

## SUPPLEMENTAL TABLE 2

Enriched functional annotations (GO BP level 3) among the 5544 transcripts regulated in hESCs upon <sup>125</sup>I-dU incorporation

Term	Count	%	P-Value	Benjamini
<b>cell proliferation</b>	<b>154</b>	<b>3.9</b>	<b>1.90E-09</b>	<b>5.20E-07</b>
positive regulation of physiological process	136	3.5	1.00E-08	1.40E-06
<b>vasculature development</b>	<b>35</b>	<b>0.9</b>	<b>1.10E-08</b>	<b>9.80E-07</b>
positive regulation of cellular process	150	3.8	1.90E-08	1.30E-06
regulation of cellular physiological process	719	18.4	2.50E-08	1.40E-06
<b>organ morphogenesis</b>	<b>74</b>	<b>1.9</b>	<b>2.60E-08</b>	<b>1.20E-06</b>
negative regulation of cellular process	185	4.7	9.60E-08	3.70E-06
<b>cell death</b>	<b>155</b>	<b>4</b>	<b>2.20E-07</b>	<b>7.30E-06</b>
<b>cell cycle</b>	<b>182</b>	<b>4.6</b>	<b>6.10E-07</b>	<b>1.80E-05</b>
<b>skeletal development</b>	<b>49</b>	<b>1.3</b>	<b>1.20E-06</b>	<b>3.30E-05</b>
negative regulation of physiological process	169	4.3	2.10E-06	5.10E-05
response to wounding	110	2.8	2.30E-06	5.10E-05
blood coagulation	36	0.9	4.10E-06	8.40E-05
regulation of body fluids	40	1	6.70E-06	1.30E-04
localization of cell	70	1.8	2.30E-05	4.20E-04
cell motility	70	1.8	2.30E-05	4.20E-04
<b>circulation</b>	<b>39</b>	<b>1</b>	<b>4.40E-05</b>	<b>6.90E-04</b>
nitrogen compound metabolism	103	2.6	7.40E-05	1.10E-03
<b>nervous system development</b>	<b>118</b>	<b>3</b>	<b>1.80E-04</b>	<b>2.50E-03</b>
cell-cell signaling	131	3.3	2.20E-04	2.90E-03
muscle contraction	45	1.1	3.50E-04	4.40E-03
response to chemical stimulus	99	2.5	3.60E-04	4.40E-03
regulation of transferase activity	42	1.1	4.00E-04	4.70E-03
regulation of signal transduction	62	1.6	5.10E-04	5.60E-03
cell organization and biogenesis	323	8.3	1.00E-03	1.10E-02
response to pest, pathogen or parasite	132	3.4	1.20E-03	1.20E-02
digestion	23	0.6	1.20E-03	1.20E-02
<b>muscle development</b>	<b>32</b>	<b>0.8</b>	<b>1.20E-03</b>	<b>1.20E-02</b>
signal transduction	641	16.4	1.70E-03	1.50E-02
regulation of organismal physiological process	42	1.1	2.10E-03	1.90E-02
establishment of localization	606	15.5	2.80E-03	2.40E-02
regulation of cell adhesion	15	0.4	4.50E-03	3.70E-02
biomineral formation	17	0.4	4.70E-03	3.80E-02
response to other organism	134	3.4	6.20E-03	4.80E-02
brain development	15	0.4	7.50E-03	5.60E-02
tissue remodeling	17	0.4	9.40E-03	6.80E-02
positive regulation of enzyme activity	31	0.8	9.90E-03	6.90E-02
reproductive organismal physiological process	20	0.5	1.20E-02	8.40E-02
taxis	34	0.9	1.30E-02	8.70E-02
primary metabolism	1443	36.9	1.40E-02	8.80E-02
locomotory behavior	35	0.9	1.40E-02	8.70E-02
regulation of cell differentiation	19	0.5	1.50E-02	9.50E-02

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pregnancy	16	0.4	2.20E-02	1.30E-01
cell division	44	1.1	2.40E-02	1.40E-01
regulation of coagulation	7	0.2	2.70E-02	1.50E-01
sensory perception of light stimulus	42	1.1	4.20E-02	2.20E-01
regulation of hydrolase activity	21	0.5	4.40E-02	2.30E-01
cell development	30	0.8	4.70E-02	2.40E-01
cell homeostasis	38	1	4.80E-02	2.40E-01
transport	539	13.8	5.90E-02	2.80E-01
muscle cell differentiation	7	0.2	6.90E-02	3.10E-01
negative regulation of enzyme activity	16	0.4	7.40E-02	3.30E-01
vasculogenesis	4	0.1	7.50E-02	3.20E-01
osmoregulation	4	0.1	7.50E-02	3.20E-01
cellular localization	127	3.2	7.60E-02	3.20E-01
regulation of metabolism	488	12.5	8.40E-02	3.40E-01
keratinocyte differentiation	6	0.2	9.00E-02	3.60E-01

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