Short children born small for gestational age (SGA): puberty, hormonal profiles, combined GnRHa and GH treatment and (epi)genetics of 2 IGFBP gene promoters

1. Treatment with leuproreline acetate depots of 3.75 mg subcutaneously every 4 weeks is sufficient to adequately suppress puberty (this thesis).

2. Since a peak LH above the routinely used cut-off level of 3 IU/L during the GnRH agonist test falsely indicates insufficient suppression of puberty in a large percentage of short SGA children, pediatricians are strongly advised to take clinical arrest of puberty, oestradiol (girls) and testosterone (boys) levels into account (this thesis).

3. Short SGA girls lack the normally found increase in GH levels during puberty and GnRHa treatment results in a further decrease in GH levels. Therefore, GnRHa treatment without GH treatment is not advised for short SGA children who start puberty (this thesis).

4. Combined treatment with GnRHa and 2 mg GH/m$^2$/day results in higher GH and IGF-I levels and first year growth, less gain in fat mass and an increase in lean SDS, compared to GnRHa and 1 mg GH/m$^2$/day, whereas insulin sensitivity and lipid profile were comparable between both GH dosage groups. These data indicate that treatment with a higher GH dose might result in a better adult height without adversely affecting the metabolic profile in the short run (this thesis).

5. The impact of SNPs on clinical and laboratory parameters is usually moderate. It is therefore better to focus on haplotype associations (this thesis).

6. The performance level after 17-19 hours of sleep deprivation is comparable to a blood alcohol level of at least 0.05%, the legal limit for drivers in Europe (Occup Environ Med 2000; 57: 649-655).

A happy love life appears to be genetically determined. Men carrying the RS3 allele 334 (vasopressin receptor 1a gene) are more often single. Married men homozygous for the 334 allele are less affectionate, as reported by their spouses, and have twice the risk of a marital crisis (Proceedings of the National Academy of Sciences of the United States of America 2008; 105: 14153-14156).

For ‘improving’ the world, one should start within one’s own country. Average height of American men stagnates and tends to decrease in American women. Infant mortality rate in the USA is the highest of the OECD countries and over 60 million people do not have health insurance (Economics and Human Biology 2004; 2: 57-74). Nevertheless, the USA spends 12 billion dollars on the Iraq war each month (In ‘the three trillion dollar war’, written by Nobel Prize winner Joseph E. Stiglitz and professor Linda J. Blimes (2008)).

When you know a thing, to hold that you know it; and when you do not know a thing, to allow that you do not know it - this is knowledge (Confusius: Chinese philosopher, 551-479 BC).

Kind words can be short and easy to speak, but their echoes are truly endless (Mother Theresa: Indian (Albanian-born) humanitarian & missionary, 1910-1997).