PERSPECTIVES CELL THERAPY AND LIVING TISSUE EQUIVALENTS DURING TREATMENT CARTILAGE DEFECTS (Perspectives direction).

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The purpose of the study. explore new approaches in the treatment of acquired defects of cartilage implantation of inert substitutes treatment drugs or matrix components for the purpose of local stimulation of tissue regeneration and transplantation of autologous cells or tissue, or in vitro production of tissue or tissue equivalents for implantation.

Materials and methods Object of study - the literature on acquired defects of the knee joint cartilage and cultured chondrocytes their replacement in dogs.Methods-analytical.Surgery on the knee joint of dogs and their subsequent maintenance carried out at the Department of Surgery. IO Povazhenka NUBiP Ukrainefor2010-2012.

Cultivated chondrocytes to replace hyaline cartilage defects of the knee joint at the Institute of Genetic and Regenerative Medicine NAMS Ukraine. Experimental studies were carried out in cooperation with the Institute of Genetic Medicine and reheneratyvnoy ON-MN Ukraine and the Institute of Traumatology and Orthopedics NAMS Ukraine.

Summary. The chondrocyte source and culture methods, their dedifferentiation during long time subculturing and the modern approaches to artificial cartilage modeling (living cartilage tissue equivalents) ex vivo are discussed in the article.