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(54) Title: A METHOD OF GENERATING MULTILINEAGE POTENTIAL CELLS

(57) Abstract: The present invention relates generally to a method of generating cells exhibiting multilineage potential and to cells generated thereby. More particularly, the present invention is directed to an *in vitro* method of generating mammalian stem cells from $CD14^+$ mononuclear cells and to cells generated thereby. This finding has now facilitated the design of means for reliably and efficiently generating populations of multilineage potential cells, such as stem cells,for use in a wide variety of clinical and research settings. These uses include, *inter alia*, the directed differentiation, either *in vitro* or *in vivo*, of the subject multilineage potential cells and the therapeutic or prophylactic treatment of a range of conditions either via the administration of the multilineage potential cells of the invention or the more fully differentiated cellular populations derived therefrom. Also facilitated is the design of *in vitro* based screening systems for testing the therapeutic impact and/or toxicity of potential treatment or culture regimes to which these cells may be exposed.