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.