An essential resource for all students, researchers and clinicians in developmental and reproductive biology

Oogenesis - the process by which female germ cells develop into mature eggs, or ova - is a complex process involving many important elements of developmental and cellular biology: from cell-cell interactions, complex signalling cascades, specialized cell cycles and cytoskeleton organization. Oocytes from various species (including clam, starfish, Xenopus and mouse) are excellent model systems to study the biochemistry of cell division with important implications for basic and clinical research.

This book describes the entire process of oogenesis in chronological order with contributions from leading international researchers and chapters covering medical and ethical considerations in oogenic biology. Topics include sex determination and gonadal development, control of meiotic chromosome pairing and homologous recombination, control of meiotic divisions and the remodelling of the oocyte into a totipotent zygote as well as medically-assisted reproduction.