

## 7. References

- Amberger, V., Hensel, T., Ogata, N., & Schwab, M. (2019). Spreading and Migration of Human Glioma and Rat C6 Cells on Central Nervous System Myelin in Vitro Is Correlated with Tumor Malignancy and Involves a Metalloproteolytic Activity. *Cancer Research*, 58(1), 149-158.
- Barth, R., & Kaur, B. (2009). Rat brain tumor models in experimental neuro-oncology: the C6, 9L, T9, RG2, F98, BT4C, RT-2 and CNS-1 gliomas. *Journal Of Neuro-Oncology*, 94(3), 299-312. doi: 10.1007/s11060-009-9875-7
- Bedalov, A., Gatbonton, T., Irvine, W., Gottschling, D., & Simon, J. (2001). Identification of a small molecule inhibitor of Sir2p. *Proceedings Of The National Academy Of Sciences*, 98(26), 15113-15118. doi: 10.1073/pnas.261574398
- Bernal, A., & Arranz, L. (2018). Nestin-expressing progenitor cells: function, identity and therapeutic implications. *Cellular And Molecular Life Sciences*, 75(12), 2177-2195. doi: 10.1007/s00018-018-2794-z
- Borra, M., Smith, B., & Denu, J. (2005). Mechanism of Human SIRT1 Activation by Resveratrol. *Journal Of Biological Chemistry*, 280(17), 17187-17195. doi: 10.1074/jbc.m501250200
- Bosch-Presegue, L., & Vaquero, A. (2011). The Dual Role of Sirtuins in Cancer. *Genes & Cancer*, 2(6), 648-662. doi: 10.1177/1947601911417862
- Byles, V., Zhu, L., Lovaas, J., Chmielewski, L., Wang, J., Faller, D., & Dai, Y. (2012). SIRT1 induces EMT by cooperating with EMT transcription factors and enhances prostate cancer cell migration and metastasis. *Oncogene*, 31(43), 4619-4629. doi: 10.1038/onc.2011.612
- Cantó, C., & Auwerx, J. (2009). PGC-1 $\alpha$ , SIRT1 and AMPK, an energy sensing network that controls energy expenditure. *Current Opinion In Lipidology*, 20(2), 98-105. doi: 10.1097/mol.0b013e328328d0a4
- Carafa, V., Rotili, D., Forgione, M., Cuomo, F., Serretiello, E., & Hailu, G. et al. (2016). Sirtuin functions and modulation: from chemistry to the clinic. *Clinical Epigenetics*, 8(1). doi: 10.1186/s13148-016-0224-3
- Chang, C., Hsu, C., Yung, M., Chen, K., Tzao, C., & Wu, W. et al. (2009). Enhanced radiosensitivity and radiation-induced apoptosis in glioma CD133-positive cells by knockdown of SirT1 expression. *Biochemical And Biophysical Research Communications*, 380(2), 236-242. doi: 10.1016/j.bbrc.2009.01.040
- Chauhan, D., Bandi, M., Singh, A., Ray, A., Raje, N., Richardson, P., & Anderson, K. (2011). Preclinical evaluation of a novel SIRT1 modulator SRT1720 in multiple myeloma cells. *British Journal Of Haematology*, 155(5), 588-598. doi: 10.1111/j.1365-2141.2011.08888.x
- Chen, H., Lin, R., Zhang, Z., Wei, Q., Zhong, Z., Huang, J., & Xu, Y. (2019). Sirtuin 1 knockdown inhibits glioma cell proliferation and potentiates temozolomide toxicity via facilitation of reactive oxygen species generation. *Oncology Letters*. doi: 10.3892/ol.2019.10235
- Chen, H., Lu, Q., Fei, X., Shen, L., Jiang, D., & Dai, D. (2015). miR-22 inhibits the proliferation, motility, and invasion of human glioblastoma cells by directly targeting SIRT1. *Tumor Biology*, 37(5), 6761-6768. doi: 10.1007/s13277-015-4575-8

- Chen, I., Chiang, W., Huang, H., Chen, P., Shen, Y., & Chiang, H. (2014). Role of SIRT1 in regulation of epithelial-to-mesenchymal transition in oral squamous cell carcinoma metastasis. *Molecular Cancer*, 13(1), 254. doi: 10.1186/1476-4598-13-254
- Choi, S., & Kemper, J. (2013). Regulation of SIRT1 by MicroRNAs. *Molecules And Cells*, 36(5), 385-392. doi: 10.1007/s10059-013-0297-1
- Cilibriasi, C., Riva, G., Romano, G., Cadamuro, M., Bazzoni, R., & Butta, V. et al. (2017). Resveratrol Impairs Glioma Stem Cells Proliferation and Motility by Modulating the Wnt Signaling Pathway. *PLOS ONE*, 12(1), e0169854. doi: 10.1371/journal.pone.0169854
- Cohen, A., & Colman, H. (2014). Glioma Biology and Molecular Markers. *Cancer Treatment And Research*, 15-30. doi: 10.1007/978-3-319-12048-5\_2
- Dai, H., Kustigian, L., Carney, D., Case, A., Considine, T., & Hubbard, B. et al. (2010). SIRT1 Activation by Small Molecules. *Journal Of Biological Chemistry*, 285(43), 32695-32703. doi: 10.1074/jbc.m110.133892
- Dang, W. (2014). The controversial world of sirtuins. *Drug Discovery Today: Technologies*, 12, e9-e17. doi: 10.1016/j.ddtec.2012.08.003
- Duan, W. (2013). Sirtuins: from metabolic regulation to brain aging. *Frontiers In Aging Neuroscience*, 5. doi: 10.3389/fnagi.2013.00036
- Gang, W., JunJie, W., HongMing, T., HuaFu, Z., & Jing, W. (2015). Role of SIRT1-mediated mitochondrial and Akt pathways in glioblastoma cell death induced by *Cotinus coggygria* flavonoid nanoliposomes. *International Journal Of Nanomedicine*, 5005. doi: 10.2147/ijn.s82282
- Gertz, M., Fischer, F., Nguyen, G., Lakshminarasimhan, M., Schutkowski, M., Weyand, M., & Steegborn, C. (2013). Ex-527 inhibits Sirtuins by exploiting their unique NAD<sup>+</sup>-dependent deacetylation mechanism. *Proceedings Of The National Academy Of Sciences*, 110(30), E2772-E2781. doi: 10.1073/pnas.1303628110
- Giering, A., Pszczolkowska, D., Bocian, K., Dabrowski, M., Rajan, W., & Kloss, M. et al. (2017). Immune microenvironment of experimental rat C6 gliomas resembles human glioblastomas. *Scientific Reports*, 7(1). doi: 10.1038/s41598-017-17752-w
- Grobben, B., De Deyn, P., & Sleegers, H. (2002). Rat C6 glioma as experimental model system for the study of glioblastoma growth and invasion. *Cell And Tissue Research*, 310(3), 257-270. doi: 10.1007/s00441-002-0651-7
- Guarente, L. (2013). Calorie restriction and sirtuins revisited. *Genes & Development*, 27(19), 2072-2085. doi: 10.1101/gad.227439.113
- Haigis, M., & Sinclair, D. (2010). Mammalian Sirtuins: Biological Insights and Disease Relevance. *Annual Review Of Pathology: Mechanisms Of Disease*, 5(1), 253-295. doi: 10.1146/annurev.pathol.4.110807.092250
- Hayashi, R. (2012). SRT1720, a SIRT1 activator, promotes tumor cell migration, and lung metastasis of breast cancer in mice. *Oncology Reports*. doi: 10.3892/or.2012.1750
- He, X., Maimaiti, M., Jiao, Y., Meng, X., & Li, H. (2018). Sinomenine Induces G1-Phase Cell Cycle Arrest and Apoptosis in Malignant Glioma Cells Via Downregulation of Sirtuin 1 and

Induction of p53 Acetylation. Technology In Cancer Research & Treatment, 17, 153303461877030. doi: 10.1177/1533034618770305

Holloway, K., Calhoun, T., Saxena, M., Metoyer, C., Kandler, E., Rivera, C., & Pruitt, K. (2010). SIRT1 regulates Dishevelled proteins and promotes transient and constitutive Wnt signaling. Proceedings Of The National Academy Of Sciences, 107(20), 9216-9221. doi: 10.1073/pnas.0911325107

Huo, L., Bai, X., Wang, Y., & Wang, M. (2017). Betulinic acid derivative B10 inhibits glioma cell proliferation through suppression of SIRT1, acetylation of FOXO3a and upregulation of Bim/PUMA. Biomedicine & Pharmacotherapy, 92, 347-355. doi: 10.1016/j.biopha.2017.05.074

Imai, S. (2009). SIRT1 and caloric restriction: an insight into possible trade-offs between robustness and frailty. Current Opinion In Clinical Nutrition And Metabolic Care, 12(4), 350-356. doi: 10.1097/mco.0b013e32832c932d

Jarrett, S., Carter, K., Bautista, R., He, D., Wang, C., & D'Orazio, J. (2018). Sirtuin 1-mediated deacetylation of XPA DNA repair protein enhances its interaction with ATR protein and promotes cAMP-induced DNA repair of UV damage. Journal Of Biological Chemistry, 293(49), 19025-19037. doi: 10.1074/jbc.ra118.003940

Jeong, J., Juhn, K., Lee, H., Kim, S., Min, B., & Lee, K. et al. (2007). SIRT1 promotes DNA repair activity and deacetylation of Ku70. Experimental & Molecular Medicine, 39(1), 8-13. doi: 10.1038/emm.2007.2

Jin, X., Jin, X., Jung, J., Beck, S., & Kim, H. (2013). Cell surface Nestin is a biomarker for glioma stem cells. Biochemical And Biophysical Research Communications, 433(4), 496-501. doi: 10.1016/j.bbrc.2013.03.021

Jovceska, I., Kocevar, N., & Komel, R. (2013). Glioma and glioblastoma - how much do we (not) know?. Molecular And Clinical Oncology, 1(6), 935-941. doi: 10.3892/mco.2013.172

Kauppinen, A., Suuronen, T., Ojala, J., Kaarniranta, K., & Salminen, A. (2013). Antagonistic crosstalk between NF- $\kappa$ B and SIRT1 in the regulation of inflammation and metabolic disorders. Cellular Signalling, 25(10), 1939-1948. doi: 10.1016/j.cellsig.2013.06.007

Kobayashi, Y., Furukawa-Hibi, Y., Chen, C., Horio, Y., Isobe, K., Ikeda, K., & Motoyama, N. (2005). SIRT1 is critical regulator of FOXO-mediated transcription in response to oxidative stress. International Journal Of Molecular Medicine. doi: 10.3892/ijmm.16.2.237

Lahusen, T., & Deng, C. (2014). SRT1720 Induces Lysosomal-Dependent Cell Death of Breast Cancer Cells. Molecular Cancer Therapeutics, 14(1), 183-192. doi: 10.1158/1535-7163.mct-14-0584

Lee, I., Cao, L., Mostoslavsky, R., Lombard, D., Liu, J., & Bruns, N. et al. (2008). A role for the NAD-dependent deacetylase Sirt1 in the regulation of autophagy. Proceedings Of The National Academy Of Sciences, 105(9), 3374-3379. doi: 10.1073/pnas.0712145105

Lee, J., Park, J., Kwon, O., Lee, T., Nakano, I., & Miyoshi, H. et al. (2014). SIRT1 is required for oncogenic transformation of neural stem cells and for the survival of "cancer cells with neural stemness" in a p53-dependent manner. Neuro-Oncology, 17(1), 95-106. doi: 10.1093/neuonc/nou145

- Li, C., Liu, Z., Yang, K., Chen, X., Zeng, Y., & Liu, J. et al. (2016). miR-133b inhibits glioma cell proliferation and invasion by targeting Sirt1. *Oncotarget*, 7(24). doi: 10.18632/oncotarget.9198
- Li, K., Casta, A., Wang, R., Lozada, E., Fan, W., & Kane, S. et al. (2008). Regulation of WRN Protein Cellular Localization and Enzymatic Activities by SIRT1-mediated Deacetylation. *Journal Of Biological Chemistry*, 283(12), 7590-7598. doi: 10.1074/jbc.m709707200
- Li, Q., Wang, C., Cai, L., Lu, J., Zhu, Z., & Wang, C. et al. (2018). miR - 34a derived from mesenchymal stem cells stimulates senescence in glioma cells by inducing DNA damage. *Molecular Medicine Reports*. doi: 10.3892/mmr.2018.9800
- Li, X. (2012). SIRT1 and energy metabolism. *Acta Biochimica Et Biophysica Sinica*, 45(1), 51-60. doi: 10.1093/abbs/gms108
- Li, Y., Chen, X., Cui, Y., Wei, Q., Chen, S., & Wang, X. (2019). Effects of SIRT1 silencing on viability, invasion and metastasis of human glioma cell lines. *Oncology Letters*. doi: 10.3892/ol.2019.10063
- Li, Y., Zhang, J., He, J., Zhou, W., Xiang, G., & Xu, R. (2016). MicroRNA-132 cause apoptosis of glioma cells through blockade of the SREBP-1c metabolic pathway related to SIRT1. *Biomedicine & Pharmacotherapy*, 78, 177-184. doi: 10.1016/j.biopharm.2016.01.022
- Liang, C., Park, A., & Guan, J. (2007). In vitro scratch assay: a convenient and inexpensive method for analysis of cell migration in vitro. *Nature Protocols*, 2(2), 329-333. doi: 10.1038/nprot.2007.30
- Lin, Q., Mao, Y., Song, Y., & Huang, D. (2015). MicroRNA-34a induces apoptosis in PC12 cells by reducing B-cell lymphoma 2 and sirtuin-1 expression. *Molecular Medicine Reports*, 12(4), 5709-5714. doi: 10.3892/mmr.2015.4185
- Lin, Z., & Fang, D. (2013). The Roles of SIRT1 in Cancer. *Genes & Cancer*, 4(3-4), 97-104. doi: 10.1177/1947601912475079
- Liu, X., Hu, D., Zeng, Z., Zhu, W., Zhang, N., & Yu, H. et al. (2017). SRT1720 promotes survival of aged human mesenchymal stem cells via FAIM: a pharmacological strategy to improve stem cell-based therapy for rat myocardial infarction. *Cell Death & Disease*, 8(4), e2731-e2731. doi: 10.1038/cddis.2017.107
- Mahajan, S., Leko, V., Simon, J., & Bedalov, A. (2011). Sirtuin Modulators. *Histone Deacetylases: The Biology And Clinical Implication*, 241-255. doi: 10.1007/978-3-642-21631-2\_11
- Martínez-Balbás, M., Bauer, U., Nielsen, S., Brehm, A., & Kouzarides, T. (2000). Regulation of E2F1 activity by acetylation. *The EMBO Journal*, 19(4), 662-671. doi: 10.1093/emboj/19.4.662
- Mei, Z., Zhang, X., Yi, J., Huang, J., He, J., & Tao, Y. (2016). Sirtuins in metabolism, DNA repair and cancer. *Journal Of Experimental & Clinical Cancer Research*, 35(1). doi: 10.1186/s13046-016-0461-5
- Mellini, P., Valente, S., & Mai, A. (2014). Sirtuin modulators: an updated patent review (2012 – 2014). *Expert Opinion On Therapeutic Patents*, 25(1), 5-15. doi: 10.1517/13543776.2014.982532

- Milne, J., Lambert, P., Schenk, S., Carney, D., Smith, J., & Gagne, D. et al. (2007). Small molecule activators of SIRT1 as therapeutics for the treatment of type 2 diabetes. *Nature*, 450(7170), 712-716. doi: 10.1038/nature06261
- Motta, M., Divecha, N., Lemieux, M., Kamel, C., Chen, D., & Gu, W. et al. (2004). Mammalian SIRT1 Represses Forkhead Transcription Factors. *Cell*, 116(4), 551-563. doi: 10.1016/s0092-8674(04)00126-6
- Napper, A., Hixon, J., McDonagh, T., Keavey, K., Pons, J., & Barker, J. et al. (2005). Discovery of Indoles as Potent and Selective Inhibitors of the Deacetylase SIRT1. *Journal Of Medicinal Chemistry*, 48(25), 8045-8054. doi: 10.1021/jm050522v
- Neradil, J., & Veselska, R. (2015). Nestin as a marker of cancer stem cells. *Cancer Science*, 106(7), 803-811. doi: 10.1111/cas.12691
- Nillni, E. (2016). The metabolic sensor Sirt1 and the hypothalamus: Interplay between peptide hormones and pro-hormone convertases. *Molecular And Cellular Endocrinology*, 438, 77-88. doi: 10.1016/j.mce.2016.09.002
- O'Callaghan, C., & Vassilopoulos, A. (2017). Sirtuins at the crossroads of stemness, aging, and cancer. *Aging Cell*, 16(6), 1208-1218. doi: 10.1111/acel.12685
- Olmos, Y., Brosens, J., & Lam, E. (2011). Interplay between SIRT proteins and tumour suppressor transcription factors in chemotherapeutic resistance of cancer. *Drug Resistance Updates*, 14(1), 35-44. doi: 10.1016/j.drup.2010.12.001
- Ostrom, Q., Gittleman, H., Stetson, L., Virk, S., & Barnholtz-Sloan, J. (2014). Epidemiology of Gliomas. *Cancer Treatment And Research*, 1-14. doi: 10.1007/978-3-319-12048-5\_1
- Ostrom, Q., Gittleman, H., Liao, P., Vecchione-Koval, T., Wolinsky, Y., Kruchko, C., & Barnholtz-Sloan, J. (2017). CBTRUS Statistical Report: Primary brain and other central nervous system tumors diagnosed in the United States in 2010–2014. *Neuro-Oncology*, 19(suppl\_5), v1-v88. doi: 10.1093/neuonc/nox158
- Qiao, L., & Shao, J. (2006). SIRT1 Regulates Adiponectin Gene Expression through Foxo1-C/Enhancer-binding Protein  $\alpha$  Transcriptional Complex. *Journal Of Biological Chemistry*, 281(52), 39915-39924. doi: 10.1074/jbc.m607215200
- Qin, B., Panickar, K., & Anderson, R. (2014). Cinnamon polyphenols regulate S100 $\beta$ , sirtuins, and neuroactive proteins in rat C6 glioma cells. *Nutrition*, 30(2), 210-217. doi: 10.1016/j.nut.2013.07.001
- Qu, Y., Zhang, J., Wu, S., Li, B., Liu, S., & Cheng, J. (2012). SIRT1 promotes proliferation and inhibits apoptosis of human malignant glioma cell lines. *Neuroscience Letters*, 525(2), 168-172. doi: 10.1016/j.neulet.2012.07.025
- Paholec, M., Bleasdale, J., Chrunyk, B., Cunningham, D., Flynn, D., & Garofalo, R. et al. (2010). SRT1720, SRT2183, SRT1460, and Resveratrol Are Not Direct Activators of SIRT1. *Journal Of Biological Chemistry*, 285(11), 8340-8351. doi: 10.1074/jbc.m109.088682
- Rahman, S., & Islam, R. (2011). Mammalian Sirt1: insights on its biological functions. *Cell Communication And Signaling*, 9(1), 11. doi: 10.1186/1478-811x-9-11

- Romeo, S., Conti, A., Polito, F., Tomasello, C., Barresi, V., & La Torre, D. et al. (2016). miRNA regulation of Sirtuin-1 expression in human astrocytoma. *Oncology Letters*, 12(4), 2992-2998. doi: 10.3892/ol.2016.4960
- Rozpedek, W., Pytel, D., Mucha, B., Leszczynska, H., Diehl, J., & Majsterek, I. (2016). The Role of the PERK/eIF2 $\alpha$ /ATF4/CHOP Signaling Pathway in Tumor Progression During Endoplasmic Reticulum Stress. *Current Molecular Medicine*, 16(6), 533-544. doi: 10.2174/1566524016666160523143937
- Saidi, D., Cheray, M., Osman, A., Stratoulias, V., Lindberg, O., & Shen, X. et al. (2017). Glioma-induced SIRT1-dependent activation of hMOF histone H4 lysine 16 acetyltransferase in microglia promotes a tumor supporting phenotype. *Oncoimmunology*, 7(2), e1382790. doi: 10.1080/2162402x.2017.1382790
- Simic, P., Williams, E., Bell, E., Gong, J., Bonkowski, M., & Guarente, L. (2013). SIRT1 Suppresses the Epithelial-to-Mesenchymal Transition in Cancer Metastasis and Organ Fibrosis. *Cell Reports*, 3(4), 1175-1186. doi: 10.1016/j.celrep.2013.03.019
- Simic, P., Zainabadi, K., Bell, E., Sykes, D., Saez, B., & Lotinun, S. et al. (2013). SIRT1 regulates differentiation of mesenchymal stem cells by deacetylating  $\beta$ -catenin. *EMBO Molecular Medicine*, 5(3), 430-440. doi: 10.1002/emmm.201201606
- Sofroniew, M., & Vinters, H. (2009). Astrocytes: biology and pathology. *Acta Neuropathologica*, 119(1), 7-35. doi: 10.1007/s00401-009-0619-8
- Song, S., Lee, M., Lee, J., Oh, J., Cho, S., & Cha, H. (2011). Sirt1 Promotes DNA Damage Repair and Cellular Survival. *Biomolecules And Therapeutics*, 19(3), 282-287. doi: 10.4062/biomolther.2011.19.3.282
- Song, T., Lee, J., Lee, S., Lian, S., Joo, S., & Kim, H. (2016). Establishment of a Malignant Glioma Model in Rats. *The Nerve*, 2(2), 17-21. doi: 10.21129/nerve.2016.2.2.17
- Sun, L., & Fang, J. (2016). Macromolecular crowding effect is critical for maintaining SIRT1's nuclear localization in cancer cells. *Cell Cycle*, 15(19), 2647-2655. doi: 10.1080/15384101.2016.1211214
- Sun, T., Jiao, L., Wang, Y., Yu, Y., & Ming, L. (2018). SIRT1 induces epithelial-mesenchymal transition by promoting autophagic degradation of E-cadherin in melanoma cells. *Cell Death & Disease*, 9(2). doi: 10.1038/s41419-017-0167-4
- Taal, W., Bromberg, J., & van den Bent, M. (2015). Chemotherapy in glioma. *CNS Oncology*, 4(3), 179-192. doi: 10.2217/cns.15.2
- Vassilopoulos, A., Fritz, K., Petersen, D., & Gius, D. (2011). The human sirtuin family: Evolutionary divergences and functions. *Human Genomics*, 5(5), 485. doi: 10.1186/1479-7364-5-5-485
- Vaziri, H., Dessain, S., Eaton, E., Imai, S., Frye, R., & Pandita, T. et al. (2001). hSIR2SIRT1 Functions as an NAD-Dependent p53 Deacetylase. *Cell*, 107(2), 149-159. doi: 10.1016/s0092-8674(01)00527-x
- Vega-Avila, E., & Pugsley, M. (2011). An overview of colorimetric assay methods used to assess survival or proliferation of mammalian cells. *Proceedings Of The Western Pharmacology Society*, 54, 10-14.

- Villalba, J., & Alcaín, F. (2012). Sirtuin activators and inhibitors. *Biofactors*, 38(5), 349-359. doi: 10.1002/biof.1032
- Wang, C., Chen, L., Hou, X., Li, Z., Kabra, N., & Ma, Y. et al. (2006). Interactions between E2F1 and SirT1 regulate apoptotic response to DNA damage. *Nature Cell Biology*, 8(9), 1025-1031. doi: 10.1038/ncb1468
- Wang, J., Li, J., Cao, N., Li, Z., Han, J., & Li, L. (2018). Resveratrol, an activator of SIRT1, induces protective autophagy in non-small-cell lung cancer via inhibiting Akt/mTOR and activating p38-MAPK. *Oncotargets And Therapy*, Volume 11, 7777-7786. doi: 10.2147/ott.s159095
- White, E. (2015). The role for autophagy in cancer. *Journal Of Clinical Investigation*, 125(1), 42-46. doi: 10.1172/jci73941
- Xia, Y., Shen, S., & Verma, I. (2014). NF- B, an Active Player in Human Cancers. *Cancer Immunology Research*, 2(9), 823-830. doi: 10.1158/2326-6066.cir-14-0112
- Xu, J., Lamouille, S., & Derynck, R. (2009). TGF-β-induced epithelial to mesenchymal transition. *Cell Research*, 19(2), 156-172. doi: 10.1038/cr.2009.5
- Xu, J., Zhu, W., Xu, W., Yao, W., Zhang, B., & Xu, Y. et al. (2013). Up-Regulation of MBD1 Promotes Pancreatic Cancer Cell Epithelial-Mesenchymal Transition and Invasion by Epigenetic Down-Regulation of E-Cadherin. *Current Molecular Medicine*, 13(3), 387-400. doi: 10.2174/156652413805076740
- Yang, P., & Mahmood, T. (2012). Western blot: Technique, theory, and trouble shooting. *North American Journal Of Medical Sciences*, 4(9), 429. doi: 10.4103/1947-2714.100998
- Yang, T., & Sauve, A. (2006). NAD metabolism and sirtuins: Metabolic regulation of protein deacetylation in stress and toxicity. *The AAPS Journal*, 8(4). doi: 10.1208/aapsj080472
- Yao, Z., Zhang, X., Zhen, Y., He, X., Zhao, S., & Li, X. et al. (2018). A novel small-molecule activator of Sirtuin-1 induces autophagic cell death/mitophagy as a potential therapeutic strategy in glioblastoma. *Cell Death & Disease*, 9(7). doi: 10.1038/s41419-018-0799-z
- Ye, T., Wei, L., Shi, J., Jiang, K., Xu, H., & Hu, L. et al. (2019). Sirtuin1 activator SRT2183 suppresses glioma cell growth involving activation of endoplasmic reticulum stress pathway. *BMC Cancer*, 19(1). doi: 10.1186/s12885-019-5852-5
- Yeung, F., Hoberg, J., Ramsey, C., Keller, M., Jones, D., Frye, R., & Mayo, M. (2004). Modulation of NF-κB-dependent transcription and cell survival by the SIRT1 deacetylase. *The EMBO Journal*, 23(12), 2369-2380. doi: 10.1038/sj.emboj.7600244
- Yi, J., & Luo, J. (2010). SIRT1 and p53, effect on cancer, senescence and beyond. *Biochimica Et Biophysica Acta (BBA) - Proteins And Proteomics*, 1804(8), 1684-1689. doi: 10.1016/j.bbapap.2010.05.002
- Zhan, T., Rindtorff, N., & Boutros, M. (2016). Wnt signaling in cancer. *Oncogene*, 36(11), 1461-1473. doi: 10.1038/onc.2016.304
- Zhang, M., Song, T., Yang, L., Chen, R., Wu, L., Yang, Z., & Fang, J. (2008). Nestin and CD133: valuable stem cell-specific markers for determining clinical outcome of glioma patients. *Journal Of Experimental & Clinical Cancer Research*, 27(1), 85. doi: 10.1186/1756-9966-27-85