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The study of tissue-specific proteins and peptides influence on innate immunity

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Tissue specific proteins and peptides were extracted from Sus *scrofa thymus*, spleen and lymph nodes (TSL) by physiological saline on distilled water (DW) and deuterium depleted water (DDW). Study of TSL+DW and TSL+DDW was carried out on Wistar rats with cytostatic induced immunodeficiency model. Animals were randomly divided in 4 groups: Group-1: Intact (n=10); Group 2: Treated with DW (n=10), Group-3: Treated with TSL+DW (n=10), Group-4: Treated with TSL+DDW (n=10). Lymphocytes and monocytes counts in Group-2 decreased by 31.9% ($p<0.05$) and 40.4% ($p<0.05$) compared with Group-1 while granulocytes count increased by 48.3% ($p<0.05$). Lymphocytes and monocytes counts in Group-3 and Group-4 increased by 21.7% ($p<0.05$) and 38.1% ($p<0.05$), 24.8% ($p<0.05$) and 14.3% ($p<0.05$) compared with Group-2 while granulocytes count decreased by 20.2% ($p<0.05$) and 25.4% ($p<0.05$). CD4 count in Group-2 decreased by 49.1% ($p<0.05$) compared with Group-1 while CD3 count increased by 19.0% ($p<0.05$). CD4 in Group-3 increased by 67.4% ($p<0.05$) compared with Group-2 while CD3 was higher Group-2 by 32.7% ($p<0.05$). CD4 in Group-4 did not increase while CD3 was higher in Group-2 by 18.5% ($p<0.05$). Revealed data confirmed TSL influence on immunity. Pathways activation depended on solubilizing agent. Presumably, TSL+DDW may stimulate both B-cells and T-cells differentiation while TSL+DW primary stimulate CD3 and CD4 T-lymphocytes differentiation.

Biography

Ekaterina R Vasilevskaya has completed her PhD from VNIIMP and published more than 35 papers. She is a Researcher in Experimental Clinical-Research Laboratory.

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