



巴斯德讲坛-资深系列 Pasteur Colloquium- Senior

Splenic hematopoiesis and tumor-induced myelopoiesis



- [Speaker]** Prof. Limin Zheng
- [Time]** 10:00-11:30AM, October 13, 2017
- [Host]** Prof. Hui Xiao
- [Venue]** A0201, Life Science Research Building

[Speaker Introduction]

Dr. ZHENG Limin was graduated from Shanghai Medical University in 1984 and then worked as a physician in University Hospital (Hua-Shan). He obtained his Ph.D in Leiden University (The Netherlands) in 1994 and was promoted as Assistant Professor by Swedish Medical Research Council in 1998. Since 2003, he has been full Professor at Sun Yat-sen (Zhongshan) University, China. He received "Outstanding Young Scientist Fund" from the National Natural Science Fund of China in 2004 and was honored as "Cheung Kong Scholars" in 2009 by Ministry of Education, China.

[Abstract]

Myeloid cells such as macrophages and myeloid-derived suppressor cells are prominent components of almost all solid tumors. These cells modulate adaptive immune responses, and create conditions that support stemness, angiogenesis, invasion, and metastasis of tumors. However, these myeloid cells are generally short-lived and must be continuously replaced throughout cancer progression. To guarantee a sufficient myeloid cell pool, cancer interferes with hematopoietic stem and progenitor cell (HSPC) activity with a skew towards myelopoiesis. We found that the circulating HSPCs from various patients with solid tumors are myeloid biased and that the frequency of circulating GMPs was associated with clinical stages and poor survival. Moreover, we found significantly increased densities of HSPCs and myeloid cells in cancer patients, which was negatively associated with their clinical outcomes. Thus, the spleen is an important extramedullary reservoir and source of myeloid progenitors. Identifying unique signals and underlying mechanisms that instruct splenic hematopoiesis might provide a novel strategy for anticancer therapy by targeting tumor-promoting myeloid response at its source.



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