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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).

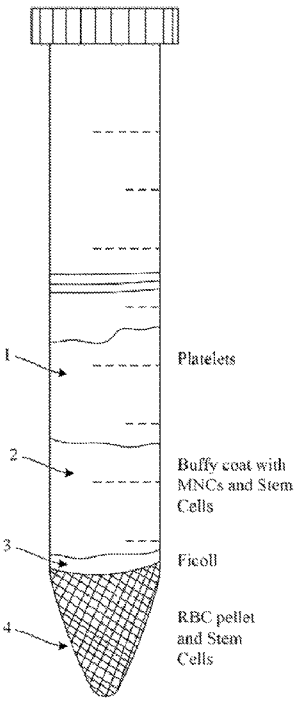
(74) Agent: **ARD, Joel B.**; Foster Pepper PLLC, 1111 3rd Avenue, Suite 3400, Seattle, WA 98101 (US).

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



Layers resulting from gradient centrifugation of whole blood

Fig. 1

(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.

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