Supplementary Table S9. Significant terms in Ingenuity pathway analysis in human MDS patients for hypermethylated genes.

Top Networks

Associated Network Functions	Score
Cellular Development, Nervous System Development and Function, Embryonic Development	52
Cell Signaling, Nucleic Acid Metabolism, Small Molecule Biochemistry	44
Cell-To-Cell Signaling and Interaction, Nervous System Development and Function, Cellular Assembly and Organization	41
Cancer, Hematological Disease, Cellular Development	41
Tissue Development, Organismal Development, Cardiovascular System Development and Function	39

Top Bio Functions

Diseases and Disorders

Name	p-value	# Molecules
Organismal Injury and Abnormalities	3.20E-09 - 1.38E-02	78
Developmental Disorder	1.69E-07 - 9.67E-03	152
Ophthalmic Disease	1.69E-06 - 1.29E-03	58
Cancer	3.74E-06 - 1.38E-02	329
Reproductive System Disease	3.74E-06 - 9.67E-03	199

Molecular and Cellular Functions

Name	p-value	# Molecules
Cellular Development	2.28E-09 - 1.30E-02	274
Gene Expression	6.58E-09 - 8.62E-03	234
Cell-To-Cell Signaling and Interaction	7.64E-08 - 1.38E-02	174
Molecular Transport	5.68E-06 - 1.38E-02	136
Small Molecule Biochemistry	5.68E-06 - 1.38E-02	114

Physiological System Development and Function

Name	p-value	# Molecules
Embryonic Development	8.11E-18 - 1.20E-02	219
Organ Development	8.11E-18 - 1.20E-02	197
Organismal Development	8.11E-18 - 1.20E-02	244
Tissue Development	8.11E-18 - 1.30E-02	290
Nervous System Development and Function	2.28E-09 - 1.20E-02	224

Top Canonical Pathways

Name	p-value	Ratio
Calcium Signaling	7.09E-04	22/207 (0.106)
Glutamate Receptor Signaling	1.12E-03	11/69 (0.159)
G-Protein Coupled Receptor Signaling	2.14E-03	48/530 (0.091)
Amyotrophic Lateral Sclerosis Signaling	4.62E-03	15/119 (0.126)
Role of Oct4 in Mammalian Embryonic Stem Cell Pluripotency	5.48E-03	10/45 (0.222)