

The Laboratory of Biology of Tumor and Development lead by Pr Agnès Noël and Didier Cataldo has an opening PhD-position currently available in the field of Reproductive Medicine

Project summary

Ovarian tissue cryopreservation (OTC) represents an important fertility preservation option in oncologic therapeutic management of young prepubertal girls and women without partner. Once cured of their cancer, patients suffering from premature ovarian insufficiency, having undergone OTC before their oncologic therapy have the possibility of restoring their fertility by auto-transplantation of their ovarian cortex (OTCTP). The advantage of auto-transplantation of cryostored ovarian tissue is the restoration of both endocrine and fertility functions of the gonads. A major obstacle in OTCTP is follicular loss immediately after grafting, possibly due to slow neovascularization, apoptosis and/or massive follicular recruitment also known as follicular «burn out».

Previous studies in our laboratory contributed to the development of pharmacological strategies aiming to minimize tissue injuries, as ischemia and apoptosis, during cryopreservation and auto- transplantation.

Currently, the objective of this project will be 1) to study molecular pathways associated with the massive follicular activation after OTCTP, 2) to test the effect of different inhibitors to reduce the damage due to follicular activation in vitro, 3) use the xenograft model to test in vivo the effect of inhibitors identified in previous in vitro experiments.

Techniques

The project relies on a panel of in vivo and in vitro assays. It combines cellular, biochemical and molecular biology techniques (Cell culture, Western Blotting, RT- qPCR, immunohistochemistry, flow cytometry, a mouse model of xenotransplantation of ovarian tissue...).

Profile

The candidate will be graduated in biomedical sciences, biology or biochemistry. He/she will be motivated and should be able to work independently and to efficiently collaborate within a team. A good level of English is expected.

Application

Please send your cover letter, your CV and the name of 2 referees to Dr. Carine Munaut (c.munaut@uliege.be).