

## THE STATUS OF ARTIFICIAL HUMAN OOCYTES

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### **Abstract Body**

The purpose of this presentation is to evaluate the status of artificial human oocytes in clinical practice. Clinical application of artificial human oocytes would provide new treatment modalities/options for a specific set of infertility patients. At present, the birth of an offspring using artificial oocytes has not been achieved. Data on functionality, safety and efficiency of artificial human oocytes is considered preliminary in nature. Whereas artificial sperm have been created from embryonic stem cells (ESCs) and induced pluripotent stem cells (iPSCs), artificial human oocytes have been created from germline stem cells (GSCs) as well as ESCs and somatic cells. Furthermore, fertilization of an artificial human oocyte after haploidization of a somatic cell nucleus has been reported. However, before the clinical application of artificial human oocytes is to be undertaken, societal, ethical and moral implications and consequences should be resolved, along with defining the specific oversight roles of professional societies and governmental agencies.