	Research/Clinical Application	Importance	Stage of Intervention									Alternatives
			PSCs	spermatogonial SC	Germ cells	In vitro Zygote/ Embryo	In vivo embryo	Fetus	Neonate	Child	Adult	
Research												
1	Methodological improvements	Improve gene-editing technologies, including specificity and efficiency										
2	Spermatagonial stem cells	Improve understanding of spermatogenetis										
3	Trophectoderm development	1. Understanding early mammalian development, in particular, the differences between human and non-human animal models; 2. Many pregnancies fail due to problems with implantation or the placenta. This work would enable us to better understand what counts as "good" embryonic morphology, allowing better selection for implantation in IVF										
4	hSC line development	Help to better derive new SC lines that are more representative of the cells in the human embryo; Better cell lines for applications										
5	Manipulate chromatin structure and gene expression	To understand epigenetic modifications that could potentially influence gene expression through development and life time										
6	SC research											
7	Somatic therapies											
8												
Applications												
1	Cure genetic disease											IVF and PGD (polar body or blastocyst biopsy) to select for heathy embryos from mutantion carrying parents
2	Disease resistance/enhancement											Somatic gene transfer
3	Reproduction when few/no disease mutation free embryos											
4												
5												