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Associate Editor

Ethical issues surrounding the cryopreservation of human oocytes

To the Editor:

In response to the article by Drs. de Melo-Martin and Cholst, we support and oblige the authors' request for ethically performed oocyte cryopreservation studies (1).

The authors conclude that the most ethical way to perform the research necessary to evaluate this new technology, oocyte cryopreservation, would be through the use of donor oocytes and recipient women with infertility. We completely agree with their recommendations, as evidenced by the fact that we published an article elsewhere that used such a protocol (2).

Our analysis of four oocyte cryopreservation cases using donor oocytes and recipient couples was performed after years of intense debate within our center about the ethical and possible medical concerns with this type of human study. Only after applying for and receiving institutional review board approval for a prospective study that used oocyte donors and IVF patient recipients; after spending years on laboratory research and development to technically master the procedures of oocyte cryopreservation and thawing; and finally, after appropriately counseling and providing informed consent to the patients involved, did we at last, with great caution, undertake this study.

In the de Melo-Martin article, the authors state, "current (pregnancy rates) still appear to be lower than those seen with standard IVF procedures (1)." They cite Borini et al. (3) for the success rates with this new procedure; however, that study was severely restricted by Italian laws that only an extremely limited number of oocytes and embryos may be fertilized and transferred, which clearly reduces the true potential success that could be achieved with this technique. Although our series was small, the results were dramatic. We demonstrated that three of four patients conceived and delivered after using frozen and thawed donor oocytes, which is comparable to the pregnancy rate that we found in our fresh-oocyte donor program. In addition, our implantation rate of 26% is five times greater than that in the results of Borini et al. (3), demonstrating that both the number of embryos transferred and the quality of the embryos created after oocyte cryopreservation and thaw resulted in our high success rate. Finally, the authors suggest, "Also important to consider when designing research protocols for oocyte cryopreservation is the issue of costs. Because oocyte cryopreservation is still an investigational procedure, and until a center achieves some degree of success, it can be argued that the costs of the procedure should not be charged to the patient."

In our study, the recipient did not pay donor compensation or for health screening or cycle medications that were associated with the donor.

Our study demonstrated that it is indeed possible to perform oocyte cryopreservation research in an ethical, institutional review board-controlled, donor egg model. We published our methods and findings in this respected peer-reviewed journal to provide the reproductive community with the knowledge that we gained. Human oocyte cryopreservation, when performed in a safe and controlled manner, can be an effective technique that can be applied in clinical situations and can show high oocyte survival and clinical pregnancy rates, opening the door for this technique to be used for women choosing to preserve their fertility.

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Reply of the Authors:

We thank Drs. Barritt, Luna, Duke, and Cooperman for their response to our discussion of some of the ethical issues encountered in researching human oocyte cryopreservation (1).

Our discussion highlighted many of the pitfalls involved in such investigation and suggested possible ways to conduct such research ethically. Because our main intention in writing the article was to use the issues raised by this experimental procedure as a way to broaden the conversation around the complex issue of informed consent, we are happy to see such a conversation taking place. Our intent was not to provide a set of recommendations. Also, although the Barritt et al. (1) work was published after the submission of our