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**Manuscript Title:** Comparative Multidimensional Molecular Analyses of Pediatric Diffuse Intrinsic Pontine Glioma Reveals Distinct Molecular

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**Online Resource 25**

Top Canonical Pathways	Dysregulated DNA Methylation by DIPG Subgroup	
	Telomerase Signaling ( <i>p</i> -value 1.04E-02) Cell Cycle Checkpoint Regulation G1/S ( <i>p</i> -value 9.53E-03)	
<i>Gene</i> (Fold Change In Methylation Value, Subgroup 1 / Subgroup 2)	<i>HDAC4</i> (-6.53); <i>MYC</i> (-5.60); <i>PP2R1A</i> (-6.00); <i>CDKN1B</i> (5.86977)	
Top Networks of Molecular Interaction	Genes Hypomethylated in Subgroup 1 & Hypermethylated in Subgroup 2	Genes Hypomethylated in Subgroup 2 & Hypermethylated in Subgroup 1
	Tissue Morphology, Cancer, Tumor Morphology	Connective Tissue Development, Embryonic Development, Organ Development
<i>Gene</i> (Fold Change In Methylation Value, Subgroup 1 / Subgroup 2)	<i>ACVR2A</i> (-7.21459); <i>Akt</i> ; <i>Ap1</i> ; <i>CHRNA7</i> (-5.27157); ( <i>CYTH3</i> -8.89238); <i>DHFR</i> (-4.47588); <i>DNER</i> (-5.04539); <i>ENPP1</i> (-5.00407); <i>FSH</i> ; <i>FSTL3</i> (-5.28393); <i>GMNN</i> (-7.75953); <i>GRIP2</i> (-13.06); <i>HDAC4</i> (-6.53147); <i>Histone h3</i> ; <i>Histone h4</i> ; <i>HK2</i> (-9.16147); <i>MYC</i> (-5.5888); <i>NPPC</i> (-5.54203); <i>NRIP2</i> (-5.61076); <i>PDGF BB</i> ; <i>PIM3</i> (-6.76449); <i>PP2A</i> ; <i>PPP2R1A</i> (-5.98955); <i>PRDX6</i> (-7.92103); <i>Rar</i> ; <i>Rb</i> ; <i>RNA polymerase II</i> ; <i>RPS9</i> (-9.16881); <i>RXRβ</i> (-4.63094); <i>SLC6A2</i> (-4.82568); <i>SUDS3</i> (-5.33278); <i>TAF4</i> (-4.35788); <i>THR</i> ; <i>ZBTB5</i> (-4.54693)	<i>APCDD1</i> ; <i>B2M</i> (5.50578); <i>CAMK2N1</i> ; <i>CaMKII</i> ; <i>CAND1</i> (4.88027); <i>CDK5R25.19751</i> ; <i>CDKN1B</i> (5.86977); <i>Cg</i> ; <i>COPS3</i> ; <i>CYB5R3</i> (4.95904); <i>DAZ2</i> ; <i>FOXF1</i> (11.6103); <i>H3F3A/H3F3B</i> (4.83763); <i>HGFAC</i> (4.58898); <i>Histone h3</i> ; <i>HLCS</i> (6.7314); <i>HOXA11</i> ; <i>KPNA4</i> ; <i>LMX1B</i> ; <i>NFκB</i> (complex); <i>ORC2</i> ; <i>OSGIN1</i> ; <i>PNPT1</i> ; <i>RNF7</i> ; <i>RNU7-1</i> ; <i>SACS</i> (6.79406); <i>SLC32A1</i> ; <i>ST8SIA1</i> ; <i>TP63</i> ; <i>UBA3</i> ; <i>UHMK1</i> ; <i>WNT3</i> ; <i>WNT7A</i> 8.74141); <i>ZIC1</i> ; <i>ZNF212</i> (5.56576)