

The role of collagen in hematopoiesis

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Several types of collagen, including types I, III, IV, V and VI, are produced by bone marrow stromal cells. Current information indicates that changes in collagen production result in profound alterations in the capacity of hematopoietic precursors to proliferate and differentiate. Although not definitively established, collagen molecules may be involved in the establishment and conformation of the stroma-associated extracellular matrix and/or in adhesive interactions with progenitor cells. The dynamic role of collagen in hematopoiesis is indicated by the observation that collagen production and processing are regulated by several factors such as glucocorticoids, cytokines, collagenases and collagenase-inhibitory proteins.