against influenza in the state of immune response in children with atopic BA.

**Object** Studied immune status of 39 children with moderate persistent BA in children from 7 to 14 years, which annually for three years were vaccinated influenza subunit vaccine.

**Methods** Compared the levels of serum markers of activation of apoptosis and immune cells before and one month after vaccination. Results. After the vaccination was determined by the tendency to increase of level of IFNγ and IL12 in the serum. Also demonstrated increased in 1.3 times sCD25 (p < 0.05), in 1.6 times IL8 (p < 0.001), reduction in 1.5 times IL4 (p < 0.001), in 1.3 times TNFα (p < 0.05). In vaccinated children was revealed a tendency to increase sCD25 and the reduction of sCD30, sCD95 (p < 0.05), with the all of the listed indicators were significantly rejected from the reference levels. Reliable dynamics of the content of eotaxin, soluble ligands markers of apoptosis sFASL, TRAIL, the enzyme Caspase-1/ICE and protein Annexin V have been identified.

**Conclusions** The data show a pronounced inflammatory process in children with atopic bronchial asthma. At the same time, the observed dynamics of the studied indicators can be interpreted as evidence of an absence of negative impact of vaccination on the various links of the immune response in children with atopic bronchial asthma, including on the processes of activation and apoptosis.

**Background and aims** The alterations in MHC class I expression play a crucial step in immune evasion of cancer or virus-infected cells. This study aimed to examine whether tolerized grafts modified MHC class I expression.

**Methods** FVB/N mice were rendered tolerant of C57BL/6 alloantigens by in utero transplantation of C57BL/6 marrows. Postnatally, engrafted donor skins and leukocytes were examined for their MHC expression by quantitative real-time PCR and flow cytometry.

**Results** In this murine tolerance model established by in utero marrow transplantation, engrafted donor skins up-regulated their MHC class I related gene transcripts after short-term (1–2 weeks) or long-term (>1 month) engraftment. This biological phenomenon was simultaneously associated with up-regulation of TAP1 gene transcripts, suggesting an important role of TAP1 in the regulation of MHC class I pathway. Notably, the surface MHC class I molecules of H-2Kb in engrafted donor leukocytes consistently showed over-expression.

**Conclusions** Induction of allograft tolerance involved biological modifications of donor transplants. The increased expression of MHC class I within engrafted donor skins of tolerant mice might be used as the tolerance biomarkers for identifying a state of graft tolerance, and paved the way to advancing our insights into the mechanisms of allo-tolerance induction.

**Background and aims** The protein CC16 is secreted in airways by the nonciliated bronchiolar Clara cells and has an important role in inflammation and immune modulation. Our study aimed to investigate the association of the CC16 A38G polymorphism with asthma severity in Moldavian children.

**Methods** A case-control study was used to detect the genotypes of 38 A/G of CC16 gene of 90 patients with asthma and 90 controls from the Moldavian ethnic group by polymerase chain reaction-restriction fragment length polymorphism. All patients underwent complex clinical and functional examination.

**Results** No significant differences were observed in the frequencies of polymorphic genotypes in site 38 of CC16 gene between asthmatic children and control subjects (p > 0.05, genotype frequency: AA+AG: 61.1% vs. 58.9%). The frequency of A allele