

## **IMMUNOSTIMULATING EFFECT OF GOLD NANOPARTICLES CONJUGATED WITH *BRUCELLA ABORTUS* ANTIGEN**

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One of the effective antigen nanocarriers proposed for immunization and vaccination is gold nanoparticles (GNP). Adjuvant properties inherent in GNPs themselves have been found. Currently, using GNP, work is underway to create new diagnostic tests and vaccines against viral, bacterial, and parasitic infections. The purpose of our study is to study the possibility of using GNP as an immunomodulator during immunization with antigens isolated from *Brucella abortus*. GNPs 15 nm in diameter were synthesized for immunization of animals. At the next stage, the isolated *Brucella* antigens were conjugated with GNPs. The resulting conjugates were used to immunize white mice of the BALB/c line. The drug was administered intraperitoneally twice with an interval of 10 days. As a result, antibodies with a high titer (1:10240) were obtained. There was an increase in the respiratory and proliferative activity of immune cells, as well as an increase in the concentration of interleukins in the blood serum. The minimum detectable amount of antigen using the obtained antibodies was ~0.5 pg. The results obtained are expected to be further used to study the protective effect of GNP conjugates with *B. abortus* antigens during animal vaccination and in the development of test systems for diagnosing brucellosis in laboratory and field conditions.