

# Overnight Report

ESPE/LWPES 7th Joint Meeting Paediatric Endocrinology

in collaboration with APEG, APPEs, JSPE and SLEP, Lyon, France, 21–24 September, 2005

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On this second day of the Meeting, the morning prize session was moderated by **Paul Saenger (USA)** and **Paul Czernichow (France)**. The Henning Andersen Prize is sponsored by Novo Nordisk to honor the late Danish Professor in Pediatric Endocrinology Henning Andersen, who was one of the founding fathers of ESPE.

### NANOG: a time bomb for testicular cancer (Henning Andersen Basic Science Prize)

Testicular cancer remains the most common cancer in young men with 1% of Danish males affected. Carcinoma *in situ* (CIS) cells represent malignant transformation of primordial germ cells and are the common precursor for testicular malignancy. Expression of the embryonic stem cell gene (ESC) NANOG (along with OCT4, AP-2 $\gamma$  and c-KIT) is known to prevent embryonic stem cell renewal and maintain pluripotency. NANOG co-localizes with a hot spot for testicular carcinogenesis on chromosome 12p and was thus identified as a potential candidate gene. **Christina Høe-Hansen (Denmark)** and colleagues analyzed NANOG expression (using *in situ* hybridization and immunohistochemistry) during normal fetal and postnatal development. In addition, this group studied NANOG expression in neoplastic dysgenic

testicular specimens including gonadoblastoma. Abundant expression of NANOG was seen in CIS testis, and derived testicular tumors. Not all tumors expressed NANOG equally – seminoma and embryonal carcinoma were strongly positive, while differentiated somatic elements of teratomas were negative. NANOG was also found to be expressed in ovarian and CNS germ cell tumors. Strong expression of NANOG was detected in normal fetal gonocytes up until gestational week 20. After week 20, NANOG became progressively down-regulated to the point where there was no protein detectable in normal testis after 3 postnatal months. This profile is similar to that seen for the other ESC genes OCT4, AP-2 $\gamma$  and c-KIT. Dr Høe-Hansen and colleagues found that NANOG is a novel marker for neoplastic germ cells and a determinant of the pre-invasive CIS cell.

### A role for thiazolidinediones in the prevention of diabetic angiopathy? (Henning Andersen Clinical Prize)

Diabetic adults with microangiopathy have defective intracellular antioxidant enzyme production. **Daniele Di Marzio (Italy)** and colleagues wished to establish whether these changes are reversible using thiazolidinedione medication. Three groups of subjects were

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