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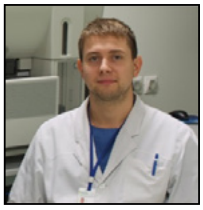
# Dendritic cells expressing MHC epitopes reduce alloreactivity *in vitro*



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**Abstract**

Although immunosuppressive therapy of graft rejection and graft-versus-host disease significantly increases the chance of successful allograft survival, it is often accompanied by severe side effects such as opportunistic infections and cancers. Therefore, the development of biological approaches to induce antigen-specific immunological tolerance to transplanted organs and tissues might be promising.

In this study, we used C57Bl/6 mice dendritic cells (DCs) transfected with CBA mice MHC epitopes to suppress alloantigen-induced immune response in vitro. We found that C57Bl/6 DCs transfected with CBA mice MHC epitopes were capable to induce FoxP3+ Tregs and IL-10+CD4+ cells in autologous splenocyte cultures. Also, C57Bl/6 DCs transfected with CBA mice MHC epitopes suppressed the proliferation of autosplenocytes in response to CBA splenocytes but not to BALB/c splenocytes. Thus, C57Bl/6 DCs transfected with CBA mice MHC epitopes suppress immune reactions to alloantigens in antigen-specific manner.

Antigen-specific suppression of graft rejection and graft-versus-host disease using DCs expressing MHC epitopes could decrease the need for non-specific immunosuppressive therapy accompanied by numerous side effects.

**Biography**

Valeriy Tereshchenko graduated Novosibirsk State University in 2014. He is researcher in Research Institute of Fundamental and Clinical Immunology, Novosibirsk, Russia. He has 7 publications and H-index 1.



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