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(54) Title: METHODS AND COMPOSITIONS FOR OVARIAN ORGANOID CULTURE

(57) Abstract: Provided in some aspects are methods for generating primordial follicles from human and other mammalian germ cells, with high efficiency, high cellular quality and high reproducibility. In some aspects, provided are methods and culture system for generating ovarian organoids, such as cell aggregates composed of both somatic and germ cells from primary and/or stem cell-derived sources, which are competent to progress primordial germ cells to oocytes that enter meiosis and are competent for follicle assembly. In some aspects, provided embodiments include a step to culture ovarian organoids in a fully defined serum-free media and in conditions with low defined serum protein components overall.