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(54) Title: DISLODGE MENT AND RELEASE OF HSC FROM THE BONE MARROW STEM CELL NICHE USING ALPHA9 INTEGRIN ANTAGONISTS

(57) Abstract: Haematopoietic stem cell mobilization is a process whereby haematopoietic stem cells are stimulated out of the bone marrow space. Before HSC can mobilize, they must be dislodged and released from the BM stem cell niche in which they reside and are retained by adhesive interactions. Accordingly, in an aspect of the present invention there is provided a method for enhancing dislodgement of HSC and their precursors and progenitors thereof from a BM stem cell binding ligand in vivo or ex vivo, said method comprising administering in vivo or ex vivo an effective amount of an antagonist of an $\alpha 9$ integrin or an active portion thereof to the BM stem cell niche. Once mobilized to the peripheral blood (PB) the HSC may be collected for transplant. Methods which enhance mobilization of the HSC can also improve treatments of haematological disorders.

