UITNODIGING

Voor de openbare verdediging van het doctoraatsproefschrift van

Jean Clair SADEU

maandag 30 juni 2008

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Doctoraat Medische Wetenschappen
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U wordt vriendelijk uitgenodigd op de openbare verdediging van het proefschrift van Jean Clair SADEU

‘Fertility Preservation in Female Cancer Patients: A First Approach to Culture Early Stage Human Follicles after Cryopreservation’

Op maandag 30 juni om 17 uur in auditorium P. Brouwer van de Faculteit Geneeskunde & Farmacie, Laarbeeklaan 103, 1090 Brussel

Situering van het proefschrift

For some cancers, there are concerns about cryopreserved ovarian tissue transplantation because ovarian tissue grafts may harbor malignant cells, causing relapse of the disease. In that respect, in vitro growth of oocytes within ovarian tissue is the safest possible option.

The overall aim of this research project was to explore models for developing a technique for in vitro growth of early stage human follicles from cryopreserved ovarian tissue. Morphological and morphometric parameters of follicular development in vivo in guinea pig were determined for the set up of a follicle culture system in this species as a model for human follicle culture.

A defined culture medium was tested for its efficacy to allow the initiation of follicular growth, development, and viability during culture of frozen-thawed human fetal follicles, as well as frozen-thawed human pre-pubertal/adult follicles. The expression of some important markers of granulosa cells (AMH) and oocytes (GDF-9) was assessed for the characterization of the culture system.

Better understanding of AMH, GDF-9, and BMP-15 implication in follicular development in vitro was studied in cultured mouse primary follicles, and ovaries.

A culture system that leads to the growth of cryopreserved human primordial follicles to secondary follicles was determined. It supports oocytes and granulosa cells functions over a relatively long period of culture in vitro. The pattern of differentiated gene expression (GDF-9, AMH & BMP-15) in primary follicles grown in vitro remained comparable to the in vivo situation.

Curriculum Vitae

Born 29 June 1971 in Yaoundé Cameroon. Graduate training included internship in internal medicine, Department of Gastroenterology at Leicester General Hospital, UK (July-Aug 1998), St. James’s Hospital Leeds, UK (July-Aug 1999), and residency at the Hospital for railway Workers, Kharkov, Ukraine (1999-2000). Graduated from School of Medicine (MD), Kharkov National University, Ukraine (1993-2000). Then earned a master degree in Medical and Pharmaceutical Research in 2002 at Vrije Universiteit Brussel. From 2002, PhD training at Vrije universiteit Brussel.