



## Supplementary Material

### Cell Collection Wire Comparison Results

**Table S1:** Hemocytometry counts of cells collected by 0.223-millimeter-diameter, light oxide wires of each shape with a single scrape biopsy. Five separate trials were conducted within fresh *ex vivo* sections of porcine fallopian tube tissue from the ampulla and infundibulum. Average collected cell counts are presented as the mean of the data from all five trials with each wire.

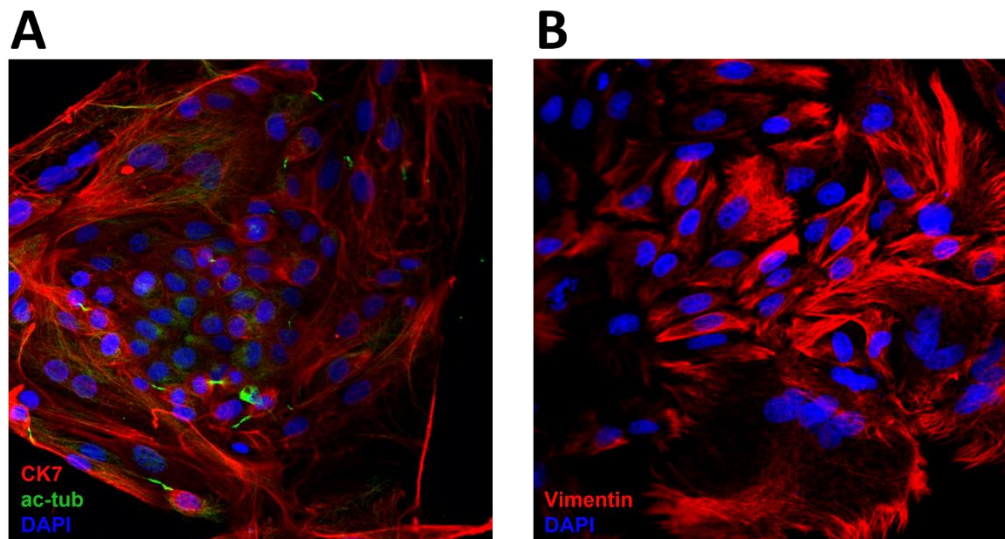
	Wire Shape	
	Gentle Curve 	J-hook 
<i>FT 1</i>	3.40e+5	1.40e+5
<i>FT 2</i>	2.20e+5	4.40e+5
<i>FT 3</i>	2.40e+5	6.60e+5
<i>FT 4</i>	3.10e+6	1.32e+6
<i>FT 5</i>	1.66e+6	2.64e+6
<i>Average</i>	1.11e+6	1.04e+6

**Table S2:** Hemocytometry counts of cells collected by light oxide wires of each diameter with a single scrape biopsy. Five separate trials were conducted within fresh *ex vivo* sections of porcine fallopian tube tissue from the ampulla and infundibulum. Average collected cell counts are presented as the mean of the data from all five trials with each wire.

	Wire Diameter			
	178 $\mu\text{m}$ (.007")	203 $\mu\text{m}$ (.008")	223 $\mu\text{m}$ (.009")	254 $\mu\text{m}$ (.010")
<i>FT 1</i>	4.02e+6	4.77e+6	3.27e+5	1.00e+6
<i>FT 2</i>	1.67e+5	2.00e+4	4.00e+4	4.00e+4
<i>FT 3</i>	6.98e+5	4.20e+6	4.15e+6	5.23e+5
<i>FT 4</i>	9.97e+5	5.27e+6	1.67e+6	9.40e+6
<i>FT 5</i>	7.10e+5	2.08e+6	1.00e+4	6.70e+5
<i>Average</i>	1.32e+06	3.27e+06	1.24e+06	2.33+06

**Table S3:** Hemocytometry counts of cells collected by 0.178-millimeter-diameter wires of each surface finish with a single scrape biopsy. Ten separate trials were conducted within fresh *ex vivo* sections of porcine fallopian tube tissue from the ampulla and infundibulum. Average collected cell counts are presented as the mean of the data from all ten trials with each wire.

	Surface Finish	
	Light Oxide	Etched & Polished
<i>FT 1</i>	1.10e+5	1.15e+6
<i>FT 2</i>	1.60e+5	2.52e+6
<i>FT 3</i>	5.90e+5	1.00e+4
<i>FT 4</i>	5.70e+5	3.50e+5
<i>FT 5</i>	6.90e+5	5.40e+5
<i>FT 6</i>	3.30e+5	1.55e+5
<i>FT 7</i>	1.90e+5	2.00e+4
<i>FT 8</i>	3.85e+5	6.00e+4
<i>FT 9</i>	7.00e+5	9.00e+4
<i>FT 10</i>	1.38e+6	4.00e+4
<i>Average</i>	4.47e+5	4.94e+5



**Figure S1:** (A) Immunofluorescence image showing dissociated cells with labeled cytokeratin-7 (CK7, red), acetylated tubulin (ac-tub, green), and nuclear material (DAPI, blue). (B) Immunofluorescence image showing dissociated FTE cells with labeled vimentin (red) and nuclear material (DAPI, blue).