Differential expression of Aquaporin 8 in human colonic epithelial cells and colorectal tumors

ABSTRACT
Our investigation reveals that the expression of AQP8 is indicative of normal colonic epithelial cells, which may indicate their involvement in fluid transport within the colon.

INTRODUCTION
M II oocytes have been utilized as the recipient cytoplasm in many animal clone experiments (sheep, cattle, mouse, goat and pig) to modify the nuclei of reconstructed embryonic stem cells. For embryo reconstruction by Nuclear Transfer, two different procedures are used: firstly, the transfer of nuclei in G1, S or G2 phase into the preactivated recipients after reducing MPF activity, and secondly (the transfer) of nuclear cells in GO orG1 phase directly into M II oocytes with high MPFA activity. Despite being not treated, the transfer of mouse embryonic stem cells and bovine somatic cells in the M phase resulted in normal chromosome constitution. The fact that the cell cycle synchronization of embryonic nuclei is challenging and most blastomeres are in the S phase at any given time necessitates the use of the first protocol for producing cloned embryos derived from blastomères. The nuclear membrane of the donor cells remains unaffected in the preactivated oocyte, where the MPF is low activity and DNA synthesis follows the original cell cycle stage during nuclear transfer, while nuclear reprogramming occurs as the nucleus expands. Moreover, the nuclei of cells from conventional embryonic cell lines are reprogrammed in preactivated recipient oocytes, and blastocyst-derived cells and predestructive recipients can develop into blasticystis. However, only one report has been made on the production of cloned animals from embryos that were reconstructed by transferring differentiated cells into preactivated recipient oocytes, and the ability of preactive recipient (OB) cytokines to reprogram differentiate different cells is now being discussed. Transferring bovine somatic cells into preactivated recipient oocytes resulted in limited reconstructed embryo development, as all embryos arrested at the 8-cell stage regardless of the cell cycle of donor cells did not occur during the embryonic genome activation between the eight- to 16-celcel stages. Conversely, if the nuclei of G0 or G1 phase are transferred to recipients that were not treated, the embryos can still be reconstructed and develop into offspring in many species. The membrane of the donor nukleus is broken down and chromosomes are condensed prematurely in the M II oocyte, due to the high activity of MPF. After parthenogenetic activation, DNA synthesis begins and the membrane reforms begin. The highest concentration of MPF during oocyte maturation is observed at M I and M II, respectively, suggesting that M1 and somatic cell nuclei can be reprogrammed. The amphibian experiment resulted in the highest yield and most advanced tadpoles from somatic cell nuclei injected into M I oocytes, although it was not possible to produce adults from these reconstructed embryos. However, there are no reports that have been tested experimentally in mammals. We are going to look at how porcine M I oocytes reprogram somatic cell nuclei in the present study.

CONCLUSION
We demonstrate through various antibodies that BRCA1 and BIRA2 proteins are commonly expressed in two non-embryogenic human tissues associated with the cell cycle. Both proteins occur during growth and

differentiation in the ovary and are expressed even beyond spermatogenesis. Relating to proposed functions of the two genes, this is consistent with BRCA1.