Abstract

H-Y antigens are specifically male histocompatibility antigens, that are presented in the human body by glycoproteins HLA-A2, HLA-B7 and HLA-B8. If they reach the body of women (by transplantation or transfer trough the placenta from a male fetus etc.), they can provoke an alloimmune reaction. In its first half, this thesis introduces the concept of alloimmunity, describes male histocompatibility antigens and their molecular nature, and the related modulation of the maternal immune system. In the main part, the thesis focuses on the effect of H-Y antigens on offspring. Studies have shown that it is the maternal immune response to H-Y antigens during pregnancy that could cause premature births, reduced birth weight, secondary miscarriages and consequently changes in the secondary sex ratio. Various hypotheses also attribute to these antigens to the contribution to the development of homosexuality in men. A common precondition for all observed phenomena is that the mother has already encountered male cells in the past, which, when contacted repeatedly, provoked a disproportionate maternal immune response.