

Special Issue

Sperm Biology and Reproductive Health

Message from the Guest Editors

According to the World Health Organization, the global fertility rate has continued to decline over the past 50 years. Half of them attribute this to "male factors", and 70–90% of male infertility is due to spermatogenic disorders. Endogenous damaging factors, environmental factors, bacteria and viruses, radiotherapy and chemotherapy, etc., will hinder spermatogenesis and prevent spermatogenesis in the body. Spermatogonial stem cells can self-renew and differentiate into sperm.

An ideal solution is to use seed cells (SSC) to induce differentiation in vitro to obtain sperm, and then to obtain individual samples by single sperm injection. Scientists have obtained rat functional sperm by testicular tissue culture; however, the efficiency of differentiation in vitro is low. The main reason is that the differentiation mechanism of SSCs is still unclear.

This topic will discuss the mechanism of spermatogenesis, the treatment of male infertility (non-obstructive azoospermia (NOA)), and the preservation of male fertility (pre-adolescent cancer patients who are facing infertility due to cancer treatment, patients who have received radiotherapy and chemotherapy).

Guest Editors

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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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