

# 4<sup>th</sup> International Conference on Tissue Science and Regenerative Medicine

July 27-29, 2015 Rome, Italy

## Epidermis state after cryodestruction under influence of cryopreserved cord blood serum

**B P Sandomirskiy<sup>1</sup>, I O Ischenko<sup>1</sup>, G A Kovalov<sup>1</sup> and O V Naumova<sup>2</sup>**

<sup>1</sup>Institute for Problems of Cryobiology and Cryomedicine, Kharkiv

<sup>2</sup>Kharkiv National Medical University

Wounds are the major health problem worldwide. Epithelialization plays the most important role in wound healing. The work is devoted to studying the effect of cryopreserved cord blood serum (CCBS) on an epithelium after skin cryodestruction in hairless rats. Morphological (morphometric) studies were carried out to days 7, 14 and 21 after cryodestruction. Preparations were stained with hematoxylin and eosin, desoxynucleoproteids were detected by Feulgen-Rossenbeck stain, ribonucleoproteins were done with the test of Brachet, neutral glycosaminoglycans using PAS-reaction. The CCBS revealed a positive impact on reparative regeneration of wound epithelium. Morphological features of the epithelialization zone activation of the skin destruction and reducing the severity of destructive inflammatory signs in the epithelium when treating with CCBS suggest about its anti-inflammatory effect, as well as a stimulating influence on reparative processes in epitheliocytes. Since the CCBS contain physiological for the body biologically active substances, which are natural regulators of metabolic processes, it can be assumed they complete a balanced impact on the functioning of regulatory systems of various levels (central, system, cellular, molecular) of organization. The presented results open the prospect of exploring the possible use of CCBS when treating the wounds.

### Biography

Sandomirsky Boris has completed his PhD (medicine) in 1974, later in 1984 the Doctor of Sciences degree (medicine), in 1986 - Professor (Institute for Problems of Cryobiology and Cryomedicine). Since 1982 - the Head of the Department of Experimental Cryomedicine (Institute for Problems of Cryobiology and Cryomedicine of the National Academy of Sciences of the Ukraine); main field: cryomedicine; cryosurgery, biotechnology, nanotechnology. He has more than 300 publications.

[trpr@i.ua](mailto:trpr@i.ua)

### Notes: