

ART'S brave new world: The cat's out of the bag...
Newest unexpected discoveries in fundamental molecular, cell and reproductive biology

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Among the greatest of challenges influencing clinicians and scientists studying the ovary and oocytes is now the pressing question of, perhaps not if, but when, will genetic modifications be introduced into human oocytes, which will later be fertilized and destined for implantation. Already human embryonic stem cells in culture are being modified. The techniques for editing the human genome, alleged to have near perfect accuracy, are accelerating swiftly at stunning paces with an efficiency, simplicity, and at affordable costs. These newest approaches will be reviewed, including CRISPR/Cas9. Compelling medical justifications for trying to avoid devastating human diseases and disorders will be considered, as well as equally compelling scientific and societal concerns about genetically enhanced offspring.