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**SUBSTANTIATION OF CREATION OF A NEW
ANTI-INFLAMMATORY PHYTOMEDICINE WITH
A TANACETUM (*Tanacetum parthenium* L.) THICK EXTRACT
ACCORDING TO THE RESULTS OF EFFICIENCY
ON THE MODEL OF ARTHRITIS IN RATS**

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Introduction. Improving the pharmacotherapy of rheumatoid arthritis (RA) remains an urgent task of modern pharmacology. One of the ways to solve this problem is to find and develop agents with anti-inflammatory and chondroprotective properties based on plant materials

The aim of the study. To evaluate the effectiveness of a thick extract of the tanacetum (*Tanacetum parthenium* L.) herb in chronic inflammation (adjuvant arthritis) in rats according to histological examination.

Research methods. Histological examination of the joints of rats with simulated Freund's adjuvant (0.1 ml once subcutaneously at the base of the tail) arthritis. The joints separated from the skin and muscles were fixed in 10% neutral formalin solution, after washing in running water decalcified in 5% nitric acid solution for 14-16 days. After ascending, the tissue concentration was poured into celloidin-paraffin according to standard methods. Frontal sections 6-8 µm thick were made from the blocks, at least

three sections from each joint. The sections were stained with hematoxylin and eosin. All stages of micropreparation were performed in accordance with OARSI (Osteoarthritis Research Society International) recommendations. Microscopic examination was performed under a microscope Granum Trino R 6003 (DSM-310). Statistical processing of the obtained digital data was performed using the non-parametric criterion (Statistics 6, Mann-Whitney U Test, Fisher test).

Results and discussion. The introduction of Freund's adjuvant to rats leads to the development of morphological signs of arthritis of the ankle joints: proliferative synovitis; formation of pannus; destructive-dystrophic changes of cartilage tissue; inflammatory infiltration in periarticular tissues. The nonsteroidal anti-inflammatory drug diclofenac sodium has a pronounced normalizing effect on morphological changes in rat joints in adjuvant arthritis. Cartilage destruction is absent, hyperplasia of the covering tissues occurs six times less often than in untreated animals. Residual effects in periarticular tissues are noted. The use of thick extract of the tanacetum reduced the number of animals with destruction of articular cartilage by 2.6 times compared with control pathology and the number of animals with severe inflammation in the synovial membrane and periarticular tissues by 3 times.

Conclusions. The ability of tanacetum (*Tanacetum parthenium* L.) thick extract to reduce the severity of articular cartilage destruction, inflammation in the synovial membrane and periarticular tissues in rats with a model of adjuvant arthritis justifies the feasibility of creating a new anti-inflammatory phytomedicine.

THERAPEUTIC ACTIVITY OF *CANNABIS SATIVA*

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Introduction. Cannabis, first traced back to Central Asia, is one of the most traditional psychotropic medications to humans. Agreeing to archaeological revelations, it has been known in China at least since the Neolithic time frame, around 4,000 BC [1]. The most famous form of the cannabis plant is marijuana and hashish. Marijuana is a Mexican term at first ascribed to cheap tobacco but today referred to the dried leaves and flowers of the cannabis plant. Hashish, the Arabic name for Indian hemp, is the resin gum of the plant [2]. For hundreds of years, cannabis has been utilized as a source of fiber, food, oil and for religious, recreational, and therapeutic purposes [3]. It contains various mixtures of structurally active agents, for example, cannabinoids, terpenoids, flavonoids, and alkaloids [4]. The major psychoactive chemical of cannabis is delta-9-tetrahydrocannabinol (THC), commonly known as THC. Various other cannabinoids include delta-8-THC, cannabiol, cannabidiol (CBD), cannabicyclol, cannabichromene, and cannabigerol; however, they are