1. Record Nr. UNINA9910566473003321

Autore	Ostos Francisco Jose
Titolo	Supramolecular Systems for Gene and Drug Delivery
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022
Descrizione fisica	1 online resource (218 p.)
Soggetti	Chemistry Research and information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Dear Colleagues,Supramolecular systems (calixarenes, cyclodextrins, polymers, peptides, etc.) have attracted special attention due to their excellent therapeutic properties for biomedical applications such as gene and drug delivery. Numerous biomaterials-based supramolecular systems have been developed in the last decade for enhancing of biocompatibility and pharmacological activity. In particular, supramolecular nanomaterials are considered a hot research topic, because nanomedicine has become an interesting tool for the treatment of genetic diseases or cancer. Nevertheless, novel systems and their properties are being continuously studied, contributing to the development of efficient delivery systems.This Special Issue provides and highlights current progress in the use of the supramolecular systems for boosting gene and drug delivery. Preparation, characterization, and use of these systems, as well as the latest developments in this research field, are especially welcome.Authors are encorauged to submit original research articles and reviews in this promising research field.

2. Record Nr. UNINA9910136403103321

Autore	Rosaria Meccariello
Titolo	Modulators of hypothalamic-pituitary-gonadal axis for the control of spermatogenesis and sperm quality in vertebrates
Pubbl/distr/stampa	Frontiers Media SA, 2014
Descrizione fisica	1 online resource (159 p.)
Collana	Frontiers Research Topics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Sommario/riassunto

Spermatogenesis is a process highly conserved throughout vertebrate species and is mainly under hypothalamic-pituitary control. It occurs in the testis in a stepwise fashion so that committed spermatogonia develop into spermatocytes and enter meiosis to produce round spermatids. These undergo a morphological transformation (spermiogenesis) into mature spermatids (i.e.: spermatozoa), which are differentially released from Sertoli cells (spermiation) depending on the species. In mammals, further transformations are necessary to form mature spermatozoa, suitable for fertilization. Gonadotropins, mainly responsive to gonadotropin-releasing hormone, control spermatogenesis through specific receptors located at the gonadal level. However, besides the endocrine route, the chemical mediators may also act locally in the gonad. Indeed, it is documented that testis physiology, including steroidogenesis and spermatogenesis, does not fully account for traditional endocrine control but an intragonadal network of autocrine and/or paracrine regulators also exists, whose activity, via cell-to-cell communication, regulates germ cell progression and development of qualitatively mature spermatozoa. Of note, a number of testicular modulators, such as gonadotropin releasing hormone, Kiss-peptin, endocannabinoids, has been early isolated in the brain and latest in the gonads. To fully understand precise mechanisms underlying the functional interaction of this intricate network, needless to say, it is crucially required to have

detailed information about modulators and target cells. Through synergy between the respective specializations of all the authors, this topic reviewed emerging knowledge about neuroendocrine and local mediators controlling germ cell progression and maturation.