Cryopreservation of Genetic Material

One of the most important developments in the field of assisted reproduction in the recent years is the possibility of cryopreservation of genetic material. This method enabled both men and women to maintain their fertility safe in time. Usually, there are medical reasons underlining the need for cryopreservation especially for women. In particular, women whose fertility is threatened by medical (chemotherapy, fallopian tube or ovarian removal, etc.) or social (age, job, relationship, etc.) reasons have the ability through this procedure to safely maintain their genetic material in order to use it when they wish. It is also important to note that women who choose to manage their own fertility and store their genetic material ensure their right to childbirth, their right to maternity and their right to childbirth. Another medical reason that can lead a couple to the decision of freezing their genetic material is woman's family history about early menopause. There are few cases where women face an early reduction in their ovary storage, as a result of fertility problems. The method can be performed in two ways:

- Either following the woman's natural cycle, where a single follicle develops in the ovary,

- Or with mild drug stimulation to have more follicles, thus increasing the likelihood of cryopreservation of a larger number of genetic material.

Prior the medical treatment, ultrasound and blood sampling are necessary to be done in order to determine the protocol which will be followed by the woman along with her doctor and the correct dosing of the drugs in the case of ovarian stimulation is performed. Upon completion of the stimulation and after it is judged that the follicles have reached the final stage of maturation, egg collection is planned or otherwise the process of collecting the oocytes under mild anesthesia. Thereafter, cryopreservation of the collected genetic material follows, which is kept frozen until the woman decides to use it.