

Stellingen behorende bij het proefschrift

**Immunoregulation of mononuclear phagocytic cells by
human chorionic gonadotropin**

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1. hCG enhances innate immunity via induction of PTX3 in myeloid cells, as well as via hCG-induced hormones such as progesterone and estrogen.
This thesis
2. hCG enhances macrophage functions involved in innate immunity, while the capacity to stimulate allogeneic T cells remains unchanged.
This thesis
3. The upregulation of IDO by hCG in dendritic cells accounts for the ability of hCG to suppress autoimmune diabetes in NOD mice.
Ueno A, et al., Diabetes. 2007 Jun; 56(6):1686-93
This thesis
4. A successful pregnancy requires multiple adaptations of the mother's physiology for fetal development, as well as the timely parturition and the adequate maternal care after parturition. Many of these adaptations are driven by the hormones of pregnancy.
Brunton PJ, et al., Nat Rev Neurosci. 2008 Jan; 9(1):11-25
This thesis
5. hCG causes a transient immunosuppressive state in patients. In animal models, hCG can prevent autoimmune diabetes, Sjögren's syndrome, rheumatoid arthritis, and septic shock.
Maghnie M, et al., Medicina. 1990 Apr-Jun; 10(2):148-9
Khan NA, et al., Hum Immunol. 2001 Dec; 62(12):1315-23
Li N, et al., Arthritis Rheum. 2007 Jul; 56(7):2211-5
Song XY, et al., Arthritis Rheum. 2000 Sep; 43(9):2064-72
Khan NA, et al., Hum Immunol. 2002 Jan; 63(1):1-7
This thesis
6. Treatment with oligopeptides derived from the primary structure of hCG has beneficial effects in several *in vivo* models of inflammation and tumour growth, which suggests that such oligopeptides have pharmaceutical potential.
Benner R, Khan NA, Scand J Immunol. 2005 Jul;62 Suppl 1:62-6
Dik WA, et al., Proc Int Conf on Molecular and Clinical Aspects of Gonadal and Nongonadal Actions of Gonadotropins, in press
7. Immune-mediated inflammation and allograft rejection are greatly reduced in certain organs, a phenomenon called 'immune privilege'. Immune privilege seems to be of particular benefit to three body regions: the brain, the eye and the pregnant uterus.
Niederborn JY, Nat Immunol. 2006 Apr; 7(4):354-9
8. A hallmark of good research is that it opens a door to a new room with many other doors. The ultimate goal of biomedical research is to learn about the pathogenesis of human diseases and to develop precisely targeted therapies.
Kerjaschki D, J Clin Invest. 2005 Sep; 115(9):2363-72
9. "Learning without thinking leads to confusion; thinking without learning is labour lost".
Confucius, Chinese thinker and social philosopher, 551-479 B.C.
10. "For my part I know nothing with any certainty, but the sight of the stars makes me dream".
Vincent van Gogh, Dutch painter, 1853-1890
11. "If everything's under control, you're going too slow".
Mario Andretti