HUMAN CHORIONIC GONADOTROPIN SUPPORTS TREG-MEDIATED FETAL PROTECTION IN MICE BY MODULATING DC PHENOTYPE

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**Introduction**

Human Chorionic Gonadotropin (hCG) contributes to fetal tolerance by regulating innate and adaptive immune responses during pregnancy. Our previous results suggested a pregnancy protective effect of hCG through enhancement of regulatory T (Treg) cells and inhibition of dendritic cell (DC) maturation. Here, we aimed to investigate whether hCG contributes to Treg generation by modulating DC phenotype in vitro and in vivo in a murine model.

**Material and Methods**

**In vitro**

- Cytokine secretion?
- Maturation?
- T cell differentation?

**In vivo**

- Pregnancy outcome?
- Number of Treg cells?

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**Results**

Both, rhCG and uhCG hampered maturation of BMDC

- **Adoptive transfer of hCG-treated BMDC prevented an increase in the fetal resorption rate**

- **Adoptive transfer of hCG-treated BMDC resulted in increased Treg cell numbers and elevated Treg-associated cytokines**

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**Conclusions**

Our results reveal that hCG contributes to Treg-mediated fetal protection by modulating the phenotype of DCs