

Appendix

TABLE E-1 PSC Transcript Expression of Growth Factors Related to Muscle Cell Growth and/or Differentiation

Myogenesis-Related Gene	Cultured Pericytes*	Cultured Adventitial Cells*	Function
FGF2 (fibroblast growth factor 2)	400	374	Also known as bFGF (basic fibroblast growth factor). Promotes cell survival, proliferation, and maintenance of the satellite cell niche
FST (follistatin)	270	346	Binds to and neutralizes myostatin (GDF8), a transforming growth factor (TGF)-beta paracrine hormone that inhibits skeletal muscle hypertrophy
HGF (hepatocyte growth factor)	1	49.6	Can control quiescence in the muscle stem cell niche
IGF1 (insulin-like growth factor 1)	15	1	Promotes myoblast proliferation through the PI3K/AKT signaling pathway
IL6 (interleukin 6)	126	141	IL6 family may regulate satellite cell-dependent myogenesis via activation of the JAK/STAT signaling pathway

*RNA-sequencing expression outputs normalized by reads per kilobase of transcript per million (RPKM). Values of “1” reflect expression levels that are at or below the level of detection for a gene that is expressed at a detectable level in other cell subpopulations.

TABLE E-2 PSC Secretion of VEGF

Donor*	VEGF†
Donor 1 CM	>4,269
Donor 2 CM	3,354.72
Donor 3 CM	>4,269
Donor 4 CM	515.44
Donor 5 CM	>4,269

*Conditioned media (CM) were collected from adventitial cells and pericytes cultured for 48 hours in Dulbecco’s Modified Eagle Medium (DMEM)/F-12 Ham’s (1:1) lacking fetal bovine serum (FBS). Factors secreted by these cells were concentrated 20-fold by applying 20 mL of CM to Vivaspin 20 (3,000 dalton molecular weight cut-off [MWCO]) centrifugal devices and reducing the volume to 1 mL, and half of this volume (500 µL) was submitted for testing. CM concentrated fractions were shipped to Randox Corporation in Ireland for cytokine analysis. †VEGF assay range of 0 to 3,000 pg/mL, sensitivity of 14.6 pg/mL. There was no difference in VEGF levels between adventitial cells and pericytes.