B LYMPHOCYTES

INTRODUCTION

STRUCTURE

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FUNCTION

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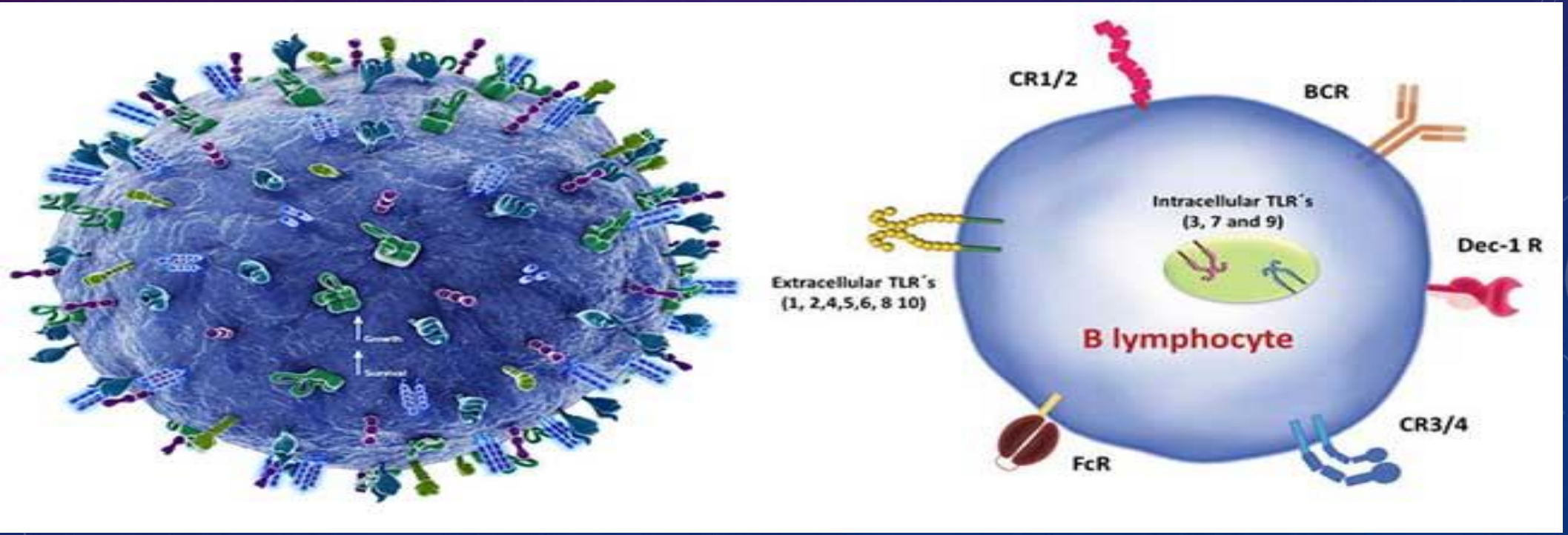
INTRODUCTION

- The lymphocytes maturing in bursa of fabricius or bone marrow producing antibody and bringing about humoral immunity is called B- lymphocyte.
- They are named as B cells because they differentiate in the bone marrow(mammals) or bursa of Fabricius(Birds)
- B lyphyocytes are a type of white blood cells or leukocytes.
- The B lymphocyte may 23% of total lymphocyte population
- The B lymphocytes are mononucleated, non granular leukocytes. They have large nucleus and a rim of cytoplasm.

The B- cell usually has the following surface marker

- CR1/2 or CR3/4 – they are receptor of complement system
- BCR – these are antibodies present on the surface of B cell for recognizing antigen
- Fc receptor – it is regulator of B cell function
- DEC 1R – act as negative regulator of human B cell activation and proliferation

Besides that B cell contain a large nucleus, contain less amount of cytoplasmic content.

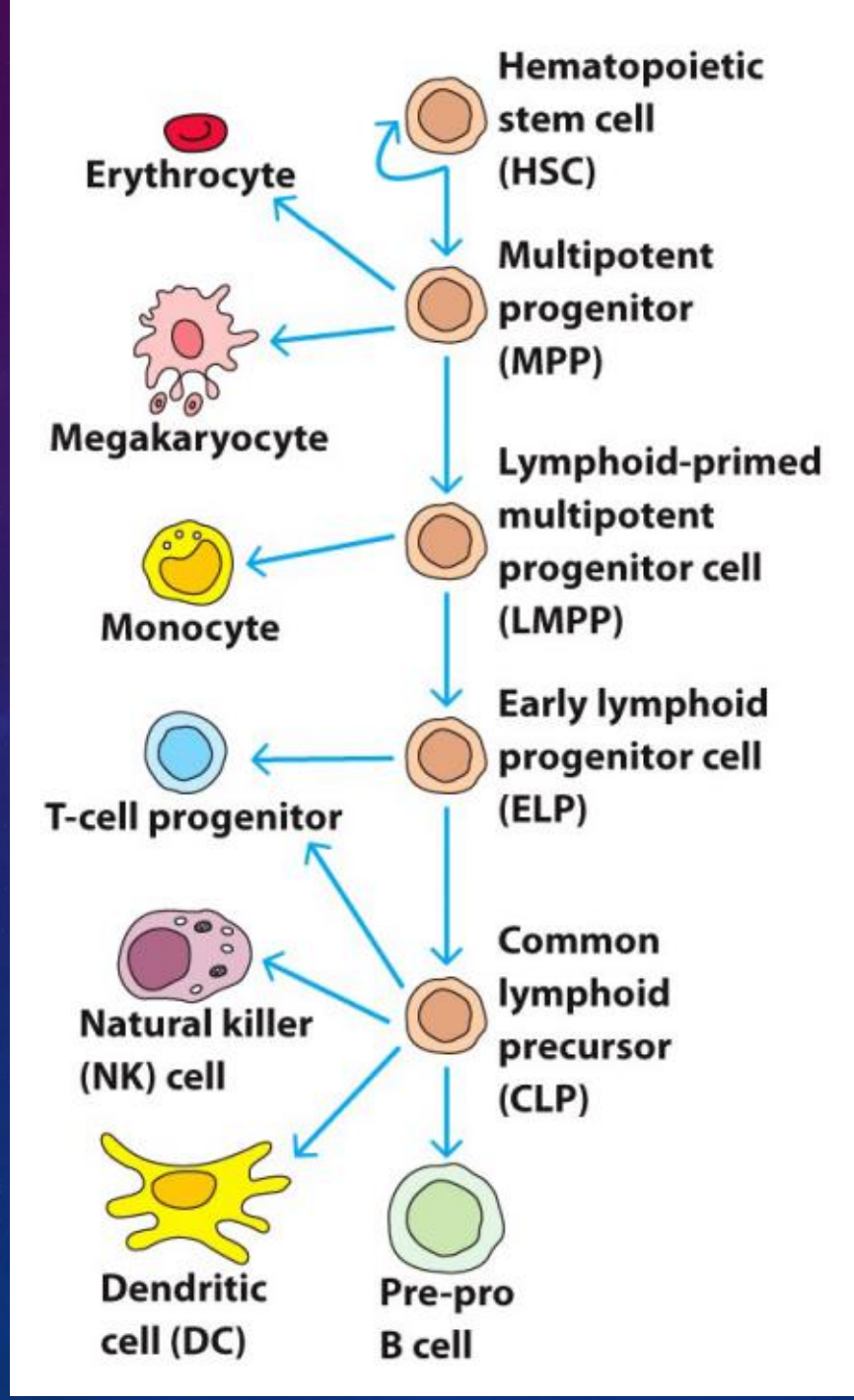


DEVELOPMENT

B cells develop from haematopoietic cells.

The B cells are produced by the process of haematopoiesis

The formation of B cells is called lymphopoiesis.



FUNCTIONS OF B CELLS

- B cells secrete antibodies.
- B cells kill intracellular pathogens.
- B cells also show phagocytosis.
- B cell also perform the role of Antigen Presenting Cells.
- B cells are used in monoclonal antibody production.

THANK YOU