

Autologous stem cells at the Pharmacy

(there will be no prevention or therapy without blood stem cells!)

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Introduction (100 words):

In human medicine stem cell therapy today is expensive, often illegal and only for a few, while veterinary must adjust to the new rigid NDA rules.

In veterinary bone marrow and fat stem cells have had discrete results and have been introduced into clinical practise by labs, not by the pharmaceutical industry because of the complicated biotechnological production. Now a method that allows this industry to develop the blood derived stem cell therapy both in veterinary and human medicine has been patented!

Hypothesis/Objectives:

One or more pharmaceutical houses will produce patented kits made up of test tubes, specific for every pathology. The final target is that every hospital or clinic will be able to produce adult autologous blood stem cells in a short time, introducing them into the cGMP prepared test tubes.

Materials and Methods :

Blood creates stem cells and carries them to every organ. Reproducing the same process in vitro one obtains haematopoietic, mesenchymal and pluripotent stem cells, identified by a Sorter, with only stem cell receptors allowing patents and legal experimental trials.

Pluripotency permits them to inter-react in neuropathy.

The sample is a few mls. of blood. Preparation time is a few hours.

BDSCs inoculated systemically, by perfusion and locally improve incurable illnesses. The safe therapeutic protocol comes from 50,000 injections done over 10 years on animals near to man with non-provoked pathologies.

RESULTS

The results obtained on dermatologic, ophthalmic, orthopaedic, cardiac and neurologic pathologies have been published, videos show better the results in neurology, also compared to results obtained from bone marrow stem cells. The paper "***Blood-derived Stem Cells (BDSCs): in Vitro Hepatic Differentiation.***" *Journal of Cellular Physiology*, **228:1249-1254, 2013** shows that BDSCs have pluripotency, in fact they are superior to mesenchymal cells that are unable to transform into hepatocytes.

Conclusions:

BDSCs have suitable characteristics for NDA approval compared to allogenic and autologous bone marrow and fat stem cells, they can be produced by pharmaceutical houses.

Every illness is an altered network and it is not sufficient to use a single entity (drug or monocellular stem cell colonies) that works on some switches, but a network medicine that can work on multiple points must be used. The therapeutic paradigm of the new regenerative medicine is: **"Only a network can restore**

balance in a network!" and this network is made of haematopoietic, mesenchymal and pluripotent stem cells in whole blood!