Gene Abnormality Target Symbol	Gene Abnormality	Citation(1)	Link(1)	Citation(2)	Link(2)	Citation(3)	Link(3)	Citation(4)	Link(4)	Citation(5)	Link(5)
ABL1/2	ABL1/2 gene fusions (BCR-ABL1, etc.)	Greuber, E. K., Smith-Pearson, P., Wang, J., & Pendergast, A. M. (2013). Role of ABL family kinases in cancer: From leukaemia to solid tumours. Nature Reviews Cancer, 13(8), 559-571. doi:10.1038/nrc3563	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935732/	Wang J, Pendergast AM. The Emerging Role of ABL Kinases in Solid Tumors. Trends in cancer. 2015;1(2):110-123. doi:10.1016/j.trecan.2015.07.004.	https://ncbi.nlm.nih.gov/pmc/articles/PMC4669955/						
ACVR1	ACVR1	Taylor, K. R., Vinci, M., Bullock, A. N., & Jones, C. (2014). ACVR1 mutations in DIPG: lessons learned from FOP. Cancer Research, 74(17), 4565–4570. http://doi.org/10.1158/0008-5472.CAN-14-1298	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154859/								
ALK	ALK and ALK gene fusions	Holla, V. R., Elamin, Y. Y., Bailey, A. M., Johnson, A. M., Litzenburger, B. C., Khotskaya, Y. B., … Simon, G. R. (2017). ALK: a tyrosine kinase target for cancer therapy. Cold Spring Harbor Molecular Case Studies, 3(1), a001115. http://doi.org/10.1101/mcs.a001115	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5171696/								
ASCL1	ASCL1 gene	Kasim, M., Benko, E., Winkelmann, A., Mrowka, R., Staudacher, J. J., Persson, P. B., . . . Fähling, M. (2014). Shutdown of Achaete-scute Homolog-1 Expression by Heterogeneous Nuclear Ribonucleoprotein (hnRNP)-A2/B1 in Hypoxia. Journal of Biological Chemistry, 289(39), 26973-26988. doi:10.1074/jbc.m114.579391	http://www.jbc.org/content/289/39/26973.full								
BRAF	BRAF	Kieran, M. W. (2014). Targeting BRAF in Pediatric Brain Tumors. American Society of Clinical Oncology Educational Book, 34. doi:10.14694/edbook am.2014.34.e436	https://meetinglibrary.asco.org/record/89039/edbook#fulltext	Dahiya S, Emnett RJ, Haydon DH, et al. BRAF-V600E mutation in pediatric and adult glioblastoma. Neuro Oncol. 2014;16:318-319.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895374/	Berres M-L, Lim KPH, Peters T, et al. BRAF-V600E expression in precursor versus differentiated dendritic cells defines clinically distinct LCH risk groups. The Journal of Experimental Medicine. 2014;211(4):669-683. doi:10.1084/jem.20130977.	https://www.ncbi.nlm.gov/pmc/articles/PMC3978272/				
BRD3-NUTM1	BRD3-NUTM1	French CA, Miyoshi I, Kubonishi I, Grier HE, Perez-Atayde AR, Fletcher JA. BRD4-NUT fusion oncogene: a novel mechanism in aggressive carcinoma. Cancer research. 2003;63(2):304-7.	http://cancerres.aacrjournals.org/content/63/2/304.long	Additional Refernces: Please click the URL →→→→→→→→	file:///C:/Users/Alemayehu.Akalu/Desktop/RFI_French_2018.PedsMolecularTraget.html						
BRD4-NUTM1	BRD4-NUTM1	French, C. A., Ramirez, C. L., Kolmakova, J., Hickman, T. T., Cameron, M. J., Thyne, M. E., . . . Aster, J. C. (2007). BRD–NUT oncoproteins: A family of closely related nuclear proteins that block epithelial differentiation and maintain the growth of carcinoma cells. Oncogene, 27(15), 2237-2242. doi:10.1038/sj.onc.1210852	https://www.nature.com/articles/1210852	Additional Refernces: Please click the URL →→→→→→→→	file:///C:/Users/Alemayehu.Akalu/Desktop/RFI_French_2018.PedsMolecularTraget.html						
CCND1,2	CCND1,2	Xue, Y., Rong, L., Tong, N., Wang, M., Zhang, Z., & Fang, Y. (2015). CCND1 G870A polymorphism is associated with toxicity of methotrexate in childhood acute lymphoblastic leukemia. International Journal of Clinical and Experimental Pathology, 8(9), 11594–11600.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4637712/								
CDK12	EWSR1-FLI1	Iniguez, A. B., Stolte, B., Wang, E. J., Conway, A. S., Alexe, G., Dharia, N. V., . . . Stegmaier, K. (2018). EWS/FLI Confers Tumor Cell Synthetic Lethality to CDK12 Inhibition in Ewing Sarcoma. Cancer Cell, 33(2). doi:10.1016/j.ccell.2017.12.009	https://www.ncbi.nlm.nih.gov/pubmed/29358035								
c-KIT or KIT	c-KIT or KIT	Smithey, B. E., Pappo, A. S., & Hill, D. A. (2002). C-kit Expression in Pediatric Solid Tumors. The American Journal of Surgical Pathology, 26(4), 486-492. doi:10.1097/00000478-200204000-00011	https://insights.ovid.com/pubmed?pmid=11914627								
CSF1R	CSF1R gene fusions	Rovida, E., & Sbarba, P. D. (2015). Colony-Stimulating Factor-1 Receptor in the Polarization of Macrophages: A Target for Turning Bad to Good Ones? Journal of Clinical & Cellular Immunology, 06(06). doi:10.4172/2155-9899.1000379	https://www.omicsonline.org/open-access/colonystimulating-factor1-receptor-in-the-polarization-of-macrophagesa-target-for-turning-bad-to-good-ones-2155-9899-1000379.pdf	Butowski, N., Colman, H., Groot, J. F., Omuro, A. M., Nayak, L., Wen, P. Y., . . . Prados, M. (2015). Orally administered colony stimulating factor 1 receptor inhibitor PLX3397 in recurrent glioblastoma: An Ivy Foundation Early Phase Clinical Trials Consortium phase II study. Neuro-Oncology, 18(4), 557-564. doi:10.1093/neuonc/nov245	https://academic.oup.com/neuro-oncology/article/18/4/557/2509330	Cannarile MA, Weisser M, Jacob W, Jegg A-M, Ries CH, Rüttinger D. Colony-stimulating factor 1 receptor (CSF1R) inhibitors in cancer therapy. Journal for Immunotherapy of Cancer. 2017;5:53. doi:10.1186/s40425-017-0257-y.	https://www.ncbi.nlm.gov/pmc/articles/PMC5514481/				
CTNNB1 (β-catenin)	CTNNB1	Shukla, N., Ameur, N., Yilmaz, I., Nafa, K., Lau, C., Marchetti, A., . . . Ladanyi, M. (2011). Oncogene Mutation Profiling of Pediatric Solid Tumors Reveals Significant Subsets of Embryonal Rhabdomyosarcoma and Neuroblastoma with Mutated Genes in Growth Signaling Pathways. Clinical Cancer Research, 18(3), 748-757. doi:10.1158/1078-0432.ccr-11-2056	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3271129/								
DDX3X	DDX3X	Epling, L. B., Grace, C. R., Lowe, B. R., Partridge, J. F., & Enemark, E. J. (2015). Cancer-associated mutants of RNA helicase DDX3X are defective in RNA-stimulated ATP hydrolysis. Journal of Molecular Biology, 427(9), 1779–1796. http://doi.org/10.1016/j.jmb.2015.02.015	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4402148/								
DOT1L	MLL gene fusions	Wong, M., Tee, A., Milazzo, G., Bell, J., Hüttelmaier, S., Polly, P., . . . Liu, T. (2017). Abstract LB-080: The histone methyltransferase DOT1L promotes neuroblastoma by regulating gene transcription. Cancer Research, 77(13 Supplement). doi:10.1158/1538-7445.am2017-lb-080	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633909/								
EGFR	EGFR	Lee, J. A., Ko, Y., Kim, D. H., Lim, J. S., Kong, C.-B., Cho, W. H., … Koh, J.-S. (2012). Epidermal Growth Factor Receptor: Is It a Feasible Target for the Treatment of Osteosarcoma? Cancer Research and Treatment : Official Journal of Korean Cancer Association, 44(3), 202–209. http://doi.org/10.4143/crt.2012.44.3.202	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3467424/	Rodriguez FJ, Vizcaino MA, Lin M-T. Recent Advances on the Molecular Pathology of Glial Neoplasms in Children and Adults. The Journal of Molecular Diagnostics : JMD. 2016;18(5):620-634. doi:10.1016/j.jmoldx.2016.05.005.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5397677						
ERK	BRAF, MAP2K1	Tp, T. A. (2015). Targeted Therapy for MAPK Alterations in Pediatric Gliomas. Brain Disorders & Therapy, S2. doi:10.4172/2168-975x.s2-005	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4627711/	Knight, T., & Irving, J. A. (2014). Ras/Raf/MEK/ERK Pathway Activation in Childhood Acute Lymphoblastic Leukemia and Its Therapeutic Targeting. Frontiers in Oncology, 4. doi:10.3389/fonc.2014.00160	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067595/						
ETS gene fusions	ETS fusions (ERG, FLI1, ETV1)	Feng, F. Y., Brenner, J. C., Hussain, M., & Chinnaiyan, A. M. (2014). Molecular Pathways: Targeting ETS Gene Fusions in Cancer. Clinical Cancer Research : An Official Journal of the American Association for Cancer Research, 20(17), 4442–4448. http://doi.org/10.1158/1078-0432.CCR-13-0275	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4155001/								
EWSR1-FLI1	EWSR1-FLI1	Gamberi, G., Cocchi, S., Benini, S., Magagnoli, G., Morandi, L., Kreshak, J., . . . Alberghini, M. (2011). Molecular Diagnosis in Ewing Family Tumors. The Journal of Molecular Diagnostics, 13(3), 313-324. doi:10.1016/j.jmoldx.2011.01.004	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3077725/								
EZH2	SMARCB1, SMARCA4	D'Angelo, V., Iannotta, A., Ramaglia, M., Lombardi, A., Zarone, M. R., Desiderio, V., . . . Caraglia, M. (2015). EZH2 is increased in paediatric T-cell acute lymphoblastic leukemia and is a suitable molecular target in combination treatment approaches. Journal of Experimental & Clinical Cancer Research, 34(1). doi:10.1186/s13046-015-0191-0	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4535295/	Chang, C., & Hung, M. (2011). The role of EZH2 in tumour progression. British Journal of Cancer, 106(2), 243-247. doi:10.1038/bjc.2011.551	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4132442/	Gan L, Yang Y, Li Q, Feng Y, Liu T, Guo W. Epigenetic regulation of cancer progression by EZH2: from biological insights to therapeutic potential. Biomarker Research. 2018;6:10. doi:10.1186/s40364-018-0122-2.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5845366				
FGFR	FGFR and FGFR gene fusions	Venneti, S., & Huse, J. T. (2015). The Evolving Molecular Genetics of Low-grade Glioma. Advances In Anatomic Pathology, 22(2), 94-101. doi:10.1097/pap.0000000000000049	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4667550/	Porta, R., Borea, R., Coelho, A., Khan, S., Araújo, A., Reclusa, P., . . . Rolfo, C. (2017). FGFR a promising druggable target in cancer: Molecular biology and new drugs. Critical Reviews in Oncology/Hematology, 113, 256-267. doi:10.1016/j.critrevonc.2017.02.018	http://www.croh-online.com/article/S1040-8428(17)30085-9/fulltext	Linzey, J. R., Marini, B., Mcfadden, K., Lorenzana, A., Mody, R., Robertson, P. L., & Koschmann, C. (2017). Identification and targeting of an FGFR fusion in a pediatric thalamic "central oligodendroglioma". Npj Precision Oncology, 1(1). doi:10.1038/s41698-017-0036-8	https://www.nature.com/articles/s41698-017-0036-8				
FLT3	FLK2, STK1, CD135	Grafone, T., Palmisano, M., Nicci, C., & Storti, S. (2012). An overview on the role of FLT3-tyrosine kinase receptor in acute myeloid leukemia: Biology and treatment. Oncology Reviews, 6(1), 8. doi:10.4081/oncol.2012.e8	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4419636/	Levis, M. (2013). FLT3 mutations in acute myeloid leukemia: what is the best approach in 2013? Hematology / the Education Program of the American Society of Hematology. American Society of Hematology. Education Program, 2013, 220–226. http://doi.org/10.1182/asheducation-2013.1.220	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4714709/	Sexauer AN, Tasian SK. Targeting FLT3 Signaling in Childhood Acute Myeloid Leukemia. Frontiers in Pediatrics. 2017;5:248. doi:10.3389/fped.2017.00248.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5702014				
Gamma secretase	NOTCH1 and FBXW7	Kolb, E. A., Gorlick, R., Keir, S. T., Maris, J. M., Lock, R., Carol, H., . . . Smith, M. A. (2011). Initial testing (stage 1) by the pediatric preclinical testing program of RO4929097, a γ-secretase inhibitor targeting notch signaling. Pediatric Blood & Cancer, 58(5), 815-818. doi:10.1002/pbc.23290	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3276746/								
GFI1	GFI1	Hönes, J. M., Botezatu, L., Helness, A., Vadnais, C., Vassen, L., Robert, F., . . . Khandanpour, C. (2016). GFI1 as a novel prognostic and therapeutic factor for AML/MDS. Leukemia, 30(6), 1237-1245. doi:10.1038/leu.2016.11	https://www.nature.com/articles/leu201611	Northcott PA, Lee C, Zichner T, et al. Enhancer hijacking activates GFI1 family oncogenes in medulloblastoma. Nature. 2014;511(7510):428-434. doi:10.1038/nature13379.	http://www.nature.com/articles/nature13379						
GFI1B	GFI1B	Stevenson, W. S., Morel-Kopp, M., Chen, Q., Liang, H. P., Bromhead, C. J., Wright, S., . . . Ward, C. M. (2013). GFI1Bmutation causes a bleeding disorder with abnormal platelet function. Journal of Thrombosis and Haemostasis, 11(11), 2039-2047. doi:10.1111/jth.12368	https://onlinelibrary.wiley.com/doi/full/10.1111/jth.12368								
Histone 3 G34R/V	Histone 3 G34R/V	Yuen, B., & Knoepfler, P. (2013). Histone H3.3 Mutations: A Variant Path to Cancer. Cancer Cell, 24(5), 567-574. doi:10.1016/j.ccr.2013.09.015	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882088/	Mohammad F, Helin K. Oncohistones: drivers of pediatric cancers. Genes & Development. 2017;31(23-24):2313-2324. doi:10.1101/gad.309013.117.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5795778/						
Histone 3 K27M	Histone 3 K27M	Yuen, B., & Knoepfler, P. (2013). Histone H3.3 Mutations: A Variant Path to Cancer. Cancer Cell, 24(5), 567-574. doi:10.1016/j.ccr.2013.09.015	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882088/								

IDH1 and IHD2	IDH1 and IDH2	Yang, H., Ye, D., Guan, K., & Xiong, Y. (2012). IDH1 and IDH2 Mutations in Tumorigenesis: Mechanistic Insights and Clinical Perspectives. Clinical Cancer Research, 18(20), 5562-5571. doi:10.1158/1078-0432.ccr-12-1773	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3897211/	The Cancer Genome Atlas Research Network. Comprehensive, Integrative Genomic Analysis of Diffuse Lower-Grade Gliomas. The New England journal of medicine. 2015;372(26):2481-2498. doi:10.1056/NEJMoa1402121.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4530011/						
JAK1, 2, and 3	JAK1, 2, and 3	Vainchenker W, Constantinescu SN. JAK/STAT signaling in hematological malignancies. Oncogene (2013);32:2601–2613. doi:10.1038/onc.2012.347	http://www.nature.com/articles/onc2012347	Mullighan CG, Collins-Underwood JR, Phillips LAA, et al. REARRANGEMENT OF CRLF2 IN B-PROGENITOR AND DOWN SYNDROME ASSOCIATED ACUTE LYMPHOBLASTIC LEUKEMIA. Nature genetics. 2009;41(11):1243-1246. doi:10.1038/ng.469.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2783810/						
LIN28B	LIN28B	Balzeau, J., Menezes, M. R., Cao, S., & Hagan, J. P. (2017). The LIN28/let-7 Pathway in Cancer. Frontiers in Genetics, 8, 31. http://doi.org/10.3389/fgene.2017.00031	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5368188/								
MDM2	MDM2, TP53	Barone, G., Tweddle, D., Shohet, J., Chesler, L., Moreno, L., Pearson, A., & Maerken, T. (2014). MDM2-p53 Interaction in Paediatric Solid Tumours: Preclinical Rationale, Biomarkers and Resistance. Current Drug Targets, 15(1), 114-123. doi:10.2174/13894501113149990194	https://www.ncbi.nlm.nih.gov/pubmed/24387312	Goethem, A. V., Yigit, N., Moreno-Smith, M., Vasudevan, S. A., Barbieri, E., Speleman, F., . . . Maerken, T. V. (2017). Dual targeting of MDM2 and BCL2 as a therapeutic strategy in neuroblastoma. Oncotarget, 8(34). doi:10.18632/oncotarget.18982	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5593624/						
MEK	BRAF and BRAF gene fusions, MAP2K1, NF1	Ciccarelli, C., Vulcano, F., Milazzo, L., Gravina, G. L., Marampon, F., Macioce, G., . . . Zani, B. M. (2016). Key role of MEK/ERK pathway in sustaining tumorigenicity and in vitro radioresistance of embryonal rhabdomyosarcoma stem-like cell population. Molecular Cancer, 15(1). doi:10.1186/s12943-016-0501-y	https://molecular-cancer.biomedcentral.com/articles/10.1186/s12943-016-0501-y								
Menin	MLL gene fusions	Slany, R. K. (2016). The molecular mechanics of mixed lineage leukemia. Oncogene, 35(40), 5215-5223. doi:10.1038/onc.2016.30	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2704309/								
MET	MET	Bouffet, E. (2007). Faculty of 1000 evaluation for Phase 2 study of temozolomide in children and adolescents with recurrent central nervous system tumors: A report from the Childrens Oncology Group. F1000 - Post-publication Peer Review of the Biomedical Literature. doi:10.3410/f.1098180.554184	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3123765/								
MLL	MLL gene fusions (MLL-AF4/AF9/AF10/ENL/ELL/AF1p/AFX/FKHRL1/SEPT6/GAS7/EEN/CBP/PTD)	Winters, A. C., & Bernt, K. M. (2017). MLL-Rearranged Leukemias—An Update on Science and Clinical Approaches. Frontiers in Pediatrics, 5. doi:10.3389/fped.2017.00004	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5299633/	Liu, H., Cheng, E. H., & Hsieh, J. J. (2009). MLL fusions: Pathways to leukemia. Cancer Biology & Therapy, 8(13), 1204–1211. http://doi.org/10.4161/cbt.8.13.8924	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3289713/						
mTOR	TSC1, TSC2	Barrett, D., Brown, V. I., Grupp, S. A., & Teachey, D. T. (2012). Targeting the PI3K/AKT/mTOR Signaling Axis in Children with Hematologic Malignancies. Pediatric Drugs, 14(5), 299-316. doi:10.1007/bf03262236	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4214862/								
MYC	MYC translocations and amplification	Hutter, S., Bolin, S., Weishaupt, H., & Swartling, F. (2017). Modeling and Targeting MYC Genes in Childhood Brain Tumors. Genes, 8(4), 107. doi:10.3390/genes8040107	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5406854/	Grotzer M, Shalaby T. MYC as Therapeutic Target for Embryonal Tumors: Potential and Challenges. Current Cancer Drug Targets (2016); 1:2-21.Department of Oncology, University Children's Hospital Zurich, Switzerland. doi : 10.2174/1568009615666150916092745	http://www.eurekaselect.com/134981/article						
MYCN	MYCN amplification	Sala, A. (2015). Editorial: Targeting MYCN in Pediatric Cancers. Frontiers in Oncology, 4. doi:10.3389/fonc.2014.00330	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4429566/								
Neoantigens	MSH2, MLH1, MSH6, PMS2 POLE, and POLD1	Schumacher, T. N., & Schreiber, R. D. (2015). Neoantigens in cancer immunotherapy. Science, 348(6230), 69-74. doi:10.1126/science.aaa4971	http://science.sciencemag.org/content/348/6230/69/tab-pdf	Campbell BB, Light N, Fabrizio D, et al. Comprehensive Analysis of Hypermutation in Human Cancer. Cell. 2017;171(5):1042-1056.e10. doi:10.1016/j.cell.2017.09.048.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5849393/						
NFkappaB	RELA fusion	Cahill, K. E., Morshed, R. A., & Yamini, B. (2015). Nuclear factor-κB in glioblastoma: Insights into regulators and targeted therapy. Neuro-Oncology, 18(3), 329-339. doi:10.1093/neuonc/nov265	https://academic.oup.com/neuro-oncology/article/18/3/329/2509337								
NOTCH1	NOTCH1, FBXW7	Zage, P. E., Nolo, R., Fang, W., Stewart, J., Garcia-Manero, G., & Zweidler-Mckay, P. A. (2011). Notch pathway activation induces neuroblastoma tumor cell growth arrest. Pediatric Blood & Cancer, 58(5), 682-689. doi:10.1002/pbc.23202	https://www.ncbi.nlm.nih.gov/pubmed/21744479	Ferrando, A. A. (2009). The role of NOTCH1 signaling in T-ALL. Hematology, 2009(1), 353-361. doi:10.1182/asheducation-2009.1.353	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2847371/						
NSD3-NUTM1	NSD3-NUTM1	French, C. A., Rahman, S., Walsh, E. M., Kühnle, S., Grayson, A. R., Lemieux, M. E., … Howley, P. M. (2014). NSD3-NUT Fusion Oncoprotein in NUT Midline Carcinoma: Implications for a Novel Oncogenic Mechanism. Cancer Discovery, 4(8), 928–941.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4125436/	Additional Refernces: Please click the URL →→→→→→→→	file:///C:/Users/Alemayehu.Akalu/Desktop/RFI_French_2018.PedsMolecularTraget.html						
NT5C2	NT5C2	Meyer, J. A., Wang, J., Hogan, L. E., Yang, J. J., Dandekar, S., Patel, J. P., … Carroll, W. L. (2013). Relapse specific mutations in NT5C2 in childhood acute lymphoblastic leukemia. Nature Genetics, 45(3), 290–294. http://doi.org/10.1038/ng.2558	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681285/								
NTRK	NTRK gene fusions	Prasad, M. L., Vyas, M., Horne, M. J., Virk, R. K., Morotti, R., Liu, Z., . . . Nikiforov, Y. E. (2016). NTRKfusion oncogenes in pediatric papillary thyroid carcinoma in northeast United States. Cancer, 122(7), 1097-1107. doi:10.1002/cncr.29887	https://onlinelibrary.wiley.com/doi/pdf/10.1002/cncr.29887	Drilon A1, Laetsch TW1, Kummar S1, DuBois SG1, Lassen UN1, Demetri GD1, Nathenson M1, Doebele RC1, Farago AF1, Pappo AS1, Turpin B1, Dowlati A1, Brose MS1, Mascarenhas L1, Federman N1, Berlin J1, El-Deiry WS1, Baik C1, Deeken J1, Boni V1, Nagasubramanian R1, Taylor M1, Rudzinski ER1, Meric-Bernstam F1, Sohal DPS1, Ma PC1, Raez LE1, Hechtman JF1, Benayed R1, Ladanyi M1, Tuch BB1, Ebata K1, Cruickshank S1, Ku NC1, Cox MC1, Hawkins DS1, Hong DS1, Hyman DM1. Efficacy of Larotrectinib in TRK Fusion-Positive Cancers in Adults and Children. N Engl J Med. 2018 Feb 22;378(8):731-739. doi: 10.1056/NEJMoa1714448.	https://www.sciencedirect.com/science/article/pii/S1470204518301190?via%3Dihub						
ODC1	MYC target gene	Schultz, C. R., Geerts, D., Mooney, M., El-Khawaja, R., Koster, J., & Bachmann, A. S. (2018). Synergistic drug combination GC7/DFMO suppresses hypusine/spermidine-dependent eIF5A activation and induces apoptotic cell death in neuroblastoma. Biochemical Journal, 475(2), 531-545. doi:10.1042/bcj20170597	http://www.biochemj.org/content/ppbiochemj/early/2018/01/02/BCJ20170597.full.pdf								
PARP	BRCA1/2, PALB2, ATM, BRIP1, CHEK2, RAD51, etc.	Ricks, T. K., Chiu, H.-J., Ison, G., Kim, G., McKee, A. E., Kluetz, P., & Pazdur, R. (2015). Successes and Challenges of PARP Inhibitors in Cancer Therapy. Frontiers in Oncology, 5, 222. http://doi.org/10.3389/fonc.2015.00222	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604313/	Engert F, Kovac M, Baumhoer D, Nathrath M, Fulda S. Osteosarcoma cells with genetic signatures of BRCAness are susceptible to the PARP inhibitor talazoparib alone or in combination with chemotherapeutics. Oncotarget. 2017;8(30):48794-48806. doi:10.18632/oncotarget.10720.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5564725/						
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BCOR	Chen, X., Pappo, A., & Dyer, M. A. (2015). Pediatric solid tumor genomics and developmental pliancy. Oncogene, 34(41), 5207-5215. doi:10.1038/onc.2014.474	https://www.nature.com/articles/onc2014474	De Rooij JDE, van den Heuvel-Eibrink MM, Hermkens MCH, et al. BCOR and BCORL1 mutations in pediatric acute myeloid leukemia. Haematologica. 2015;100(5):e194-e195. doi:10.3324/haematol.2014.117796.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4420230/	Specht K, Zhang L, Sung Y-S, et al. Novel BCOR-MAML3 and ZC3H7B-BCOR Gene Fusions in Undifferentiated Small Blue Round Cell Sarcomas. The American journal of surgical pathology. 2016;40(4):433-442. doi:10.1097/PAS.0000000000000591.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4792719/
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CD52	Angiolillo, A. L., Yu, A. L., Reaman, G., Ingle, A. M., Secola, R., & Adamson, P. C. (2009). A Phase II Study of Campath-1H in Children with Relapsed or Refractory Acute Lymphoblastic Leukemia: A Children's Oncology Group Report. Pediatric Blood & Cancer, 53(6), 978–983. http://doi.org/10.1002/pbc.22209	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3120889/					
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CXCL10	Flores RJ, Kelly AJ, Li Y, et al. A Novel Prognostic Model for Osteosarcoma Utilizing Circulating CXCL10 and FLT3LG. Cancer. 2017;123(1):144-154. doi:10.1002/cncr.30272.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5161556/					
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STING	Lemos, H., Mohamed, E., Huang, L., Ou, R., Pacholczyk, G., Arbab, A. S., … Mellor, A. L. (2016). STING promotes the growth of tumors characterized by low antigenicity via IDO activation. Cancer Research, 76(8), 2076–2081. http://doi.org/10.1158/0008-5472.CAN-15-1456	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4873329/					
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ATR	Weber, A. M., & Ryan, A. J. (2015). ATM and ATR as therapeutic targets in cancer. Pharmacology & Therapeutics, 149, 124-138. doi:10.1016/j.pharmthera.2014.12.001	https://www.ncbi.nlm.nih.gov/pubmed/25512053	Nieto-Soler M, Morgado-Palacin I, Lafarga V, et al. Efficacy of ATR inhibitors as single agents in Ewing sarcoma. Oncotarget. 2016;7(37):58759-58767. doi:10.18632/oncotarget.11643.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5312273/		
ATRX	Koschmann, C., Calinescu, A.-A., Nunez, F. J., Mackay, A., Fazal-Salom, J., Thomas, D., … Castro, M. G. (2016). ATRX Loss Promotes Tumor Growth and Impairs Non-Homologous End Joining DNA Repair in Glioma. Science Translational	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5381643/				
AURKA (Aurora kinase A)	Wetmore C, Boyett J, Li S, et al. Alisertib is active as single agent in recurrent atypical teratoid rhabdoid tumors in 4 children. Neuro-Oncology. 2015;17(6):882-888. doi:10.1093/neuonc/nov017.	https://preview.ncbi.nlm.nih.gov/pmc/articles/PMC4483126/	Koschmann C, Calinescu A-A, Nunez FJ, et al. ATRX Loss Promotes Tumor Growth and Impairs Non-Homologous End Joining DNA Repair in Glioma. Science translational medicine. 2016;8(328):328ra28. doi:10.1126/scitranslmed.aac8228.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5381643/		
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BCL2 family members (Bcl-2, Bcl-XL, Mcl-1, A1/BFL, BAK, BAX)	Chaber, R., Fiszer-Maliszewska, L., Noworolska-Sauren, D., Kwasnicka, J., Wrobel, G., & Chybicka, A. (2013). The BCL-2 Protein in Precursor B Acute Lymphoblastic Leukemia in Children. Journal of Pediatric Hematology/Oncology, 35(3), 180-187. doi:10.1097/mph.0b013e318286d29b	https://www.ncbi.nlm.nih.gov/pubmed/23511489				
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BMPR	Liu, S., Tian, Z., Yin, F., Zhang, P., W., Y., Ding, X., . . . Fan, M. (2009). Expression and Functional Roles of Smad1 and BMPR-IB in Glioma Development. Cancer Investigation, 27(7), 734-740. doi:10.1080/07357900802620786	https://www.semanticscholar.org/paper/Expression-and-functional-roles-of-Smad1-and-in-Liu-Tian/ddd4dea12c9e329a45478a76e18abc423c255215				
Brd1	Long, W., Yi, Y., Chen, S., Cao, Q., Zhao, W., & Liu, Q. (2017). Potential New Therapies for Pediatric Diffuse Intrinsic Pontine Glioma. Frontiers in Pharmacology, 8. doi:10.3389/fphar.2017.00495	https://www.frontiersin.org/articles/10.3389/fphar.2017.00495/full	Abedin, S. M., Boddy, C. S., & Munshi, H. G. (2016). BET inhibitors in the treatment of hematologic malignancies: current insights and future prospects. OncoTargets and Therapy, 9, 5943–5953. http://doi.org/10.2147/OTT.S100515	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047722/		
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