







Special Issue Reprint

# Molecular Mechanism and Application of Somatic Cell Cloning in Mammals

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The primary objective of this book is to provide the current status of and new data on the molecular mechanisms affecting the efficacy of somatic cell cloning, but also insightful interpretations of the topical and coming trends in the exploration of genomic, epigenomic, transcriptomic and proteomic profiles for nuclear donor cells, nuclear recipient oocytes and SCNT-derived embryos. Comprehensively deciphering the crucial molecular scenarios responsible for inter-genomic, inter-epigenomic, inter-transcriptomic and inter-proteomic communication within the framework of the aforementioned scenarios might be a milestone giving rise to the enhancements in the extra- and intracorporeal epigenetic reprogrammabilities of donor cell nuclei in nuclear-transferred oocytes, embryos, conceptuses and neonates. In turn, this might allow us to use SCNT-mediated ARTs in such research fields as biotechnology, transgenics, medicine, and biopharmacology, as well as scientific efforts targeted at designing the in vitro and in vivo models of molecular and epigenomic landscapes specific for inheritable and acquired disorders in humans and other mammalian species.





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