Temozolomide sensitivity

Temozolomide sensitivity reported in comparable studies was not consistent between or within malignant glioma cell lines. Drug discovery science performed on these models cannot reliably inform clinical translation. A consensus model of reporting can maximise reproducibility and consistency among in vitro studies [1)].

Circular RNAs have been reported to play key roles in the progression of various cancers, including gliomas. Yuan et al. designed a study to investigate the role of hsa_circ_0072309 in autophagy and temozolomide sensitivity in glioblastoma (Glioblastoma).

The effect of hsa_circ_0072309 on autophagy and TMZ sensitivity were examined by GFP-RFP-LC3, transmission electron microscopy(TEM), flow cytometry, Western blot, and immunofluorescence. The mechanism of hsa_circ_0072309 regulating the p53 signaling pathway was analyzed using Western blot, IP, and rescue experiments.

Low hsa_circ_0072309 expression predicts poor prognosis for glioma patients. The regulation of hsa_circ_0072309 on autophagy and TMZ sensitivity depends on the status of p53. Hsa_circ_0072309 promoted autophagy by p53 signaling pathway and enhanced sensitivity of glioblastoma to temozolomide (TMZ) in p53 wild-type Glioblastoma, but not in p53 mutant Glioblastoma. Hsa_circ_0072309 inhibits p53 ubiquitination and increases the stability of p53 protein in the context of p53 wild-type. MiR-100 mediates hsa_circ_0072309 regulating p53. P53 inhibitor or autophagy inhibitor could reverse the effect of hsa_circ_0072309 on TMZ sensitivity in p53 wild-type Glioblastoma.

This study revealed a function of hsa_circ_0072309 promoting autophagy by p53 signaling pathway and enhancing TMZ sensitivity. These findings demonstrated that hsa_circ_0072309 may be a potential and promising target in designing the treatment strategy for Glioblastoma. [2)].

2: Lin R, Xu Y, Xie S, Zhang Y, Wang H, Yi GZ, Huang G, Ni B, Song H, Wang Z, Qi ST, Liu Y. Recycling of SLC38A1 to the plasma membrane by DSCR3 promotes acquired temozolomide resistance in glioblastoma. J Neurooncol. 2022 Feb 21. doi: 10.1007/s11060-022-03964-2. Epub ahead of print. PMID: 35187626.

3: Cai Y, Liang X, Zhan Z, Zeng Y, Lin J, Xu A, Xue S, Xu W, Chai P, Mao Y, Song Z, Han L, Xiao J, Song Y, Zhang X. A Ferroptosis-Related Gene Prognostic Index to Predict Temozolomide Sensitivity and Immune Checkpoint Inhibitor Response for Glioma. Front Cell Dev Biol. 2022 Jan 31;9:812422. doi: 10.3389/fcell.2021.812422. PMID: 35174170; PMCID: PMC8842730.

4: Booth TC, Grzeda M, Chelliah A, Roman A, Al Busaidi A, Dragos C, Shuaib H, Luis A, Mirchandani A, Alparslan B, Mansoor N, Lavrador J, Vergani F, Ashkan K, Modat M, Ourselin S. Imaging Biomarkers of Glioblastoma Treatment Response: A Systematic Review and Meta-Analysis of Recent Machine Learning Studies. Front Oncol. 2022 Jan 31;12:799662. doi: 10.3389/fonc.2022.799662. PMID: 35174084; PMCID: PMC8842649.

5: Wang J, Quan Y, Lv J, Gong S, Ren P. Inhibition of FAM83D displays antitumor effects in glioblastoma

via down-regulation of the AKT/Wnt/β-catenin pathway. Environ Toxicol. 2022 Feb 12. doi: 10.1002/tox.23488. Epub ahead of print. PMID: 35150198.

6: Lustig SD, Kodali SK, Longo SL, Kundu S, Viapiano MS. Ko143 Reverses MDR in Glioblastoma via Deactivating P-Glycoprotein, Sensitizing a Resistant Phenotype to TMZ Treatment. Anticancer Res. 2022 Feb;42(2):723-730. doi: 10.21873/anticanres.15530. PMID: 35093870.

7: Zanoni M, Sarti AC, Zamagni A, Cortesi M, Pignatta S, Arienti C, Tebaldi M, Sarnelli A, Romeo A, Bartolini D, Tosatto L, Adinolfi E, Tesei A, Di Virgilio F. Irradiation causes senescence, ATP release, and P2X7 receptor isoform switch in glioblastoma. Cell Death Dis. 2022 Jan 24;13(1):80. doi: 10.1038/s41419-022-04526-0. PMID: 35075119; PMCID: PMC8786947.

8: Puca AA, Lopardo V, Montella F, Di Pietro P, Cesselli D, Rolle IG, Bulfoni M, Di Sarno V, Iaconetta G, Campiglia P, Vecchione C, Beltrami AP, Ciaglia E. The Longevity-Associated Variant of BPIFB4 Reduces Senescence in Glioma Cells and in Patients' Lymphocytes Favoring Chemotherapy Efficacy. Cells. 2022 Jan 15;11(2):294. doi: 10.3390/cells11020294. PMID: 35053408; PMCID: PMC8774353.

9: Song S, Ma D, Xu L, Wang Q, Liu L, Tong X, Yan H. Low-intensity pulsed ultrasound-generated singlet oxygen induces telomere damage leading to glioma stem cell awakening from quiescence. iScience. 2021 Dec 2;25(1):103558. doi: 10.1016/j.isci.2021.103558. PMID: 34988401; PMCID: PMC8693467.

10: Dong Q, Wang D, Li L, Wang J, Li Q, Duan L, Yin H, Wang X, Liu Y, Yuan G, Pan Y. Biochanin A Sensitizes Glioblastoma to Temozolomide by Inhibiting Autophagy. Mol Neurobiol. 2022 Feb;59(2):1262-1272. doi: 10.1007/s12035-021-02674-6. Epub 2022 Jan 4. PMID: 34981417.

11: Zhu X, Pan S, Li R, Chen Z, Xie X, Han D, Lv S, Huang Y. Novel Biomarker Genes for Prognosis of Survival and Treatment of Glioma. Front Oncol. 2021 Dec 15;11:667884. doi: 10.3389/fonc.2021.667884. PMID: 34976783; PMCID: PMC8714878.

12: Das L, Gupta N, Dutta P, Walia R, Vaiphei K, Rai A, Radotra BD, Gupta K, Sreedharanunni S, Ahuja CK, Bhansali A, Tripathi M, Sood R, Dhandapani S. Early Initiation of Temozolomide Therapy May Improve Response in Aggressive Pituitary Adenomas. Front Endocrinol (Lausanne). 2021 Dec 17;12:774686. doi: 10.3389/fendo.2021.774686. PMID: 34975752; PMCID: PMC8718901.

13: Xue YY, Lu YY, Sun GQ, Fang F, Ji YQ, Tang HF, Qiu PC, Cheng G. CN-3 increases TMZ sensitivity and induces ROS-dependent apoptosis and autophagy in TMZ-resistance glioblastoma. J Biochem Mol Toxicol. 2021 Dec 29:e22973. doi: 10.1002/jbt.22973. Epub ahead of print. PMID: 34967073.

14: Flor S, Oliva CR, Ali MY, Coleman KL, Greenlee JD, Jones KA, Monga V, Griguer CE. Catalase Overexpression Drives an Aggressive Phenotype in Glioblastoma. Antioxidants (Basel). 2021 Dec 14;10(12):1988. doi: 10.3390/antiox10121988. PMID: 34943091; PMCID: PMC8750785.

15: Ho KH, Shih CM, Liu AJ, Chen KC. Hypoxia-inducible lncRNA MIR210HG interacting with OCT1 is involved in glioblastoma multiforme malignancy. Cancer Sci. 2022 Feb;113(2):540-552. doi: 10.1111/cas.15240. Epub 2021 Dec 23. PMID: 34897892; PMCID: PMC8819343.

16: Xu J, Song J, Xiao M, Wang C, Zhang Q, Yuan X, Tian S. RUNX1 (RUNX family transcription factor 1), a target of microRNA miR-128-3p, promotes temozolomide resistance in glioblastoma multiform by upregulating multidrug resistance- associated protein 1 (MRP1). Bioengineered. 2021 Dec;12(2):11768-11781. doi: 10.1080/21655979.2021.2009976. PMID: 34895074; PMCID: PMC8810036.

17: Gu S, Peng Z, Wu Y, Wang Y, Lei D, Jiang X, Zhao H, Fu P. COL5A1 Serves as a Biomarker of Tumor Progression and Poor Prognosis and May Be a Potential Therapeutic Target in Gliomas. Front Oncol. 2021 Nov 16;11:752694. doi: 10.3389/fonc.2021.752694. PMID: 34868960; PMCID: PMC8635112.

18: Yu Y, Liu Q, Ran Q, Cao F. Overexpression of PPM1B inhibited chemoresistance to temozolomide and proliferation in glioma cells. Cell Biol Int. 2021 Dec 5. doi: 10.1002/cbin.11734. Epub ahead of print. PMID: 34865267.

19: Kim H, Lim KY, Park JW, Kang J, Won JK, Lee K, Shim Y, Park CK, Kim SK, Choi SH, Kim TM, Yun H, Park SH. Sporadic and Lynch syndrome-associated mismatch repair-deficient brain tumors. Lab Invest. 2022 Feb;102(2):160-171. doi: 10.1038/s41374-021-00694-3. Epub 2021 Nov 30. PMID: 34848827; PMCID: PMC8784316.

20: Poon MTC, Bruce M, Simpson JE, Hannan CJ, Brennan PM. Temozolomide sensitivity of malignant glioma cell lines - a systematic review assessing consistencies between in vitro studies. BMC Cancer. 2021 Nov 18;21(1):1240. doi: 10.1186/s12885-021-08972-5. PMID: 34794398; PMCID: PMC8600737.

21: Liu Y, Du Z, Xu Z, Jin T, Xu K, Huang M, Wang S, Zheng Y, Liu M, Xu H. Overexpressed GNA13 induces temozolomide sensitization via down-regulating MGMT and p-RELA in glioma. Am J Transl Res. 2021 Oct 15;13(10):11413-11426. PMID: 34786068; PMCID: PMC8581860.

22: Ishida A, Shichi H, Fukuoka H, Inoshita N, Ogawa W, Yamada S. Efficacy of temozolomide combined with capecitabine (CAPTEM) on refractory prolactinomas as assessed using an ex vivo 3D spheroid assay. Pituitary. 2021 Nov 13. doi: 10.1007/s11102-021-01192-x. Epub ahead of print. PMID: 34773564.

23: Zhou K, Jiang T, Liu Y, Zhao Z, Huang L, Li G. FXYD2 mRNA expression represents a new independent factor that affects survival of glioma patients and predicts chemosensitivity of patients to temozolomide. BMC Neurol. 2021 Nov 9;21(1):438. doi: 10.1186/s12883-021-02476-2. PMID: 34753441; PMCID: PMC8576926.

24: Ding Y, Zhang C, He L, Song X, Zheng C, Pan Y, Yu S. Apcin inhibits the growth and invasion of glioblastoma cells and improves glioma sensitivity to temozolomide. Bioengineered. 2021 Dec;12(2):10791-10798. doi: 10.1080/21655979.2021.2003927. PMID: 34753395; PMCID: PMC8810058.

25: Li X, Zou Z, Ma E, Feng S, Han S. Human Glioma Cells Therapy Using ATRA- Induced Differentiation Method to Promote the Inhibitive Effect of TMZ and CCDP. J Healthc Eng. 2021 Oct 29;2021:6717582. doi: 10.1155/2021/6717582. PMID: 34745507; PMCID: PMC8570852.

26: Liu Y, Bao Q, Chen Z, Yao L, Ci Z, Wei X, Wu Y, Zhu J, Sun K, Zhou G, Li S, Ma W, Tao K. Circumventing Drug Resistance Pathways with a Nanoparticle-Based Photodynamic Method. Nano Lett. 2021 Nov 10;21(21):9115-9123. doi: 10.1021/acs.nanolett.1c02803. Epub 2021 Nov 1. PMID: 34723551.

27: Chernov AN, Alaverdian DA, Glotov OS, Talabaev MV, Urazov SP, Shcherbak SG, Renieri A, Frullanti E, Shamova O. Related expression of TRKA and P75 receptors and the changing copy number of MYC-oncogenes determine the sensitivity of brain tumor cells to the treatment of the nerve growth factor in combination with cisplatin and temozolomide. Drug Metab Pers Ther. 2020 Sep 4;35(4). doi: 10.1515/dmpt-2020-0109. PMID: 34704697.

28: Rosen J, Stoffels G, Lohmann P, Bauer EK, Werner JM, Wollring M, Rapp M, Felsberg J, Kocher M, Fink GR, Langen KJ, Galldiks N. Prognostic value of pre- irradiation FET PET in patients with not

completely resectable IDH-wildtype glioma and minimal or absent contrast enhancement. Sci Rep. 2021 Oct 21;11(1):20828. doi: 10.1038/s41598-021-00193-x. PMID: 34675225; PMCID: PMC8531450.

29: Li Z, Meng X, Wu P, Zha C, Han B, Li L, Sun N, Qi T, Qin J, Zhang Y, Tian K, Li S, Yang C, Ren L, Ming J, Wang P, Song Y, Jiang C, Cai J. Glioblastoma Cell- Derived lncRNA-Containing Exosomes Induce Microglia to Produce Complement C5, Promoting Chemotherapy Resistance. Cancer Immunol Res. 2021 Dec;9(12):1383-1399. doi: 10.1158/2326-6066.CIR-21-0258. Epub 2021 Oct 19. PMID: 34667108.

30: Borsuk R, Zhou L, Chang WI, Zhang Y, Sharma A, Prabhu VV, Tapinos N, Lulla RR, El-Deiry WS. Potent preclinical sensitivity to imipridone-based combination therapies in oncohistone H3K27M-mutant diffuse intrinsic pontine glioma is associated with induction of the integrated stress response, TRAIL death receptor DR5, reduced ClpX and apoptosis. Am J Cancer Res. 2021 Sep 15;11(9):4607-4623. PMID: 34659909; PMCID: PMC8493379.

31: Cheng YY, Yang X, Gao X, Song SX, Yang MF, Xie FM. LGR6 promotes glioblastoma malignancy and chemoresistance by activating the Akt signaling pathway. Exp Ther Med. 2021 Dec;22(6):1364. doi: 10.3892/etm.2021.10798. Epub 2021 Sep 27. PMID: 34659510; PMCID: PMC8515564.

32: Gao K, Wang T, Qiao Y, Cui B. MicroRNA-30e-3p inhibits glioma development and promotes drug sensitivity to temozolomide treatment via targeting canopy FGF signaling regulator 2. Cell Cycle. 2021 Nov;20(22):2361-2371. doi: 10.1080/15384101.2021.1974789. Epub 2021 Oct 17. PMID: 34657557; PMCID: PMC8794499.

33: Chen J, Tong X, Han M, Zhao S, Ji L, Qin Y, He Z, Pan Y, Wang C, Liu A. Cost-Effectiveness of Short-Course Radiation Plus Temozolomide for the Treatment of Newly Diagnosed Glioblastoma Among Elderly Patients in China and the United States. Front Pharmacol. 2021 Sep 27;12:743979. doi: 10.3389/fphar.2021.743979. PMID: 34646141; PMCID: PMC8502816.

34: Li H, Liu S, Jin R, Xu H, Li Y, Chen Y, Zhao G. Pyrvinium pamoate regulates MGMT expression through suppressing the Wnt/β-catenin signaling pathway to enhance the glioblastoma sensitivity to temozolomide. Cell Death Discov. 2021 Oct 12;7(1):288. doi: 10.1038/s41420-021-00654-2. PMID: 34642308; PMCID: PMC8511032.

35: Li F, Chen S, Yu J, Gao Z, Sun Z, Yi Y, Long T, Zhang C, Li Y, Pan Y, Qin C, Long W, Liu Q, Zhao W. Interplay of m^6 A and histone modifications contributes to temozolomide resistance in glioblastoma. Clin Transl Med. 2021 Sep;11(9):e553. doi: 10.1002/ctm2.553. PMID: 34586728; PMCID: PMC8441140.

36: Yang WB, Wu AC, Hsu TI, Liou JP, Lo WL, Chang KY, Chen PY, Kikkawa U, Yang ST, Kao TJ, Chen RM, Chang WC, Ko CY, Chuang JY. Histone deacetylase 6 acts upstream of DNA damage response activation to support the survival of glioblastoma cells. Cell Death Dis. 2021 Sep 28;12(10):884. doi: 10.1038/s41419-021-04182-w. PMID: 34584069; PMCID: PMC8479077.

37: Wang P, Li J, Wu M, Ye M, Huang K, Zhu X. Human Mitochondrial Ribosomal RNA Modification-Based Classification Contributes to Discriminate the Prognosis and Immunotherapy Response of Glioma Patients. Front Immunol. 2021 Sep 9;12:722479. doi: 10.3389/fimmu.2021.722479. PMID: 34566979; PMCID: PMC8458820.

38: Sun P, Fan DJ, Fan T, Li X, Qi XL, Zhao XG, Gai QF. A Prospective Clinical Study on MGMT Protein Expression and the Effect of Gene Promoter Methylation on Sensitivity to Chemotherapeutics in Spinal Glioma. J Inflamm Res. 2021 Sep 18;14:4777-4784. doi: 10.2147/JIR.S321790. PMID: 34566423; PMCID: PMC8458026.

39: Chen XR, Zhang YG, Wang Q. miR-9-5p Mediates ABCC1 to Elevate the Sensitivity of Glioma Cells to Temozolomide. Front Oncol. 2021 Aug 31;11:661653. doi: 10.3389/fonc.2021.661653. PMID: 34532283; PMCID: PMC8438306.

40: Wei QT, Liu BY, Ji HY, Lan YF, Tang WH, Zhou J, Zhong XY, Lian CL, Huang QZ, Wang CY, Xu YM, Guo HB. Exosome-mediated transfer of MIF confers temozolomide resistance by regulating TIMP3/PI3K/AKT axis in gliomas. Mol Ther Oncolytics. 2021 Aug 19;22:114-128. doi: 10.1016/j.omto.2021.08.004. PMID: 34514093; PMCID: PMC8413833.

41: Nguyen N, Redfield J, Ballo M, Michael M, Sorenson J, Dibaba D, Wan J, Ramos GD, Pandey M. Identifying the optimal cutoff point for MGMT promoter methylation status in glioblastoma. CNS Oncol. 2021 Sep 1;10(3):CNS74. doi: 10.2217/cns-2021-0002. Epub 2021 Sep 6. PMID: 34486380; PMCID: PMC8461752.

42: Zhao Z, Liu M, Long W, Yuan J, Li H, Zhang C, Tang G, Jiang W, Yuan X, Wu M, Liu Q. Knockdown lncRNA CRNDE enhances temozolomide chemosensitivity by regulating autophagy in glioblastoma. Cancer Cell Int. 2021 Aug 28;21(1):456. doi: 10.1186/s12935-021-02153-x. PMID: 34454479; PMCID: PMC8399846.

43: Fu T, Yang Y, Mu Z, Sun R, Li X, Dong J. Silencing lncRNA LINC01410 suppresses cell viability yet promotes apoptosis and sensitivity to temozolomide in glioblastoma cells by inactivating PTEN/AKT pathway via targeting miR-370-3p. Immunopharmacol Immunotoxicol. 2021 Dec;43(6):680-692. doi: 10.1080/08923973.2021.1966031. Epub 2021 Aug 26. PMID: 34435542.

44: Shi J, Dong X, Han W, Zhou P, Liu L, Wang H, Jiang Q, Li H, Cheng S, Li S, Yuan J, Qian Z, Dong J. Molecular characteristics of single patient-derived glioma stem-like cells from primary and Glioblastoma recurrence. Anticancer Drugs. 2022 Jan 1;33(1):e381-e388. doi: 10.1097/CAD.0000000000001217. PMID: 34419956; PMCID: PMC8670354.

45: Chen B, He A, Bi J, Sun S, Ma Y, Wang W, Guo D, Chen J, Qian Y, Shi T, Nie G, Zhao Z, Shi J, Yang H, Zhang L, Lu W. Long-range gene regulation network of the MGMT enhancer modulates glioma cell sensitivity to temozolomide. J Genet Genomics. 2021 Oct 20;48(10):946-949. doi: 10.1016/j.jgg.2021.06.015. Epub 2021 Jul 14. PMID: 34417124.

46: Yoo JY, Yeh M, Wang YY, Oh C, Zhao ZM, Kaur B, Lee TJ. MicroRNA-138 Increases Chemo-Sensitivity of Glioblastoma through Downregulation of Survivin. Biomedicines. 2021 Jul 6;9(7):780. doi: 10.3390/biomedicines9070780. PMID: 34356844; PMCID: PMC8301402.

47: Shi J, Chen G, Dong X, Li H, Li S, Cheng S, Li Y, Wang L, Yuan J, Qian Z, Dong J. METTL3 Promotes the Resistance of Glioma to Temozolomide via Increasing MGMT and ANPG in a m^6A Dependent Manner. Front Oncol. 2021 Jul 15;11:702983. doi: 10.3389/fonc.2021.702983. PMID: 34336690; PMCID: PMC8320395.

48: Kurdi M, Butt NS, Baeesa S, Kuerban A, Maghrabi Y, Bardeesi A, Saeedi R, Alghamdi BS, Lary AI, Mohamed F, Hakamy S. Sensitivity Assessment of Wilms Tumor Gene (WT1) Expression in Glioblastoma using qPCR and Immunohistochemistry and its Association with IDH1 Mutation and Recurrence Interval. Biologics. 2021 Jul 24;15:289-297. doi: 10.2147/BTT.S323358. PMID: 34335021; PMCID: PMC8318730.

49: Schönthal AH, Swenson S, Minea RO, Kim HN, Cho H, Mohseni N, Kim YM, Chen TC. Potentially Curative Therapeutic Activity of NEO212, a Perillyl Alcohol- Temozolomide Conjugate, in Preclinical Cytarabine-Resistant Models of Acute Myeloid Leukemia. Cancers (Basel). 2021 Jul 6;13(14):3385. doi:

10.3390/cancers13143385. PMID: 34298603; PMCID: PMC8305595.

50: Wang J, Li T, Wang B. Exosomal transfer of miR-25-3p promotes the proliferation and temozolomide resistance of glioblastoma cells by targeting FBXW7. Int J Oncol. 2021 Aug;59(2):64. doi: 10.3892/ijo.2021.5244. Epub 2021 Jul 19. PMID: 34278448; PMCID: PMC8295027.

51: Wei J, Wang Z, Wang W, Liu X, Wan J, Yuan Y, Li X, Ma L, Liu X. Oxidative Stress Activated by Sorafenib Alters the Temozolomide Sensitivity of Human Glioma Cells Through Autophagy and JAK2/STAT3-AIF Axis. Front Cell Dev Biol. 2021 Jun 14;9:660005. doi: 10.3389/fcell.2021.660005. PMID: 34277607; PMCID: PMC8282178.

52: Fadera S, Chen PY, Liu HL, Lee IC. Induction Therapy of Retinoic Acid with a Temozolomide-Loaded Gold Nanoparticle-Associated Ultrasound Effect on Glioblastoma Cancer Stem-Like Colonies. ACS Appl Mater Interfaces. 2021 Jul 21;13(28):32845-32855. doi: 10.1021/acsami.1c09634. Epub 2021 Jul 8. PMID: 34235925.

53: Gong R, Li ZQ, Fu K, Ma C, Wang W, Chen JC. Long non-coding RNA PVT1 Promotes Stemness and Temozolomide Resistance through miR-365/ELF4/SOX2 Axis in Glioma. Exp Neurobiol. 2021 Jun 30;30(3):244-255. doi: 10.5607/en20060. PMID: 34230224; PMCID: PMC8278140.

54: Waldherr L, Seitanidou M, Jakešová M, Handl V, Honeder S, Nowakowska M, Tomin T, Karami Rad M, Schmidt T, Distl J, Birner-Gruenberger R, von Campe G, Schäfer U, Berggren M, Rinner B, Asslaber M, Ghaffari-Tabrizi-Wizsy N, Patz S, Simon DT, Schindl R. Targeted Chemotherapy of Glioblastoma Spheroids with an Iontronic Pump. Adv Mater Technol. 2021 May;6(5):2001302. doi: 10.1002/admt.202001302. Epub 2021 Apr 12. PMID: 34195355; PMCID: PMC8218220.

55: Tsai HC, Wei KC, Chen PY, Huang CY, Chen KT, Lin YJ, Cheng HW, Huang CH, Wang HT. Receptor-Interacting Protein 140 Enhanced Temozolomide-Induced Cellular Apoptosis Through Regulation of E2F1 in Human Glioma Cell Lines. Neuromolecular Med. 2021 Jun 1. doi: 10.1007/s12017-021-08667-x. Epub ahead of print. Erratum in: Neuromolecular Med. 2021 Aug 6;: PMID: 34075570.

56: Yang TC, Liu SJ, Lo WL, Chen SM, Tang YL, Tseng YY. Enhanced Anti-Tumor Activity in Mice with Temozolomide-Resistant Human Glioblastoma Cell Line- Derived Xenograft Using SN-38-Incorporated Polymeric Microparticle. Int J Mol Sci. 2021 May 24;22(11):5557. doi: 10.3390/ijms22115557. PMID: 34074038; PMCID: PMC8197307.

57: Juric V, Düssmann H, Lamfers MLM, Prehn JHM, Rehm M, Murphy BM. Transcriptional CDK Inhibitors CYC065 and THZ1 Induce Apoptosis in Glioma Stem Cells Derived from Recurrent Glioblastoma. Cells. 2021 May 12;10(5):1182. doi: 10.3390/cells10051182. PMID: 34066147; PMCID: PMC8151379.

58: Yang W, Yuan Q, Zhang S, Zuo M, Li T, Li J, Zhou X, Li M, Feng W, Xia X, Chen M, Liu Y. Elevated GIGYF2 expression suppresses tumor migration and enhances sensitivity to temozolomide in malignant glioma. Cancer Gene Ther. 2021 May 31. doi: 10.1038/s41417-021-00353-1. Epub ahead of print. PMID: 34059782.

59: Lv W, Li Q, Jia B, He Y, Ru Y, Guo Q, Li X, Lin W. Differentiated embryonic chondrocyte-expressed gene 1 promotes temozolomide resistance by modulating the SP1-MGMT axis in glioblastoma. Am J Transl Res. 2021 Apr 15;13(4):2331-2349. PMID: 34017393; PMCID: PMC8129344.

60: Zhai X, Li LS, Zhou YD, Ji WY, Chen H, Xiao H, Liang P. EZH2 regulates the malignancy of human glioblastoma cells via modulation of Twist mRNA stability. Eur J Pharmacol. 2021 Aug 5;904:174177. doi: 10.1016/j.ejphar.2021.174177. Epub 2021 May 17. PMID: 34015321.

61: Ding C, Yi X, Chen X, Wu Z, You H, Chen X, Zhang G, Sun Y, Bu X, Wu X, Lin Z, Gu J, Lin Y, Kang D. Warburg effect-promoted exosomal circ_0072083 releasing up-regulates NANGO expression through multiple pathways and enhances temozolomide resistance in glioma. J Exp Clin Cancer Res. 2021 May 11;40(1):164. doi: 10.1186/s13046-021-01942-6. PMID: 33975615; PMCID: PMC8111743.

62: Gao F, Zhao W, Li M, Ren X, Jiang H, Cui Y, Lin S. Role of circulating tumor cell detection in differentiating tumor recurrence from treatment necrosis of brain gliomas. Biosci Trends. 2021 May 11;15(2):107-117. doi: 10.5582/bst.2021.01017. Epub 2021 Apr 29. PMID: 33952802.

63: Yoon HI, Wee CW, Kim YZ, Seo Y, Im JH, Dho YS, Kim KH, Hong JB, Park JS, Choi SH, Kim MS, Moon J, Hwang K, Park JE, Cho JM, Yoon WS, Kim SH, Kim YI, Kim HS, Sung KS, Song JH, Lee MH, Han MH, Lee SH, Chang JH, Lim DH, Park CK, Lee YS, Gwak HS; KSNO Guideline Working Group. The Korean Society for Neuro-Oncology (KSNO) Guideline for Adult Diffuse Midline Glioma: Version 2021.1. Brain Tumor Res Treat. 2021 Apr;9(1):1-8. doi: 10.14791/btrt.2021.9.e8. PMID: 33913265; PMCID: PMC8082289.

64: Yang K, Wang Z. Rab18 interacted with V-set and immunoglobulin domain- containing 4 (VSIG4) to involve in the apoptosis of glioma and the sensitivity to temozolomide. Bioengineered. 2021 Dec;12(1):1391-1402. doi: 10.1080/21655979.2021.1919012. PMID: 33904378; PMCID: PMC8806276.

65: Lin T, Wang D, Chen J, Zhang Z, Zhao Y, Wu Z, Wang Y. IL-24 inhibits the malignancy of human glioblastoma cells via destabilization of Zeb1. Biol Chem. 2021 Apr 26;402(7):839-848. doi: 10.1515/hsz-2020-0373. PMID: 33894112.

66: He C, Lu S, Wang XZ, Wang CC, Wang L, Liang SP, Luo TF, Wang ZC, Piao MH, Chi GF, Ge PF. FOXO3a protects glioma cells against temozolomide-induced DNA double strand breaks via promotion of BNIP3-mediated mitophagy. Acta Pharmacol Sin. 2021 Aug;42(8):1324-1337. doi: 10.1038/s41401-021-00663-y. Epub 2021 Apr 20. PMID: 33879840; PMCID: PMC8285492.

67: Lee IN, Yang JT, Huang C, Huang HC, Wu YP, Chen JC. Elevated XRCC5 expression level can promote temozolomide resistance and predict poor prognosis in glioblastoma. Oncol Lett. 2021 Jun;21(6):443. doi: 10.3892/ol.2021.12704. Epub 2021 Apr 6. PMID: 33868481; PMCID: PMC8045174.

68: Zhang H, Xu Y, Deng G, Yuan F, Tan Y, Gao L, Sun Q, Qi Y, Yang K, Geng R, Jiang H, Liu B, Chen Q. SAA1 knockdown promotes the apoptosis of glioblastoma cells via downregulation of AKT signaling. J Cancer. 2021 Mar 10;12(9):2756-2767. doi: 10.7150/jca.48419. PMID: 33854635; PMCID: PMC8040715.

69: Frappaz D, Barritault M, Montané L, Laigle-Donadey F, Chinot O, Le Rhun E, Bonneville-Levard A, Hottinger AF, Meyronnet D, Bidaux AS, Garin G, Pérol D. MEVITEM-a phase I/II trial of vismodegib + temozolomide vs temozolomide in patients with recurrent/refractory medulloblastoma with Sonic Hedgehog pathway activation. Neuro Oncol. 2021 Nov 2;23(11):1949-1960. doi: 10.1093/neuonc/noab087. PMID: 33825892; PMCID: PMC8563312.

70: Caylioglu D, Meyer RJ, Hellmold D, Kubelt C, Synowitz M, Held-Feindt J. Effects of the Anti-Tumorigenic Agent AT101 on Human Glioblastoma Cells in the Microenvironmental Glioma Stem Cell Niche. Int J Mol Sci. 2021 Mar 30;22(7):3606. doi: 10.3390/ijms22073606. PMID: 33808494; PMCID: PMC8037174.

71: Tang H, Cheng Y, Huang J, Li J, Zhang B, Wu ZB. Case Report: Temozolomide Treatment of Refractory Prolactinoma Resistant to Dopamine Agonists. Front Endocrinol (Lausanne). 2021 Mar 12;12:616339. doi: 10.3389/fendo.2021.616339. PMID: 33776913; PMCID: PMC7996095.

72: Khan MB, Ruggieri R, Jamil E, Tran NL, Gonzalez C, Mugridge N, Gao S, MacDiarmid J, Brahmbhatt

H, Sarkaria JN, Boockvar J, Symons M. Nanocell-mediated delivery of miR-34a counteracts temozolomide resistance in glioblastoma. Mol Med. 2021 Mar 25;27(1):28. doi: 10.1186/s10020-021-00293-4. PMID: 33765907; PMCID: PMC7993499.

73: Wang P, Zhao L, Gong S, Xiong S, Wang J, Zou D, Pan J, Deng Y, Yan Q, Wu N, Liao B. HIF1α/HIF2α-Sox2/Klf4 promotes the malignant progression of glioblastoma via the EGFR-PI3K/AKT signalling pathway with positive feedback under hypoxia. Cell Death Dis. 2021 Mar 24;12(4):312. doi: 10.1038/s41419-021-03598-8. PMID: 33762574; PMCID: PMC7990922.

74: Zhang B, Xu C, Liu J, Yang J, Gao Q, Ye F. Nidogen-1 expression is associated with overall survival and temozolomide sensitivity in low-grade glioma patients. Aging (Albany NY). 2021 Mar 18;13(6):9085-9107. doi: 10.18632/aging.202789. Epub 2021 Mar 18. PMID: 33735110; PMCID: PMC8034893.

75: McAleenan A, Kelly C, Spiga F, Kernohan A, Cheng HY, Dawson S, Schmidt L, Robinson T, Brandner S, Faulkner CL, Wragg C, Jefferies S, Howell A, Vale L, Higgins JPT, Kurian KM. Prognostic value of test(s) for O6-methylguanine-DNA methyltransferase (MGMT) promoter methylation for predicting overall survival in people with glioblastoma treated with temozolomide. Cochrane Database Syst Rev. 2021 Mar 12;3(3):CD013316. doi: 10.1002/14651858.CD013316.pub2. PMID: 33710615; PMCID: PMC8078495.

76: Cai Y, Gu WT, Cheng K, Jia PF, Li F, Wang M, Zhang WF, Qiu JT, Wu ZB, Zhao WG. Knockdown of TRIM32 inhibits tumor growth and increases the therapeutic sensitivity to temozolomide in glioma in a p53-dependent and -independent manner. Biochem Biophys Res Commun. 2021 Apr 23;550:134-141. doi: 10.1016/j.bbrc.2021.02.098. Epub 2021 Mar 7. PMID: 33691199.

77: Li H, Liu Q, Chen Z, Wu M, Zhang C, Su J, Li Y, Zhang C. Hsa_circ_0110757 upregulates ITGA1 to facilitate temozolomide resistance in glioma by suppressing hsa-miR-1298-5p. Cell Death Dis. 2021 Mar 5;12(3):252. doi: 10.1038/s41419-021-03533-x. PMID: 33674567; PMCID: PMC7935991.

78: Yang ZJ, Zhang LL, Bi QC, Gan LJ, Wei MJ, Hong T, Tan RJ, Lan XM, Liu LH, Han XJ, Jiang LP. Exosomal connexin 43 regulates the resistance of glioma cells to temozolomide. Oncol Rep. 2021 Apr;45(4):44. doi: 10.3892/or.2021.7995. Epub 2021 Mar 2. PMID: 33649836; PMCID: PMC7934218.

79: Zhao M, Shao Y, Xu J, Zhang B, Li C, Gong J. LINC00466 Impacts Cell Proliferation, Metastasis and Sensitivity to Temozolomide of Glioma by Sponging miR-137 to Regulate PPP1R14B Expression. Onco Targets Ther. 2021 Feb 19;14:1147-1159. doi: 10.2147/OTT.S273264. PMID: 33642868; PMCID: PMC7903952.

80: Ge J, Li C, Xue F, Qi S, Gao Z, Yu C, Zhang J. Apatinib Plus Temozolomide: An Effective Salvage Treatment for Glioblastoma recurrence. Front Oncol. 2021 Feb 4;10:601175. doi: 10.3389/fonc.2020.601175. PMID: 33634023; PMCID: PMC7901881.

81: Gramatzki D, Felsberg J, Hentschel B, Wolter M, Schackert G, Westphal M, Regli L, Thon N, Tatagiba M, Wick W, Schlegel U, Krex D, Matschke J, Roth P, Suresh MP, Kamp MA, Rushing EJ, Pietsch T, von Deimling A, Sabel M, Loeffler M, Weller M, Reifenberger G. Telomerase reverse transcriptase promoter mutation- and O^6-methylguanine DNA methyltransferase promoter methylation- mediated sensitivity to temozolomide in isocitrate dehydrogenase-wild-type glioblastoma: is there a link? Eur J Cancer. 2021 Apr;147:84-94. doi: 10.1016/j.ejca.2021.01.014. Epub 2021 Feb 22. PMID: 33631540.

82: Chai R, Li G, Liu Y, Zhang K, Zhao Z, Wu F, Chang Y, Pang B, Li J, Li Y, Jiang T, Wang Y. Predictive value of MGMT promoter methylation on the survival of TMZ treated IDH-mutant

glioblastoma. Cancer Biol Med. 2021 Feb 15;18(1):272-282. doi: 10.20892/j.issn.2095-3941.2020.0179. PMID: 33628600; PMCID: PMC7877176.

83: Shi J, Dong X, Li H, Wang H, Jiang Q, Liu L, Wang L, Dong J. Nicardipine sensitizes temozolomide by inhibiting autophagy and promoting cell apoptosis in glioma stem cells. Aging (Albany NY). 2021 Feb 17;13(5):6820-6831. doi: 10.18632/aging.202539. Epub 2021 Feb 17. PMID: 33621205; PMCID: PMC7993688.

84: Wu J, Wang X, Yuan X, Shan Q, Wang Z, Wu Y, Xie J. Kinesin Family Member C1 Increases Temozolomide Resistance of Glioblastoma Through Promoting DNA Damage Repair. Cell Transplant. 2021 Jan-Dec;30:963689721991466. doi: 10.1177/0963689721991466. PMID: 33588605; PMCID: PMC7894588.

85: Park YW, Choi D, Park JE, Ahn SS, Kim H, Chang JH, Kim SH, Kim HS, Lee SK. Differentiation of Glioblastoma recurrence from radiation necrosis using diffusion radiomics with machine learning model development and external validation. Sci Rep. 2021 Feb 3;11(1):2913. doi: 10.1038/s41598-021-82467-y. PMID: 33536499; PMCID: PMC7858615.

86: Yang Q, Zhou Y, Chen J, Huang N, Wang Z, Cheng Y. Gene Therapy for Drug- Resistant Glioblastoma via Lipid-Polymer Hybrid Nanoparticles Combined with Focused Ultrasound. Int J Nanomedicine. 2021 Jan 8;16:185-199. doi: 10.2147/IJN.S286221. PMID: 33447034; PMCID: PMC7802796.

87: Yuan Q, Yang W, Zhang S, Li T, Zuo M, Zhou X, Li J, Li M, Xia X, Chen M, Liu Y. Inhibition of mitochondrial carrier homolog 2 (MTCH2) suppresses tumor invasion and enhances sensitivity to temozolomide in malignant glioma. Mol Med. 2021 Jan 28;27(1):7. doi: 10.1186/s10020-020-00261-4. PMID: 33509092; PMCID: PMC7842075.

88: Hu YH, Jiao BH, Wang CY, Wu JL. Regulation of temozolomide resistance in glioma cells via the RIP2/NF-κB/MGMT pathway. CNS Neurosci Ther. 2021 May;27(5):552-563. doi: 10.1111/cns.13591. Epub 2021 Jan 18. PMID: 33460245; PMCID: PMC8025621.

89: Hasan MN, Luo L, Ding D, Song S, Bhuiyan MIH, Liu R, Foley LM, Guan X, Kohanbash G, Hitchens TK, Castro MG, Zhang Z, Sun D. Blocking NHE1 stimulates glioma tumor immunity by restoring OXPHOS function of myeloid cells. Theranostics. 2021 Jan 1;11(3):1295-1309. doi: 10.7150/thno.50150. PMID: 33391535; PMCID: PMC7738877.

90: Campolo M, Lanza M, Casili G, Paterniti I, Filippone A, Caffo M, Cardali SM, Puliafito I, Colarossi C, Raciti G, Cuzzocrea S, Esposito E. TAK1 Inhibitor Enhances the Therapeutic Treatment for Glioblastoma. Cancers (Basel). 2020 Dec 25;13(1):41. doi: 10.3390/cancers13010041. PMID: 33375627; PMCID: PMC7794959.

91: Lv QL, Wang LC, Li DC, Lin QX, Shen XL, Liu HY, Li M, Ji YL, Qin CZ, Chen SH. Knockdown lncRNA DLEU1 Inhibits Gliomas Progression and Promotes Temozolomide Chemosensitivity by Regulating Autophagy. Front Pharmacol. 2020 Dec 9;11:560543. doi: 10.3389/fphar.2020.560543. PMID: 33362537; PMCID: PMC7756250.

92: Lohmann P, Elahmadawy MA, Gutsche R, Werner JM, Bauer EK, Ceccon G, Kocher M, Lerche CW, Rapp M, Fink GR, Shah NJ, Langen KJ, Galldiks N. FET PET Radiomics for Differentiating Pseudoprogression from Early Tumor Progression in Glioma Patients Post-Chemoradiation. Cancers (Basel). 2020 Dec 18;12(12):3835. doi: 10.3390/cancers12123835. PMID: 33353180; PMCID: PMC7766151.

93: Witte KE, Slotta C, Lütkemeyer M, Kitke A, Coras R, Simon M, Kaltschmidt C, Kaltschmidt B. PLEKHG5 regulates autophagy, survival and MGMT expression in U251-MG glioblastoma cells. Sci Rep. 2020 Dec 14;10(1):21858. doi: 10.1038/s41598-020-77958-3. PMID: 33318498; PMCID: PMC7736842.

94: Chen SH, Chao CN, Chen SY, Lin HP, Huang HY, Fang CY. Flunarizine, a drug approved for treating migraine and vertigo, exhibits cytotoxicity in Glioblastoma cells. Eur J Pharmacol. 2021 Feb 5;892:173756. doi: 10.1016/j.ejphar.2020.173756. Epub 2020 Nov 25. PMID: 33245897.

95: Zhang Q, Yang L, Guan G, Cheng P, Cheng W, Wu A. LOXL2 Upregulation in Gliomas Drives Tumorigenicity by Activating Autophagy to Promote TMZ Resistance and Trigger EMT. Front Oncol. 2020 Oct 29;10:569584. doi: 10.3389/fonc.2020.569584. PMID: 33194658; PMCID: PMC7658417.

96: Li W, Ma Q, Liu Q, Yan P, Wang X, Jia X. Circ-VPS18 Knockdown Enhances TMZ Sensitivity and Inhibits Glioma Progression by MiR-370/RUNX1 Axis. J Mol Neurosci. 2021 Jun;71(6):1234-1244. doi: 10.1007/s12031-020-01749-8. Epub 2020 Nov 13. PMID: 33188501.

97: Koch MS, Czemmel S, Lennartz F, Beyeler S, Rajaraman S, Przystal JM, Govindarajan P, Canjuga D, Neumann M, Rizzu P, Zwirner S, Hoetker MS, Zender L, Walter B, Tatagiba M, Raineteau O, Heutink P, Nahnsen S, Tabatabai G. Experimental glioma with high bHLH expression harbor increased replicative stress and are sensitive toward ATR inhibition. Neurooncol Adv. 2020 Sep 10;2(1):vdaa115. doi: 10.1093/noajnl/vdaa115. PMID: 33134924; PMCID: PMC7592426.

98: Li C, Feng S, Chen L. MSC-AS1 knockdown inhibits cell growth and temozolomide resistance by regulating miR-373-3p/CPEB4 axis in glioma through PI3K/Akt pathway. Mol Cell Biochem. 2021 Feb;476(2):699-713. doi: 10.1007/s11010-020-03937-x. Epub 2020 Oct 26. PMID: 33106913; PMCID: PMC7873112.

99: Gong A, Ge N, Yao W, Lu L, Liang H. Retraction Note to: Aplysin enhances temozolomide sensitivity in glioma cells by increasing miR-181 level. Cancer Chemother Pharmacol. 2021 May;87(5):721. doi: 10.1007/s00280-020-04166-1. PMID: 33104845.

100: Sun J, Ma Q, Li B, Wang C, Mo L, Zhang X, Tang F, Wang Q, Yan X, Yao X, Wu Q, Shu C, Xiong J, Fan W, Wang J. RPN2 is targeted by miR-181c and mediates glioma progression and temozolomide sensitivity via the wnt/β-catenin signaling pathway. Cell Death Dis. 2020 Oct 22;11(10):890. doi: 10.1038/s41419-020-03113-5. PMID: 33087705; PMCID: PMC7578010.

101: Areeb Z, Stuart SF, West AJ, Gomez J, Nguyen HPT, Paradiso L, Zulkifli A, Jones J, Kaye AH, Morokoff AP, Luwor RB. Reduced EGFR and increased miR-221 is associated with increased resistance to temozolomide and radiotherapy in glioblastoma. Sci Rep. 2020 Oct 20;10(1):17768. doi: 10.1038/s41598-020-74746-x. PMID: 33082482; PMCID: PMC7576591.

102: Lin L, Cai J, Tan Z, Meng X, Li R, Li Y, Jiang C. Mutant IDH1 Enhances Temozolomide Sensitivity via Regulation of the ATM/CHK2 Pathway in Glioma. Cancer Res Treat. 2021 Apr;53(2):367-377. doi: 10.4143/crt.2020.506. Epub 2020 Oct 13. PMID: 33070553; PMCID: PMC8053882.

103: Liang P, Wang G, Liu X, Wang Z, Wang J, Gao W. Spatiotemporal combination of thermosensitive polypeptide fused interferon and temozolomide for post- surgical glioblastoma immunochemotherapy. Biomaterials. 2021 Jan;264:120447. doi: 10.1016/j.biomaterials.2020.120447. Epub 2020 Oct 10. PMID: 33069137.

104: Król SK, Kaczmarczyk A, Wojnicki K, Wojtas B, Gielniewski B, Grajkowska W, Kotulska K, Szczylik C, Czepko R, Banach M, Kaspera W, Szopa W, Marchel A, Czernicki T, Kaminska B. Aberrantly Expressed RECQL4 Helicase Supports Proliferation and Drug Resistance of Human Glioma Cells and

Glioma Stem Cells. Cancers (Basel). 2020 Oct 11;12(10):2919. doi: 10.3390/cancers12102919. PMID: 33050631; PMCID: PMC7650617.

105: Raghavan S, Baskin DS, Sharpe MA. MP-Pt(IV): A MAOB-Sensitive Mitochondrial-Specific Prodrug for Treating Glioblastoma. Mol Cancer Ther. 2020 Dec;19(12):2445-2453. doi: 10.1158/1535-7163.MCT-20-0420. Epub 2020 Oct 8. PMID: 33033175.

106: Zhao YP, Duan WC, Wang YM, Zhang ZY, Liu XZ. [Effect of polyphyllin Ⅱ on the proliferation, invasion and chemosensitivity to temozolomide of glioma cells]. Zhonghua Yi Xue Za Zhi. 2020 Sep 22;100(35):2774-2778. Chinese. doi: 10.3760/cma.j.cn112137-20200502-01399. PMID: 32972059.

107: Wen X, Li S, Guo M, Liao H, Chen Y, Kuang X, Liao X, Ma L, Li Q. miR-181a-5p inhibits the proliferation and invasion of drug-resistant glioblastoma cells by targeting F-box protein 11 expression. Oncol Lett. 2020 Nov;20(5):235. doi: 10.3892/ol.2020.12098. Epub 2020 Sep 14. PMID: 32968457; PMCID: PMC7500031.

108: Fritah S, Muller A, Jiang W, Mitra R, Sarmini M, Dieterle M, Golebiewska A, Ye T, Van Dyck E, Herold-Mende C, Zhao Z, Azuaje F, Niclou SP. Temozolomide- Induced RNA Interactome Uncovers Novel LncRNA Regulatory Loops in Glioblastoma. Cancers (Basel). 2020 Sep 10;12(9):2583. doi: 10.3390/cancers12092583. PMID: 32927769; PMCID: PMC7563839.

109: Wei Y, Lu C, Zhou P, Zhao L, Lyu X, Yin J, Shi Z, You Y. EIF4A3-induced circular RNA ASAP1 promotes tumorigenesis and temozolomide resistance of glioblastoma via NRAS/MEK1/ERK1-2 signaling. Neuro Oncol. 2021 Apr 12;23(4):611-624. doi: 10.1093/neuonc/noaa214. PMID: 32926734; PMCID: PMC8041353.

110: Tu GXE, Ho YK, Ng ZX, Teo KJ, Yeo TT, Too HP. A facile and scalable in production non-viral gene engineered mesenchymal stem cells for effective suppression of temozolomide-resistant (TMZR) glioblastoma growth. Stem Cell Res Ther. 2020 Sep 11;11(1):391. doi: 10.1186/s13287-020-01899-x. PMID: 32917269; PMCID: PMC7488524.

111: Wu C, Su J, Long W, Qin C, Wang X, Xiao K, Li Y, Xiao Q, Wang J, Pan Y, Liu Q. LINC00470 promotes tumour proliferation and invasion, and attenuates chemosensitivity through the LINC00470/miR-134/Myc/ABCC1 axis in glioma. J Cell Mol Med. 2020 Oct;24(20):12094-12106. doi: 10.1111/jcmm.15846. Epub 2020 Sep 11. PMID: 32916774; PMCID: PMC7579701.

112: Li S, Li W, Chen G, Huang J, Li W. MiRNA-27a-3p induces temozolomide resistance in glioma by inhibiting NF1 level. Am J Transl Res. 2020 Aug 15;12(8):4749-4756. PMID: 32913547; PMCID: PMC7476123.

113: Wang W, Han S, Gao W, Feng Y, Li K, Wu D. Long non-coding RNA KCNQ1OT1 Confers Gliomas Resistance to Temozolomide and Enhances Cell Growth by Retrieving PIM1 From miR-761. Cell Mol Neurobiol. 2020 Sep 8. doi: 10.1007/s10571-020-00958-4. Epub ahead of print. PMID: 32897512.

114: Chernov AN, Alaverdian DA, Glotov OS, Talabaev MV, Urazov SP, Shcherbak SG, Renieri A, Frullanti E, Shamova O. Related expression of TRKA and P75 receptors and the changing copy number of MYC-oncogenes determine the sensitivity of brain tumor cells to the treatment of the nerve growth factor in combination with cisplatin and temozolomide. Drug Metab Pers Ther. 2020 Sep 16:/j/dmdi.ahead-of- print/dmdi-2020-0109/dmdi-2020-0109.xml. doi: 10.1515/dmdi-2020-0109. Epub ahead of print. PMID: 32887179.

115: Das A, Alshareef M, Porto GBF, Infinger LK, Vandergrift WA 3rd, Lindhorst SM, Varma AK, Patel SJ, Cachia D. Preconditioning with INC280 and LDK378 drugs sensitizes MGMT-unmethylated

glioblastoma to temozolomide: Pre-clinical assessment. J Neurol Sci. 2020 Nov 15;418:117102. doi: 10.1016/j.jns.2020.117102. Epub 2020 Aug 21. PMID: 32866816.

116: Yin H, Cui X. Knockdown of circHIPK3 Facilitates Temozolomide Sensitivity in Glioma by Regulating Cellular Behaviors Through miR-524-5p/KIF2A-Mediated PI3K/AKT Pathway. Cancer Biother Radiopharm. 2021 Sep;36(7):556-567. doi: 10.1089/cbr.2020.3575. Epub 2020 Aug 21. PMID: 32833501.

117: Chen WJ, Zhang X, Han H, Lv JN, Kang EM, Zhang YL, Liu WP, He XS, Wang J, Wang GH, Yu YB, Zhang W. The different role of YKL-40 in glioblastoma is a function of MGMT promoter methylation status. Cell Death Dis. 2020 Aug 21;11(8):668. doi: 10.1038/s41419-020-02909-9. PMID: 32820151; PMCID: PMC7441403.

118: Nie E, Jin X, Miao F, Yu T, Zhi T, Shi Z, Wang Y, Zhang J, Xie M, You Y. TGF-β1 modulates temozolomide resistance in glioblastoma via altered microRNA processing and elevated MGMT. Neuro Oncol. 2021 Mar 25;23(3):435-446. doi: 10.1093/neuonc/noaa198. PMID: 32813021; PMCID: PMC7992894.

119: Hashii Y, Oka Y, Kagawa N, Hashimoto N, Saitou H, Fukuya S, Kanegae M, Ikejima S, Oji Y, Ozono K, Tsuboi A, Sugiyama H. Encouraging Clinical Evolution of a Pediatric Patient With Relapsed Diffuse Midline Glioma Who Underwent WT1-Targeting Immunotherapy: A Case Report and Literature Review. Front Oncol. 2020 Jul 24;10:1188. doi: 10.3389/fonc.2020.01188. PMID: 32793489; PMCID: PMC7393264.

120: Zhou K, Liu Y, Zhao Z, Wang Y, Huang L, Chai R, Li G, Jiang T. ABCC8 mRNA expression is an independent prognostic factor for glioma and can predict chemosensitivity. Sci Rep. 2020 Jul 29;10(1):12682. doi: 10.1038/s41598-020-69676-7. PMID: 32728190; PMCID: PMC7391768.

121: Das A, Henderson FC Jr, Alshareef M, Porto GBF, Kanginakudru I, Infinger LK, Vandergrift WA 3rd, Lindhorst SM, Varma AK, Patel SJ, Cachia D. MGMT- inhibitor in combination with TGF-βRI inhibitor or CDK 4/6 inhibitor increases temozolomide sensitivity in temozolomide-resistant glioblastoma cells. Clin Transl Oncol. 2021 Mar;23(3):612-619. doi: 10.1007/s12094-020-02456-x. Epub 2020 Jul 25. PMID: 32710211.

122: Gajda E, Godlewska M, Mariak Z, Nazaruk E, Gawel D. Combinatory Treatment with miR-7-5p and Drug-Loaded Cubosomes Effectively Impairs Cancer Cells. Int J Mol Sci. 2020 Jul 17;21(14):5039. doi: 10.3390/ijms21145039. PMID: 32708846; PMCID: PMC7404280.

123: Ding Z, Dong Z, Yang Y, Fortin Ensign SP, Sabit H, Nakada M, Ruggieri R, Kloss JM, Symons M, Tran NL, Loftus JC. Leukemia-Associated Rho Guanine Nucleotide Exchange Factor and Ras Homolog Family Member C Play a Role in Glioblastoma Cell Invasion and Resistance. Am J Pathol. 2020 Oct;190(10):2165-2176. doi: 10.1016/j.ajpath.2020.07.005. Epub 2020 Jul 18. PMID: 32693062; PMCID: PMC7527857.

124: Ding Z, Kloss JM, Tuncali S, Tran NL, Loftus JC. TROY signals through JAK1-STAT3 to promote glioblastoma cell migration and resistance. Neoplasia. 2020 Sep;22(9):352-364. doi: 10.1016/j.neo.2020.06.005. Epub 2020 Jul 3. PMID: 32629176; PMCID: PMC7338993.

125: Berberich A, Bartels F, Tang Z, Knoll M, Pusch S, Hucke N, Kessler T, Dong Z, Wiestler B, Winkler F, Platten M, Wick W, Abdollahi A, Lemke D. LAPTM5-CD40 Crosstalk in Glioblastoma Invasion and Temozolomide Resistance. Front Oncol. 2020 Jun 5;10:747. doi: 10.3389/fonc.2020.00747. PMID: 32582531; PMCID: PMC7289993.

126: Cai HQ, Liu AS, Zhang MJ, Liu HJ, Meng XL, Qian HP, Wan JH. Identifying Predictive Gene Expression and Signature Related to Temozolomide Sensitivity of Glioblastomas. Front Oncol. 2020 May 22;10:669. doi: 10.3389/fonc.2020.00669. PMID: 32528873; PMCID: PMC7258082.

127: Zhao C, Guo R, Guan F, Ma S, Li M, Wu J, Liu X, Li H, Yang B. MicroRNA-128-3p Enhances the Chemosensitivity of Temozolomide in Glioblastoma by Targeting c-Met and EMT. Sci Rep. 2020 Jun 11;10(1):9471. doi: 10.1038/s41598-020-65331-3. PMID: 32528036; PMCID: PMC7289811.

128: Zhang F, Liu R, Liu C, Zhang H, Lu Y. Nanos3, a cancer-germline gene, promotes cell proliferation, migration, chemoresistance, and invasion of human glioblastoma. Cancer Cell Int. 2020 May 26;20:197. doi: 10.1186/s12935-020-01272-1. PMID: 32508533; PMCID: PMC7249350.

129: Shi H, Sun S, Xu H, Zhao Z, Han Z, Jia J, Wu D, Lu J, Liu H, Yu R. Combined Delivery of Temozolomide and siPLK1 Using Targeted Nanoparticles to Enhance Temozolomide Sensitivity in Glioma. Int J Nanomedicine. 2020 May 12;15:3347-3362. doi: 10.2147/IJN.S243878. PMID: 32494134; PMCID: PMC7229804.

130: Saha D, Rabkin SD, Martuza RL. Temozolomide antagonizes oncolytic immunovirotherapy in glioblastoma. J Immunother Cancer. 2020 May;8(1):e000345. doi: 10.1136/jitc-2019-000345. PMID: 32457126; PMCID: PMC7252967.

131: Liu B, Zhou J, Wang C, Chi Y, Wei Q, Fu Z, Lian C, Huang Q, Liao C, Yang Z, Zeng H, Xu N, Guo H. LncRNA SOX2OT promotes temozolomide resistance by elevating SOX2 expression via ALKBH5-mediated epigenetic regulation in glioblastoma. Cell Death Dis. 2020 May 21;11(5):384. doi: 10.1038/s41419-020-2540-y. PMID: 32439916; PMCID: PMC7242335.

132: Wang J, Yang S, Ji Q, Li Q, Zhou F, Li Y, Yuan F, Liu J, Tian Y, Zhao Y, Zheng Y. Long Non-coding RNA EPIC1 Promotes Cell Proliferation and Motility and Drug Resistance in Glioma. Mol Ther Oncolytics. 2020 Mar 30;17:130-137. doi: 10.1016/j.omto.2020.03.011. PMID: 32322669; PMCID: PMC7163045.

133: Touat M, Li YY, Boynton AN, Spurr LF, Iorgulescu JB, Bohrson CL, Cortes- Ciriano I, Birzu C, Geduldig JE, Pelton K, Lim-Fat MJ, Pal S, Ferrer-Luna R, Ramkissoon SH, Dubois F, Bellamy C, Currimjee N, Bonardi J, Qian K, Ho P, Malinowski S, Taquet L, Jones RE, Shetty A, Chow KH, Sharaf R, Pavlick D, Albacker LA, Younan N, Baldini C, Verreault M, Giry M, Guillerm E, Ammari S, Beuvon F, Mokhtari K, Alentorn A, Dehais C, Houillier C, Laigle-Donadey F, Psimaras D, Lee EQ, Nayak L, McFaline-Figueroa JR, Carpentier A, Cornu P, Capelle L, Mathon B, Barnholtz-Sloan JS, Chakravarti A, Bi WL, Chiocca EA, Fehnel KP, Alexandrescu S, Chi SN, Haas-Kogan D, Batchelor TT, Frampton GM, Alexander BM, Huang RY, Ligon AH, Coulet F, Delattre JY, Hoang-Xuan K, Meredith DM, Santagata S, Duval A, Sanson M, Cherniack AD, Wen PY, Reardon DA, Marabelle A, Park PJ, Idbaih A, Beroukhim R, Bandopadhayay P, Bielle F, Ligon KL. Mechanisms and therapeutic implications of hypermutation in gliomas. Nature. 2020 Apr;580(7804):517-523. doi: 10.1038/s41586-020-2209-9. Epub 2020 Apr 15. PMID: 32322066; PMCID: PMC8235024.

134: Fabre MS, Stanton NM, Slatter TL, Lee S, Senanayake D, Gordon RMA, Castro ML, Rowe MR, Taha A, Royds JA, Hung N, Melnick AM, McConnell MJ. The oncogene BCL6 is up-regulated in glioblastoma in response to DNA damage, and drives survival after therapy. PLoS One. 2020 Apr 22;15(4):e0231470. doi: 10.1371/journal.pone.0231470. PMID: 32320427; PMCID: PMC7176076.

135: Fontanilles M, Marguet F, Ruminy P, Basset C, Noel A, Beaussire L, Viennot M, Viailly PJ, Cassinari K, Chambon P, Richard D, Alexandru C, Tennevet I, Langlois O, Di Fiore F, Laquerrière A, Clatot F, Sarafan-Vasseur N. Simultaneous detection of EGFR amplification and EGFRvIII variant using digital

PCR-based method in glioblastoma. Acta Neuropathol Commun. 2020 Apr 17;8(1):52. doi: 10.1186/s40478-020-00917-6. PMID: 32303258; PMCID: PMC7165387.

136: Zhang J, Chen G, Gao Y, Liang H. HOTAIR/miR-125 axis-mediated Hexokinase 2 expression promotes chemoresistance in human glioblastoma. J Cell Mol Med. 2020 May;24(10):5707-5717. doi: 10.1111/jcmm.15233. Epub 2020 Apr 12. PMID: 32279420; PMCID: PMC7214183.

137: Cao Y, Li X, Kong S, Shang S, Qi Y. CDK4/6 inhibition suppresses tumour growth and enhances the effect of temozolomide in glioma cells. J Cell Mol Med. 2020 May;24(9):5135-5145. doi: 10.1111/jcmm.15156. Epub 2020 Apr 11. PMID: 32277580; PMCID: PMC7205809.

138: Xu JX, Yang Y, Zhang X, Luan XP. Micro-RNA29b enhances the sensitivity of glioblastoma multiforme cells to temozolomide by promoting autophagy. Anat Rec (Hoboken). 2021 Feb;304(2):342-352. doi: 10.1002/ar.24400. Epub 2020 Apr 23. PMID: 32275350.

139: Hönikl LS, Lämmer F, Gempt J, Meyer B, Schlegel J, Delbridge C. High expression of estrogen receptor alpha and aromatase in glial tumor cells is associated with gender-independent survival benefits in glioblastoma patients. J Neurooncol. 2020 May;147(3):567-575. doi: 10.1007/s11060-020-03467-y. Epub 2020 Apr 2. PMID: 32240464; PMCID: PMC7256026.

140: Wu GJ, Yang ST, Chen RM. Major Contribution of Caspase-9 to Honokiol- Induced Apoptotic Insults to Human Drug-Resistant Glioblastoma Cells. Molecules. 2020 Mar 23;25(6):1450. doi: 10.3390/molecules25061450. PMID: 32210117; PMCID: PMC7145301.

141: Ding C, Yi X, Wu X, Bu X, Wang D, Wu Z, Zhang G, Gu J, Kang D. Exosome- mediated transfer of circRNA CircNFIX enhances temozolomide resistance in glioma. Cancer Lett. 2020 Jun 1;479:1-12. doi: 10.1016/j.canlet.2020.03.002. Epub 2020 Mar 16. PMID: 32194140.

142: Kong S, Cao Y, Li X, Li Z, Xin Y, Meng Y. MiR-3116 sensitizes glioma cells to temozolomide by targeting FGFR1 and regulating the FGFR1/PI3K/AKT pathway. J Cell Mol Med. 2020 Apr;24(8):4677-4686. doi: 10.1111/jcmm.15133. Epub 2020 Mar 17. PMID: 32181582; PMCID: PMC7176860.

143: Wu J, Su HK, Yu ZH, Xi SY, Guo CC, Hu ZY, Qu Y, Cai HP, Zhao YY, Zhao HF, Chen FR, Huang YF, To ST, Feng BH, Sai K, Chen ZP, Wang J. Skp2 modulates proliferation, senescence and tumorigenesis of glioma. Cancer Cell Int. 2020 Mar 6;20:71. doi: 10.1186/s12935-020-1144-z. PMID: 32165861; PMCID: PMC7059397.

144: Li T, Yang W, Li M, Zhang S, Zhou X, Zuo M, Yuan Q, Chen M, Liu Y. Engrailed 2 (EN2) acts as a glioma suppressor by inhibiting tumor proliferation/invasion and enhancing sensitivity to temozolomide. Cancer Cell Int. 2020 Mar 2;20:65. doi: 10.1186/s12935-020-1145-y. PMID: 32158355; PMCID: PMC7053055.

145: Kong S, Fang Y, Wang B, Cao Y, He R, Zhao Z. miR-152-5p suppresses glioma progression and tumorigenesis and potentiates temozolomide sensitivity by targeting FBXL7. J Cell Mol Med. 2020 Apr;24(8):4569-4579. doi: 10.1111/jcmm.15114. Epub 2020 Mar 9. PMID: 32150671; PMCID: PMC7176889.

146: Xu JX, Yang Y, Zhang X, Luan XP. MicroRNA-29b promotes cell sensitivity to Temozolomide by targeting STAT3 in glioma. Eur Rev Med Pharmacol Sci. 2020 Feb;24(4):1922-1931. doi: 10.26355/eurrev_202002_20370. PMID: 32141561.

147: Ding J, Zhang L, Chen S, Cao H, Xu C, Wang X. lncRNA CCAT2 Enhanced Resistance of Glioma

Cells Against Chemodrugs by Disturbing the Normal Function of miR-424. Onco Targets Ther. 2020 Feb 17;13:1431-1445. doi: 10.2147/OTT.S227831. PMID: 32110042; PMCID: PMC7034969.

148: Zhu C, Chen X, Guan G, Zou C, Guo Q, Cheng P, Cheng W, Wu A. IFI30 Is a Novel Immune-Related Target with Predicting Value of Prognosis and Treatment Response in Glioblastoma. Onco Targets Ther. 2020 Feb 5;13:1129-1143. doi: 10.2147/OTT.S237162. PMID: 32103982; PMCID: PMC7008640.

149: Cai L, Li Q, Li W, Wang C, Tu M, Zhu Z, Su Z, Lu X. Calpain suppresses cell growth and invasion of glioblastoma multiforme by producing the cleavage of filamin A. Int J Clin Oncol. 2020 Jun;25(6):1055-1066. doi: 10.1007/s10147-020-01636-7. Epub 2020 Feb 27. PMID: 32103382.

150: Kim EL, Sorokin M, Kantelhardt SR, Kalasauskas D, Sprang B, Fauss J, Ringel F, Garazha A, Albert E, Gaifullin N, Hartmann C, Naumann N, Bikar SE, Giese A, Buzdin A. Intratumoral Heterogeneity and Longitudinal Changes in Gene Expression Predict Differential Drug Sensitivity in Newly Diagnosed and Recurrent Glioblastoma. Cancers (Basel). 2020 Feb 24;12(2):520. doi: 10.3390/cancers12020520. PMID: 32102350; PMCID: PMC7072286.

151: Asif M, Usman M, Ayub S, Farhat S, Huma Z, Ahmed J, Kamal MA, Hussein D, Javed A, Khan I. Role of ATP-Binding Cassette Transporter Proteins in CNS Tumors: Resistance- Based Perspectives and Clinical Updates. Curr Pharm Des. 2020;26(37):4747-4763. doi: 10.2174/1381612826666200224112141. PMID: 32091329.

152: Wu W, Wu Y, Mayer K, von Rosenstiel C, Schecker J, Baur S, Würstle S, Liesche-Starnecker F, Gempt J, Schlegel J. Lipid Peroxidation Plays an Important Role in Chemotherapeutic Effects of Temozolomide and the Development of Therapy Resistance in Human Glioblastoma. Transl Oncol. 2020 Mar;13(3):100748. doi: 10.1016/j.tranon.2020.100748. Epub 2020 Feb 19. PMID: 32087559; PMCID: PMC7033364.

153: Wu H, Li X, Zhang T, Zhang G, Chen J, Chen L, He M, Hao B, Wang C. Overexpression miR-486-3p Promoted by Allicin Enhances Temozolomide Sensitivity in Glioblastoma Via Targeting MGMT. Neuromolecular Med. 2020 Sep;22(3):359-369. doi: 10.1007/s12017-020-08592-5. Epub 2020 Feb 21. PMID: 32086739; PMCID: PMC7417398.

154: Pareira ES, Kitano Y, Ohara K, Kanazawa T, Nakagawa Y, Yoshida K, Sasaki H. Immunohistochemistry for O^6-methylguanin-DNA methyltransferase in glioblastomas defined by WHO2016: Correlation with promoter methylation status and patients' progression-free survival with the cut-off value determined by ROC analysis. J Clin Neurosci. 2020 Mar;73:231-236. doi: 10.1016/j.jocn.2020.01.088. Epub 2020 Feb 16. PMID: 32070670.

155: Struve N, Binder ZA, Stead LF, Brend T, Bagley SJ, Faulkner C, Ott L, Müller-Goebel J, Weik AS, Hoffer K, Krug L, Rieckmann T, Bußmann L, Henze M, Morrissette JJD, Kurian KM, Schüller U, Petersen C, Rothkamm K, O Rourke DM, Short SC, Kriegs M. EGFRvIII upregulates DNA mismatch repair resulting in increased temozolomide sensitivity of MGMT promoter methylated glioblastoma. Oncogene. 2020 Apr;39(15):3041-3055. doi: 10.1038/s41388-020-1208-5. Epub 2020 Feb 17. PMID: 32066879; PMCID: PMC7142016.

156: Ning J, Wakimoto H. Therapeutic Application of PARP Inhibitors in Neuro- Oncology. Trends Cancer. 2020 Feb;6(2):147-159. doi: 10.1016/j.trecan.2019.12.004. Epub 2020 Jan 13. PMID: 32061304.

157: Lu C, Wei Y, Wang X, Zhang Z, Yin J, Li W, Chen L, Lyu X, Shi Z, Yan W, You Y. DNA-methylation-

mediated activating of lncRNA SNHG12 promotes temozolomide resistance in glioblastoma. Mol Cancer. 2020 Feb 10;19(1):28. doi: 10.1186/s12943-020-1137-5. PMID: 32039732; PMCID: PMC7011291.

158: Abe H, Natsumeda M, Okada M, Watanabe J, Tsukamoto Y, Kanemaru Y, Yoshimura J, Oishi M, Hashizume R, Kakita A, Fujii Y. MGMT Expression Contributes to Temozolomide Resistance in H3K27M-Mutant Diffuse Midline Gliomas. Front Oncol. 2020 Jan 21;9:1568. doi: 10.3389/fonc.2019.01568. PMID: 32039031; PMCID: PMC6985080.

159: Lin L, Li Y, Liu M, Li Q, Liu Q, Li R. The Interleukin-33/ST2 axis promotes glioma mesenchymal transition, stemness and TMZ resistance via JNK activation. Aging (Albany NY). 2020 Jan 29;12(2):1685-1703. doi: 10.18632/aging.102707. Epub 2020 Jan 29. PMID: 32003751; PMCID: PMC7053587.

160: Meng X, Zhao Y, Han B, Zha C, Zhang Y, Li Z, Wu P, Qi T, Jiang C, Liu Y, Cai J. Dual functionalized brain-targeting nanoinhibitors restrain temozolomide- resistant glioma via attenuating EGFR and MET signaling pathways. Nat Commun. 2020 Jan 30;11(1):594. doi: 10.1038/s41467-019-14036-x. PMID: 32001707; PMCID: PMC6992617.

161: Jiang H, Liu B, Deng G, Yuan F, Tan Y, Yang K, Gao L, Wang J, Chen Q. Short-term outcomes and predictors of post-surgical seizures in patients with supratentorial low-grade gliomas. J Clin Neurosci. 2020 Feb;72:163-168. doi: 10.1016/j.jocn.2019.12.034. Epub 2020 Jan 11. PMID: 31937499.

162: Higuchi F, Nagashima H, Ning J, Koerner MVA, Wakimoto H, Cahill DP. Restoration of Temozolomide Sensitivity by PARP Inhibitors in Mismatch Repair Deficient Glioblastoma is Independent of Base Excision Repair. Clin Cancer Res. 2020 Apr 1;26(7):1690-1699. doi: 10.1158/1078-0432.CCR-19-2000. Epub 2020 Jan 3. PMID: 31900275; PMCID: PMC7192178.

163: Liu X, Chen J, Li W, Hang C, Dai Y. Inhibition of Casein Kinase II by CX-4945, But Not Yes-associated protein (YAP) by Verteporfin, Enhances the Antitumor Efficacy of Temozolomide in Glioblastoma. Transl Oncol. 2020 Jan;13(1):70-78. doi: 10.1016/j.tranon.2019.09.006. Epub 2019 Dec 3. PMID: 31810002; PMCID: PMC6909086.

164: Wang K, Huang R, Wu C, Li G, Zhao Z, Hu H, Liu Y. Receptor tyrosine kinase expression in high-grade gliomas before and after chemoradiotherapy. Oncol Lett. 2019 Dec;18(6):6509-6515. doi: 10.3892/ol.2019.11017. Epub 2019 Oct 29. PMID: 31807171; PMCID: PMC6876328.

165: Li Q, Ru Y, Wang Q, Lyu W, Hu W, Fei Z, Li X, Lin W. [RAD51 promotes proliferation and migration of glioblastoma cells and decreases sensitivity of cells to temozolomide]. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi. 2019 Sep;35(9):817-822. Chinese. PMID: 31750824.

166: Lan YL, Chen C, Wang X, Lou JC, Xing JS, Zou S, Hu JL, Lyu W, Zhang B. Gamabufotalin induces a negative feedback loop connecting ATP1A3 expression and the AQP4 pathway to promote temozolomide sensitivity in glioblastoma cells by targeting the amino acid Thr794. Cell Prolif. 2020 Jan;53(1):e12732. doi: 10.1111/cpr.12732. Epub 2019 Nov 20. PMID: 31746080; PMCID: PMC6985666.

167: Xu CH, Xiao LM, Zeng EM, Chen LK, Zheng SY, Li DH, Liu Y. MicroRNA-181 inhibits the proliferation, drug sensitivity and invasion of human glioma cells by targeting Selenoprotein K (SELK). Am J Transl Res. 2019 Oct 15;11(10):6632-6640. Erratum in: Am J Transl Res. 2021 Aug 15;13(8):9914-9917. PMID: 31737213; PMCID: PMC6834513.

168: Wang WL, Aru N, Liu Z, Shen X, Ding YM, Wu SJ, Qin HH, Jin WY. Prognosis of patients with newly diagnosed glioblastoma treated with molecularly targeted drugs combined with radiotherapy vs

temozolomide monotherapy: A meta-analysis. Medicine (Baltimore). 2019 Nov;98(45):e17759. doi: 10.1097/MD.0000000000017759. PMID: 31702627; PMCID: PMC6855632.

169: Kim YZ, Kim CY, Wee CW, Roh TH, Hong JB, Oh HJ, Kang SG, Kang SH, Kong DS, Kim SH, Kim SH, Kim SH, Kim YJ, Kim EH, Kim IA, Kim HS, Park JS, Park HJ, Song SW, Sung KS, Yang SH, Yoon WS, Yoon HI, Lee J, Lee ST, Lee SW, Lee YS, Lim J, Chang JH, Jung TY, Jung HL, Cho JH, Choi SH, Choi HS, Lim DH, Chung DS; KSNO Guideline Working Group. The Korean Society for Neuro-Oncology (KSNO) Guideline for WHO Grade II Cerebral Gliomas in Adults: Version 2019.01. Brain Tumor Res Treat. 2019 Oct;7(2):74-84. doi: 10.14791/btrt.2019.7.e43. PMID: 31686437; PMCID: PMC6829081.

170: Kim YZ, Kim CY, Lim J, Sung KS, Lee J, Oh HJ, Kang SG, Kang SH, Kong DS, Kim SH, Kim SH, Kim SH, Kim YJ, Kim EH, Kim IA, Kim HS, Roh TH, Park JS, Park HJ, Song SW, Yang SH, Yoon WS, Yoon HI, Lee ST, Lee SW, Lee YS, Wee CW, Chang JH, Jung TY, Jung HL, Cho JH, Choi SH, Choi HS, Hong JB, Lim DH, Chung DS; KSNO Guideline Working Group. The Korean Society for Neuro-Oncology (KSNO) Guideline for WHO Grade III Cerebral Gliomas in Adults: Version 2019.01. Brain Tumor Res Treat. 2019 Oct;7(2):63-73. doi: 10.14791/btrt.2019.7.e42. PMID: 31686436; PMCID: PMC6829084.

171: Kim HY, Lee BI, Jeon JH, Kim DK, Kang SG, Shim JK, Kim SY, Kang SW, Jang H. Gossypol Suppresses Growth of Temozolomide-Resistant Glioblastoma Tumor Spheres. Biomolecules. 2019 Oct 10;9(10):595. doi: 10.3390/biom9100595. PMID: 31658771; PMCID: PMC6843396.

172: Chai RC, Chang YZ, Wang QW, Zhang KN, Li JJ, Huang H, Wu F, Liu YQ, Wang YZ. A Novel DNA Methylation-Based Signature Can Predict the Responses of MGMT Promoter Unmethylated Glioblastomas to Temozolomide. Front Genet. 2019 Sep 27;10:910. doi: 10.3389/fgene.2019.00910. PMID: 31611911; PMCID: PMC6776832.

173: Fu W, You C, Ma L, Li H, Ju Y, Guo X, Shi S, Zhang T, Zhou R, Lin Y. Enhanced Efficacy of Temozolomide Loaded by a Tetrahedral Framework DNA Nanoparticle in the Therapy for Glioblastoma. ACS Appl Mater Interfaces. 2019 Oct 30;11(43):39525-39533. doi: 10.1021/acsami.9b13829. Epub 2019 Oct 21. PMID: 31601097.

174: Alexandru O, Sevastre AS, Castro J, Artene SA, Tache DE, Purcaru OS, Sfredel V, Tataranu LG, Dricu A. Platelet-Derived Growth Factor Receptor and Ionizing Radiation in High-grade glioma Cell Lines. Int J Mol Sci. 2019 Sep 20;20(19):4663. doi: 10.3390/ijms20194663. PMID: 31547056; PMCID: PMC6802357.

175: Sharifi Z, Abdulkarim B, Meehan B, Rak J, Daniel P, Schmitt J, Lauzon N, Eppert K, Duncan HM, Petrecca K, Guiot MC, Jean-Claude B, Sabri S. Mechanisms and Antitumor Activity of a Binary EGFR/DNA-Targeting Strategy Overcomes Resistance of Glioblastoma Stem Cells to Temozolomide. Clin Cancer Res. 2019 Dec 15;25(24):7594-7608. doi: 10.1158/1078-0432.CCR-19-0955. Epub 2019 Sep 20. PMID: 31540977.

176: Skarkova V, Krupova M, Vitovcova B, Skarka A, Kasparova P, Krupa P, Kralova V, Rudolf E. The Evaluation of Glioblastoma Cell Dissociation and Its Influence on Its Behavior. Int J Mol Sci. 2019 Sep 18;20(18):4630. doi: 10.3390/ijms20184630. PMID: 31540507; PMCID: PMC6770747.

177: Song Y, Zhang L, Jiang Y, Hu T, Zhang D, Qiao Q, Wang R, Wang M, Han S. MTBP regulates cell survival and therapeutic sensitivity in TP53 wildtype glioblastomas. Theranostics. 2019 Aug 14;9(20):6019-6030. doi: 10.7150/thno.35747. PMID: 31534534; PMCID: PMC6735364.

178: Huang W, Zhong Z, Luo C, Xiao Y, Li L, Zhang X, Yang L, Xiao K, Ning Y, Chen L, Liu Q, Hu X, Zhang J, Ding X, Xiang S. The miR-26a/AP-2α/Nanog signaling axis mediates stem cell self-renewal and temozolomide resistance in glioma. Theranostics. 2019 Jul 28;9(19):5497-5516. doi:

10.7150/thno.33800. PMID: 31534499; PMCID: PMC6735392.

179: Shan X, Wang K, Tong X, Wang Z, Wu F, Liu X, Yang P, Wang J. High expression of VAT1 is a prognostic biomarker and predicts malignancy in glioblastoma. Oncol Rep. 2019 Oct;42(4):1422-1430. doi: 10.3892/or.2019.7276. Epub 2019 Aug 12. PMID: 31524269.

180: Klekner A, Tóth J, Virga J, Hortobágyi T, Dér Á, Szemcsák C, Reményi-Puskár J, Bognár L. Influence of Oncotherapy and Clinical Parameters on Survival of Glioblastoma Patients: A Single Center Experience. Neurol India. 2019 Jul- Aug;67(4):1066-1073. doi: 10.4103/0028-3886.266257. PMID: 31512637.

181: Zhang C, Martinez-Ledesma E, Gao F, Zhang W, Ding J, Wu S, Li X, Wu J, Yuan Y, Koul D, Alfred Yung WK. Wild-type TP53 defined gamma-secretase inhibitor sensitivity and synergistic activity with doxorubicin in GSCs. Am J Cancer Res. 2019 Aug 1;9(8):1734-1745. PMID: 31497354; PMCID: PMC6726980.

182: Liang Q, Li X, Guan G, Xu X, Chen C, Cheng P, Cheng W, Wu A. Long non- coding RNA, HOTAIRM1, promotes glioma malignancy by forming a ceRNA network. Aging (Albany NY). 2019 Sep 2;11(17):6805-6838. doi: 10.18632/aging.102205. Epub 2019 Sep 2. PMID: 31477638; PMCID: PMC6756894.

183: Petrova L, Korfiatis P, Petr O, LaChance DH, Parney I, Buckner JC, Erickson BJ. Cerebral blood volume and apparent diffusion coefficient - Valuable predictors of non-response to bevacizumab treatment in patients with recurrent glioblastoma. J Neurol Sci. 2019 Oct 15;405:116433. doi: 10.1016/j.jns.2019.116433. Epub 2019 Aug 23. PMID: 31476621.

184: Li Z, Zhang J, Zheng H, Li C, Xiong J, Wang W, Bao H, Jin H, Liang P. Modulating lncRNA SNHG15/CDK6/miR-627 circuit by palbociclib, overcomes temozolomide resistance and reduces M2-polarization of glioma associated microglia in glioblastoma multiforme. J Exp Clin Cancer Res. 2019 Aug 28;38(1):380. doi: 10.1186/s13046-019-1371-0. PMID: 31462285; PMCID: PMC6714301.

185: Zhang J, Zhu ZQ, Li YX, Zhuang QF, Lai Y, Li SF, Xu XB, Liu JM. Tim-3 expression in glioma cells is associated with drug resistance. J Cancer Res Ther. 2019;15(4):882-888. doi: 10.4103/jcrt.JCRT_630_18. PMID: 31436247.

186: Nitta RT, Bolin S, Luo E, Solow-Codero DE, Samghabadi P, Purzner T, Aujla PS, Nwagbo G, Cho YJ, Li G. Casein kinase 2 inhibition sensitizes medulloblastoma to temozolomide. Oncogene. 2019 Oct;38(42):6867-6879. doi: 10.1038/s41388-019-0927-y. Epub 2019 Aug 12. Erratum in: Oncogene. 2019 Oct 28;: PMID: 31406250; PMCID: PMC6800621.

187: Ho KH, Cheng CH, Chou CM, Chen PH, Liu AJ, Lin CW, Shih CM, Chen KC. miR-140 targeting CTSB signaling suppresses the mesenchymal transition and enhances temozolomide cytotoxicity in glioblastoma multiforme. Pharmacol Res. 2019 Sep;147:104390. doi: 10.1016/j.phrs.2019.104390. Epub 2019 Aug 6. PMID: 31398406.

188: Howarth A, Simms C, Kerai N, Allen O, Mihajluk K, Madureira PA, Sokratous G, Cragg S, Lee SY, Morley AD, Ashkan K, Cox PA, Pilkington GJ, Hill R. DIVERSet JAG Compounds Inhibit Topoisomerase II and Are Effective Against Adult and Pediatric High-Grade Gliomas. Transl Oncol. 2019 Oct;12(10):1375-1385. doi: 10.1016/j.tranon.2019.07.007. Epub 2019 Jul 30. PMID: 31374406; PMCID: PMC6669375.

189: Chen JC, Lee IN, Huang C, Wu YP, Chung CY, Lee MH, Lin MH, Yang JT. Valproic acid-induced amphiregulin secretion confers resistance to temozolomide treatment in human glioma cells. BMC

Cancer. 2019 Aug 1;19(1):756. doi: 10.1186/s12885-019-5843-6. PMID: 31370819; PMCID: PMC6670223.

190: Chanson P, Maiter D. The epidemiology, diagnosis and treatment of Prolactinomas: The old and the new. Best Pract Res Clin Endocrinol Metab. 2019 Apr;33(2):101290. doi: 10.1016/j.beem.2019.101290. Epub 2019 Jul 10. PMID: 31326373.

191: Wen ZP, Zeng WJ, Chen YH, Li H, Wang JY, Cheng Q, Yu J, Zhou HH, Liu ZZ, Xiao J, Chen XP. Knockdown ATG4C inhibits gliomas progression and promotes temozolomide chemosensitivity by suppressing autophagic flux. J Exp Clin Cancer Res. 2019 Jul 10;38(1):298. doi: 10.1186/s13046-019-1287-8. PMID: 31291988; PMCID: PMC6617611.

192: Chen H, Lin R, Zhang Z, Wei Q, Zhong Z, Huang J, Xu Y. Sirtuin 1 knockdown inhibits glioma cell proliferation and potentiates temozolomide toxicity via facilitation of reactive oxygen species generation. Oncol Lett. 2019 Jun;17(6):5343-5350. doi: 10.3892/ol.2019.10235. Epub 2019 Apr 9. PMID: 31186751; PMCID: PMC6507466.

193: Li Q, Chang Y, Mu L, Song Y. MicroRNA-9 enhances chemotherapy sensitivity of glioma to TMZ by suppressing TOPO II via the NF-κB signaling pathway. Oncol Lett. 2019 Jun;17(6):4819-4826. doi: 10.3892/ol.2019.10158. Epub 2019 Mar 18. PMID: 31186688; PMCID: PMC6507329.

194: Natsume A, Hirano M, Ranjit M, Aoki K, Wakabayashi T. Aberrant Transcriptional Regulation of Super-enhancers by RET Finger Protein-histone Deacetylase 1 Complex in Glioblastoma: Chemoresistance to Temozolomide. Neurol Med Chir (Tokyo). 2019 Aug 15;59(8):293-298. doi: 10.2176/nmc.ra.2019-0049. Epub 2019 Jun 7. PMID: 31178471; PMCID: PMC6694022.

195: Radke J, Koch A, Pritsch F, Schumann E, Misch M, Hempt C, Lenz K, Löbel F, Paschereit F, Heppner FL, Vajkoczy P, Koll R, Onken J. Predictive MGMT status in a homogeneous cohort of IDH wildtype glioblastoma patients. Acta Neuropathol Commun. 2019 Jun 5;7(1):89. doi: 10.1186/s40478-019-0745-z. Erratum in: Acta Neuropathol Commun. 2019 Aug 14;7(1):131. PMID: 31167648; PMCID: PMC6549362.

196: Connock M, Auguste P, Dussart C, Guyotat J, Armoiry X. Cost-effectiveness of tumor-treating fields added to maintenance temozolomide in patients with glioblastoma: an updated evaluation using a partitioned survival model. J Neurooncol. 2019 Jul;143(3):605-611. doi: 10.1007/s11060-019-03197-w. Epub 2019 May 24. PMID: 31127507.

197: Smith SJ, Tyler BM, Gould T, Veal GJ, Gorelick N, Rowlinson J, Serra R, Ritchie A, Berry P, Otto A, Choi J, Skuli N, Estevez-Cebrero M, Shakesheff KM, Brem H, Grundy RG, Rahman R. Overall Survival in Malignant Glioma Is Significantly Prolonged by Neurosurgical Delivery of Etoposide and Temozolomide from a Thermo-Responsive Biodegradable Paste. Clin Cancer Res. 2019 Aug 15;25(16):5094-5106. doi: 10.1158/1078-0432.CCR-18-3850. Epub 2019 May 21. PMID: 31113843.

198: Inada M, Shindo M, Kobayashi K, Sato A, Yamamoto Y, Akasaki Y, Ichimura K, Tanuma SI. Anticancer effects of a non-narcotic opium alkaloid medicine, papaverine, in human glioblastoma cells. PLoS One. 2019 May 17;14(5):e0216358. doi: 10.1371/journal.pone.0216358. PMID: 31100066; PMCID: PMC6524804.

199: Hu JL, Luo WJ, Wang H. Angiogenin Upregulation Independently Predicts Unfavorable Overall Survival in Proneural Subtype of Glioblastoma. Technol Cancer Res Treat. 2019 Jan 1;18:1533033819846636. doi: 10.1177/1533033819846636. PMID: 31072237; PMCID: PMC6515846.

200: Kim YZ, Kim CY, Lim J, Sung KS, Lee J, Oh HJ, Kang SG, Kang SH, Kong DS, Kim SH, Kim SH, Kim

SH, Kim YJ, Kim EH, Kim IA, Kim HS, Roh TH, Park JS, Park HJ, Song SW, Yang SH, Yoon WS, Yoon HI, Lee ST, Lee SW, Lee YS, Wee CW, Chang JH, Jung TY, Jung HL, Cho JH, Choi SH, Choi HS, Hong JB, Lim DH, Chung DS; KSNO Guideline Working Group. The Korean Society for Neuro-Oncology (KSNO) Guideline for Glioblastomas: Version 2018.01. Brain Tumor Res Treat. 2019 Apr;7(1):1-9. doi: 10.14791/btrt.2019.7.e25. PMID: 31062525; PMCID: PMC6504754.

201: Skaga E, Skaga IØ, Grieg Z, Sandberg CJ, Langmoen IA, Vik-Mo EO. The efficacy of a coordinated pharmacological blockade in glioblastoma stem cells with nine repurposed drugs using the CUSP9 strategy. J Cancer Res Clin Oncol. 2019 Jun;145(6):1495-1507. doi: 10.1007/s00432-019-02920-4. Epub 2019 Apr 26. PMID: 31028540; PMCID: PMC6527541.

202: MacLeod G, Bozek DA, Rajakulendran N, Monteiro V, Ahmadi M, Steinhart Z, Kushida MM, Yu H, Coutinho FJ, Cavalli FMG, Restall I, Hao X, Hart T, Luchman HA, Weiss S, Dirks PB, Angers S. Genome-Wide CRISPR-Cas9 Screens Expose Genetic Vulnerabilities and Mechanisms of Temozolomide Sensitivity in Glioblastoma Stem Cells. Cell Rep. 2019 Apr 16;27(3):971-986.e9. doi: 10.1016/j.celrep.2019.03.047. PMID: 30995489.

203: Zhang Z, Yin J, Lu C, Wei Y, Zeng A, You Y. Exosomal transfer of long non- coding RNA SBF2-AS1 enhances chemoresistance to temozolomide in glioblastoma. J Exp Clin Cancer Res. 2019 Apr 16;38(1):166. doi: 10.1186/s13046-019-1139-6. PMID: 30992025; PMCID: PMC6469146.

204: Luo W, Yan D, Song Z, Zhu X, Liu X, Li X, Zhao S. miR-126-3p sensitizes glioblastoma cells to temozolomide by inactivating Wnt/β-catenin signaling via targeting SOX2. Life Sci. 2019 Jun 1;226:98-106. doi: 10.1016/j.lfs.2019.04.023. Epub 2019 Apr 10. PMID: 30980849.

205: Zou Y, Chen M, Zhang S, Miao Z, Wang J, Lu X, Zhao X. TRPC5-induced autophagy promotes the TMZ-resistance of glioma cells via the CAMMKβ/AMPKα/mTOR pathway. Oncol Rep. 2019 Jun;41(6):3413-3423. doi: 10.3892/or.2019.7095. Epub 2019 Apr 2. PMID: 30942446.

206: Yin J, Zeng A, Zhang Z, Shi Z, Yan W, You Y. Exosomal transfer of miR-1238 contributes to temozolomide-resistance in glioblastoma. EBioMedicine. 2019 Apr;42:238-251. doi: 10.1016/j.ebiom.2019.03.016. Epub 2019 Mar 24. PMID: 30917935; PMCID: PMC6491393.

207: Vehlow A, Klapproth E, Jin S, Hannen R, Hauswald M, Bartsch JW, Nimsky C, Temme A, Leitinger B, Cordes N. Interaction of Discoidin Domain Receptor 1 with a 14-3-3-Beclin-1-Akt1 Complex Modulates Glioblastoma Therapy Sensitivity. Cell Rep. 2019 Mar 26;26(13):3672-3683.e7. doi: 10.1016/j.celrep.2019.02.096. PMID: 30917320.

208: Guo Z, Wang H, Wei J, Han L, Li Z. Sequential treatment of phenethyl isothiocyanate increases sensitivity of Temozolomide resistant glioblastoma cells by decreasing expression of MGMT via NF-κB pathway. Am J Transl Res. 2019 Feb 15;11(2):696-708. Retraction in: Am J Transl Res. 2021 May 15;13(5):5746. PMID: 30899372; PMCID: PMC6413290.

209: He Y, Su J, Lan B, Gao Y, Zhao J. Targeting off-target effects: endoplasmic reticulum stress and autophagy as effective strategies to enhance temozolomide treatment. Onco Targets Ther. 2019 Mar 7;12:1857-1865. doi: 10.2147/OTT.S194770. PMID: 30881038; PMCID: PMC6413742.

210: Tanaka Y, Nakazawa T, Nakamura M, Nishimura F, Matsuda R, Omoto K, Shida Y, Murakami T, Nakagawa I, Motoyama Y, Morita H, Tsujimura T, Nakase H. Ex vivo- expanded highly purified natural killer cells in combination with temozolomide induce antitumor effects in human glioblastoma cells in vitro. PLoS One. 2019 Mar 6;14(3):e0212455. doi: 10.1371/journal.pone.0212455. PMID: 30840664; PMCID: PMC6402639.

211: Hribar KC, Wheeler CJ, Bazarov A, Varshneya K, Yamada R, Buckley P, Patil CG. A Simple Three-dimensional Hydrogel Platform Enables Ex Vivo Cell Culture of Patient and PDX Tumors for Assaying Their Response to Clinically Relevant Therapies. Mol Cancer Ther. 2019 Mar;18(3):718-725. doi: 10.1158/1535-7163.MCT-18-0359. Epub 2019 Feb 12. PMID: 30755456.

212: Akgül S, Patch AM, D'Souza RCJ, Mukhopadhyay P, Nones K, Kempe S, Kazakoff SH, Jeffree RL, Stringer BW, Pearson JV, Waddell N, Day BW. Intratumoural Heterogeneity Underlies Distinct Therapy Responses and Treatment Resistance in Glioblastoma. Cancers (Basel). 2019 Feb 6;11(2):190. doi: 10.3390/cancers11020190. PMID: 30736342; PMCID: PMC6406894.

213: Jovanović N, Mitrović T, Cvetković VJ, Tošić S, Vitorović J, Stamenković S, Nikolov V, Kostić A, Vidović N, Krstić M, Jevtović-Stoimenov T, Pavlović D. The Impact of MGMT Promoter Methylation and Temozolomide Treatment in Serbian Patients with Primary Glioblastoma. Medicina (Kaunas). 2019 Feb 1;55(2):34. doi: 10.3390/medicina55020034. PMID: 30717206; PMCID: PMC6409652.

214: Li X, Xu X, Chen K, Wu H, Wang Y, Yang S, Wang K. miR-370 Sensitizes TMZ Response Dependent of MGMT Status in Primary Central Nervous System Lymphoma. Pathol Oncol Res. 2020 Apr;26(2):707-714. doi: 10.1007/s12253-019-00605-4. Epub 2019 Feb 2. PMID: 30712191; PMCID: PMC7242252.

215: Liu T, Li A, Xu Y, Xin Y. Momelotinib sensitizes glioblastoma cells to temozolomide by enhancement of autophagy via JAK2/STAT3 inhibition. Oncol Rep. 2019 Mar;41(3):1883-1892. doi: 10.3892/or.2019.6970. Epub 2019 Jan 16. PMID: 30664175.

216: Cho HY, Thein TZ, Wang W, Swenson SD, Fayngor RA, Ou M, Marín-Ramos NI, Schönthal AH, Hofman FM, Chen TC. The Rolipram-Perillyl Alcohol Conjugate (NEO214) Is A Mediator of Cell Death through the Death Receptor Pathway. Mol Cancer Ther. 2019 Mar;18(3):517-530. doi: 10.1158/1535-7163.MCT-18-0465. Epub 2019 Jan 15. PMID: 30647121.

217: Toma M, Witusik-Perkowska M, Szwed M, Stawski R, Szemraj J, Drzewiecka M, Nieborowska-Skorska M, Radek M, Kolasa P, Matlawska-Wasowska K, Sliwinski T, Skorski T. Eradication of LIG4-deficient glioblastoma cells by the combination of PARP inhibitor and alkylating agent. Oncotarget. 2018 Dec 7;9(96):36867-36877. doi: 10.18632/oncotarget.26409. PMID: 30627327; PMCID: PMC6305145.

218: Bao Z, Chen L, Guo S. Knockdown of SLC34A2 inhibits cell proliferation, metastasis, and elevates chemosensitivity in glioma. J Cell Biochem. 2019 Jun;120(6):10205-10214. doi: 10.1002/jcb.28305. Epub 2018 Dec 28. PMID: 30592329.

219: Jia B, Liu W, Gu J, Wang J, Lv W, Zhang W, Hao Q, Pang Z, Mu N, Zhang W, Guo Q. MiR-7-5p suppresses stemness and enhances temozolomide sensitivity of drug-resistant glioblastoma cells by targeting Yin Yang 1. Exp Cell Res. 2019 Feb 1;375(1):73-81. doi: 10.1016/j.yexcr.2018.12.016. Epub 2018 Dec 23. PMID: 30586549.

220: Gao WZ, Guo LM, Xu TQ, Yin YH, Jia F. Identification of a multidimensional transcriptome signature for survival prediction of postoperative glioblastoma multiforme patients. J Transl Med. 2018 Dec 20;16(1):368. doi: 10.1186/s12967-018-1744-8. PMID: 30572911; PMCID: PMC6302404.

221: Zhang D, Dai D, Zhou M, Li Z, Wang C, Lu Y, Li Y, Wang J. Inhibition of Cyclin D1 Expression in Human Glioblastoma Cells is Associated with Increased Temozolomide Chemosensitivity. Cell Physiol Biochem. 2018;51(6):2496-2508. doi: 10.1159/000495920. Epub 2018 Dec 11. PMID: 30562739.

222: Atkins RJ, Stylli SS, Kurganovs N, Mangiola S, Nowell CJ, Ware TM, Corcoran NM, Brown DV, Kaye AH, Morokoff A, Luwor RB, Hovens CM, Mantamadiotis T. Cell quiescence correlates with enhanced glioblastoma cell invasion and cytotoxic resistance. Exp Cell Res. 2019 Jan 15;374(2):353-364. doi: 10.1016/j.yexcr.2018.12.010. Epub 2018 Dec 15. PMID: 30562483.

223: Nie E, Miao F, Jin X, Wu W, Zhou X, Zeng A, Yu T, Zhi T, Shi Z, Wang Y, Zhang J, Liu N, You Y. Fstl1/DIP2A/MGMT signaling pathway plays important roles in temozolomide resistance in glioblastoma. Oncogene. 2019 Apr;38(15):2706-2721. doi: 10.1038/s41388-018-0596-2. Epub 2018 Dec 12. PMID: 30542120; PMCID: PMC6484760.

224: Zhang Z, Wang Z, Huang K, Liu Y, Wei C, Zhou J, Zhang W, Wang Q, Liang H, Zhang A, Wang G, Zhen Y, Han L. PLK4 is a determinant of temozolomide sensitivity through phosphorylation of IKBKE in glioblastoma. Cancer Lett. 2019 Feb 28;443:91-107. doi: 10.1016/j.canlet.2018.11.034. Epub 2018 Dec 4. PMID: 30529153.

225: Lei B, Huang Y, Zhou Z, Zhao Y, Thapa AJ, Li W, Cai W, Deng Y. Circular RNA hsa_circ_0076248 promotes oncogenesis of glioma by sponging miR-181a to modulate SIRT1 expression. J Cell Biochem. 2019 Apr;120(4):6698-6708. doi: 10.1002/jcb.27966. Epub 2018 Dec 3. PMID: 30506951; PMCID: PMC6587862.

226: Hegi ME, Genbrugge E, Gorlia T, Stupp R, Gilbert MR, Chinot OL, Nabors LB, Jones G, Van Criekinge W, Straub J, Weller M. MGMT Promoter Methylation Cutoff with Safety Margin for Selecting Glioblastoma Patients into Trials Omitting Temozolomide: A Pooled Analysis of Four Clinical Trials. Clin Cancer Res. 2019 Mar 15;25(6):1809-1816. doi: 10.1158/1078-0432.CCR-18-3181. Epub 2018 Dec 4. PMID: 30514777; PMCID: PMC8127866.

227: Li L, Huang Y, Gao Y, Shi T, Xu Y, Li H, Hyytiäinen M, Keski-Oja J, Jiang Q, Hu Y, Du Z. EGF/EGFR upregulates and cooperates with Netrin-4 to protect glioblastoma cells from DNA damage-induced senescence. BMC Cancer. 2018 Dec 4;18(1):1215. doi: 10.1186/s12885-018-5056-4. PMID: 30514230; PMCID: PMC6280426.

228: Towner RA, Smith N, Saunders D, Brown CA, Cai X, Ziegler J, Mallory S, Dozmorov MG, Coutinho De Souza P, Wiley G, Kim K, Kang S, Kong DS, Kim YT, Fung KM, Wren JD, Battiste J. OKN-007 Increases temozolomide (TMZ) Sensitivity and Suppresses TMZ-Resistant Glioblastoma (Glioblastoma) Tumor Growth. Transl Oncol. 2019 Feb;12(2):320-335. doi: 10.1016/j.tranon.2018.10.002. Epub 2018 Nov 20. PMID: 30468988; PMCID: PMC6251232.

229: Kruthika BS, Jain R, Arivazhagan A, Bharath RD, Yasha TC, Kondaiah P, Santosh V. Transcriptome profiling reveals PDZ binding kinase as a novel biomarker in peritumoral brain zone of glioblastoma. J Neurooncol. 2019 Jan;141(2):315-325. doi: 10.1007/s11060-018-03051-5. Epub 2018 Nov 20. PMID: 30460633.

230: Xu N, Liu B, Lian C, Doycheva DM, Fu Z, Liu Y, Zhou J, He Z, Yang Z, Huang Q, Zeng H, Guo H. Long non-coding RNA AC003092.1 promotes temozolomide chemosensitivity through miR-195/TFPI-2 signaling modulation in glioblastoma. Cell Death Dis. 2018 Nov 15;9(12):1139. doi: 10.1038/s41419-018-1183-8. PMID: 30442884; PMCID: PMC6237774.

231: Chen Z, Wei X, Shen L, Zhu H, Zheng X. 20(S)-ginsenoside-Rg3 reverses temozolomide resistance and restrains epithelial-mesenchymal transition progression in glioblastoma. Cancer Sci. 2019 Jan;110(1):389-400. doi: 10.1111/cas.13881. Epub 2018 Dec 14. PMID: 30431207; PMCID: PMC6317960.

232: Yang C, He L, Chen G, Ning Z, Xia Z. LRRC8A potentiates temozolomide sensitivity in glioma cells

via activating mitochondria-dependent apoptotic pathway. Hum Cell. 2019 Jan;32(1):41-50. doi: 10.1007/s13577-018-0221-2. Epub 2018 Nov 13. PMID: 30426452.

233: Song W, Wang Z, Kan P, Ma Z, Wang Y, Wu Q, Yao X, Zhang B. Knockdown of BCL6 Inhibited Malignant Phenotype and Enhanced Sensitivity of Glioblastoma Cells to TMZ through AKT Pathway. Biomed Res Int. 2018 Oct 18;2018:6953506. doi: 10.1155/2018/6953506. PMID: 30420967; PMCID: PMC6211201.

234: Mair R, Mouliere F, Smith CG, Chandrananda D, Gale D, Marass F, Tsui DWY, Massie CE, Wright AJ, Watts C, Rosenfeld N, Brindle KM. Measurement of Plasma Cell-Free Mitochondrial Tumor DNA Improves Detection of Glioblastoma in Patient- Derived Orthotopic Xenograft Models. Cancer Res. 2019 Jan 1;79(1):220-230. doi: 10.1158/0008-5472.CAN-18-0074. Epub 2018 Nov 2. PMID: 30389699; PMCID: PMC6753020.

235: Wang F, Zheng Z, Guan J, Qi D, Zhou S, Shen X, Wang F, Wenkert D, Kirmani B, Solouki T, Fonkem E, Wong ET, Huang JH, Wu E. Identification of a panel of genes as a prognostic biomarker for glioblastoma. EBioMedicine. 2018 Nov;37:68-77. doi: 10.1016/j.ebiom.2018.10.024. Epub 2018 Oct 16. PMID: 30341039; PMCID: PMC6284420.

236: Bi Y, Li H, Yi D, Sun Y, Bai Y, Zhong S, Song Y, Zhao G, Chen Y. Cordycepin Augments the Chemosensitivity of Human Glioma Cells to Temozolomide by Activating AMPK and Inhibiting the AKT Signaling Pathway. Mol Pharm. 2018 Nov 5;15(11):4912-4925. doi: 10.1021/acs.molpharmaceut.8b00551. Epub 2018 Oct 17. PMID: 30336060.

237: Duan S, Li M, Wang Z, Wang L, Liu Y. H19 induced by oxidative stress confers temozolomide resistance in human glioma cells via activating NF-κB signaling. Onco Targets Ther. 2018 Oct 2;11:6395-6404. doi: 10.2147/OTT.S173244. PMID: 30323617; PMCID: PMC6174297.

238: Yang HC, Wang JY, Bu XY, Yang B, Wang BQ, Hu S, Yan ZY, Gao YS, Han SY, Qu MQ. Resveratrol restores sensitivity of glioma cells to temozolamide through inhibiting the activation of Wnt signaling pathway. J Cell Physiol. 2019 May;234(5):6783-6800. doi: 10.1002/jcp.27409. Epub 2018 Oct 14. PMID: 30317578.

239: Svec RL, Furiassi L, Skibinski CG, Fan TM, Riggins GJ, Hergenrother PJ. Tunable Stability of Imidazotetrazines Leads to a Potent Compound for Glioblastoma. ACS Chem Biol. 2018 Nov 16;13(11):3206-3216. doi: 10.1021/acschembio.8b00864. Epub 2018 Nov 8. PMID: 30296373; PMCID: PMC6243397.

240: Johannessen TC, Hasan-Olive MM, Zhu H, Denisova O, Grudic A, Latif MA, Saed H, Varughese JK, Røsland GV, Yang N, Sundstrøm T, Nordal A, Tronstad KJ, Wang J, Lund-Johansen M, Simonsen A, Janji B, Westermarck J, Bjerkvig R, Prestegarden L. Thioridazine inhibits autophagy and sensitizes glioblastoma cells to temozolomide. Int J Cancer. 2019 Apr 1;144(7):1735-1745. doi: 10.1002/ijc.31912. Epub 2018 Dec 11. PMID: 30289977.

241: Chen W, Wang N, Li RC, Xu GF, Bao G, Jiang HT, Wang MD. Salvianolic acid B renders glioma cells more sensitive to radiation via Fis-1-mediated mitochondrial dysfunction. Biomed Pharmacother. 2018 Nov;107:1230-1236. doi: 10.1016/j.biopha.2018.08.113. Epub 2018 Aug 29. PMID: 30257337.

242: Khan UA, Rennert RC, White NS, Bartsch H, Farid N, Dale AM, Chen CC. Diagnostic utility of restriction spectrum imaging (RSI) in glioblastoma patients after concurrent radiation-temozolomide treatment: A pilot study. J Clin Neurosci. 2018 Dec;58:136-141. doi: 10.1016/j.jocn.2018.09.008. Epub 2018 Sep 22. PMID: 30253908.

243: Haas B, Schütte L, Wos-Maganga M, Weickhardt S, Timmer M, Eckstein N. Thioredoxin Confers Intrinsic Resistance to Cytostatic Drugs in Human Glioma Cells. Int J Mol Sci. 2018 Sep 21;19(10):2874. doi: 10.3390/ijms19102874. PMID: 30248944; PMCID: PMC6212897.

244: El Mubarak MA, Stylos EK, Chatziathanasiadou MV, Danika C, Alexiou GA, Tsekeris P, Renziehausen A, Crook T, Syed N, Sivolapenko GB, Tzakos AG. Development and validation of simple step protein precipitation UHPLC-MS/MS methods for quantitation of temozolomide in cancer patient plasma samples. J Pharm Biomed Anal. 2019 Jan 5;162:164-170. doi: 10.1016/j.jpba.2018.09.019. Epub 2018 Sep 8. PMID: 30243056.

245: Yang B, Fu X, Hao J, Sun J, Li Z, Li H, Xu H. PAXX Participates in Base Excision Repair via Interacting with Pol β and Contributes to TMZ Resistance in Glioma Cells. J Mol Neurosci. 2018 Oct;66(2):214-221. doi: 10.1007/s12031-018-1157-4. Epub 2018 Sep 20. PMID: 30238427; PMCID: PMC6182633.

246: Oliva CR, Halloran B, Hjelmeland AB, Vazquez A, Bailey SM, Sarkaria JN, Griguer CE. IGFBP6 controls the expansion of chemoresistant glioblastoma through paracrine IGF2/IGF-1R signaling. Cell Commun Signal. 2018 Sep 19;16(1):61. doi: 10.1186/s12964-018-0273-7. PMID: 30231881; PMCID: PMC6148802.

247: Ding Z, Dhruv H, Kwiatkowska-Piwowarczyk A, Ruggieri R, Kloss J, Symons M, Pirrotte P, Eschbacher JM, Tran NL, Loftus JC. PDZ-RhoGEF Is a Signaling Effector for TROY-Induced Glioblastoma Cell Invasion and Survival. Neoplasia. 2018 Oct;20(10):1045-1058. doi: 10.1016/j.neo.2018.08.008. Epub 2018 Sep 13. PMID: 30219706; PMCID: PMC6140379.

248: Higuchi F, Fink AL, Kiyokawa J, Miller JJ, Koerner MVA, Cahill DP, Wakimoto H. PLK1 Inhibition Targets Myc-Activated Malignant Glioma Cells Irrespective of Mismatch Repair Deficiency-Mediated Acquired Resistance to Temozolomide. Mol Cancer Ther. 2018 Dec;17(12):2551-2563. doi: 10.1158/1535-7163.MCT-18-0177. Epub 2018 Sep 14. PMID: 30217967; PMCID: PMC6279590.

249: Chen C, Han G, Li Y, Yue Z, Wang L, Liu J. FOXO1 associated with sensitivity to chemotherapy drugs and glial-mesenchymal transition in glioma. J Cell Biochem. 2019 Jan;120(1):882-893. doi: 10.1002/jcb.27450. Epub 2018 Sep 14. PMID: 30216501.

250: Yang WH, Cheng CY, Chen MF, Wang TC. Cell Subpopulations Overexpressing p75NTR Have Tumor-initiating Properties in the C6 Glioma Cell Line. Anticancer Res. 2018 Sep;38(9):5183-5192. doi: 10.21873/anticanres.12841. PMID: 30194166.

251: Yuan AL, Ricks CB, Bohm AK, Lun X, Maxwell L, Safdar S, Bukhari S, Gerber A, Sayeed W, Bering EA, Pedersen H, Chan JA, Shen Y, Marra M, Kaplan DR, Mason W, Goodman LD, Ezhilarasan R, Kaufmann AB, Cabral M, Robbins SM, Senger DL, Cahill DP, Sulman EP, Cairncross JG, Blough MD. ABT-888 restores sensitivity in temozolomide resistant glioma cells and xenografts. PLoS One. 2018 Aug 28;13(8):e0202860. doi: 10.1371/journal.pone.0202860. PMID: 30153289; PMCID: PMC6112648.

252: Navone SE, Guarnaccia L, Cordiglieri C, Crisà FM, Caroli M, Locatelli M, Schisano L, Rampini P, Miozzo M, La Verde N, Riboni L, Campanella R, Marfia G. Aspirin Affects Tumor Angiogenesis and Sensitizes Human Glioblastoma Endothelial Cells to Temozolomide, Bevacizumab, and Sunitinib, Impairing Vascular Endothelial Growth Factor-Related Signaling. World Neurosurg. 2018 Dec;120:e380-e391. doi: 10.1016/j.wneu.2018.08.080. Epub 2018 Aug 23. PMID: 30144594.

253: Roberts NB, Alqazzaz A, Hwang JR, Qi X, Keegan AD, Kim AJ, Winkles JA, Woodworth GF. Oxaliplatin disrupts pathological features of glioma cells and associated macrophages independent of apoptosis induction. J Neurooncol. 2018 Dec;140(3):497-507. doi: 10.1007/s11060-018-2979-1. Epub

2018 Aug 21. PMID: 30132163; PMCID: PMC6580860.

254: Xu P, Zhang G, Hou S, Sha LG. MAPK8 mediates resistance to temozolomide and apoptosis of glioblastoma cells through MAPK signaling pathway. Biomed Pharmacother. 2018 Oct;106:1419-1427. doi: 10.1016/j.biopha.2018.06.084. Epub 2018 Jul 24. PMID: 30119215.

255: Zeng A, Wei Z, Yan W, Yin J, Huang X, Zhou X, Li R, Shen F, Wu W, Wang X, You Y. Exosomal transfer of miR-151a enhances chemosensitivity to temozolomide in drug-resistant glioblastoma. Cancer Lett. 2018 Nov 1;436:10-21. doi: 10.1016/j.canlet.2018.08.004. Epub 2018 Aug 10. PMID: 30102952.

256: Lin AL, Jonsson P, Tabar V, Yang TJ, Cuaron J, Beal K, Cohen M, Postow M, Rosenblum M, Shia J, DeAngelis LM, Taylor BS, Young RJ, Geer EB. Marked Response of a Hypermutated ACTH-Secreting Pituitary Carcinoma to Ipilimumab and Nivolumab. J Clin Endocrinol Metab. 2018 Oct 1;103(10):3925-3930. doi: 10.1210/jc.2018-01347. PMID: 30085142; PMCID: PMC6456994.

257: Peng Y, He X, Chen H, Duan H, Shao B, Yang F, Li H, Yang P, Zeng Y, Zheng J, Li Y, Hu J, Lin L, Teng L. Inhibition of microRNA-299-5p sensitizes glioblastoma cells to temozolomide via the MAPK/ERK signaling pathway. Biosci Rep. 2018 Sep 12;38(5):BSR20181051. doi: 10.1042/BSR20181051. PMID: 30061180; PMCID: PMC6131327.

258: Chen X, Zhang M, Gan H, Wang H, Lee JH, Fang D, Kitange GJ, He L, Hu Z, Parney IF, Meyer FB, Giannini C, Sarkaria JN, Zhang Z. A novel enhancer regulates MGMT expression and promotes temozolomide resistance in glioblastoma. Nat Commun. 2018 Jul 27;9(1):2949. doi: 10.1038/s41467-018-05373-4. PMID: 30054476; PMCID: PMC6063898.

259: Noh H, Zhao Q, Yan J, Kong LY, Gabrusiewicz K, Hong S, Xia X, Heimberger AB, Li S. Cell surface vimentin-targeted monoclonal antibody 86C increases sensitivity to temozolomide in glioma stem cells. Cancer Lett. 2018 Oct 1;433:176-185. doi: 10.1016/j.canlet.2018.07.008. Epub 2018 Jul 6. PMID: 29991446; PMCID: PMC6086585.

260: Zhong C, Chen Y, Tao B, Peng L, Peng T, Yang X, Xia X, Chen L. LIM and SH3 protein 1 regulates cell growth and chemosensitivity of human glioblastoma via the PI3K/AKT pathway. BMC Cancer. 2018 Jul 6;18(1):722. doi: 10.1186/s12885-018-4649-2. PMID: 29980193; PMCID: PMC6035445.

261: Fontanilles M, Marguet F, Alexandru C, Langlois O, Veresezan O, Gilard V, David M, Laquerriere A, Hanzen C, Tennevet I, Di Fiore F, Clatot F. Early platelet variation during concomitant chemo-radiotherapy predicts adjuvant temozolomide-induced thrombocytopenia in newly diagnosed glioblastoma patients. Support Care Cancer. 2019 Feb;27(2):477-484. doi: 10.1007/s00520-018-4336-5. Epub 2018 Jul 5. PMID: 29978325.

262: Liao KL, Huang S, Wu YP. The prognosis for patients with newly diagnosed glioblastoma receiving bevacizumab combination therapy: a meta-analysis. Onco Targets Ther. 2018 Jun 19;11:3513-3520. doi: 10.2147/OTT.S156723. PMID: 29950856; PMCID: PMC6016281.

263: Vu HT, Kobayashi M, Hegazy AM, Tadokoro Y, Ueno M, Kasahara A, Takase Y, Nomura N, Peng H, Ito C, Ino Y, Todo T, Nakada M, Hirao A. Autophagy inhibition synergizes with calcium mobilization to achieve efficient therapy of malignant gliomas. Cancer Sci. 2018 Aug;109(8):2497-2508. doi: 10.1111/cas.13695. Epub 2018 Jul 26. PMID: 29902340; PMCID: PMC6113445.

264: Hersh DS, Harder BG, Roos A, Peng S, Heath JE, Legesse T, Kim AJ, Woodworth GF, Tran NL, Winkles JA. The TNF receptor family member Fn14 is highly expressed in Glioblastoma recurrence and in Glioblastoma patient-derived xenografts with acquired temozolomide resistance. Neuro Oncol.

2018 Sep 3;20(10):1321-1330. doi: 10.1093/neuonc/noy063. PMID: 29897522; PMCID: PMC6140775.

265: Guarnaccia L, Navone SE, Trombetta E, Cordiglieri C, Cherubini A, Crisà FM, Rampini P, Miozzo M, Fontana L, Caroli M, Locatelli M, Riboni L, Campanella R, Marfia G. Angiogenesis in human brain tumors: screening of drug response through a patient-specific cell platform for personalized therapy. Sci Rep. 2018 Jun 8;8(1):8748. doi: 10.1038/s41598-018-27116-7. PMID: 29884885; PMCID: PMC5993734.

266: Li Y, Liu Y, Ren J, Deng S, Yi G, Guo M, Shu S, Zhao L, Peng Y, Qi S. miR-1268a regulates ABCC1 expression to mediate temozolomide resistance in glioblastoma. J Neurooncol. 2018 Jul;138(3):499-508. doi: 10.1007/s11060-018-2835-3. Epub 2018 Jun 6. PMID: 29876787.

267: Rubino S, Bach MD, Schober AL, Lambert IH, Mongin AA. Downregulation of Leucine-Rich Repeat-Containing 8A Limits Proliferation and Increases Sensitivity of Glioblastoma to Temozolomide and Carmustine. Front Oncol. 2018 May 7;8:142. doi: 10.3389/fonc.2018.00142. PMID: 29868469; PMCID: PMC5949383.

268: Butenschön VM, Ille S, Sollmann N, Meyer B, Krieg SM. Cost-effectiveness of preoperative motor mapping with navigated transcranial magnetic brain stimulation in patients with high-grade glioma. Neurosurg Focus. 2018 Jun;44(6):E18. doi: 10.3171/2018.3.FOCUS1830. PMID: 29852777.

269: Abe H, Natsumeda M, Kanemaru Y, Watanabe J, Tsukamoto Y, Okada M, Yoshimura J, Oishi M, Fujii Y. MGMT Expression Contributes to Temozolomide Resistance in H3K27M-Mutant Diffuse Midline Gliomas and MGMT Silencing to Temozolomide Sensitivity in IDH-Mutant Gliomas. Neurol Med Chir (Tokyo). 2018 Jul 15;58(7):290-295. doi: 10.2176/nmc.ra.2018-0044. Epub 2018 May 31. PMID: 29848907; PMCID: PMC6048353.

270: Li H, Chen L, Li JJ, Zhou Q, Huang A, Liu WW, Wang K, Gao L, Qi ST, Lu YT. miR-519a enhances chemosensitivity and promotes autophagy in glioblastoma by targeting STAT3/Bcl2 signaling pathway. J Hematol Oncol. 2018 May 29;11(1):70. doi: 10.1186/s13045-018-0618-0. PMID: 29843746; PMCID: PMC5975545.

271: Jin S, Qian Z, Liang T, Liang J, Yang F, Sun L, Li W, Qiu X, Zhang M. Identification of a DNA Repair-Related Multigene Signature as a Novel Prognostic Predictor of Glioblastoma. World Neurosurg. 2018 Sep;117:e34-e41. doi: 10.1016/j.wneu.2018.05.122. Epub 2018 May 26. PMID: 29807183.

272: Liu J, Zhang Y, Sun S, Zhang G, Jiang K, Sun P, Zhang Y, Yao B, Sui R, Chen Y, Guo X, Tang T, Shi J, Liang H, Piao H. Bufalin Induces Apoptosis and Improves the Sensitivity of Human Glioma Stem-Like Cells to Temozolamide. Oncol Res. 2019 Mar 29;27(4):475-486. doi: 10.3727/096504018×15270916676926. Epub 2018 May 24. PMID: 29793559; PMCID: PMC7848418.

273: Haas B, Klinger V, Keksel C, Bonigut V, Kiefer D, Caspers J, Walther J, Wos-Maganga M, Weickhardt S, Röhn G, Timmer M, Frötschl R, Eckstein N. Inhibition of the PI3K but not the MEK/ERK pathway sensitizes human glioma cells to alkylating drugs. Cancer Cell Int. 2018 May 4;18:69. doi: 10.1186/s12935-018-0565-4. PMID: 29755294; PMCID: PMC5935937.

274: Xu X, Wang Z, Liu N, Cheng Y, Jin W, Zhang P, Wang X, Yang H, Liu H, Zhang Y, Tu Y. Association between SOX9 and CA9 in glioma, and its effects on chemosensitivity to TMZ. Int J Oncol. 2018 Jul;53(1):189-202. doi: 10.3892/ijo.2018.4382. Epub 2018 Apr 26. PMID: 29749469.

275: Saito T, Muragaki Y, Shioyama T, Komori T, Maruyama T, Nitta M, Yasuda T, Hosono J, Okamoto S, Kawamata T. Malignancy Index Using Intraoperative Flow Cytometry is a Valuable Prognostic Factor for Glioblastoma Treated With Radiotherapy and Concomitant Temozolomide. Neurosurgery. 2019 Mar

1;84(3):662-672. doi: 10.1093/neuros/nyy089. PMID: 29618055.

276: Mettang M, Meyer-Pannwitt V, Karpel-Massler G, Zhou S, Carragher NO, Föhr KJ, Baumann B, Nonnenmacher L, Enzenmüller S, Dahlhaus M, Siegelin MD, Stroh S, Mertens D, Fischer-Posovszky P, Schneider EM, Halatsch ME, Debatin KM, Westhoff MA. Blocking distinct interactions between Glioblastoma cells and their tissue microenvironment: A novel multi-targeted therapeutic approach. Sci Rep. 2018 Apr 3;8(1):5527. doi: 10.1038/s41598-018-23592-z. PMID: 29615749; PMCID: PMC5882900.

277: Chio CC, Chen KY, Chang CK, Chuang JY, Liu CC, Liu SH, Chen RM. Improved effects of honokiol on temozolomide-induced autophagy and apoptosis of drug- sensitive and -tolerant glioma cells. BMC Cancer. 2018 Apr 3;18(1):379. doi: 10.1186/s12885-018-4267-z. PMID: 29614990; PMCID: PMC5883267.

278: Roos WP, Frohnapfel L, Quiros S, Ringel F, Kaina B. XRCC3 contributes to temozolomide resistance of glioblastoma cells by promoting DNA double-strand break repair. Cancer Lett. 2018 Jun 28;424:119-126. doi: 10.1016/j.canlet.2018.03.025. Epub 2018 Mar 22. PMID: 29574277.

279: Lin J, Zuo J, Cui Y, Song C, Wu X, Feng H, Li J, Li S, Xu Q, Wei W, Qiu G, He H. Characterizing the molecular mechanisms of acquired temozolomide resistance in the U251 glioblastoma cell line by protein microarray. Oncol Rep. 2018 May;39(5):2333-2341. doi: 10.3892/or.2018.6322. Epub 2018 Mar 19. PMID: 29565460.

280: Quan C, Xiao J, Duan Q, Yuan P, Xue P, Lu H, Yan M, Guo D, Xu S, Zhang X, Lin X, Wang Y, Dogan S, Zhang J, Zhu F, Ke C, Liu L. T-lymphokine-activated killer cell-originated protein kinase (TOPK) as a prognostic factor and a potential therapeutic target in glioma. Oncotarget. 2017 Dec 26;9(8):7782-7795. doi: 10.18632/oncotarget.23674. PMID: 29487691; PMCID: PMC5814258.

281: Waschke A, Arefian H, Walter J, Hartmann M, Maschmann J, Kalff R. Cost- effectiveness of the long-term use of temozolomide for treating newly diagnosed glioblastoma in Germany. J Neurooncol. 2018 Jun;138(2):359-367. doi: 10.1007/s11060-018-2804-x. Epub 2018 Feb 21. PMID: 29468446.

282: Lin J, Ji A, Qiu G, Feng H, Li J, Li S, Zou Y, Cui Y, Song C, He H, Lu Y. FBW7 is associated with prognosis, inhibits malignancies and enhances temozolomide sensitivity in glioblastoma cells. Cancer Sci. 2018 Apr;109(4):1001-1011. doi: 10.1111/cas.13528. PMID: 29427543; PMCID: PMC5891203.

283: Zhang X, Liu X, Zhou W, Yang M, Ding Y, Wang Q, Hu R. Fasudil increases temozolomide sensitivity and suppresses temozolomide-resistant glioma growth via inhibiting ROCK2/ABCG2. Cell Death Dis. 2018 Feb 7;9(2):190. doi: 10.1038/s41419-017-0251-9. PMID: 29416017; PMCID: PMC5833824.

284: Mehrabian H, Myrehaug S, Soliman H, Sahgal A, Stanisz GJ. Quantitative Magnetization Transfer in Monitoring Glioblastoma (Glioblastoma) Response to Therapy. Sci Rep. 2018 Feb 6;8(1):2475. doi: 10.1038/s41598-018-20624-6. PMID: 29410469; PMCID: PMC5802834.

285: Han B, Cai J, Gao W, Meng X, Gao F, Wu P, Duan C, Wang R, Dinislam M, Lin L, Kang C, Jiang C. Loss of ATRX suppresses ATM dependent DNA damage repair by modulating H3K9me3 to enhance temozolomide sensitivity in glioma. Cancer Lett. 2018 Apr 10;419:280-290. doi: 10.1016/j.canlet.2018.01.056. Epub 2018 Jan 31. PMID: 29378238.

286: Yang CH, Wang Y, Sims M, Cai C, He P, Häcker H, Yue J, Cheng J, Boop FA, Pfeffer LM. MicroRNA203a suppresses glioma tumorigenesis through an ATM- dependent interferon response pathway. Oncotarget. 2017 Dec 6;8(68):112980-112991. doi: 10.18632/oncotarget.22945. PMID:

29348882; PMCID: PMC5762567.

287: Adamski V, Hempelmann A, Flüh C, Lucius R, Synowitz M, Hattermann K, Held- Feindt J. Dormant glioblastoma cells acquire stem cell characteristics and are differentially affected by Temozolomide and AT101 treatment. Oncotarget. 2017 Nov 18;8(64):108064-108078. doi: 10.18632/oncotarget.22514. PMID: 29296224; PMCID: PMC5746126.

288: Berger G, Grauwet K, Zhang H, Hussey AM, Nowicki MO, Wang DI, Chiocca EA, Lawler SE, Lippard SJ. Anticancer activity of osmium(VI) nitrido complexes in patient-derived glioblastoma initiating cells and in vivo mouse models. Cancer Lett. 2018 Mar 1;416:138-148. doi: 10.1016/j.canlet.2017.11.041. Epub 2017 Dec 13. PMID: 29246647.

289: Yamamoto Y, Tomiyama A, Sasaki N, Yamaguchi H, Shirakihara T, Nakashima K, Kumagai K, Takeuchi S, Toyooka T, Otani N, Wada K, Narita Y, Ichimura K, Sakai R, Namba H, Mori K. Intracellular cholesterol level regulates sensitivity of glioblastoma cells against temozolomide-induced cell death by modulation of caspase-8 activation via death receptor 5-accumulation and activation in the plasma membrane lipid raft. Biochem Biophys Res Commun. 2018 Jan 1;495(1):1292-1299. doi: 10.1016/j.bbrc.2017.11.113. Epub 2017 Nov 21. PMID: 29162448.

290: Zhang L, Wang H. FTY720 inhibits the Nrf2/ARE pathway in human glioblastoma cell lines and sensitizes glioblastoma cells to temozolomide. Pharmacol Rep. 2017 Dec;69(6):1186-1193. doi: 10.1016/j.pharep.2017.07.003. Epub 2017 Jul 4. PMID: 29128799.

291: Ding Z, Roos A, Kloss J, Dhruv H, Peng S, Pirrotte P, Eschbacher JM, Tran NL, Loftus JC. A Novel Signaling Complex between TROY and EGFR Mediates Glioblastoma Cell Invasion. Mol Cancer Res. 2018 Feb;16(2):322-332. doi: 10.1158/1541-7786.MCR-17-0454. Epub 2017 Nov 8. PMID: 29117939; PMCID: PMC5805628.

292: Wang J, Zhou F, Li Y, Li Q, Wu Z, Yu L, Yuan F, Liu J, Tian Y, Cao Y, Zhao Y, Zheng Y. Cdc20 overexpression is involved in temozolomide-resistant glioma cells with epithelial-mesenchymal transition. Cell Cycle. 2017;16(24):2355-2365. doi: 10.1080/15384101.2017.1388972. Epub 2017 Dec 10. PMID: 29108461; PMCID: PMC5788407.

293: Qiang Z, Jun-Jie L, Hai W, Hong L, Bing-Xi L, Lei C, Wei X, Ya-Wei L, Huang A, Song-Tao Q, Yun-Tao L. TPD52L2 impacts proliferation, invasiveness and apoptosis of glioblastoma cells via modulation of wnt/β-catenin/snail signaling. Carcinogenesis. 2018 Feb 9;39(2):214-224. doi: 10.1093/carcin/bgx125. PMID: 29106517.

294: Tang JH, Huang GH, Mou KJ, Zhang EE, Li N, Du L, Zhu XP, Chen L, Yang H, Zhang KB, Lv SQ. Pyrrolidine dithiocarbamate sensitizes U251 brain glioma cells to temozolomide via downregulation of MGMT and BCL-XL. Oncol Lett. 2017 Nov;14(5):5135-5144. doi: 10.3892/ol.2017.6849. Epub 2017 Aug 28. PMID: 29098021; PMCID: PMC5652242.

295: Qian Z, Zhou S, Zhou Z, Yang X, Que S, Lan J, Qiu Y, Lin Y. miR-146b-5p suppresses glioblastoma cell resistance to temozolomide through targeting TRAF6. Oncol Rep. 2017 Nov;38(5):2941-2950. doi: 10.3892/or.2017.5970. Epub 2017 Sep 19. PMID: 29048680.

296: Liu Q, Xue Y, Chen Q, Chen H, Zhang X, Wang L, Han C, Que S, Lou M, Lan J. PomGnT1 enhances temozolomide resistance by activating epithelial-mesenchymal transition signaling in glioblastoma. Oncol Rep. 2017 Nov;38(5):2911-2918. doi: 10.3892/or.2017.5964. Epub 2017 Sep 19. PMID: 29048655.

297: Garnier D, Meehan B, Kislinger T, Daniel P, Sinha A, Abdulkarim B, Nakano I, Rak J. Divergent

evolution of temozolomide resistance in glioblastoma stem cells is reflected in extracellular vesicles and coupled with radiosensitization. Neuro Oncol. 2018 Jan 22;20(2):236-248. doi: 10.1093/neuonc/nox142. PMID: 29016925; PMCID: PMC5777501.

298: Galanis E, Anderson SK, Miller CR, Sarkaria JN, Jaeckle K, Buckner JC, Ligon KL, Ballman KV, Moore DF Jr, Nebozhyn M, Loboda A, Schiff D, Ahluwalia MS, Lee EQ, Gerstner ER, Lesser GJ, Prados M, Grossman SA, Cerhan J, Giannini C, Wen PY; Alliance for Clinical Trials in Oncology and ABTC. Phase I/II trial of vorinostat combined with temozolomide and radiation therapy for newly diagnosed glioblastoma: results of Alliance N0874/ABTC 02. Neuro Oncol. 2018 Mar 27;20(4):546-556. doi: 10.1093/neuonc/nox161. PMID: 29016887; PMCID: PMC5909661.

299: Zhang J, Zhang J, Zhang J, Qiu W, Xu S, Yu Q, Liu C, Wang Y, Lu A, Zhang J, Lu X. MicroRNA-625 inhibits the proliferation and increases the chemosensitivity of glioma by directly targeting AKT2. Am J Cancer Res. 2017 Sep 1;7(9):1835-1849. PMID: 28979807; PMCID: PMC5622219.

300: Zhang H, Lu X, Wang N, Wang J, Cao Y, Wang T, Zhou X, Jiao Y, Yang L, Wang X, Cong L, Li J, Li J, Ma HP, Pan Y, Ning S, Wang L. Autophagy-related gene expression is an independent prognostic indicator of glioma. Oncotarget. 2017 May 9;8(37):60987-61000. doi: 10.18632/oncotarget.17719. PMID: 28977840; PMCID: PMC5617400.

301: Jin F, Han GK, Zhang H, Zhang R, Li GH, Feng S, Qin XY, Kong LS, Nie QM, Li HR, Zhao L. Difference in the Inhibitory Effect of Temozolomide on TJ905 Glioma Cells and Stem Cells. Front Neurol. 2017 Sep 13;8:474. doi: 10.3389/fneur.2017.00474. PMID: 28955297; PMCID: PMC5601416.

302: Jiang B, Lun X, Hao X, Wang Y, Yin X, Huang D, He W, Wang Z. Temozolomide resistant human brain tumor stem cells are susceptible to recombinant vesicular stomatitis virus and double-deleted Vaccinia virus in vitro. Biomed Pharmacother. 2017 Nov;95:1201-1208. doi: 10.1016/j.biopha.2017.09.030. Epub 2017 Oct 6. PMID: 28931212.

303: Jayamanne D, Wheeler H, Cook R, Teo C, Brazier D, Schembri G, Kastelan M, Guo L, Back MF. Survival improvements with adjuvant therapy in patients with glioblastoma. ANZ J Surg. 2018 Mar;88(3):196-201. doi: 10.1111/ans.14153. Epub 2017 Sep 18. PMID: 28922698.

304: Zhang ZH, Fan XY, Zhao ZT, Song YM, Yu CJ. [RNA interference targeting DNA- PKcs inhibits glioma cells malignancies and enhances temozolomide sensitivity]. Zhonghua Yi Xue Za Zhi. 2017 Aug 15;97(31):2463-2467. Chinese. doi: 10.3760/cma.j.issn.0376-2491.2017.31.017. PMID: 28835051.

305: Wang HH, Chang TY, Lin WC, Wei KC, Shin JW. GADD45A plays a protective role against temozolomide treatment in glioblastoma cells. Sci Rep. 2017 Aug 18;7(1):8814. doi: 10.1038/s41598-017-06851-3. PMID: 28821714; PMCID: PMC5562912.

306: van den Bent MJ, Baumert B, Erridge SC, Vogelbaum MA, Nowak AK, Sanson M, Brandes AA, Clement PM, Baurain JF, Mason WP, Wheeler H, Chinot OL, Gill S, Griffin M, Brachman DG, Taal W, Rudà R, Weller M, McBain C, Reijneveld J, Enting RH, Weber DC, Lesimple T, Clenton S, Gijtenbeek A, Pascoe S, Herrlinger U, Hau P, Dhermain F, van Heuvel I, Stupp R, Aldape K, Jenkins RB, Dubbink HJ, Dinjens WNM, Wesseling P, Nuyens S, Golfinopoulos V, Gorlia T, Wick W, Kros JM. Interim results from the CATNON trial (EORTC study 26053-22054) of treatment with concurrent and adjuvant temozolomide for 1p/19q non-co-deleted anaplastic glioma: a phase 3, randomised, open-label intergroup study. Lancet. 2017 Oct 7;390(10103):1645-1653. doi: 10.1016/S0140-6736(17)31442-3. Epub 2017 Aug 8. Erratum in: Lancet. 2017 Oct 7;390(10103):1644. PMID: 28801186; PMCID: PMC5806535.

307: Tan Y, Li QM, Huang N, Cheng S, Zhao GJ, Chen H, Chen S, Tang ZH, Zhang WQ, Huang Q, Cheng Y. Upregulation of DACT2 suppresses proliferation and enhances apoptosis of glioma cell via inactivation of YAP signaling pathway. Cell Death Dis. 2017 Aug 10;8(8):e2981. doi: 10.1038/cddis.2017.385. PMID: 28796248; PMCID: PMC5596571.

308: Anwar M, Molinaro AM, Morin O, Chang SM, Haas-Kogan DA, Nelson SJ, Lupo JM. Identifying Voxels at Risk for Progression in Glioblastoma Based on Dosimetry, Physiologic and Metabolic MRI. Radiat Res. 2017 Sep;188(3):303-313. doi: 10.1667/RR14662.1. Epub 2017 Jul 19. PMID: 28723274; PMCID: PMC5628052.

309: Hojjati M, Badve C, Garg V, Tatsuoka C, Rogers L, Sloan A, Faulhaber P, Ros PR, Wolansky LJ. Role of FDG-PET/MRI, FDG-PET/CT, and Dynamic Susceptibility Contrast Perfusion MRI in Differentiating Radiation Necrosis from Tumor Recurrence in Glioblastomas. J Neuroimaging. 2018 Jan;28(1):118-125. doi: 10.1111/jon.12460. Epub 2017 Jul 18. PMID: 28718993; PMCID: PMC5811794.

310: Li H, Yuan X, Yan D, Li D, Guan F, Dong Y, Wang H, Liu X, Yang B. Long Non- Coding RNA MALAT1 Decreases the Sensitivity of Resistant Glioblastoma Cell Lines to Temozolomide. Cell Physiol Biochem. 2017;42(3):1192-1201. doi: 10.1159/000478917. Epub 2017 Jul 3. PMID: 28668966.

311: Tateishi K, Higuchi F, Miller JJ, Koerner MVA, Lelic N, Shankar GM, Tanaka S, Fisher DE, Batchelor TT, Iafrate AJ, Wakimoto H, Chi AS, Cahill DP. The Alkylating Chemotherapeutic Temozolomide Induces Metabolic Stress in IDH1-Mutant Cancers and Potentiates NAD^+ Depletion-Mediated Cytotoxicity. Cancer Res. 2017 Aug 1;77(15):4102-4115. doi: 10.1158/0008-5472.CAN-16-2263. Epub 2017 Jun 16. PMID: 28625978; PMCID: PMC5783559.

312: Song Z, Pan Y, Ling G, Wang S, Huang M, Jiang X, Ke Y. Escape of U251 glioma cells from temozolomide-induced senescence was modulated by CDK1/survivin signaling. Am J Transl Res. 2017 May 15;9(5):2163-2180. PMID: 28559969; PMCID: PMC5446501.

313: Yuan G, Niu L, Zhang Y, Wang X, Ma K, Yin H, Dai J, Zhou W, Pan Y. Defining optimal cutoff value of MGMT promoter methylation by ROC analysis for clinical setting in glioblastoma patients. J Neurooncol. 2017 May;133(1):193-201. doi: 10.1007/s11060-017-2433-9. Epub 2017 May 17. PMID: 28516344.

314: Chen Y, Li R, Pan M, Shi Z, Yan W, Liu N, You Y, Zhang J, Wang X. MiR-181b modulates chemosensitivity of glioblastoma multiforme cells to temozolomide by targeting the epidermal growth factor receptor. J Neurooncol. 2017 Jul;133(3):477-485. doi: 10.1007/s11060-017-2463-3. Epub 2017 May 13. PMID: 28501897.

315: Slat EA, Sponagel J, Marpegan L, Simon T, Kfoury N, Kim A, Binz A, Herzog ED, Rubin JB. Cell-intrinsic, Bmal1-dependent Circadian Regulation of Temozolomide Sensitivity in Glioblastoma. J Biol Rhythms. 2017 Apr;32(2):121-129. doi: 10.1177/0748730417696788. Epub 2017 Mar 16. PMID: 28470120; PMCID: PMC6410359.

316: Li K, Ouyang L, He M, Luo M, Cai W, Tu Y, Pi R, Liu A. IDH1 R132H mutation regulates glioma chemosensitivity through Nrf2 pathway. Oncotarget. 2017 Apr 25;8(17):28865-28879. doi: 10.18632/oncotarget.15868. PMID: 28427200; PMCID: PMC5438698.

317: Nie E, Jin X, Wu W, Yu T, Zhou X, Shi Z, Zhang J, Liu N, You Y. MiR-198 enhances temozolomide sensitivity in glioblastoma by targeting MGMT. J Neurooncol. 2017 May;133(1):59-68. doi: 10.1007/s11060-017-2425-9. Epub 2017 Apr 19. PMID: 28425046.

318: Sullivan KE, Rojas K, Cerione RA, Nakano I, Wilson KF. The stem cell/cancer stem cell marker

ALDH1A3 regulates the expression of the survival factor tissue transglutaminase, in mesenchymal glioma stem cells. Oncotarget. 2017 Apr 4;8(14):22325-22343. doi: 10.18632/oncotarget.16479. PMID: 28423611; PMCID: PMC5410226.

319: Wang HW, Xu ZK, Song Y, Liu YG. Correlations of MGMT genetic polymorphisms with temozolomide resistance and prognosis of patients with malignant gliomas: a population-based study in China. Cancer Gene Ther. 2017 May;24(5):215-220. doi: 10.1038/cgt.2017.7. Epub 2017 Apr 14. PMID: 28409559.

320: Narayan RS, Fedrigo CA, Brands E, Dik R, Stalpers LJ, Baumert BG, Slotman BJ, Westerman BA, Peters GJ, Sminia P. The allosteric AKT inhibitor MK2206 shows a synergistic interaction with chemotherapy and radiotherapy in glioblastoma spheroid cultures. BMC Cancer. 2017 Mar 21;17(1):204. doi: 10.1186/s12885-017-3193-9. PMID: 28320338; PMCID: PMC5359921.

321: D'Alessandris QG, Biffoni M, Martini M, Runci D, Buccarelli M, Cenci T, Signore M, Stancato L, Olivi A, De Maria R, Larocca LM, Ricci-Vitiani L, Pallini R. The clinical value of patient-derived glioblastoma tumorspheres in predicting treatment response. Neuro Oncol. 2017 Aug 1;19(8):1097-1108. doi: 10.1093/neuonc/now304. PMID: 28204560; PMCID: PMC5737323.

322: Liang F, Wang B, Bao L, Zhao YS, Zhang SM, Zhang SQ. Overexpression of ILK promotes temozolomide resistance in glioma cells. Mol Med Rep. 2017 Mar;15(3):1297-1304. doi: 10.3892/mmr.2017.6157. Epub 2017 Jan 26. PMID: 28138714.

323: Reich TR, Switzeny OJ, Renovanz M, Sommer C, Kaina B, Christmann M, Tomicic MT. Epigenetic silencing of XAF1 in high-grade gliomas is associated with IDH1 status and improved clinical outcome. Oncotarget. 2017 Feb 28;8(9):15071-15084. doi: 10.18632/oncotarget.14748. PMID: 28122345; PMCID: PMC5362468.

324: Liao Y, Shen L, Zhao H, Liu Q, Fu J, Guo Y, Peng R, Cheng L. LncRNA CASC2 Interacts With miR-181a to Modulate Glioma Growth and Resistance to TMZ Through PTEN Pathway. J Cell Biochem. 2017 Jul;118(7):1889-1899. doi: 10.1002/jcb.25910. Epub 2017 Feb 13. PMID: 28121023.

325: Yoo RE, Choi SH, Kim TM, Park CK, Park SH, Won JK, Kim IH, Lee ST, Choi HJ, You SH, Kang KM, Yun TJ, Kim JH, Sohn CH. Dynamic contrast-enhanced MR imaging in predicting progression of enhancing lesions persisting after standard treatment in glioblastoma patients: a prospective study. Eur Radiol. 2017 Aug;27(8):3156-3166. doi: 10.1007/s00330-016-4692-9. Epub 2016 Dec 14. PMID: 27975145.

326: Zhang Z, Wang Y, Chen J, Tan Q, Xie C, Li C, Zhan W, Wang M. Silencing of histone deacetylase 2 suppresses malignancy for proliferation, migration, and invasion of glioblastoma cells and enhances temozolomide sensitivity. Cancer Chemother Pharmacol. 2016 Dec;78(6):1289-1296. doi: 10.1007/s00280-016-3188-2. Epub 2016 Nov 10. PMID: 27832326.

327: Yang SH, Li S, Lu G, Xue H, Kim DH, Zhu JJ, Liu Y. Metformin treatment reduces temozolomide resistance of glioblastoma cells. Oncotarget. 2016 Nov 29;7(48):78787-78803. doi: 10.18632/oncotarget.12859. PMID: 27791206; PMCID: PMC5346677.

328: He XY, Feng XL, Song XP, Zeng HC, Cao ZX, Xiao WW, Zhang B, Wu QH. [RITA combined with temozolomide inhibits the proliferation of human glioblastoma U87 cells]. Nan Fang Yi Ke Da Xue Xue Bao. 2016 Oct 20;36(10):1423-1428. Chinese. PMID: 27777210.

329: Hoang-Minh LB, Deleyrolle LP, Nakamura NS, Parker AK, Martuscello RT, Reynolds BA, Sarkisian MR. PCM1 Depletion Inhibits Glioblastoma Cell Ciliogenesis and Increases Cell Death and Sensitivity to

Temozolomide. Transl Oncol. 2016 Oct;9(5):392-402. doi: 10.1016/j.tranon.2016.08.006. Epub 2016 Sep 20. PMID: 27661404; PMCID: PMC5035360.

330: Dai X, Ma C, Lan Q, Xu T. 3D bioprinted glioma stem cells for brain tumor model and applications of drug susceptibility. Biofabrication. 2016 Oct 11;8(4):045005. doi: 10.1088/1758-5090/8/4/045005. PMID: 27725343.

331: Yang CH, Wang Y, Sims M, Cai C, He P, Yue J, Cheng J, Boop FA, Pfeffer SR, Pfeffer LM. MiRNA203 suppresses the expression of protumorigenic STAT1 in glioblastoma to inhibit tumorigenesis. Oncotarget. 2016 Dec 20;7(51):84017-84029. doi: 10.18632/oncotarget.12401. PMID: 27705947; PMCID: PMC5341291.

332: Saito T, Sugiyama K, Ikawa F, Yamasaki F, Ishifuro M, Takayasu T, Nosaka R, Nishibuchi I, Muragaki Y, Kawamata T, Kurisu K. Permeability Surface Area Product Using Perfusion Computed Tomography Is a Valuable Prognostic Factor in Glioblastomas Treated with Radiotherapy Plus Concomitant and Adjuvant Temozolomide. World Neurosurg. 2017 Jan;97:21-26. doi: 10.1016/j.wneu.2016.09.072. Epub 2016 Sep 28. PMID: 27693246.

333: Polewski MD, Reveron-Thornton RF, Cherryholmes GA, Marinov GK, Cassady K, Aboody KS. Increased Expression of System xc- in Glioblastoma Confers an Altered Metabolic State and Temozolomide Resistance. Mol Cancer Res. 2016 Dec;14(12):1229-1242. doi: 10.1158/1541-7786.MCR-16-0028. Epub 2016 Sep 22. PMID: 27658422; PMCID: PMC6237285.

334: Gao YT, Chen XB, Liu HL. Up-regulation of miR-370-3p restores glioblastoma multiforme sensitivity to temozolomide by influencing MGMT expression. Sci Rep. 2016 Sep 6;6:32972. doi: 10.1038/srep32972. PMID: 27595933; PMCID: PMC5011744.

335: Jiang H, Liu W, Zhan SK, Pan YX, Bian LG, Sun B, Sun QF, Pan SJ. GSK621 Targets Glioma Cells via Activating AMP-Activated Protein Kinase Signalings. PLoS One. 2016 Aug 17;11(8):e0161017. doi: 10.1371/journal.pone.0161017. PMID: 27532105; PMCID: PMC4988667.

336: Kenig S, Faoro V, Bourkoula E, Podergajs N, Ius T, Vindigni M, Skrap M, Lah T, Cesselli D, Storici P, Vindigni A. Topoisomerase IIβ mediates the resistance of glioblastoma stem cells to replication stress-inducing drugs. Cancer Cell Int. 2016 Jul 26;16:58. doi: 10.1186/s12935-016-0339-9. PMID: 27462186; PMCID: PMC4960855.

337: Zeng L, Zhao Y, Ouyang T, Zhao T, Zhang S, Chen J, Yu J, Lei T. Label- retaining assay enriches tumor-initiating cells in glioblastoma spheres cultivated in serum-free medium. Oncol Lett. 2016 Aug;12(2):815-824. doi: 10.3892/ol.2016.4690. Epub 2016 Jun 8. PMID: 27446356; PMCID: PMC4950123.

338: Yi GZ, Liu YW, Xiang W, Wang H, Chen ZY, Xie SD, Qi ST. Akt and β-catenin contribute to TMZ resistance and EMT of MGMT negative malignant glioma cell line. J Neurol Sci. 2016 Aug 15;367:101-6. doi: 10.1016/j.jns.2016.05.054. Epub 2016 Jun 1. PMID: 27423571.

339: Xiao S, Yang Z, Qiu X, Lv R, Liu J, Wu M, Liao Y, Liu Q. miR-29c contribute to glioma cells temozolomide sensitivity by targeting O6-methylguanine-DNA methyltransferases indirectely. Oncotarget. 2016 Aug 2;7(31):50229-50238. doi: 10.18632/oncotarget.10357. PMID: 27384876; PMCID: PMC5226579.

340: Wang H, Feng W, Lu Y, Li H, Xiang W, Chen Z, He M, Zhao L, Sun X, Lei B, Qi S, Liu Y. Expression of dynein, cytoplasmic 2, heavy chain 1 (DHC2) associated with glioblastoma cell resistance to temozolomide. Sci Rep. 2016 Jul 4;6:28948. doi: 10.1038/srep28948. PMID: 27375225; PMCID:

PMC4931463.

341: Jiang P, Wang P, Sun X, Yuan Z, Zhan R, Ma X, Li W. Knockdown of long noncoding RNA H19 sensitizes human glioma cells to temozolomide therapy. Onco Targets Ther. 2016 Jun 13;9:3501-9. doi: 10.2147/OTT.S96278. PMID: 27366087; PMCID: PMC4913544.

342: Liu Y, Xu N, Liu B, Huang Y, Zeng H, Yang Z, He Z, Guo H. Long noncoding RNA RP11-838N2.4 enhances the cytotoxic effects of temozolomide by inhibiting the functions of miR-10a in glioblastoma cell lines. Oncotarget. 2016 Jul 12;7(28):43835-43851. doi: 10.18632/oncotarget.9699. PMID: 27270310; PMCID: PMC5190063.

343: Switzeny OJ, Christmann M, Renovanz M, Giese A, Sommer C, Kaina B. MGMT promoter methylation determined by HRM in comparison to MSP and pyrosequencing for predicting high-grade glioma response. Clin Epigenetics. 2016 May 5;8:49. doi: 10.1186/s13148-016-0204-7. PMID: 27158275; PMCID: PMC4858829.

344: Ledur PF, Liu C, He H, Harris AR, Minussi DC, Zhou HY, Shaffrey ME, Asthagiri A, Lopes MB, Schiff D, Lu YC, Mandell JW, Lenz G, Zong H. Culture conditions tailored to the cell of origin are critical for maintaining native properties and tumorigenicity of glioma cells. Neuro Oncol. 2016 Oct;18(10):1413-24. doi: 10.1093/neuonc/now062. Epub 2016 Apr 21. PMID: 27106408; PMCID: PMC5035523.

345: Sehm T, Fan Z, Ghoochani A, Rauh M, Engelhorn T, Minakaki G, Dörfler A, Klucken J, Buchfelder M, Eyüpoglu IY, Savaskan N. Sulfasalazine impacts on ferroptotic cell death and alleviates the tumor microenvironment and glioma- induced brain edema. Oncotarget. 2016 Jun 14;7(24):36021-36033. doi: 10.18632/oncotarget.8651. PMID: 27074570; PMCID: PMC5094980.

346: Yu Z, Zhao G, Li P, Li Y, Zhou G, Chen Y, Xie G. Temozolomide in combination with metformin act synergistically to inhibit proliferation and expansion of glioma stem-like cells. Oncol Lett. 2016 Apr;11(4):2792-2800. doi: 10.3892/ol.2016.4315. Epub 2016 Mar 8. PMID: 27073554; PMCID: PMC4812167.

347: Peng C, Chen Z, Wang S, Wang HW, Qiu W, Zhao L, Xu R, Luo H, Chen Y, Chen D, You Y, Liu N, Wang H. The Error-Prone DNA Polymerase κ Promotes Temozolomide Resistance in Glioblastoma through Rad17-Dependent Activation of ATR-Chk1 Signaling. Cancer Res. 2016 Apr 15;76(8):2340-53. doi: 10.1158/0008-5472.CAN-15-1884. Epub 2016 Mar 9. PMID: 26960975.

348: Singh AR, Joshi S, Zulcic M, Alcaraz M, Garlich JR, Morales GA, Cho YJ, Bao L, Levy ML, Newbury R, Malicki D, Messer K, Crawford J, Durden DL. PI-3K Inhibitors Preferentially Target CD15+ Cancer Stem Cell Population in SHH Driven Medulloblastoma. PLoS One. 2016 Mar 3;11(3):e0150836. doi: 10.1371/journal.pone.0150836. PMID: 26938241; PMCID: PMC4777592.

349: Li MY, Yang P, Liu YW, Zhang CB, Wang KY, Wang YY, Yao K, Zhang W, Qiu XG, Li WB, Peng XX, Wang YZ, Jiang T. Low c-Met expression levels are prognostic for and predict the benefits of temozolomide chemotherapy in malignant gliomas. Sci Rep. 2016 Feb 16;6:21141. doi: 10.1038/srep21141. PMID: 26879272; PMCID: PMC4754763.

350: Qu J, Qin L, Cheng S, Leung K, Li X, Li H, Dai J, Jiang T, Akgoz A, Seethamraju R, Wang Q, Rahman R, Li S, Ai L, Jiang T, Young GS. Residual low ADC and high FA at the resection margin correlate with poor chemoradiation response and overall survival in high-grade glioma patients. Eur J Radiol. 2016 Mar;85(3):657-64. doi: 10.1016/j.ejrad.2015.12.026. Epub 2015 Dec 31. PMID: 26860681.

351: Schmid RS, Simon JM, Vitucci M, McNeill RS, Bash RE, Werneke AM, Huey L, White KK, Ewend MG,

Wu J, Miller CR. Core pathway mutations induce de- differentiation of murine astrocytes into glioblastoma stem cells that are sensitive to radiation but resistant to temozolomide. Neuro Oncol. 2016 Jul;18(7):962-73. doi: 10.1093/neuonc/nov321. Epub 2016 Jan 28. PMID: 26826202; PMCID: PMC4896545.

352: Han J, Chen Q. MiR-16 modulate temozolomide resistance by regulating BCL-2 in human glioma cells. Int J Clin Exp Pathol. 2015 Oct 1;8(10):12698-707. PMID: 26722459; PMCID: PMC4680404.

353: Bumes E, Rzonsa S, Hutterer M, Proescholdt M, Bogdahn U, Riemenschneider MJ, Uhl M, Wendl C, Hau P. Adverse event grading following CTCAE v3.0 underestimates hypertensive side effects in patients with glioma treated with Bevacizumab. J Neurooncol. 2016 Mar;127(1):191-200. doi: 10.1007/s11060-015-2031-7. Epub 2015 Dec 31. PMID: 26721240.

354: Zakaria Z, Tivnan A, Flanagan L, Murray DW, Salvucci M, Stringer BW, Day BW, Boyd AW, Kögel D, Rehm M, O'Brien DF, Byrne AT, Prehn JH. Patient-derived glioblastoma cells show significant heterogeneity in treatment responses to the inhibitor-of-apoptosis-protein antagonist birinapant. Br J Cancer. 2016 Jan 19;114(2):188-98. doi: 10.1038/bjc.2015.420. Epub 2015 Dec 10. PMID: 26657652; PMCID: PMC4815807.

355: Ohno M, Narita Y, Miyakita Y, Matsushita Y, Arita H, Yonezawa M, Yoshida A, Fukushima S, Takami H, Ichimura K, Shibui S. Glioblastomas with IDH1/2 mutations have a short clinical history and have a favorable clinical outcome. Jpn J Clin Oncol. 2016 Jan;46(1):31-9. doi: 10.1093/jjco/hyv170. Epub 2015 Nov 24. PMID: 26603354.

356: Lee EK, Choi SH, Yun TJ, Kang KM, Kim TM, Lee SH, Park CK, Park SH, Kim IH. Prediction of Response to Concurrent Chemoradiotherapy with Temozolomide in Glioblastoma: Application of Immediate Post-Operative Dynamic Susceptibility Contrast and Diffusion-Weighted MR Imaging. Korean J Radiol. 2015 Nov- Dec;16(6):1341-8. doi: 10.3348/kjr.2015.16.6.1341. Epub 2015 Oct 26. PMID: 26576125; PMCID: PMC4644757.

357: Lerner RG, Grossauer S, Kadkhodaei B, Meyers I, Sidorov M, Koeck K, Hashizume R, Ozawa T, Phillips JJ, Berger MS, Nicolaides T, James CD, Petritsch CK. Targeting a Plk1-Controlled Polarity Checkpoint in Therapy-Resistant Glioblastoma-Propagating Cells. Cancer Res. 2015 Dec 15;75(24):5355-66. doi: 10.1158/0008-5472.CAN-14-3689. Epub 2015 Nov 16. PMID: 26573800; PMCID: PMC4698003.

358: Cheng W, Li M, Jiang Y, Zhang C, Cai J, Wang K, Wu A. Association between small heat shock protein B11 and the prognostic value of MGMT promoter methylation in patients with high-grade glioma. J Neurosurg. 2016 Jul;125(1):7-16. doi: 10.3171/2015.5.JNS142437. Epub 2015 Nov 6. PMID: 26544773.

359: Murphy SF, Varghese RT, Lamouille S, Guo S, Pridham KJ, Kanabur P, Osimani AM, Sharma S, Jourdan J, Rodgers CM, Simonds GR, Gourdie RG, Sheng Z. Connexin 43 Inhibition Sensitizes Chemoresistant Glioblastoma Cells to Temozolomide. Cancer Res. 2016 Jan 1;76(1):139-49. doi: 10.1158/0008-5472.CAN-15-1286. Epub 2015 Nov 5. PMID: 26542214; PMCID: PMC5113032.

360: Zhang R, Saito R, Shibahara I, Sugiyama S, Kanamori M, Sonoda Y, Tominaga T. Temozolomide reverses doxorubicin resistance by inhibiting P-glycoprotein in malignant glioma cells. J Neurooncol. 2016 Jan;126(2):235-42. doi: 10.1007/s11060-015-1968-x. Epub 2015 Nov 4. PMID: 26530267.

361: Li H, Liu Y, Jiao Y, Guo A, Xu X, Qu X, Wang S, Zhao J, Li Y, Cao Y. Resveratrol sensitizes glioblastoma-initiating cells to temozolomide by inducing cell apoptosis and promoting differentiation. Oncol Rep. 2016 Jan;35(1):343-51. doi: 10.3892/or.2015.4346. Epub 2015 Oct 23. PMID: 26498391.

362: Shi L, Sun G. Low-Dose DMC Significantly Enhances the Effect of TMZ on Glioma Cells by Targeting Multiple Signaling Pathways Both In Vivo and In Vitro. Neuromolecular Med. 2015 Dec;17(4):431-42. doi: 10.1007/s12017-015-8372-8. Epub 2015 Oct 12. PMID: 26458914.

363: Bulik M, Kazda T, Slampa P, Jancalek R. The Diagnostic Ability of Follow-Up Imaging Biomarkers after Treatment of Glioblastoma in the Temozolomide Era: Implications from Proton MR Spectroscopy and Apparent Diffusion Coefficient Mapping. Biomed Res Int. 2015;2015:641023. doi: 10.1155/2015/641023. Epub 2015 Sep 13. PMID: 26448943; PMCID: PMC4584055.

364: Kahlert UD, Cheng M, Koch K, Marchionni L, Fan X, Raabe EH, Maciaczyk J, Glunde K, Eberhart CG. Alterations in cellular metabolome after pharmacological inhibition of Notch in glioblastoma cells. Int J Cancer. 2016 Mar 1;138(5):1246-55. doi: 10.1002/ijc.29873. Epub 2015 Oct 13. PMID: 26422827; PMCID: PMC4772139.

365: Lee J, Narang S, Martinez J, Rao G, Rao A. Spatial Habitat Features Derived from Multiparametric Magnetic Resonance Imaging Data Are Associated with Molecular Subtype and 12-Month Survival Status in Glioblastoma Multiforme. PLoS One. 2015 Sep 14;10(9):e0136557. doi: 10.1371/journal.pone.0136557. PMID: 26368923; PMCID: PMC4569439.

366: Kang HC, Yu T, Lim DH, Kim IH, Chung WK, Suh CO, Choi BO, Cho KH, Cho JH, Kim JH, Nam DH, Park CK, Hong YK, Kim IA. A multicenter study of anaplastic oligodendroglioma: the Korean Radiation Oncology Group Study 13-12. J Neurooncol. 2015 Oct;125(1):207-15. doi: 10.1007/s11060-015-1902-2. Epub 2015 Sep 4. PMID: 26341368.

367: Zhou D, Wan Y, Xie D, Wang Y, Wei J, Yan Q, Lu P, Mo L, Xie J, Yang S, Qi X. DNMT1 mediates chemosensitivity by reducing methylation of miRNA-20a promoter in glioma cells. Exp Mol Med. 2015 Sep 4;47(9):e182. doi: 10.1038/emm.2015.57. PMID: 26337869; PMCID: PMC4650929.

368: Yoo RE, Choi SH, Kim TM, Lee SH, Park CK, Park SH, Kim IH, Yun TJ, Kim JH, Sohn CH. Independent Poor Prognostic Factors for True Progression after Radiation Therapy and Concomitant Temozolomide in Patients with Glioblastoma: Subependymal Enhancement and Low ADC Value. AJNR Am J Neuroradiol. 2015 Oct;36(10):1846-52. doi: 10.3174/ajnr.A4401. Epub 2015 Aug 20. PMID: 26294653; PMCID: PMC7965024.

369: Trabelsi S, Mama N, Ladib M, Karmeni N, Haddaji Mastouri M, Chourabi M, Mokni M, Tlili K, Krifa H, Yacoubi MT, Saad A, H'mida Ben Brahim D. MGMT methylation assessment in glioblastoma: MS-MLPA versus human methylation 450K beadchip array and immunohistochemistry. Clin Transl Oncol. 2016 Apr;18(4):391-7. doi: 10.1007/s12094-015-1381-0. Epub 2015 Aug 20. PMID: 26289551.

370: He H, Yao M, Zhang W, Tao B, Liu F, Li S, Dong Y, Zhang C, Meng Y, Li Y, Hu G, Luo C, Zong H, Lu Y. MEK2 is a prognostic marker and potential chemo- sensitizing target for glioma patients undergoing temozolomide treatment. Cell Mol Immunol. 2016 Sep;13(5):658-68. doi: 10.1038/cmi.2015.46. Epub 2015 Jul 20. PMID: 26189368; PMCID: PMC5037281.

371: Zhang ZS, Wang J, Shen YB, Guo CC, Sai KE, Chen FR, Mei X, Han FU, Chen ZP. Dihydroartemisinin increases temozolomide efficacy in glioma cells by inducing autophagy. Oncol Lett. 2015 Jul;10(1):379-383. doi: 10.3892/ol.2015.3183. Epub 2015 May 6. PMID: 26171034; PMCID: PMC4487108.

372: Zhitao J, Long L, Jia L, Yunchao B, Anhua W. Temozolomide sensitizes stem- like cells of glioma spheres to TRAIL-induced apoptosis via upregulation of casitas B-lineage lymphoma (c-Cbl) protein. Tumour Biol. 2015 Dec;36(12):9621-30. doi: 10.1007/s13277-015-3720-8. Epub 2015 Jul 6. PMID: 26142735.

373: Safa AR, Saadatzadeh MR, Cohen-Gadol AA, Pollok KE, Bijangi-Vishehsaraei K. Glioblastoma stem cells (GSCs) epigenetic plasticity and interconversion between differentiated non-GSCs and GSCs. Genes Dis. 2015 Jun;2(2):152-163. doi: 10.1016/j.gendis.2015.02.001. PMID: 26137500; PMCID: PMC4484766.

374: Barault L, Amatu A, Bleeker FE, Moutinho C, Falcomatà C, Fiano V, Cassingena A, Siravegna G, Milione M, Cassoni P, De Braud F, Rudà R, Soffietti R, Venesio T, Bardelli A, Wesseling P, de Witt Hamer P, Pietrantonio F, Siena S, Esteller M, Sartore-Bianchi A, Di Nicolantonio F. Digital PCR quantification of MGMT methylation refines prediction of clinical benefit from alkylating agents in glioblastoma and metastatic colorectal cancer. Ann Oncol. 2015 Sep;26(9):1994-1999. doi: 10.1093/annonc/mdv272. Epub 2015 Jun 25. PMID: 26113646.

375: Kim SJ, Lee HJ, Kim MS, Choi HJ, He J, Wu Q, Aldape K, Weinberg JS, Yung WK, Conrad CA, Langley RR, Lehembre F, Regenass U, Fidler IJ. Macitentan, a Dual Endothelin Receptor Antagonist, in Combination with Temozolomide Leads to Glioblastoma Regression and Long-term Survival in Mice. Clin Cancer Res. 2015 Oct 15;21(20):4630-41. doi: 10.1158/1078-0432.CCR-14-3195. Epub 2015 Jun 23. PMID: 26106074; PMCID: PMC4780217.

376: Wei J, Qi X, Zhan Q, Zhou D, Yan Q, Wang Y, Mo L, Wan Y, Xie D, Xie J, Yang S. miR-20a mediates temozolomide-resistance in glioblastoma cells via negatively regulating LRIG1 expression. Biomed Pharmacother. 2015 Apr;71:112-8. doi: 10.1016/j.biopha.2015.01.026. Epub 2015 Feb 7. Erratum in: Biomed Pharmacother. 2016 Dec;84:1440-1441. PMID: 25960225.

377: Mellai M, Cattaneo M, Storaci AM, Annovazzi L, Cassoni P, Melcarne A, De Blasio P, Schiffer D, Biunno I. SEL1L SNP rs12435998, a predictor of glioblastoma survival and response to radio-chemotherapy. Oncotarget. 2015 May 20;6(14):12452-67. doi: 10.18632/oncotarget.3611. Erratum in: Oncotarget. 2018 Aug 24;9(66):32731. PMID: 25948789; PMCID: PMC4494950.

378: Ono T, Sasajima T, Doi Y, Oka S, Ono M, Kanagawa M, Baden A, Mizoi K, Shimizu H. Amino acid PET tracers are reliable markers of treatment responses to single-agent or combination therapies including temozolomide, interferon-β, and/or bevacizumab for glioblastoma. Nucl Med Biol. 2015 Jul;42(7):598-607. doi: 10.1016/j.nucmedbio.2015.01.008. Epub 2015 Jan 31. PMID: 25892210.

379: Balvers RK, Lamfers ML, Kloezeman JJ, Kleijn A, Berghauser Pont LM, Dirven CM, Leenstra S. ABT-888 enhances cytotoxic effects of temozolomide independent of MGMT status in serum free cultured glioma cells. J Transl Med. 2015 Feb 26;13:74. doi: 10.1186/s12967-015-0427-y. PMID: 25886061; PMCID: PMC4359449.

380: Yan W, Liu Y, Yang P, Wang Z, You Y, Jiang T. MicroRNA profiling of Chinese primary glioblastoma reveals a temozolomide-chemoresistant subtype. Oncotarget. 2015 May 10;6(13):11676-82. doi: 10.18632/oncotarget.3258. PMID: 25869098; PMCID: PMC4484485.

381: Sesen J, Dahan P, Scotland SJ, Saland E, Dang VT, Lemarié A, Tyler BM, Brem H, Toulas C, Cohen-Jonathan Moyal E, Sarry JE, Skuli N. Metformin inhibits growth of human glioblastoma cells and enhances therapeutic response. PLoS One. 2015 Apr 13;10(4):e0123721. doi: 10.1371/journal.pone.0123721. PMID: 25867026; PMCID: PMC4395104.

382: Bir SC, Connor DE Jr, Ambekar S, Wilden JA, Nanda A. Factors predictive of improved overall survival following stereotactic radiosurgery for recurrent glioblastoma. Neurosurg Rev. 2015 Oct;38(4):705-13. doi: 10.1007/s10143-015-0632-4. Epub 2015 Apr 14. PMID: 25864406.

383: Fraser E, Gruenberg K, Rubenstein JL. New approaches in primary central nervous system lymphoma. Chin Clin Oncol. 2015 Mar;4(1):11. doi: 10.3978/j.issn.2304-3865.2015.02.01. PMID:

25841718; PMCID: PMC4942281.

384: Dong F, Eibach M, Bartsch JW, Dolga AM, Schlomann U, Conrad C, Schieber S, Schilling O, Biniossek ML, Culmsee C, Strik H, Koller G, Carl B, Nimsky C. The metalloprotease-disintegrin ADAM8 contributes to temozolomide chemoresistance and enhanced invasiveness of human glioblastoma cells. Neuro Oncol. 2015 Nov;17(11):1474-85. doi: 10.1093/neuonc/nov042. Epub 2015 Mar 29. PMID: 25825051; PMCID: PMC4648299.

385: Lai IC, Shih PH, Yao CJ, Yeh CT, Wang-Peng J, Lui TN, Chuang SE, Hu TS, Lai TY, Lai GM. Elimination of cancer stem-like cells and potentiation of temozolomide sensitivity by Honokiol in glioblastoma multiforme cells. PLoS One. 2015 Mar 12;10(3):e0114830. doi: 10.1371/journal.pone.0114830. PMID: 25763821; PMCID: PMC4357432.

386: Pan SJ, Wu YB, Cai S, Pan YX, Liu W, Bian LG, Sun B, Sun QF. Over- expression of tetraspanin 8 in malignant glioma regulates tumor cell progression. Biochem Biophys Res Commun. 2015 Mar 13;458(3):476-482. doi: 10.1016/j.bbrc.2015.01.128. Epub 2015 Feb 11. PMID: 25680464.

387: Zou Y, Wang Q, Wang W. MutL homolog 1 contributes to temozolomide-induced autophagy via ataxia-telangiectasia mutated in glioma. Mol Med Rep. 2015 Jun;11(6):4591-6. doi: 10.3892/mmr.2015.3293. Epub 2015 Feb 3. PMID: 25646660.

388: Miao W, Liu X, Wang H, Fan Y, Lian S, Yang X, Wang X, Guo G, Li Q, Wang S. p53 upregulated modulator of apoptosis sensitizes drug-resistant U251 glioblastoma stem cells to temozolomide through enhanced apoptosis. Mol Med Rep. 2015 Jun;11(6):4165-73. doi: 10.3892/mmr.2015.3255. Epub 2015 Jan 26. PMID: 25625235; PMCID: PMC4394929.

389: Pokorny JL, Calligaris D, Gupta SK, Iyekegbe DO Jr, Mueller D, Bakken KK, Carlson BL, Schroeder MA, Evans DL, Lou Z, Decker PA, Eckel-Passow JE, Pucci V, Ma B, Shumway SD, Elmquist WF, Agar NY, Sarkaria JN. The Efficacy of the Wee1 Inhibitor MK-1775 Combined with Temozolomide Is Limited by Heterogeneous Distribution across the Blood-Brain Barrier in Glioblastoma. Clin Cancer Res. 2015 Apr 15;21(8):1916-24. doi: 10.1158/1078-0432.CCR-14-2588. Epub 2015 Jan 21. PMID: 25609063; PMCID: PMC4401631.

390: Chen L, Li X, Liu L, Yu B, Xue Y, Liu Y. Erastin sensitizes glioblastoma cells to temozolomide by restraining xCT and cystathionine-γ-lyase function. Oncol Rep. 2015 Mar;33(3):1465-74. doi: 10.3892/or.2015.3712. Epub 2015 Jan 13. PMID: 25585997.

391: Zhong C, Yin S, Zhou P, Jiang S. Pituitary atypical adenoma or carcinoma sensitive to temozolomide combined with radiation therapy: a case report of early identification and management. Turk Neurosurg. 2014;24(6):963-6. doi: 10.5137/1019-5149.JTN.9629-13.1. PMID: 25448217.

392: Qian C, Li P, Yan W, Shi L, Zhang J, Wang Y, Liu H, You Y. Downregulation of osteopontin enhances the sensitivity of glioma U251 cells to temozolomide and cisplatin by targeting the NF-κB/Bcl-2 pathway. Mol Med Rep. 2015 Mar;11(3):1951-5. doi: 10.3892/mmr.2014.2951. Epub 2014 Nov 14. PMID: 25405848.

393: Liu X, Wang X, Du W, Chen L, Wang G, Cui Y, Liu Y, Dou Z, Wang H, Zhang P, Chang L, Yi L, Cai J, Jiang C. Suppressor of fused (Sufu) represses Gli1 transcription and nuclear accumulation, inhibits glioma cell proliferation, invasion and vasculogenic mimicry, improving glioma chemo-sensitivity and prognosis. Oncotarget. 2014 Nov 30;5(22):11681-94. doi: 10.18632/oncotarget.2585. PMID: 25373737; PMCID: PMC4294353.

394: Shi H, Du J, Wang L, Zheng B, Gong H, Wu Y, Tang Y, Gao Y, Yu R. Lower expression of Nrdp1 in human glioma contributes tumor progression by reducing apoptosis. IUBMB Life. 2014 Oct;66(10):704-10. doi: 10.1002/iub.1320. Epub 2014 Oct 30. PMID: 25355637.

395: Song Y, Mu L, Han X, Liu X, Fu S. siRNA targeting stathmin inhibits invasion and enhances chemotherapy sensitivity of stem cells derived from glioma cell lines. Acta Biochim Biophys Sin (Shanghai). 2014 Dec;46(12):1034-40. doi: 10.1093/abbs/gmu099. Epub 2014 Oct 27. PMID: 25348735.

396: Shi J, Sun B, Shi W, Zuo H, Cui D, Ni L, Chen J. Decreasing GSH and increasing ROS in chemosensitivity gliomas with IDH1 mutation. Tumour Biol. 2015 Feb;36(2):655-62. doi: 10.1007/s13277-014-2644-z. Epub 2014 Oct 5. PMID: 25283382.

397: Yang N, Yan T, Zhu H, Liang X, Leiss L, Sakariassen PØ, Skaftnesmo KO, Huang B, Costea DE, Enger PØ, Li X, Wang J. A co-culture model with brain tumor- specific bioluminescence demonstrates astrocyte-induced drug resistance in glioblastoma. J Transl Med. 2014 Oct 4;12:278. doi: 10.1186/s12967-014-0278-y. PMID: 25280402; PMCID: PMC4198700.

398: Wu H, Liu Q, Cai T, Chen YD, Liao F, Wang ZF. MiR-136 modulates glioma cell sensitivity to temozolomide by targeting astrocyte elevated gene-1. Diagn Pathol. 2014 Sep 30;9:173. doi: 10.1186/s13000-014-0173-0. PMID: 25266957; PMCID: PMC4195982.

399: Sun YC, Wang J, Guo CC, Sai K, Wang J, Chen FR, Yang QY, Chen YS, Wang J, To TS, Zhang ZP, Mu YG, Chen ZP. MiR-181b sensitizes glioma cells to teniposide by targeting MDM2. BMC Cancer. 2014 Aug 25;14:611. doi: 10.1186/1471-2407-14-611. PMID: 25151861; PMCID: PMC4155117.

400: Kim JW, Kim JY, Kim JE, Kim SK, Chung HT, Park CK. HOXA10 is associated with temozolomide resistance through regulation of the homologous recombinant DNA repair pathway in glioblastoma cell lines. Genes Cancer. 2014 May;5(5-6):165-174. doi: 10.18632/genesandcancer.16. PMID: 25061500; PMCID: PMC4104759.

401: Gong A, Ge N, Yao W, Lu L, Liang H. Aplysin enhances temozolomide sensitivity in glioma cells by increasing miR-181 level. Cancer Chemother Pharmacol. 2014 Sep;74(3):531-8. doi: 10.1007/s00280-014-2534-5. Epub 2014 Jul 22. Retraction in: Cancer Chemother Pharmacol. 2021 May;87(5):721. PMID: 25047724.

402: Ishikawa E, Muragaki Y, Yamamoto T, Maruyama T, Tsuboi K, Ikuta S, Hashimoto K, Uemae Y, Ishihara T, Matsuda M, Matsutani M, Karasawa K, Nakazato Y, Abe T, Ohno T, Matsumura A. Phase I/IIa trial of fractionated radiotherapy, temozolomide, and autologous formalin-fixed tumor vaccine for newly diagnosed glioblastoma. J Neurosurg. 2014 Sep;121(3):543-53. doi: 10.3171/2014.5.JNS132392. Epub 2014 Jul 4. PMID: 24995786.

403: Kushwaha D, Ramakrishnan V, Ng K, Steed T, Nguyen T, Futalan D, Akers JC, Sarkaria J, Jiang T, Chowdhury D, Carter BS, Chen CC. A genome-wide miRNA screen revealed miR-603 as a MGMT-regulating miRNA in glioblastomas. Oncotarget. 2014 Jun 30;5(12):4026-39. doi: 10.18632/oncotarget.1974. PMID: 24994119; PMCID: PMC4147303.

404: Zhu TZ, Li XM, Luo LH, Xu YH, Cao P, Liu Y, Liang GB. β-Elemene inhibits proliferation through crosstalk between glia maturation factor β and extracellular signal-regulated kinase 1/2 and impairs drug resistance to temozolomide in glioblastoma cells. Mol Med Rep. 2014 Aug;10(2):1122-8. doi: 10.3892/mmr.2014.2273. Epub 2014 May 27. PMID: 24866280.

405: Akiyama Y, Ashizawa T, Komiyama M, Miyata H, Oshita C, Omiya M, Iizuka A, Kume A, Sugino T,

Hayashi N, Mitsuya K, Nakasu Y, Yamaguchi K. YKL-40 downregulation is a key factor to overcome temozolomide resistance in a glioblastoma cell line. Oncol Rep. 2014 Jul;32(1):159-66. doi: 10.3892/or.2014.3195. Epub 2014 May 16. PMID: 24842123.

406: Zhu TZ, Li XM, Luo LH, Song ZQ, Gao X, Li ZQ, Su JY, Liang GB. β-elemene inhibits stemness, promotes differentiation and impairs chemoresistance to temozolomide in glioblastoma stem-like cells. Int J Oncol. 2014 Aug;45(2):699-709. doi: 10.3892/ijo.2014.2448. Epub 2014 May 19. PMID: 24841897.

407: Signore M, Pelacchi F, di Martino S, Runci D, Biffoni M, Giannetti S, Morgante L, De Majo M, Petricoin EF, Stancato L, Larocca LM, De Maria R, Pallini R, Ricci-Vitiani L. Combined PDK1 and CHK1 inhibition is required to kill glioblastoma stem-like cells in vitro and in vivo. Cell Death Dis. 2014 May 8;5(5):e1223. doi: 10.1038/cddis.2014.188. PMID: 24810059; PMCID: PMC4047898.

408: Fischer S, Ronellenfitsch MW, Thiepold AL, Harter PN, Reichert S, Kögel D, Paschke R, Mittelbronn M, Weller M, Steinbach JP, Fulda S, Bähr O. Hypoxia enhances the antiglioma cytotoxicity of B10, a glycosylated derivative of betulinic acid. PLoS One. 2014 Apr 17;9(4):e94921. doi: 10.1371/journal.pone.0094921. PMID: 24743710; PMCID: PMC3990545.

409: Sagiyama K, Mashimo T, Togao O, Vemireddy V, Hatanpaa KJ, Maher EA, Mickey BE, Pan E, Sherry AD, Bachoo RM, Takahashi M. In vivo chemical exchange saturation transfer imaging allows early detection of a therapeutic response in glioblastoma. Proc Natl Acad Sci U S A. 2014 Mar 25;111(12):4542-7. doi: 10.1073/pnas.1323855111. Epub 2014 Mar 10. PMID: 24616497; PMCID: PMC3970489.

410: Zhang L, Ren X, Cheng Y, Liu X, Allen JE, Zhang Y, Yuan Y, Huang SY, Yang W, Berg A, Webb BS, Connor J, Liu CG, Lu Z, El-Deiry WS, Yang JM. The NFκB inhibitor, SN50, induces differentiation of glioma stem cells and suppresses their oncogenic phenotype. Cancer Biol Ther. 2014 May;15(5):602-11. doi: 10.4161/cbt.28158. Epub 2014 Feb 20. PMID: 24557012; PMCID: PMC4026083.

411: Daróczi B, Szántó E, Tóth J, Barzó P, Bognár L, Bakó G, Szántó J, Mózes P, Hideghéty K. Post-operative management of primary glioblastoma multiforme in patients over 60 years of age. Ideggyogy Sz. 2013 Nov 30;66(11-12):391-8. PMID: 24555238.

412: Wang JB, Dong DF, Wang MD, Gao K. IDH1 overexpression induced chemotherapy resistance and IDH1 mutation enhanced chemotherapy sensitivity in Glioma cells in vitro and in vivo. Asian Pac J Cancer Prev. 2014;15(1):427-32. doi: 10.7314/apjcp.2014.15.1.427. PMID: 24528069.

413: Yin AA, Zhang LH, Cheng JX, Dong Y, Liu BL, Han N, Zhang X. The predictive but not prognostic value of MGMT promoter methylation status in elderly glioblastoma patients: a meta-analysis. PLoS One. 2014 Jan 13;9(1):e85102. doi: 10.1371/journal.pone.0085102. PMID: 24454798; PMCID: PMC3890309.

414: Kim SM, Woo JS, Jeong CH, Ryu CH, Jang JD, Jeun SS. Potential application of temozolomide in mesenchymal stem cell-based TRAIL gene therapy against malignant glioma. Stem Cells Transl Med. 2014 Feb;3(2):172-82. doi: 10.5966/sctm.2013-0132. Epub 2014 Jan 16. PMID: 24436439; PMCID: PMC3925057.

415: Ugur HC, Taspinar M, Ilgaz S, Sert F, Canpinar H, Rey JA, Castresana JS, Sunguroglu A. Chemotherapeutic resistance in anaplastic astrocytoma cell lines treated with a temozolomide-lomeguatrib combination. Mol Biol Rep. 2014 Feb;41(2):697-703. doi: 10.1007/s11033-013-2908-5. Epub 2013 Dec 25. PMID: 24368590.

416: Ye F, Zhang Y, Liu Y, Yamada K, Tso JL, Menjivar JC, Tian JY, Yong WH, Schaue D, Mischel PS, Cloughesy TF, Nelson SF, Liau LM, McBride W, Tso CL. Protective properties of radio-chemoresistant glioblastoma stem cell clones are associated with metabolic adaptation to reduced glucose dependence. PLoS One. 2013 Nov 18;8(11):e80397. doi: 10.1371/journal.pone.0080397. PMID: 24260384; PMCID: PMC3832364.

417: Yin AA, Cai S, Dong Y, Zhang LH, Liu BL, Cheng JX, Zhang X. A meta-analysis of temozolomide versus radiotherapy in elderly glioblastoma patients. J Neurooncol. 2014 Jan;116(2):315-24. doi: 10.1007/s11060-013-1294-0. Epub 2013 Nov 1. PMID: 24178440.

418: Ni S, Fan X, Wang J, Qi H, Li X. Biodegradable implants efficiently deliver combination of paclitaxel and temozolomide to glioma C6 cancer cells in vitro. Ann Biomed Eng. 2014 Jan;42(1):214-21. doi: 10.1007/s10439-013-0903-6. Epub 2013 Sep 10. PMID: 24018608.

419: Qiu ZK, Shen D, Chen YS, Yang QY, Guo CC, Feng BH, Chen ZP. Enhanced MGMT expression contributes to temozolomide resistance in glioma stem-like cells. Chin J Cancer. 2014 Feb;33(2):115-22. doi: 10.5732/cjc.012.10236. Epub 2013 Aug 6. PMID: 23958055; PMCID: PMC3935013.

420: Matsuno A, Murakami M, Hoya K, Yamada SM, Miyamoto S, Yamada S, Son JH, Nishido H, Ide F, Nagashima H, Sugaya M, Hirohata T, Mizutani A, Okinaga H, Ishii Y, Tahara S, Teramoto A, Osamura RY. Molecular status of pituitary carcinoma and atypical adenoma that contributes the effectiveness of temozolomide. Med Mol Morphol. 2014 Mar;47(1):1-7. doi: 10.1007/s00795-013-0050-z. Epub 2013 Aug 17. PMID: 23955641.

421: Shi L, Wan Y, Sun G, Zhang S, Wang Z, Zeng Y. miR-125b inhibitor may enhance the invasion-prevention activity of temozolomide in glioblastoma stem cells by targeting PIAS3. BioDrugs. 2014 Feb;28(1):41-54. doi: 10.1007/s40259-013-0053-2. PMID: 23857508.

422: Qi XC, Xie DJ, Yan QF, Wang YR, Zhu YX, Qian C, Yang SX. LRIG1 dictates the chemo-sensitivity of temozolomide (TMZ) in U251 glioblastoma cells via down- regulation of EGFR/topoisomerase-2/Bcl-2. Biochem Biophys Res Commun. 2013 Aug 9;437(4):565-72. doi: 10.1016/j.bbrc.2013.06.116. Epub 2013 Jul 9. PMID: 23850692.

423: Wu ZB, Cai L, Lin SJ, Xiong ZK, Lu JL, Mao Y, Yao Y, Zhou LF. High-mobility group box 2 is associated with prognosis of glioblastoma by promoting cell viability, invasion, and chemotherapeutic resistance. Neuro Oncol. 2013 Sep;15(9):1264-75. doi: 10.1093/neuonc/not078. Epub 2013 Jul 4. PMID: 23828241; PMCID: PMC3748920.

424: Mohrenz IV, Antonietti P, Pusch S, Capper D, Balss J, Voigt S, Weissert S, Mukrowsky A, Frank J, Senft C, Seifert V, von Deimling A, Kögel D. Isocitrate dehydrogenase 1 mutant R132H sensitizes glioma cells to BCNU-induced oxidative stress and cell death. Apoptosis. 2013 Nov;18(11):1416-1425. doi: 10.1007/s10495-013-0877-8. PMID: 23801081.

425: Sasajima T, Ono T, Shimada N, Doi Y, Oka S, Kanagawa M, Baden A, Mizoi K. Trans-1-amino-3-18F-fluorocyclobutanecarboxylic acid (anti-18F-FACBC) is a feasible alternative to 11C-methyl-L-methionine and magnetic resonance imaging for monitoring treatment response in gliomas. Nucl Med Biol. 2013 Aug;40(6):808-15. doi: 10.1016/j.nucmedbio.2013.04.007. Epub 2013 May 21. PMID: 23701701.

426: Wang J, Sai K, Chen FR, Chen ZP. miR-181b modulates glioma cell sensitivity to temozolomide by targeting MEK1. Cancer Chemother Pharmacol. 2013 Jul;72(1):147-58. doi: 10.1007/s00280-013-2180-3. Epub 2013 May 5. PMID: 23645289.

427: Chu SH, Ma YB, Feng DF, Li ZQ, Jiang PC. Predictive value of the SLC22A18 protein expression in glioblastoma patients receiving temozolomide therapy. J Transl Med. 2013 Mar 20;11:69. doi: 10.1186/1479-5876-11-69. PMID: 23514245; PMCID: PMC3610152.

428: Yousaf J, Hills C, Dixit S, Achawal S, O'Brien D, Greenman J, Scott IS. Markers of cell division cycle in glioblastoma: significance in prediction of treatment response and patient prognosis. Br J Neurosurg. 2013 Dec;27(6):752-8. doi: 10.3109/02688697.2013.773287. Epub 2013 Mar 11. PMID: 23477614.

429: Huang H, Xiang Y, Su B, Xiong W, Zhang X. Potential roles for Gfi1 in the pathogenesis and proliferation of glioma. Med Hypotheses. 2013 May;80(5):629-32. doi: 10.1016/j.mehy.2013.02.007. Epub 2013 Mar 5. PMID: 23466061.

430: Yoshimoto K, Mizoguchi M, Hata N, Murata H, Hatae R, Amano T, Nakamizo A, Sasaki T. Complex DNA repair pathways as possible therapeutic targets to overcome temozolomide resistance in glioblastoma. Front Oncol. 2012 Dec 5;2:186. doi: 10.3389/fonc.2012.00186. PMID: 23227453; PMCID: PMC3514620.

431: Sinning M, Letelier R, Rosas C, Fuenzalida M, Lemus D. Angiogenic potential of the cerebrospinal fluid (CSF) of patients with high-grade gliomas measured with the chick embryo chorioallantoic membrane assay (CAM). Biol Res. 2012;45(2):135-8. doi: 10.4067/S0716-97602012000200005. PMID: 23096357.

432: Zhang W, Zhang J, Yan W, You G, Bao Z, Li S, Kang C, Jiang C, You Y, Zhang Y, Chen CC, Song SW, Jiang T. Whole-genome microRNA expression profiling identifies a 5-microRNA signature as a prognostic biomarker in Chinese patients with primary glioblastoma multiforme. Cancer. 2013 Feb 15;119(4):814-24. doi: 10.1002/cncr.27826. Epub 2012 Sep 18. PMID: 22990979.

433: Geng J, Luo H, Pu Y, Zhou Z, Wu X, Xu W, Yang Z. Methylation mediated silencing of miR-23b expression and its role in glioma stem cells. Neurosci Lett. 2012 Oct 24;528(2):185-9. doi: 10.1016/j.neulet.2012.08.055. Epub 2012 Sep 5. PMID: 22982144.

434: Cho HY, Wang W, Jhaveri N, Torres S, Tseng J, Leong MN, Lee DJ, Goldkorn A, Xu T, Petasis NA, Louie SG, Schönthal AH, Hofman FM, Chen TC. Perillyl alcohol for the treatment of temozolomide-resistant gliomas. Mol Cancer Ther. 2012 Nov;11(11):2462-72. doi: 10.1158/1535-7163.MCT-12-0321. Epub 2012 Aug 28. PMID: 22933703.

435: Nakada M, Furuta T, Hayashi Y, Minamoto T, Hamada J. The strategy for enhancing temozolomide against malignant glioma. Front Oncol. 2012 Aug 14;2:98. doi: 10.3389/fonc.2012.00098. PMID: 22912934; PMCID: PMC3418701.

436: Pedersen CL, Romner B. Current treatment of low grade astrocytoma: a review. Clin Neurol Neurosurg. 2013 Jan;115(1):1-8. doi: 10.1016/j.clineuro.2012.07.002. Epub 2012 Jul 21. PMID: 22819718.

437: Sun P, Liu Y, Ying H, Li S. Action of db-cAMP on the bystander effect and chemosensitivity through connexin 43 and Bcl-2-mediated pathways in medulloblastoma cells. Oncol Rep. 2012 Sep;28(3):969-76. doi: 10.3892/or.2012.1900. Epub 2012 Jul 5. PMID: 22766741.

438: Sun S, Lee D, Lee NP, Pu JK, Wong ST, Lui WM, Fung CF, Leung GK. Hyperoxia resensitizes chemoresistant human glioblastoma cells to temozolomide. J Neurooncol. 2012 Sep;109(3):467-75. doi: 10.1007/s11060-012-0923-3. Epub 2012 Jul 5. PMID: 22763762; PMCID: PMC3434886.

439: Algharabil J, Kintner DB, Wang Q, Begum G, Clark PA, Yang SS, Lin SH, Kahle KT, Kuo JS, Sun D. Inhibition of Na(+)-K(+)-2Cl(-) cotransporter isoform 1 accelerates temozolomide-mediated apoptosis in glioblastoma cancer cells. Cell Physiol Biochem. 2012;30(1):33-48. doi: 10.1159/000339047. Epub 2012 Jun 8. PMID: 22759954; PMCID: PMC3603147.

440: Motegi H, Kamoshima Y, Terasaka S, Kobayashi H, Yamaguchi S, Tanino M, Murata J, Houkin K. IDH1 mutation as a potential novel biomarker for distinguishing pseudoprogression from true progression in patients with glioblastoma treated with temozolomide and radiotherapy. Brain Tumor Pathol. 2013 Apr;30(2):67-72. doi: 10.1007/s10014-012-0109-x. Epub 2012 Jul 3. PMID: 22752663.

441: Li B, He H, Tao BB, Zhao ZY, Hu GH, Luo C, Chen JX, Ding XH, Sheng P, Dong Y, Zhang L, Lu YC. Knockdown of CDK6 enhances glioma sensitivity to chemotherapy. Oncol Rep. 2012 Sep;28(3):909-14. doi: 10.3892/or.2012.1884. Epub 2012 Jun 25. PMID: 22736304.

442: Galldiks N, Langen KJ, Holy R, Pinkawa M, Stoffels G, Nolte KW, Kaiser HJ, Filss CP, Fink GR, Coenen HH, Eble MJ, Piroth MD. Assessment of treatment response in patients with glioblastoma using O-(2-18F-fluoroethyl)-L-tyrosine PET in comparison to MRI. J Nucl Med. 2012 Jul;53(7):1048-57. doi: 10.2967/jnumed.111.098590. Epub 2012 May 29. Erratum in: J Nucl Med. 2013 Oct;54(10):1846. PMID: 22645298.

443: Nguyen V, Conyers JM, Zhu D, Gibo DM, Dorsey JF, Debinski W, Mintz A. IL-13Rα2-Targeted Therapy Escapees: Biologic and Therapeutic Implications. Transl Oncol. 2011 Dec;4(6):390-400. doi: 10.1593/tlo.11175. Epub 2011 Dec 1. PMID: 22191003; PMCID: PMC3243662.

444: Kanai R, Rabkin SD, Yip S, Sgubin D, Zaupa CM, Hirose Y, Louis DN, Wakimoto H, Martuza RL. Oncolytic virus-mediated manipulation of DNA damage responses: synergy with chemotherapy in killing glioblastoma stem cells. J Natl Cancer Inst. 2012 Jan 4;104(1):42-55. doi: 10.1093/jnci/djr509. Epub 2011 Dec 15. PMID: 22173583; PMCID: PMC3250384.

445: Sun S, Wong TS, Zhang XQ, Pu JK, Lee NP, Day PJ, Ng GK, Lui WM, Leung GK. Protein alterations associated with temozolomide resistance in subclones of human glioblastoma cell lines. J Neurooncol. 2012 Mar;107(1):89-100. doi: 10.1007/s11060-011-0729-8. Epub 2011 Oct 7. PMID: 21979894; PMCID: PMC3273683.

446: Adachi J, Mishima K, Wakiya K, Suzuki T, Fukuoka K, Yanagisawa T, Matsutani M, Sasaki A, Nishikawa R. O^6-methylguanine-DNA methyltransferase promoter methylation in 45 primary central nervous system lymphomas: quantitative assessment of methylation and response to temozolomide treatment. J Neurooncol. 2012 Mar;107(1):147-53. doi: 10.1007/s11060-011-0721-3. Epub 2011 Oct 4. PMID: 21968944.

447: Oliva CR, Moellering DR, Gillespie GY, Griguer CE. Acquisition of chemoresistance in gliomas is associated with increased mitochondrial coupling and decreased ROS production. PLoS One. 2011;6(9):e24665. doi: 10.1371/journal.pone.0024665. Epub 2011 Sep 9. PMID: 21931801; PMCID: PMC3170372.

448: Ezaki T, Sasaki H, Hirose Y, Miwa T, Yoshida K, Kawase T. Molecular characteristics of pediatric non-ependymal, non-pilocytic gliomas associated with resistance to temozolomide. Mol Med Rep. 2011 Nov-Dec;4(6):1101-5. doi: 10.3892/mmr.2011.573. Epub 2011 Aug 25. PMID: 21874248.

449: Soritau O, Tomuleasa C, Aldea M, Petrushev B, Susman S, Gheban D, Ioani H, Cosis A, Brie I, Irimie A, Kacso G, Florian IS. Metformin plus temozolomide- based chemotherapy as adjuvant treatment for WHO grade III and IV malignant gliomas. J BUON. 2011 Apr-Jun;16(2):282-9. PMID: 21766499.

450: Makino K, Nakamura H, Hide T, Kuratsu J. Salvage treatment with temozolomide in refractory or relapsed primary central nervous system lymphoma and assessment of the MGMT status. J Neurooncol. 2012 Jan;106(1):155-60. doi: 10.1007/s11060-011-0652-z. Epub 2011 Jul 1. PMID: 21720808.

451: Hou X, Zhao Y, Zheng YR, Wang JJ, Wu ZC, Sun JH. [Comparison of MGMT and ERCC$_2$ expression in temozolomide for the treatment of malignant glioma drug resistance and their genetic relationship]. Zhonghua Yi Xue Za Zhi. 2011 Jan 4;91(1):56-8. Chinese. PMID: 21418965.

452: Ko KK, Lee ES, Joe YA, Hong YK. Metronomic treatment of temozolomide increases anti-angiogenicity accompanied by down-regulated O(6)-methylguanine- DNA methyltransferase expression in endothelial cells. Exp Ther Med. 2011 Mar;2(2):343-348. doi: 10.3892/etm.2011.207. Epub 2011 Jan 20. PMID: 22977508; PMCID: PMC3440646.

453: Chen TC. GRP78/BiP modulation of GRP78/BiP in altering sensitivity to chemotherapy. Methods Enzymol. 2011;491:25-36. doi: 10.1016/B978-0-12-385928-0.00002-X. PMID: 21329792.

454: Zhuang D, Liu Y, Mao Y, Gao L, Zhang H, Luan S, Huang F, Li Q. TMZ-induced PrPc/par-4 interaction promotes the survival of human glioma cells. Int J Cancer. 2012 Jan 15;130(2):309-18. doi: 10.1002/ijc.25985. Epub 2011 May 30. PMID: 21328340.

455: Sampson JH, Aldape KD, Archer GE, Coan A, Desjardins A, Friedman AH, Friedman HS, Gilbert MR, Herndon JE, McLendon RE, Mitchell DA, Reardon DA, Sawaya R, Schmittling R, Shi W, Vredenburgh JJ, Bigner DD, Heimberger AB. Greater chemotherapy-induced lymphopenia enhances tumor-specific immune responses that eliminate EGFRvIII-expressing tumor cells in patients with glioblastoma. Neuro Oncol. 2011 Mar;13(3):324-33. doi: 10.1093/neuonc/noq157. Epub 2010 Dec 10. PMID: 21149254; PMCID: PMC3064599.

456: Oliva CR, Nozell SE, Diers A, McClugage SG 3rd, Sarkaria JN, Markert JM, Darley-Usmar VM, Bailey SM, Gillespie GY, Landar A, Griguer CE. Acquisition of temozolomide chemoresistance in gliomas leads to remodeling of mitochondrial electron transport chain. J Biol Chem. 2010 Dec 17;285(51):39759-67. doi: 10.1074/jbc.M110.147504. Epub 2010 Sep 24. PMID: 20870728; PMCID: PMC3000957.

457: Ishikawa E, Yamamoto T, Sakamoto N, Nakai K, Akutsu H, Tsuboi K, Takano S, Matsumura A. Low peripheral lymphocyte count before focal radiotherapy plus concomitant temozolomide predicts severe lymphopenia during malignant glioma treatment. Neurol Med Chir (Tokyo). 2010;50(8):638-44. doi: 10.2176/nmc.50.638. PMID: 20805645.

458: Voss V, Senft C, Lang V, Ronellenfitsch MW, Steinbach JP, Seifert V, Kögel D. The pan-Bcl-2 inhibitor (-)-gossypol triggers autophagic cell death in malignant glioma. Mol Cancer Res. 2010 Jul;8(7):1002-16. doi: 10.1158/1541-7786.MCR-09-0562. Epub 2010 Jun 29. PMID: 20587533.

459: Patil R, Portilla-Arias J, Ding H, Inoue S, Konda B, Hu J, Wawrowsky KA, Shin PK, Black KL, Holler E, Ljubimova JY. Temozolomide delivery to tumor cells by a multifunctional nano vehicle based on poly(β-L-malic acid). Pharm Res. 2010 Nov;27(11):2317-29. doi: 10.1007/s11095-010-0091-0. Epub 2010 Apr 13. PMID: 20387095; PMCID: PMC2952070.

460: Tsien C, Galbán CJ, Chenevert TL, Johnson TD, Hamstra DA, Sundgren PC, Junck L, Meyer CR, Rehemtulla A, Lawrence T, Ross BD. Parametric response map as an imaging biomarker to distinguish progression from pseudoprogression in high- grade glioma. J Clin Oncol. 2010 May 1;28(13):2293-9. doi: 10.1200/JCO.2009.25.3971. Epub 2010 Apr 5. PMID: 20368564; PMCID: PMC2860441.

461: Wiemels JL, Wilson D, Patil C, Patoka J, McCoy L, Rice T, Schwartzbaum J, Heimberger A, Sampson

JH, Chang S, Prados M, Wiencke JK, Wrensch M. IgE, allergy, and risk of glioma: update from the San Francisco Bay Area Adult Glioma Study in the temozolomide era. Int J Cancer. 2009 Aug 1;125(3):680-7. doi: 10.1002/ijc.24369. PMID: 19408307; PMCID: PMC2861569.

462: Dunbar EM. The role of chemotherapy for pure and mixed anaplastic oligodendroglial tumors. Curr Treat Options Oncol. 2009 Aug;10(3-4):216-30. doi: 10.1007/s11864-009-0091-7. Epub 2009 Apr 18. PMID: 19381820.

463: Wyss M, Hofer S, Bruehlmeier M, Hefti M, Uhlmann C, Bärtschi E, Buettner UW, Roelcke U. Early metabolic responses in temozolomide treated low-grade glioma patients. J Neurooncol. 2009 Oct;95(1):87-93. doi: 10.1007/s11060-009-9896-2. Epub 2009 Apr 18. PMID: 19381442.

464: Lefranc F, Rynkowski M, DeWitte O, Kiss R. Present and potential future adjuvant issues in high-grade astrocytic glioma treatment. Adv Tech Stand Neurosurg. 2009;34:3-35. doi: 10.1007/978-3-211-78741-0_1. PMID: 19368079.

465: Yokoyama T, Iwado E, Kondo Y, Aoki H, Hayashi Y, Georgescu MM, Sawaya R, Hess KR, Mills GB, Kawamura H, Hashimoto Y, Urata Y, Fujiwara T, Kondo S. Autophagy-inducing agents augment the antitumor effect of telerase-selve oncolytic adenovirus OBP-405 on glioblastoma cells. Gene Ther. 2008 Sep;15(17):1233-9. doi: 10.1038/gt.2008.98. Epub 2008 Jun 26. PMID: 18580968.

466: Nagane M, Kobayashi K, Ohnishi A, Shimizu S, Shiokawa Y. Prognostic significance of O6-methylguanine-DNA methyltransferase protein expression in patients with Glioblastoma recurrence treated with temozolomide. Jpn J Clin Oncol. 2007 Dec;37(12):897-906. doi: 10.1093/jjco/hym132. Epub 2007 Dec 21. PMID: 18156172.

467: Iwado E, Daido S, Kondo Y, Kondo S. Combined effect of 2-5A-linked antisense against telomerase RNA and conventional therapies on human malignant glioma cells in vitro and in vivo. Int J Oncol. 2007 Nov;31(5):1087-95. PMID: 17912434.

468: Fujimaki T, Ishii H, Matsuno A, Arai H, Nakagomi T. Effectiveness of interferon-beta and temozolomide combination therapy against temozolomide- refractory recurrent anaplastic astrocytoma. World J Surg Oncol. 2007 Aug 4;5:89. doi: 10.1186/1477-7819-5-89. PMID: 17683572; PMCID: PMC1976115.

469: Natsume A, Wakabayashi T, Ishii D, Maruta H, Fujii M, Shimato S, Ito M, Yoshida J. A combination of IFN-beta and temozolomide in human glioma xenograft models: implication of p53-mediated MGMT downregulation. Cancer Chemother Pharmacol. 2008 Apr;61(4):653-9. doi: 10.1007/s00280-007-0520-x. Epub 2007 Jun 13. PMID: 17564708.

470: Spiegl-Kreinecker S, Pirker C, Marosi C, Buchroithner J, Pichler J, Silye R, Fischer J, Micksche M, Berger W. Dynamics of chemosensitivity and chromosomal instability in Glioblastoma recurrence. Br J Cancer. 2007 Mar 26;96(6):960-9. doi: 10.1038/sj.bjc.6603652. Epub 2007 Mar 6. PMID: 17342095; PMCID: PMC2360110.

471: Chen CC, Taniguchi T, D'Andrea A. The Fanconi anemia (FA) pathway confers glioma resistance to DNA alkylating agents. J Mol Med (Berl). 2007 May;85(5):497-509. doi: 10.1007/s00109-006-0153-2. Epub 2007 Jan 13. PMID: 17221219.

472: Kim JT, Kim JS, Ko KW, Kong DS, Kang CM, Kim MH, Son MJ, Song HS, Shin HJ, Lee DS, Eoh W, Nam DH. Metronomic treatment of temozolomide inhibits tumor cell growth through reduction of angiogenesis and augmentation of apoptosis in orthotopic models of gliomas. Oncol Rep. 2006 Jul;16(1):33-9. PMID: 16786120.

473: Bobola MS, Finn LS, Ellenbogen RG, Geyer JR, Berger MS, Braga JM, Meade EH, Gross ME, Silber JR. Apurinic/apyrimidinic endonuclease activity is associated with response to radiation and chemotherapy in medulloblastoma and primitive neuroectodermal tumors. Clin Cancer Res. 2005 Oct 15;11(20):7405-14. doi: 10.1158/1078-0432.CCR-05-1068. PMID: 16243814.

474: Lefranc F, James S, Camby I, Gaussin JF, Darro F, Brotchi J, Gabius J, Kiss R. Combined cimetidine and temozolomide, compared with temozolomide alone: significant increases in survival in nude mice bearing U373 human glioblastoma multiforme orthotopic xenografts. J Neurosurg. 2005 Apr;102(4):706-14. doi: 10.3171/jns.2005.102.4.0706. PMID: 15871514.

475: Tuettenberg J, Grobholz R, Korn T, Wenz F, Erber R, Vajkoczy P. Continuous low-dose chemotherapy plus inhibition of cyclooxygenase-2 as an antiangiogenic therapy of glioblastoma multiforme. J Cancer Res Clin Oncol. 2005 Jan;131(1):31-40. doi: 10.1007/s00432-004-0620-5. Epub 2004 Sep 28. PMID: 15565458.

476: De Vleeschouwer S, Van Calenbergh F, Demaerel P, Flamen P, Rutkowski S, Kaempgen E, Wolff JE, Plets C, Sciot R, Van Gool SW. Transient local response and persistent tumor control in a child with recurrent malignant glioma: treatment with combination therapy including dendritic cell therapy. Case report. J Neurosurg. 2004 May;100(5 Suppl Pediatrics):492-7. doi: 10.3171/ped.2004.100.5.0492. PMID: 15287461.

477: Hegi ME, Diserens AC, Godard S, Dietrich PY, Regli L, Ostermann S, Otten P, Van Melle G, de Tribolet N, Stupp R. Clinical trial substantiates the predictive value of O-6-methylguanine-DNA methyltransferase promoter methylation in glioblastoma patients treated with temozolomide. Clin Cancer Res. 2004 Mar 15;10(6):1871-4. doi: 10.1158/1078-0432.ccr-03-0384. PMID: 15041700.

478: Kanzawa T, Bedwell J, Kondo Y, Kondo S, Germano IM. Inhibition of DNA repair for sensitizing resistant glioma cells to temozolomide. J Neurosurg. 2003 Dec;99(6):1047-52. doi: 10.3171/jns.2003.99.6.1047. PMID: 14705733.

479: Kanzawa T, Germano IM, Kondo Y, Ito H, Kyo S, Kondo S. Inhibition of telomerase activity in malignant glioma cells correlates with their sensitivity to temozolomide. Br J Cancer. 2003 Sep 1;89(5):922-9. doi: 10.1038/sj.bjc.6601193. PMID: 12942127; PMCID: PMC2394478.

480: Stieber VW. Low-grade gliomas. Curr Treat Options Oncol. 2001 Dec;2(6):495-506. doi: 10.1007/s11864-001-0071-z. PMID: 12057095.

481: Rainov NG, Fels C, Droege JW, Schäfer C, Kramm CM, Chou TC. Temozolomide enhances herpes simplex virus thymidine kinase/ganciclovir therapy of malignant glioma. Cancer Gene Ther. 2001 Sep;8(9):662-8. doi: 10.1038/sj.cgt.7700355. PMID: 11593335.

482: Srivenugopal KS, Shou J, Mullapudi SR, Lang FF Jr, Rao JS, Ali-Osman F. Enforced expression of wild-type p53 curtails the transcription of the O(6)-methylguanine-DNA methyltransferase gene in human tumor cells and enhances their sensitivity to alkylating agents. Clin Cancer Res. 2001 May;7(5):1398-409. PMID: 11350911.

483: Sankar A, Thomas DG, Darling JL. Sensitivity of short-term cultures derived from human malignant glioma to the anti-cancer drug temozolomide. Anticancer Drugs. 1999 Feb;10(2):179-85. doi: 10.1097/00001813-199902000-00006. PMID: 10211548.

484: Bobola MS, Tseng SH, Blank A, Berger MS, Silber JR. Role of O6-methylguanine-DNA methyltransferase in resistance of human brain tumor cell lines to the clinically relevant methylating agents temozolomide and streptozotocin. Clin Cancer Res. 1996 Apr;2(4):735-41. PMID: 9816224.

1)
Poon MTC, Bruce M, Simpson JE, Hannan CJ, Brennan PM. Temozolomide sensitivity of malignant glioma cell lines - a systematic review assessing consistencies between in vitro studies. BMC Cancer. 2021 Nov 18;21(1):1240. doi: 10.1186/s12885-021-08972-5. PMID: 34794398; PMCID: PMC8600737.
2)
Yuan F, Zhang S, Sun Q, Ye L, Xu Y, Xu Z, Deng G, Zhang S, Liu B, Chen Q. Hsa_circ_0072309 enhances autophagy and TMZ sensitivity in glioblastoma. CNS Neurosci Ther. 2022 Feb 25. doi: 10.1111/cns.13821. Epub ahead of print. PMID: 35212145.