



# LOZIER INSTITUTE

**Table 1. State of Ethical and Moral Permissibility of Human Experimentation Research**

Legend	PERMISSIBILITY <sup>1</sup>							
	ETHICAL			MORAL				
<ul style="list-style-type: none"> <li><span style="color: green;">●</span> Permissible</li> <li><span style="color: red;">◆</span> Not permissible</li> <li><span style="color: orange;">▲</span> Debated</li> </ul>	CONSENT <sup>2</sup> :		w/o	w/	NPG	w/o	w/	NPG
<b>EXPERIMENTAL HUMAN CELLS</b>								
<b>Haploid Cells (Gametes)</b>								
Egg (oocyte)	◆	▲			3			
Sperm (spermatocyte)	◆	●						
<b>Diploid Cells</b>								
<b>Embryonic stem cell lines</b>								
From IVF	◆	▲				▲	▲	
By Therapeutic Cloning			▲					▲
<b>Fetal tissue cells</b>								
From elective abortion	◆	▲				▲	▲	
From miscarriage	◆	●				◆	●	
<b>Fetal cell lines</b>								
From elective abortion	◆	▲				▲	▲	
From miscarriage	◆	●						
<b>Primary tissue cells<sup>4</sup></b>								
From children	◆	●						
From adults	◆	●						
<b>Immortal cell lines<sup>5</sup></b>								
From children	◆	●						
From adults	◆	●						
<b>Organoids</b>								
From human embryos	◆	●				◆	▲	
From children	◆	●						
From adults	◆	●						



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EXPERIMENTAL HUMAN SUBJECTS						
Natural Human Beings						
Single cell embryo (zygote)	◆	▲		▲	▲	
Blastocyst (embryonic stage)	◆	▲		▲	▲	
Fetus (fetal)	◆	▲		▲	▲	
Child (neonatal and postnatal)	◆	●				
Adult (postnatal)	◆	●				
Engineered Human Beings						
IVF embryo	◆	▲		◆	▲	
Parthenogenesis embryo	◆	▲		◆	▲	
Three parent embryos (SCNT <sup>6</sup> )	◆	▲		◆	▲	
Cloned embryos (SCNT)			▲			▲
Blastoids			▲			▲
Gastruloids			▲			▲
Human-animal chimeric embryos			▲			▲

1. Ethical permissibility refers to allowable research conduct with human research subjects and human research materials. Moral permissibility refers to allowable treatment of human beings who are research subjects.
2. In the case of natural embryonic human beings, minor children, and incapacitated adults, consent refers to informed consent given by parents or legal guardians. “w/o”: without consent. “w/” with consent. “NPG”: no parent or guardian.
3. Empty box indicates “Not applicable.”
4. Includes tissue stem cells (e.g., adult stem cells).
5. Includes induced pluripotent stem cells (iPSCs).
6. Somatic cell nuclear transplantation. See Handbook I or II for full description.