstract: Available evidence illustrates that microbiome is a promising target for the study of growth, diagnosis and therapy of various types of cancer. Lung cancer is a leading cause of cancer death worldwide. The relationship of microbiota and their products with diverse pathologic conditions has been getting large attention. The novel research suggests that the microbiome plays an important role in the growth and progression of lung cancer. The lung microbiome plays a crucial role in maintaining mucosal immunity and synchronizing the stability between tolerance and inflammation. Alteration in microbiome is identified as a critical player in the progression of lung cancer and negatively impacts the patient. Studies suggest that healthy microbiome is essential for effective therapy. Various clinical trials and research are focusing on enhancing the treatment efficacy by altering the microbiome. The regulation of microbiota will provide innovative and promising treatment strategies for the maintenance of host homeostasis and the prevention of lung cancer in lung cancer patients. In the current review article, we presented the latest progress about the involvement of microbiome in the growth and diagnosis of lung cancer. Furthermore, we also assessed the therapeutic status of the microbiome for the management and treatment of lung cancer.