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(71) Applicant *(for all designated States except US)*: **AVM BIOTECHNOLOGY, LLC** [US/US]; 1102 Columbia Street, Suite 316, Seattle, WA 98104 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **DEISHER, Theresa D.** [US/US]; 1102 Columbia Street, Suite 316, Seattle, WA 98104 (US).

(74) Agent: **ARD, Joel B.**; Foster Pepper PLLC, 1111 3rd Avenue, Suite 3400, Seattle, WA 98101 (US).

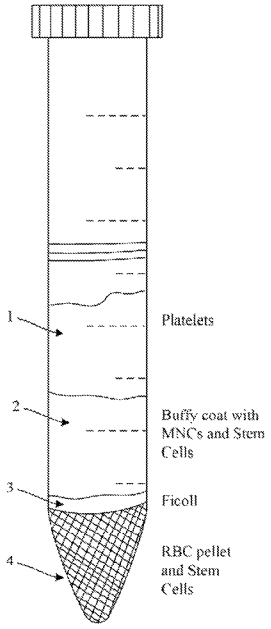
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(54) Title: PERSONALIZED PRODUCTION OF BIOLOGICS AND METHOD FOR REPROGRAMMING SOMATIC CELLS

(57) Abstract: The invention provides a method for producing polypeptide protein products and nucleic acid products having reduced levels of antigenicity in an animal being treated with a biologic product. Somatic cells are isolated from an animal, transformed into pluripotent stem cells, transfected with a nucleic acid(s) of interest, and re-differentiated towards somatic cells known to be high level producers of the desired nucleic acid product. The invention can be used to derive a general cell line to treat populations, racial specific cell lines to treat ethnic groups, or patient specific cell lines to treat individuals. Additionally, the invention provides a method to allow induced pluripotent stem cells to be re-differentiated towards their somatic cell of origin so that the cells can be used to therapeutically treat an animal without resulting teratoma formation.



Layers resulting from gradient centrifugation of whole blood

Fig. 1

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