

Special Issue

Progress and Future Prospect of *In Vitro* Gametogenesis

Message from the Guest Editors

Gametogenesis is a complex process occurring in the ovaries and in the testes and allowing eggs and sperm cell production, respectively. In males, meiosis only starts after puberty, and from then, sperm cells are continuously generated every day. In contrast, in females, all oocytes are formed before birth and arrested at the dictyate stage, a late prophase I of meiosis I, around birth. Nurse cells (granulosa and theca) surround the oocytes to provide nutrition, and Sertoli cells correspond to unique nurse cells intimately connected to sperm cells in formation, also providing a special environment for spermatogenesis. The niches for gamete growth are so special that in contrast to somatic cells, the *in vitro* culture is extremely hard to achieve. Despite this complexity, in recent decades, *in vitro* culture from stem cells to gametes has become possible. In this Special Issue of *Cells*, we welcome researchers to submit their original research articles, reviews, or shorter perspective articles on all aspects related to the theme of the "Progress and Future Prospect of *In Vitro* Gametogenesis".

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About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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