Table and Figure Titles and Captions:

Table 1: Cycle Characteristics Per Transfer

Supplemental Table 1: Multivariate Generalized Estimating Equation Analysis of Transferred Blastocyst to Live Birth Efficiency

β values indicate the estimated coefficient of each independent factor as associated with embryo to live birth efficiency, after adjusting for the other variables in the model. Positive β values indicate a positive correlation with embryo to live birth efficiency.

Figure 1: Pregnancy Outcomes Single vs. Double Frozen Blastocyst Transfer (FBT)*

Figure 2: Incidence and Severity of Prematurity, Single vs. Double Frozen Blastocyst Transfer (FBT)

Mean gestational age at birth was 38w5d ± 13d in the single embryo group vs. 37w5d ± 21d with double transfer *(*$p<0.0001$). The difference was attributable to increased twin delivery in the double embryo transfer group.

Supplemental Table 1:

Variable	β (95% Confidence Interval)	*P*-value
Blastocysts Transferred (1 vs 2)	4.56 (0.33, 8.79)	0.034
Patient Age at Vitrification	-1.25 (-3.78, 1.28)	0.33
Patient Age at Warming/Transfer	-0.08 (-2.61, 2.44)	0.95
Body Mass Index (BMI)	-0.55 (-0.93, -0.16)	0.005
Uterine Factor (yes vs no)	-4.91 (-16.03, 6.22)	0.39
PCOS (yes vs no)	1.22 (-4.41, 6.84)	0.67
Prior Parity	-4.16 (-7.65, -0.66)	0.020
Prior Transfers w/o Birth	-1.65 (-3.45, 0.16)	0.074
Live Birth in Fresh Transfer (yes vs no)	9.12 (0.78, 17.47)	0.032
Vitrify-All (yes vs no)	1.27 (-7.87, 10.41)	0.78
PGD/PGS (yes vs no)	-1.81 (-11.85, 8.23)	0.72
Number of Vitrified Embryos	0.07 (-0.85, 1.00)	0.88
Mean Day of Vitrification	-11.70 (-17.03, -6.38)	<0.0001
Embryo Survival (%)	0.09 (-0.05, 0.24)	0.21
Intact Cells (%)	1.21 (0.80, 1.63)	<0.0001