

REFERENCE

- Abraham, S. A., Hopcroft, L. E., Carrick, E., Drotar, M. E., Dunn, K., Williamson, A. J., Korfi, K., Baquero, P., Park, L. E., Scott, M. T., Pellicano, F., Pierce, A., Copland, M., Nourse, C., Grimmond, S. M., Vetrie, D., Whetton, A. D., & Holyoake, T. L. (2016). Dual targeting of p53 and c-MYC selectively eliminates leukaemic stem cells. *Nature*, *534*(7607), 341-346. <https://doi.org/10.1038/nature18288>
- Adams, D., Gonzalez-Duarte, A., O'Riordan, W. D., Yang, C. C., Ueda, M., Kristen, A. V., Tournev, I., Schmidt, H. H., Coelho, T., Berk, J. L., Lin, K. P., Vita, G., Attarian, S., Plante-Bordeneuve, V., Mezei, M. M., Campistol, J. M., Buades, J., Brannagan, T. H., 3rd, Kim, B. J., . . . Suhr, O. B. (2018). Patisiran, an RNAi Therapeutic, for Hereditary Transthyretin Amyloidosis. *N Engl J Med*, *379*(1), 11-21. <https://doi.org/10.1056/NEJMoa1716153>
- Agarwal, V., Bell, G. W., Nam, J. W., & Bartel, D. P. (2015). Predicting effective microRNA target sites in mammalian mRNAs. *Elife*, *4*. <https://doi.org/10.7554/eLife.05005>
- Agatheeswaran, S., Pattnayak, N. C., & Chakraborty, S. (2016). Identification and functional characterization of the miRNA-gene regulatory network in chronic myeloid leukemia lineage negative cells. *Sci Rep*, *6*, 32493. <https://doi.org/10.1038/srep32493>
- Al-Rawashde, F. A., Al-wajeeh, A. S., Vishkaei, M. N., Saad, H. K. M., Johan, M. F., Taib, W. R. W., Ismail, I., & Al-Jamal, H. A. N. (2022). Thymoquinone Inhibits JAK/STAT and PI3K/Akt/ mTOR Signaling Pathways in MV4-11 and K562 Myeloid Leukemia Cells [Article]. *Pharmaceuticals*, *15*(9), Article 1123. <https://doi.org/10.3390/ph15091123>
- Al Hamad, M. (2021). Contribution of BCR-ABL molecular variants and leukemic stem cells in response and resistance to tyrosine kinase inhibitors: a review. *F1000Res*, *10*, 1288. <https://doi.org/10.12688/f1000research.74570.2>
- Ali Beg, M., Masroor a, b., Guru, S., Abdullah, S., Ahmad, I., d, e., Rizvi, A., Akhter, J., Goyal, Y., & Verma, A. (2021). Regulation of miR-126 and miR-122 Expression and Response of Imatinib Treatment on Its Expression in Chronic Myeloid Leukemia Patients. *Oncol. res. treat.*, *44*(10), 530-537. <https://doi.org/10.1159/000518722>
- Alves, R., Goncalves, A. C., Rutella, S., Almeida, A. M., De Las Rivas, J., Trougakos, I. P., & Sarmiento Ribeiro, A. B. (2021). Resistance to Tyrosine Kinase Inhibitors in Chronic Myeloid Leukemia-From Molecular Mechanisms to Clinical Relevance. *Cancers (Basel)*, *13*(19). <https://doi.org/10.3390/cancers13194820>
- Amir, M., & Javed, S. (2021). A Review on the Therapeutic Role of TKIs in Case of CML in Combination With Epigenetic Drugs. *Front Genet*, *12*, 742802. <https://doi.org/10.3389/fgene.2021.742802>
- An, X., Tiwari, A. K., Sun, Y., Ding, P. R., Ashby, C. R., Jr., & Chen, Z. S. (2010). BCR-ABL tyrosine kinase inhibitors in the treatment of Philadelphia chromosome positive chronic myeloid leukemia: a review. *Leuk Res*, *34*(10), 1255-1268. <https://doi.org/10.1016/j.leukres.2010.04.016>

- Arunasree, K. M., Roy, K. R., Anilkumar, K., Aparna, A., Reddy, G. V., & Reddanna, P. (2008). Imatinib-resistant K562 cells are more sensitive to celecoxib, a selective COX-2 inhibitor: role of COX-2 and MDR-1. *Leuk Res*, 32(6), 855-864. <https://doi.org/10.1016/j.leukres.2007.11.007>
- Aslantürk, Ö. S. (2018). *In vitro cytotoxicity and cell viability assays: principles, advantages, and disadvantages* (Vol. 2). InTech.
- Avvari, S., Prasad, D. K. V., & Khan, I. A. (2022). Role of MicroRNAs in Cell Growth Proliferation and Tumorigenesis. In D. K. V. Prasad & P. Santosh Sushma (Eds.), *Role of MicroRNAs in Cancers* (pp. 37-51). Springer Nature Singapore. https://doi.org/10.1007/978-981-16-9186-7_3
- Awan, H. M., Shah, A., Rashid, F., Wei, S., Chen, L., & Shan, G. (2018). Comparing two approaches of miR-34a target identification, biotinylated-miRNA pulldown vs miRNA overexpression. *RNA Biol*, 15(1), 55-61. <https://doi.org/10.1080/15476286.2017.1391441>
- Baloch, I. A., & Din, M. (2021). 02. Bioinformatic hunting of microRNAs. *Pure and Applied Biology (PAB)*, 3(2), 72-80.
- Bansal, A., & Simon, M. C. (2018). Glutathione metabolism in cancer progression and treatment resistance. *J Cell Biol*, 217(7), 2291-2298. <https://doi.org/10.1083/jcb.201804161>
- Bao, J., Li, X., Li, Y., Huang, C., Meng, X., & Li, J. (2019). MicroRNA-141-5p Acts as a Tumor Suppressor via Targeting RAB32 in Chronic Myeloid Leukemia. *Front Pharmacol*, 10, 1545. <https://doi.org/10.3389/fphar.2019.01545>
- Barnes, D. J., Palaiologou, D., Panousopoulou, E., Schultheis, B., Yong, A. S., Wong, A., Pattacini, L., Goldman, J. M., & Melo, J. V. (2005). Bcr-Abl expression levels determine the rate of development of resistance to imatinib mesylate in chronic myeloid leukemia. *Cancer Res*, 65(19), 8912-8919. <https://doi.org/10.1158/0008-5472.CAN-05-0076>
- Batkai, S., Genschel, C., Viereck, J., Rump, S., Bar, C., Borchert, T., Traxler, D., Riesenhuber, M., Spannauer, A., Lukovic, D., Zlabinger, K., Hasimbegovic, E., Winkler, J., Garamvolgyi, R., Neitzel, S., Gyongyosi, M., & Thum, T. (2021). CDR132L improves systolic and diastolic function in a large animal model of chronic heart failure. *Eur Heart J*, 42(2), 192-201. <https://doi.org/10.1093/eurheartj/ehaa791>
- Bavaro, L., Martelli, M., Cavo, M., & Soverini, S. (2019). Mechanisms of Disease Progression and Resistance to Tyrosine Kinase Inhibitor Therapy in Chronic Myeloid Leukemia: An Update. *Int J Mol Sci*, 20(24). <https://doi.org/10.3390/ijms20246141>
- Bazzoni, G., Carlesso, N., Griffin, J. D., & Hemler, M. E. (1996). Bcr/Abl expression stimulates integrin function in hematopoietic cell lines. *J Clin Invest*, 98(2), 521-528. <https://doi.org/10.1172/JCI118820>
- Bee, P., Gan, G., Tai, Y., Haris, A., Chin, E., & Veera, S. (2012). An update on imatinib mesylate therapy in chronic myeloid leukaemia patients in a teaching hospital in Malaysia. *Singapore medical journal*, 53(1), 57.
- Berthuy, O. I., Muldur, S. K., Rossi, F., Colpo, P., Blum, L. J., & Marquette, C. A. (2016). Multiplex cell microarrays for high-throughput screening. *Lab Chip*, 16(22), 4248-4262. <https://doi.org/10.1039/c6lc00831c>
- Bhutra, S., Lenkala, D., LaCroix, B., Ye, M., & Huang, R. S. (2014). Identifying and validating a combined mRNA and microRNA signature in response to imatinib

- treatment in a chronic myeloid leukemia cell line. *PLoS One*, 9(12), e115003.
<https://doi.org/10.1371/journal.pone.0115003>
- Bi, F., Meng, X., Ma, C., & Yi, G. (2015). Identification of miRNAs involved in fruit ripening in Cavendish bananas by deep sequencing. *BMC genomics*, 16, 1-15.
- Biernaux, C., Loos, M., Sels, A., Huez, G., & Stryckmans, P. (1995). Detection of major bcr-abl gene expression at a very low level in blood cells of some healthy individuals.
- Bose, S., Deininger, M., Gora-Tybor, J., Goldman, J. M., & Melo, J. V. (1998). The presence of typical and atypical BCR-ABL fusion genes in leukocytes of normal individuals: biologic significance and implications for the assessment of minimal residual disease. *Blood, The Journal of the American Society of Hematology*, 92(9), 3362-3367.
<https://www.sciencedirect.com/science/article/pii/S0006497120578877?via%3Dihub>
- Braun, T. P., Eide, C. A., & Druker, B. J. (2020). Response and Resistance to BCR-ABL1-Targeted Therapies. *Cancer Cell*, 37(4), 530-542.
<https://doi.org/10.1016/j.ccell.2020.03.006>
- Brockway, S., & Zeleznik-Le, N. J. (2015). WEE1 is a validated target of the microRNA miR-17-92 cluster in leukemia. *Cancer Genetics*, 208(5), 279-287.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466047/pdf/nihms657302.pdf>
- Bueno, M. J., Perez de Castro, I., Gomez de Cedron, M., Santos, J., Calin, G. A., Cigudosa, J. C., Croce, C. M., Fernandez-Piqueras, J., & Malumbres, M. (2016). Genetic and Epigenetic Silencing of MicroRNA-203 Enhances ABL1 and BCR-ABL1 Oncogene Expression. *Cancer Cell*, 29(4), 607-608.
<https://doi.org/10.1016/j.ccell.2016.03.013>
- Burchert, A., Wang, Y., Cai, D., von Bubnoff, N., Paschka, P., Muller-Brusselbach, S., Ottmann, O. G., Duyster, J., Hochhaus, A., & Neubauer, A. (2005). Compensatory PI3-kinase/Akt/mTor activation regulates imatinib resistance development. *Leukemia*, 19(10), 1774-1782.
<https://doi.org/10.1038/sj.leu.2403898>
- Burke, B. A. (2010). Effects of The BCR-ABL1 Oncogene on DNA Damage and Repair.
- Cao, X. M., Luo, X. G., Liang, J. H., Zhang, C., Meng, X. P., & Guo, D. W. (2012). Critical selection of internal control genes for quantitative real-time RT-PCR studies in lipopolysaccharide-stimulated human THP-1 and K562 cells. *Biochem Biophys Res Commun*, 427(2), 366-372.
<https://doi.org/10.1016/j.bbrc.2012.09.066>
- Carra, G., Torti, D., Crivellaro, S., Panuzzo, C., Taulli, R., Cilloni, D., Guerrasio, A., Saglio, G., & Morotti, A. (2016). The BCR-ABL/NF-kappaB signal transduction network: a long lasting relationship in Philadelphia positive Leukemias. *Oncotarget*, 7(40), 66287-66298.
<https://doi.org/10.18632/oncotarget.11507>
- Cavaliere, D., Rizzetto, L., Tocci, N., Rivero, D., Asquini, E., Si-Ammour, A., Bonechi, E., Ballerini, C., & Viola, R. (2016). Plant microRNAs as novel immunomodulatory agents. *Scientific Reports*, 6(1), 25761.
- Chakraborty, C., Sharma, A. R., Sharma, G., Doss, C. G. P., & Lee, S.-S. (2017). Therapeutic miRNA and siRNA: moving from bench to clinic as next generation medicine. *Molecular Therapy-Nucleic Acids*, 8, 132-143.

- [https://www.cell.com/molecular-therapy-family/nucleic-acids/pdf/S2162-2531\(17\)30190-7.pdf](https://www.cell.com/molecular-therapy-family/nucleic-acids/pdf/S2162-2531(17)30190-7.pdf)
- Chen, C., Ridzon, D. A., Broomer, A. J., Zhou, Z., Lee, D. H., Nguyen, J. T., Barbisin, M., Xu, N. L., Mahuvakar, V. R., Andersen, M. R., Lao, K. Q., Livak, K. J., & Guegler, K. J. (2005). Real-time quantification of microRNAs by stem-loop RT-PCR. *Nucleic Acids Res*, 33(20), e179. <https://doi.org/10.1093/nar/gni178>
- Chen, P. H., Liu, A. J., Ho, K. H., Chiu, Y. T., Anne Lin, Z. H., Lee, Y. T., Shih, C. M., & Chen, K. C. (2018). microRNA-199a/b-5p enhance imatinib efficacy via repressing WNT2 signaling-mediated protective autophagy in imatinib-resistant chronic myeloid leukemia cells. *Chem Biol Interact*, 291, 144-151. <https://doi.org/10.1016/j.cbi.2018.06.006>
- Chen, X., Cao, R., Liu, H., Zhang, T., Yuan, X., & Xu, S. (2020). MicroRNA-15a-5p-targeting oncogene YAP1 inhibits cell viability and induces cell apoptosis in cervical cancer cells. *Int J Mol Med*, 46(4), 1301-1310. <https://doi.org/10.3892/ijmm.2020.4704>
- Chen, Y., & Wang, X. (2020). miRDB: an online database for prediction of functional microRNA targets. *Nucleic acids research*, 48(D1), D127-D131. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6943051/pdf/gkz757.pdf>
- Chin, A. R., Fong, M. Y., Somlo, G., Wu, J., Swiderski, P., Wu, X., & Wang, S. E. (2016). Cross-kingdom inhibition of breast cancer growth by plant miR159. *Cell Res*, 26(2), 217-228. <https://doi.org/10.1038/cr.2016.13>
- Choi, C., Han, J., Thao Tran, N. T., Yoon, S., Kim, G., Song, S., Kim, Y., & Ryu, S. (2017). Effective experimental validation of miRNA targets using an improved linker reporter assay. *Genet Res (Camb)*, 99, e2. <https://doi.org/10.1017/S001667231600015X>
- Chou, C. H., Shrestha, S., Yang, C. D., Chang, N. W., Lin, Y. L., Liao, K. W., Huang, W. C., Sun, T. H., Tu, S. J., Lee, W. H., Chiew, M. Y., Tai, C. S., Wei, T. Y., Tsai, T. R., Huang, H. T., Wang, C. Y., Wu, H. Y., Ho, S. Y., Chen, P. R., . . . Huang, H. D. (2018). miRTarBase update 2018: a resource for experimentally validated microRNA-target interactions. *Nucleic Acids Res*, 46(D1), D296-D302. <https://doi.org/10.1093/nar/gkx1067>
- Chu, W.-M. (2013). Tumor necrosis factor. *Cancer Letters*, 328(2), 222-225. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3732748/pdf/nihms-416284.pdf>
- Cilloni, D., & Saglio, G. (2012). Molecular pathways: BCR-ABL. *Clin Cancer Res*, 18(4), 930-937. <https://doi.org/10.1158/1078-0432.CCR-10-1613>
- Clarke, C. J., & Holyoake, T. L. (2017). Preclinical approaches in chronic myeloid leukemia: from cells to systems. *Exp Hematol*, 47, 13-23. <https://doi.org/10.1016/j.exphem.2016.11.005>
- Corbin, A. S., Agarwal, A., Loriaux, M., Cortes, J., Deininger, M. W., & Druker, B. J. (2011). Human chronic myeloid leukemia stem cells are insensitive to imatinib despite inhibition of BCR-ABL activity. *The Journal of clinical investigation*, 121(1), 396-409. <https://dm5migu4zj3pb.cloudfront.net/manuscripts/35000/35721/JCI35721.v2.pdf>
- Cortez, D., Kadlec, L., & Pendergast, A. M. (1995). Structural and signaling requirements for BCR-ABL-mediated transformation and inhibition of apoptosis. *Molecular and Cellular Biology*, 15(10), 5531-5541. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC230804/pdf/155531.pdf>

- Cross, N. C., White, H. E., Colomer, D., Ehrencrona, H., Foroni, L., Gottardi, E., Lange, T., Lion, T., Machova Polakova, K., Dulucq, S., Martinelli, G., Oppliger Leibundgut, E., Pallisgaard, N., Barbany, G., Sacha, T., Talmaci, R., Izzo, B., Saglio, G., Pane, F., . . . Hochhaus, A. (2015). Laboratory recommendations for scoring deep molecular responses following treatment for chronic myeloid leukemia. *Leukemia*, 29(5), 999-1003. <https://doi.org/10.1038/leu.2015.29>
- Cunningham, F., Achuthan, P., Akanni, W., Allen, J., Amode, M R., Armean, I. M., Bennett, R., Bhai, J., Billis, K., Boddu, S., Cummins, C., Davidson, C., Dodiya, K. J., Gall, A., Girón, C. G., Gil, L., Grego, T., Haggerty, L., Haskell, E., . . . Flicek, P. (2018). Ensembl 2019. *Nucleic acids research*, 47(D1), D745-D751. <https://doi.org/10.1093/nar/gky1113>
- Dai, X., & Zhao, P. X. (2011). psRNATarget: a plant small RNA target analysis server. *Nucleic Acids Res*, 39(Web Server issue), W155-159. <https://doi.org/10.1093/nar/gkr319>
- Dai, X., Zhuang, Z., & Zhao, P. X. (2018). psRNATarget: a plant small RNA target analysis server (2017 release). *Nucleic Acids Res*, 46(W1), W49-W54. <https://doi.org/10.1093/nar/gky316>
- Darji, A. A., & Bharadia, P. D. (2016). Chronic myelogenous leukemia: A review and update of current and future therapy. *Int J Pharm Pharm Sci*, 8, 35-46.
- Dasgupta, I., & Chatterjee, A. (2021). Recent advances in miRNA delivery systems [Article]. *Methods and Protocols*, 4(1), 1-18, Article 10. <https://doi.org/10.3390/mps4010010>
- Dasgupta, Y., Koptyra, M., Hoser, G., Kantekure, K., Roy, D., Gornicka, B., Nieborowska-Skorska, M., Bolton-Gillespie, E., Cerny-Reiterer, S., & Müschen, M. (2016). Normal ABL1 is a tumor suppressor and therapeutic target in human and mouse leukemias expressing oncogenic ABL1 kinases. *Blood, The Journal of the American Society of Hematology*, 127(17), 2131-2143. <https://www.sciencedirect.com/science/article/pii/S0006497120302226?via%3Dihub>
- Dash, S., Balasubramaniam, M., Dash, C., & Pandhare, J. (2018). Biotin-based Pulldown Assay to Validate mRNA Targets of Cellular miRNAs. *J Vis Exp*(136). <https://doi.org/10.3791/57786>
- de Mooij, C. E., Netea, M. G., van der Velden, W. J., & Blijlevens, N. M. (2017). Targeting the interleukin-1 pathway in patients with hematological disorders. *Blood, The Journal of the American Society of Hematology*, 129(24), 3155-3164. <https://www.sciencedirect.com/science/article/pii/S0006497120332973?via%3Dihub>
- Deininger, M. W., Goldman, J. M., & Melo, J. V. (2000). The molecular biology of chronic myeloid leukemia. *Blood*, 96(10), 3343-3356. <https://www.ncbi.nlm.nih.gov/pubmed/11071626>
- Deng, H., Guo, Y., Song, H., Xiao, B., Sun, W., Liu, Z., Yu, X., Xia, T., Cui, L., & Guo, J. (2013). MicroRNA-195 and microRNA-378 mediate tumor growth suppression by epigenetical regulation in gastric cancer. *Gene*, 518(2), 351-359.
- Deng, Y., Campbell, F., Han, K., Theodore, D., Deeg, M., Huang, M., Hamatake, R., Lahiri, S., Chen, S., Horvath, G., Manolakopoulos, S., Dalekos, G. N., Papatheodoridis, G., Goulis, I., Banyai, T., Jilma, B., & Leivers, M. (2020). Randomized clinical trials towards a single-visit cure for chronic hepatitis C: Oral GSK2878175 and injectable RG-101 in chronic hepatitis C patients and

- long-acting injectable GSK2878175 in healthy participants. *J Viral Hepat*, 27(7), 699-708. <https://doi.org/10.1111/jvh.13282>
- Deng, Y. J., Li, X., Feng, J. X., & Zhang, X. L. (2018). Overexpression of miR-202 resensitizes imatinib resistant chronic myeloid leukemia cells through targeting Hexokinase 2. *Bioscience reports*, 38, Article Bsr20171383. <https://doi.org/10.1042/bsr20171383>
- Dickinson, B., Zhang, Y., Petrick, J. S., Heck, G., Ivashuta, S., & Marshall, W. S. (2013). Lack of detectable oral bioavailability of plant microRNAs after feeding in mice. *Nat Biotechnol*, 31(11), 965-967. <https://doi.org/10.1038/nbt.2737>
- Diener, C., Keller, A., & Meese, E. (2022). Emerging concepts of miRNA therapeutics: from cells to clinic. *Trends Genet*, 38(6), 613-626. <https://doi.org/10.1016/j.tig.2022.02.006>
- Ding, C. B., Yu, W. N., Feng, J. H., & Luo, J. M. (2015). Structure and function of Gab2 and its role in cancer (Review). *Mol Med Rep*, 12(3), 4007-4014. <https://doi.org/10.3892/mmr.2015.3951>
- Djami-Tchatchou, A. T., Sanan-Mishra, N., Ntushelo, K., & Dubery, I. A. (2017). Functional Roles of microRNAs in Agronomically Important Plants-Potential as Targets for Crop Improvement and Protection. *Front Plant Sci*, 8, 378. <https://doi.org/10.3389/fpls.2017.00378>
- Du, B., Wang, Z., Zhang, X., Feng, S., Wang, G., He, J., & Zhang, B. (2014). MicroRNA-545 suppresses cell proliferation by targeting cyclin D1 and CDK4 in lung cancer cells. *PLoS One*, 9(2), e88022. <https://doi.org/10.1371/journal.pone.0088022>
- Du, J., Liang, Z., Xu, J., Zhao, Y., Li, X., Zhang, Y., Zhao, D., Chen, R., Liu, Y., Joshi, T., Chang, J., Wang, Z., Zhang, Y., Zhu, J., Liu, Q., Xu, D., & Jiang, C. (2019). Plant-derived phosphocholine facilitates cellular uptake of anti-pulmonary fibrotic HJT-sRNA-m7. *Sci China Life Sci*, 62(3), 309-320. <https://doi.org/10.1007/s11427-017-9026-7>
- Dzikiewicz-Krawczyk, A., Macieja, A., Maly, E., Januszkiewicz-Lewandowska, D., Mosor, M., Fichna, M., Strauss, E., & Nowak, J. (2014). Polymorphisms in microRNA target sites modulate risk of lymphoblastic and myeloid leukemias and affect microRNA binding. *J Hematol Oncol*, 7, 43. <https://doi.org/10.1186/1756-8722-7-43>
- Eide, C. A., Zabriskie, M. S., Savage Stevens, S. L., Antelope, O., Vellore, N. A., Than, H., Schultz, A. R., Clair, P., Bowler, A. D., Pomicter, A. D., Yan, D., Senina, A. V., Qiang, W., Kelley, T. W., Szankasi, P., Heinrich, M. C., Tyner, J. W., Rea, D., Cayuela, J. M., . . . Deininger, M. W. (2019). Combining the Allosteric Inhibitor Asciminib with Ponatinib Suppresses Emergence of and Restores Efficacy against Highly Resistant BCR-ABL1 Mutants. *Cancer Cell*, 36(4), 431-443 e435. <https://doi.org/10.1016/j.ccell.2019.08.004>
- Eiring, A. M., Harb, J. G., Neviani, P., Garton, C., Oaks, J. J., Spizzo, R., Liu, S., Schwind, S., Santhanam, R., & Hickey, C. J. (2010). miR-328 functions as an RNA decoy to modulate hnRNP E2 regulation of mRNA translation in leukemic blasts. *Cell*, 140(5), 652-665. [https://www.cell.com/cell/pdf/S0092-8674\(10\)00008-5.pdf](https://www.cell.com/cell/pdf/S0092-8674(10)00008-5.pdf)
- Elias, M. H., Mohamad, S. F. S., & Hamid, N. A. (2022). A Systematic Review of Candidate miRNAs, Its Targeted Genes and Pathways in Chronic Myeloid Leukemia-An Integrated Bioinformatical Analysis [Review]. *Frontiers in Oncology*, 12, 13, Article 848199. <https://doi.org/10.3389/fonc.2022.848199>

- Elias, M. H., Nordin, N., & Abdul Hamid, N. (2020). In silico Study of Potential Cross-Kingdom Plant MicroRNA Based Regulation in Chronic Myeloid Leukemia. *Current Pharmacogenomics and Personalized Medicine*, 18. <https://doi.org/10.2174/1875692118666200106113610>
- Esrick, E. B., Lehmann, L. E., Biffi, A., Achebe, M., Brendel, C., Ciuculescu, M. F., Daley, H., MacKinnon, B., Morris, E., Federico, A., Abriss, D., Boardman, K., Khelladi, R., Shaw, K., Negre, H., Negre, O., Nikiforow, S., Ritz, J., Pai, S. Y., . . . Williams, D. A. (2021). Post-Transcriptional Genetic Silencing of BCL11A to Treat Sickle Cell Disease. *N Engl J Med*, 384(3), 205-215. <https://doi.org/10.1056/NEJMoa2029392>
- Evan, G. I., Wyllie, A. H., Gilbert, C. S., Littlewood, T. D., Land, H., Brooks, M., Waters, C. M., Penn, L. Z., & Hancock, D. C. (1992). Induction of apoptosis in fibroblasts by c-myc protein. *Cell*, 69(1), 119-128. [https://doi.org/10.1016/0092-8674\(92\)90123-t](https://doi.org/10.1016/0092-8674(92)90123-t)
- Farhadi, E., Zaker, F., Safa, M., & Rezvani, M. R. (2016). miR-101 sensitizes K562 cell line to imatinib through Jak2 downregulation and inhibition of NF-κB target genes [Article]. *Tumor Biology*, 37(10), 14117-14128. <https://doi.org/10.1007/s13277-016-5205-9>
- Flis, S., & Chojnacki, T. (2019). Chronic myelogenous leukemia, a still unsolved problem: pitfalls and new therapeutic possibilities. *Drug Des Devel Ther*, 13, 825-843. <https://doi.org/10.2147/DDDT.S191303>
- Fridrich, A., Hazan, Y., & Moran, Y. (2019). Too Many False Targets for MicroRNAs: Challenges and Pitfalls in Prediction of miRNA Targets and Their Gene Ontology in Model and Non-model Organisms. *BioEssays*, 41(4), e1800169. <https://doi.org/10.1002/bies.201800169>
- Gajda, E., Grzanka, M., Godlewska, M., & Gawel, D. (2021). The Role of miRNA-7 in the Biology of Cancer and Modulation of Drug Resistance. *Pharmaceuticals (Basel)*, 14(2). <https://doi.org/10.3390/ph14020149>
- Gallant-Behm, C. L., Piper, J., Dickinson, B. A., Dalby, C. M., Pestano, L. A., & Jackson, A. L. (2018). A synthetic microRNA-92a inhibitor (MRG-110) accelerates angiogenesis and wound healing in diabetic and nondiabetic wounds. *Wound Repair Regen*, 26(4), 311-323. <https://doi.org/10.1111/wrr.12660>
- Gallant-Behm, C. L., Piper, J., Lynch, J. M., Seto, A. G., Hong, S. J., Mustoe, T. A., Maari, C., Pestano, L. A., Dalby, C. M., Jackson, A. L., Rubin, P., & Marshall, W. S. (2019). A MicroRNA-29 Mimic (Replarsen) Represses Extracellular Matrix Expression and Fibroplasia in the Skin. *J Invest Dermatol*, 139(5), 1073-1081. <https://doi.org/10.1016/j.jid.2018.11.007>
- Gao, H.-X., Li, S.-J., Wang, M.-B., Yan, S.-F., Cui, W.-L., Ma, Z.-P., Xue, J., Sang, W., Zhang, W., & Li, X.-X. (2021). Screening and identification of differentially expressed microRNAs in diffuse large B-cell lymphoma based on microRNA microarray. *Oncol. Lett.*, 22(5), 753. <https://doi.org/10.3892/ol.2021.13014>
- Ghelli Luserna di Rorà, A., Cerchione, C., Martinelli, G., & Simonetti, G. (2020). A WEE1 family business: regulation of mitosis, cancer progression, and therapeutic target. *Journal of Hematology & Oncology*, 13(1), 126. <https://doi.org/10.1186/s13045-020-00959-2>
- Giannakakis, A., Sandaltzopoulos, R., Greshock, J., Liang, S., Huang, J., Hasegawa, K., Li, C., O'Brien-Jenkins, A., Katsaros, D., & Weber, B. L. (2008). miR-210 links

- hypoxia with cell cycle regulation and is deleted in human epithelial ovarian cancer. *Cancer biology & therapy*, 7(2), 255-264.
- Gismondi, A., Nanni, V., Monteleone, V., Colao, C., Di Marco, G., & Canini, A. (2021). Plant miR171 modulates mTOR pathway in HEK293 cells by targeting GNA12. *Mol Biol Rep*, 48(1), 435-449. <https://doi.org/10.1007/s11033-020-06070-6>
- Giurgiu, M., Kaltenbach, R., Ahrend, F., Weeks, S., Clifton, H., Bouldo, M., Voloshin, V., Zhong, J., Harden, S., & Kofman, A. (2023). Multiple Genetic Polymorphisms within microRNA Targets and Homologous microRNA-Binding Sites: Two More Factors Influencing microRNA-Mediated Regulation of Gene Expression.
- Glowacki, S., Synowiec, E., & Blasiak, J. (2013). The role of mitochondrial DNA damage and repair in the resistance of BCR/ABL-expressing cells to tyrosine kinase inhibitors. *International Journal of Molecular Sciences*, 14(8), 16348-16364. https://mdpi-res.com/d_attachment/ijms/ijms-14-16348/article_deploy/ijms-14-16348.pdf?version=1403147041
- Goldman, J. M., & Melo, J. V. (2003). Chronic myeloid leukemia--advances in biology and new approaches to treatment. *N Engl J Med*, 349(15), 1451-1464. <https://doi.org/10.1056/NEJMra020777>
- Grassi, S., Palumbo, S., Mariotti, V., Liberati, D., Guerrini, F., Ciabatti, E., Salehzadeh, S., Baratè, C., Balducci, S., Ricci, F., Buda, G., Iovino, L., Mazziotta, F., Ghio, F., Ercolano, G., Di Paolo, A., Cecchetti, A., Baldini, C., Mattii, L., . . . Galimberti, S. (2019). The WNT pathway is relevant for the BCR-ABL1-independent resistance in chronic myeloid leukemia [Article]. *Frontiers in Oncology*, 9, Article 532. <https://doi.org/10.3389/fonc.2019.00532>
- Gu, C., Liu, Y., Yin, Z., Yang, J., Huang, G., Zhu, X., Li, Y., & Fei, J. (2019). Discovery of the Oncogenic Parp1, a Target of bcr-abl and a Potential Therapeutic, in mir-181a/PPF1A1 Signaling Pathway [Article]. *Molecular Therapy - Nucleic Acids*, 16, 1-14. <https://doi.org/10.1016/j.omtn.2019.01.015>
- Guo, X. Y., Zhang, J. Y., Shi, X. Z., Wang, Q., Shen, W. L., Zhu, W. W., & Liu, L. K. (2020). Upregulation of CSF-1 is correlated with elevated TAM infiltration and poor prognosis in oral squamous cell carcinoma. *Am J Transl Res*, 12(10), 6235-6249. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7653598/pdf/ajtr0012-6235.pdf>
- Guo, Y. E., & Steitz, J. A. (2014). 3'-Biotin-tagged microRNA-27 does not associate with Argonaute proteins in cells. *RNA*, 20(7), 985-988. <https://rnajournal.cshlp.org/content/20/7/985.full.pdf>
- Haier, J., & Nicolson, G. L. (2005). Haematological Malignancies in Cancer Research. *The Cancer Handbook*.
- Hammond, S. M. (2015). An overview of microRNAs. *Adv Drug Deliv Rev*, 87, 3-14. <https://doi.org/10.1016/j.addr.2015.05.001>
- Han, J., Lee, Y., Yeom, K. H., Kim, Y. K., Jin, H., & Kim, V. N. (2004). The Drosha-DGCR8 complex in primary microRNA processing. *Genes Dev*, 18(24), 3016-3027. <https://doi.org/10.1101/gad.1262504>
- Hanahan, D., & Weinberg, R. A. (2011). Hallmarks of cancer: the next generation. *Cell*, 144(5), 646-674. <https://doi.org/10.1016/j.cell.2011.02.013>
- Hanna, J., Hossain, G. S., & Kocerha, J. (2019). The Potential for microRNA Therapeutics and Clinical Research. *Front Genet*, 10, 478. <https://doi.org/10.3389/fgene.2019.00478>

- Hantschel, O., Nagar, B., Guettler, S., Kretzschmar, J., Dorey, K., Kuriyan, J., & Superti-Furga, G. (2003). A myristoyl/phosphotyrosine switch regulates c-Abl. *Cell*, 112(6), 845-857. [https://doi.org/10.1016/s0092-8674\(03\)00191-0](https://doi.org/10.1016/s0092-8674(03)00191-0)
- He, T. S., Huang, J., Chen, T., Zhang, Z., Cai, K., Yu, J., & Xu, L. G. (2021). The Kinase MAP4K1 Inhibits Cytosolic RNA-Induced Antiviral Signaling by Promoting Proteasomal Degradation of TBK1/IKKepsilon. *Microbiol Spectr*, 9(3), e0145821. <https://doi.org/10.1128/Spectrum.01458-21>
- Heaney, C., Kolibaba, K., Bhat, A., Oda, T., Ohno, S., Fanning, S., & Druker, B. J. (1997). Direct binding of CRKL to BCR-ABL is not required for BCR-ABL transformation. *Blood, The Journal of the American Society of Hematology*, 89(1), 297-306. <https://www.sciencedirect.com/science/article/pii/S0006497120768102?via%3Dihub>
- Hekmatshoar, Y., Ozkan, T., Altinok Gunes, B., Bozkurt, S., Karadag, A., Karabay, A. Z., & Sunguroglu, A. (2018). Characterization of imatinib-resistant K562 cell line displaying resistance mechanisms. *Cell Mol Biol (Noisy-le-grand)*, 64(6), 23-30. <https://www.ncbi.nlm.nih.gov/pubmed/29808796>
- Hershkovitz-Rokah, O., Modai, S., Pasmanik-Chor, M., Toren, A., Shomron, N., Raanani, P., Shpilberg, O., & Granot, G. (2015). Restoration of miR-424 suppresses BCR-ABL activity and sensitizes CML cells to imatinib treatment. *Cancer Lett*, 360(2), 245-256. <https://doi.org/10.1016/j.canlet.2015.02.031>
- Ho, J. W., Stefani, M., dos Remedios, C. G., & Charleston, M. A. (2008). Differential variability analysis of gene expression and its application to human diseases. *Bioinformatics*, 24(13), i390-398. <https://doi.org/10.1093/bioinformatics/btn142>
- Holyoake, T. L., & Vetrie, D. (2017). The chronic myeloid leukemia stem cell: stemming the tide of persistence. *Blood*, 129(12), 1595-1606. <https://doi.org/10.1182/blood-2016-09-696013>
- Hong, D. S., Kang, Y. K., Borad, M., Sachdev, J., Ejadi, S., Lim, H. Y., Brenner, A. J., Park, K., Lee, J. L., Kim, T. Y., Shin, S., Becerra, C. R., Falchook, G., Stoudemire, J., Martin, D., Kelnar, K., Peltier, H., Bonato, V., Bader, A. G., . . . Beg, M. S. (2020). Phase 1 study of MRX34, a liposomal miR-34a mimic, in patients with advanced solid tumours. *Br J Cancer*, 122(11), 1630-1637. <https://doi.org/10.1038/s41416-020-0802-1>
- Hortobagyi, G. N., Stemmer, S. M., Burris, H. A., Yap, Y.-S., Sonke, G. S., Hart, L., Campone, M., Petrakova, K., Winer, E. P., & Janni, W. (2022). Overall survival with ribociclib plus letrozole in advanced breast cancer. *New England Journal of Medicine*, 386(10), 942-950.
- Hossian, A., Muthumula, C. M. R., Sajib, M. S., Tullar, P. E., Stelly, A. M., Briski, K. P., Mikelis, C. M., & Matthaiolampakis, G. (2019). Analysis of Combinatorial miRNA Treatments to Regulate Cell Cycle and Angiogenesis. *J Vis Exp*(145). <https://doi.org/10.3791/59460>
- Hou, D., He, F., Ma, L., Cao, M., Zhou, Z., Wei, Z., Xue, Y., Sang, X., Chong, H., & Tian, C. (2018). The potential atheroprotective role of plant MIR156a as a repressor of monocyte recruitment on inflamed human endothelial cells. *The Journal of nutritional biochemistry*, 57, 197-205.
- Hrdinova, T., Toman, O., Dresler, J., Klimentova, J., Salovska, B., Pajer, P., Bartos, O., Polivkova, V., Linhartova, J., Machova Polakova, K., Kabickova, H., Brodska, B., Krijt, M., Zivny, J., Vyoral, D., & Petrak, J. (2021). Exosomes released by

- imatinib-resistant K562 cells contain specific membrane markers, IFITM3, CD146 and CD36 and increase the survival of imatinib-sensitive cells in the presence of imatinib. *Int J Oncol*, 58(2), 238-250. <https://doi.org/10.3892/ijo.2020.5163>
- Hu, M., Qiu, W. R., Wang, X., Meyer, C. F., & Tan, T.-H. (1996). Human HPK1, a novel human hematopoietic progenitor kinase that activates the JNK/SAPK kinase cascade. *Genes & development*, 10(18), 2251-2264.
- Hu, Q., & Huang, T. (2023). Regulation of the Cell Cycle by ncRNAs Affects the Efficiency of CDK4/6 Inhibition. *International Journal of Molecular Sciences*, 24(10), 8939. https://mdpi-res.com/d_attachment/ijms/ijms-24-08939/article_deploy/ijms-24-08939.pdf?version=1684392357
- Huang, H., Davis, C. D., & Wang, T. T. Y. (2018). Extensive Degradation and Low Bioavailability of Orally Consumed Corn miRNAs in Mice. *Nutrients*, 10(2). <https://doi.org/10.3390/nu10020215>
- Huang, H. Y., Lin, Y. C., Li, J., Huang, K. Y., Shrestha, S., Hong, H. C., Tang, Y., Chen, Y. G., Jin, C. N., Yu, Y., Xu, J. T., Li, Y. M., Cai, X. X., Zhou, Z. Y., Chen, X. H., Pei, Y. Y., Hu, L., Su, J. J., Cui, S. D., . . . Huang, H. D. (2020). miRTarBase 2020: updates to the experimentally validated microRNA-target interaction database. *Nucleic Acids Res*, 48(D1), D148-D154. <https://doi.org/10.1093/nar/gkz896>
- Huang, J., Borchert, G. M., Dou, D., Huan, J., Lan, W., Tan, M., & Wu, B. (2017). *Bioinformatics in microRNA research*. Springer.
- Huang, L., Luo, J., Cai, Q., Pan, Q., Zeng, H., Guo, Z., Dong, W., Huang, J., & Lin, T. (2011). MicroRNA-125b suppresses the development of bladder cancer by targeting E2F3. *International Journal of Cancer*, 128(8), 1758-1769. <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/ijc.25509?download=true>
- Huang, Q., Shen, Y.-J., Hsueh, C.-Y., Guo, Y., Zhang, Y.-F., Li, J.-Y., & Zhou, L. (2021). miR-17-5p drives G2/M-phase accumulation by directly targeting CCNG2 and is related to recurrence of head and neck squamous cell carcinoma. *BMC Cancer*, 21, 1-10.
- Huang, T., Fu, Y., Wang, S., Xu, M., Yin, X., Zhou, M., Wang, X., & Chen, C. (2019). miR-96 acts as a tumor suppressor via targeting the BCR-ABL1 oncogene in chronic myeloid leukemia blastic transformation. *Biomed Pharmacother*, 119, 109413. <https://doi.org/10.1016/j.biopha.2019.109413>
- Huang, Y. (2017). Preclinical and Clinical Advances of GalNAc-Decorated Nucleic Acid Therapeutics. *Mol Ther Nucleic Acids*, 6, 116-132. <https://doi.org/10.1016/j.omtn.2016.12.003>
- Hwang, H. W., & Mendell, J. T. (2006). MicroRNAs in cell proliferation, cell death, and tumorigenesis. *Br J Cancer*, 94(6), 776-780. <https://doi.org/10.1038/sj.bjc.6603023>
- Irvine, K. M., Andrews, M. R., Fernandez-Rojo, M. A., Schroder, K., Burns, C. J., Su, S., Wilks, A. F., Parton, R. G., Hume, D. A., & Sweet, M. J. (2009). Colony-stimulating factor-1 (CSF-1) delivers a proatherogenic signal to human macrophages. *J Leukoc Biol*, 85(2), 278-288. <https://doi.org/10.1189/jlb.0808497>
- Ishiyama, M., Tominaga, H., Shiga, M., Sasamoto, K., Ohkura, Y., & Ueno, K. (1996). A combined assay of cell viability and in vitro cytotoxicity with a highly water-

- soluble tetrazolium salt, neutral red and crystal violet. *Biological and Pharmaceutical Bulletin*, 19(11), 1518-1520.
- Ivashuta, S. I., Petrick, J. S., Heisel, S. E., Zhang, Y., Guo, L., Reynolds, T. L., Rice, J. F., Allen, E., & Roberts, J. K. (2009). Endogenous small RNAs in grain: semi-quantification and sequence homology to human and animal genes. *Food Chem Toxicol*, 47(2), 353-360. <https://doi.org/10.1016/j.fct.2008.11.025>
- Jaksik, R., Iwanaszko, M., Rzeszowska-Wolny, J., & Kimmel, M. (2015). Microarray experiments and factors which affect their reliability. *Biology Direct*, 10(1), 46. <https://doi.org/10.1186/s13062-015-0077-2>
- Jennings, L. J., George, D., Czech, J., Yu, M., & Joseph, L. (2014). Detection and quantification of BCR-ABL1 fusion transcripts by droplet digital PCR. *J Mol Diagn*, 16(2), 174-179. <https://doi.org/10.1016/j.jmoldx.2013.10.007>
- Jia, L., Zhang, D., Xiang, Z., & He, N. (2015). Nonfunctional ingestion of plant miRNAs in silkworm revealed by digital droplet PCR and transcriptome analysis. *Scientific Reports*, 5(1), 12290.
- Jia, Q., Sun, H., Xiao, F., Sai, Y., Li, Q., Zhang, X., Yang, S., Wang, H., Wang, H., Yang, Y., Wu, C. T., & Wang, L. (2017). miR-17-92 promotes leukemogenesis in chronic myeloid leukemia via targeting A20 and activation of NF-kappaB signaling. *Biochem Biophys Res Commun*, 487(4), 868-874. <https://doi.org/10.1016/j.bbrc.2017.04.144>
- Jiang, M. J., Dai, J. J., Gu, D. N., Huang, Q., & Tian, L. (2017). MicroRNA-7 inhibits cell proliferation of chronic myeloid leukemia and sensitizes it to imatinib in vitro. *Biochem Biophys Res Commun*, 494(1-2), 372-378. <https://doi.org/10.1016/j.bbrc.2017.10.001>
- Jiang, T., Chen, J., Huang, X. B., Li, Y. X., & Zhong, L. (2018). Mir-451a induced apoptosis of philadelphia chromosome-positive acute lymphoblastic leukemia cells by targeting IL-6R [Article]. *Neoplasma*, 65(6), 907-914. https://doi.org/10.4149/neo_2018_180121N44
- Jiang, X., Cheng, Y., Hu, C., Zhang, A., Ren, Y., & Xu, X. (2019). MicroRNA-221 sensitizes chronic myeloid leukemia cells to imatinib by targeting STAT5 [Article]. *Leukemia and Lymphoma*, 60(7), 1709-1720. <https://doi.org/10.1080/10428194.2018.1543875>
- Jin, H. Y., Gonzalez-Martin, A., Miletic, A. V., Lai, M., Knight, S., Sabouri-Ghomi, M., Head, S. R., Macauley, M. S., Rickert, R. C., & Xiao, C. (2015). Transfection of microRNA Mimics Should Be Used with Caution. *Front Genet*, 6, 340. <https://doi.org/10.3389/fgene.2015.00340>
- Jin, J., Yao, J., Yue, F., Jin, Z., Li, D., & Wang, S. (2018). Decreased expression of microRNA-214 contributes to imatinib mesylate resistance of chronic myeloid leukemia patients by upregulating ABCB1 gene expression. *Exp Ther Med*, 16(3), 1693-1700. <https://doi.org/10.3892/etm.2018.6404>
- Jing, W., Zhou, M., Chen, R., Ye, X., Li, W., Su, X., Luo, J., Wang, Z., & Peng, S. (2021). In vitro and ex vivo anti-tumor effect and mechanism of Tucatinib in leukemia stem cells and ABCG2-overexpressing leukemia cells [Article]. *Oncology reports*, 45(3), 1142-1152. <https://doi.org/10.3892/or.2020.7915>
- Jo, J., Abdi Nansa, S., & Kim, D.-H. (2020). Molecular Regulators of Cellular Mechanoadaptation at Cell–Material Interfaces [Review]. *Frontiers in Bioengineering and Biotechnology*, 8. <https://doi.org/10.3389/fbioe.2020.608569>

- John, B., Sander, C., & Marks, D. S. (2006). Prediction of human microRNA targets. *Methods Mol Biol*, *342*, 101-113. <https://doi.org/10.1385/1-59745-123-1:101>
- Johnston, S. R., Harbeck, N., Hegg, R., Toi, M., Martin, M., Shao, Z. M., Zhang, Q. Y., Rodriguez, J. L. M., Campone, M., & Hamilton, E. (2020). Abemaciclib combined with endocrine therapy for the adjuvant treatment of HR+, HER2-, node-positive, high-risk, early breast cancer (monarchE). *Journal of Clinical Oncology*, *38*(34), 3987. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7768339/pdf/JCO.20.02514.pdf>
- Kaehler, M., Litterst, M., Kolarova, J., Bohm, R., Bruckmueller, H., Ammerpohl, O., Cascorbi, I., & Nagel, I. (2022). Genome-wide expression and methylation analyses reveal aberrant cell adhesion signaling in tyrosine kinase inhibitor-resistant CML cells [Article]. *Oncology reports*, *48*(2), Article 144. <https://doi.org/10.3892/or.2022.8355>
- Kaehler, M., Ruemenapp, J., Gonnermann, D., Nagel, I., Bruhn, O., Haenisch, S., Ammerpohl, O., Wesch, D., Cascorbi, I., & Bruckmueller, H. (2017). MicroRNA-212/ABCG2-axis contributes to development of imatinib-resistance in leukemic cells. *Oncotarget*, *8*(54), 92018-92031. <https://doi.org/10.18632/oncotarget.21272>
- Kamiloglu, S., Sari, G., Ozdal, T., & Capanoglu, E. (2020). Guidelines for cell viability assays. *Food Frontiers*, *1*(3), 332-349.
- Kashtan, C. E., & Gross, O. (2021). Clinical practice recommendations for the diagnosis and management of Alport syndrome in children, adolescents, and young adults—an update for 2020. *Pediatric Nephrology*, *36*(3), 711-719. <https://link.springer.com/article/10.1007/s00467-020-04819-6>
- Kaymaz, B. T., Gunel, N. S., Ceyhan, M., Cetintas, V. B., Ozel, B., Yandim, M. K., Kipcak, S., Aktan, C., Gokbulut, A. A., Baran, Y., & Can, B. K. (2015). Revealing genome-wide mRNA and microRNA expression patterns in leukemic cells highlighted "hsa-miR-2278" as a tumor suppressor for regain of chemotherapeutic imatinib response due to targeting STAT5A. *Tumour Biol*, *36*(10), 7915-7927. <https://doi.org/10.1007/s13277-015-3509-9>
- Kazmierczak, M., Handschuh, L., Milewski, M., Goralski, M., Luczak, M., Wojtaszewska, M., Uszczyńska-Ratajczak, B., Lewandowski, K., Komarnicki, M., & Figlerowicz, M. (2018). Gene expression profiling of acute myeloid leukemia samples from adult patients with AML-M1 and -M2 through boutique microarrays, real-time PCR and droplet digital PCR. *Int J Oncol*, *52*(3), 656-678. <https://doi.org/10.3892/ijo.2017.4233>
- Kertesz, M., Iovino, N., Unnerstall, U., Gaul, U., & Segal, E. (2007). The role of site accessibility in microRNA target recognition. *Nat Genet*, *39*(10), 1278-1284. <https://doi.org/10.1038/ng2135>
- Keskin, S., Brouwers, C. C., Sogorb-Gonzalez, M., Martier, R., Depla, J. A., Vallès, A., van Deventer, S. J., Konstantinova, P., & Evers, M. M. (2019). AAV5-miHTT lowers huntingtin mRNA and protein without off-target effects in patient-derived neuronal cultures and astrocytes. *Molecular Therapy-Methods & Clinical Development*, *15*, 275-284.
- Khatun, M. S., Alam, M. A., Shoombuatong, W., Mollah, M. N., Kurata, H., & Hasan, M. M. (2022). Recent development of bioinformatics tools for microRNA target prediction. *Current Medicinal Chemistry*, *29*(5), 865-880. <https://www.eurekaselect.com/article/117004>

- Khorashad, J., Anand, M., Marin, D., Saunders, S., Al-Jabary, T., Iqbal, A., Margerison, S., Melo, J., Goldman, J., & Apperley, J. (2006). The presence of a BCR-ABL mutant allele in CML does not always explain clinical resistance to imatinib. *Leukemia*, 20(4), 658-663. <https://www.nature.com/articles/2404137.pdf>
- Kilikevicius, A., Meister, G., & Corey, D. R. (2022). Reexamining assumptions about miRNA-guided gene silencing. *Nucleic acids research*, 50(2), 617-634. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8789053/pdf/gkab1256.pdf>
- Kim, E. K., & Choi, E. J. (2010). Pathological roles of MAPK signaling pathways in human diseases. *Biochim Biophys Acta*, 1802(4), 396-405. <https://doi.org/10.1016/j.bbadis.2009.12.009>
- Kim, T. K., & Eberwine, J. H. (2010). Mammalian cell transfection: the present and the future. *Anal Bioanal Chem*, 397(8), 3173-3178. <https://doi.org/10.1007/s00216-010-3821-6>
- Klumper, T., Bruckmueller, H., Diewock, T., Kaehler, M., Haenisch, S., Pott, C., Bruhn, O., & Cascorbi, I. (2020). Expression differences of miR-142-5p between treatment-naive chronic myeloid leukemia patients responding and non-responding to imatinib therapy suggest a link to oncogenic ABL2, SRI, cKIT and MCL1 signaling pathways critical for development of therapy resistance. *Exp Hematol Oncol*, 9, 26. <https://doi.org/10.1186/s40164-020-00183-1>
- Knight, T. E., Edwards, H., Taub, J. W., & Ge, Y. (2021). MAP4K1 expression is a novel resistance mechanism and independent prognostic marker in AML-but can be overcome via targeted inhibition. *EBioMedicine*, 70, 103488. <https://doi.org/10.1016/j.ebiom.2021.103488>
- Koo, K. H., & Kwon, H. (2018). MicroRNA miR-4779 suppresses tumor growth by inducing apoptosis and cell cycle arrest through direct targeting of PAK2 and CCND3. *Cell Death Dis*, 9(2), 77. <https://doi.org/10.1038/s41419-017-0100-x>
- Kouroumalis, E., Tsomidis, I., & Voumvouraki, A. (2023). Autophagy and Apoptosis in Inflammatory Bowel Disease. *Gastroenterology Insights*, 14(4), 598-636.
- Kozomara, A., Birgaoanu, M., & Griffiths-Jones, S. (2019). miRBase: from microRNA sequences to function. *Nucleic Acids Res*, 47(D1), D155-D162. <https://doi.org/10.1093/nar/gky1141>
- Kozomara, A., & Griffiths-Jones, S. (2011). miRBase: integrating microRNA annotation and deep-sequencing data. *Nucleic Acids Res*, 39(Database issue), D152-157. <https://doi.org/10.1093/nar/gkq1027>
- Krek, A., Grün, D., Poy, M. N., Wolf, R., Rosenberg, L., Epstein, E. J., MacMenamin, P., da Piedade, I., Gunsalus, K. C., Stoffel, M., & Rajewsky, N. (2005). Combinatorial microRNA target predictions. *Nature Genetics*, 37(5), 495-500. <https://doi.org/10.1038/ng1536>
- Kruger, J., & Rehmsmeier, M. (2006). RNAhybrid: microRNA target prediction easy, fast and flexible. *Nucleic Acids Res*, 34(Web Server issue), W451-454. <https://doi.org/10.1093/nar/gkl243>
- Kuan, J. W., & Melaine Michael, S. (2018). The epidemiology of chronic myeloid leukaemia in southern Sarawak, Borneo Island. *Med J Malaysia*, 73(2), 78-85. <https://www.ncbi.nlm.nih.gov/pubmed/29703870>
- Kuhn, D. E., Martin, M. M., Feldman, D. S., Terry, A. V., Jr., Nuovo, G. J., & Elton, T. S. (2008). Experimental validation of miRNA targets. *Methods*, 44(1), 47-54. <https://doi.org/10.1016/j.ymeth.2007.09.005>
- Kustova, D., Motyko, E., Kirienko, A., Bakay, M., Efremova, E., Semenova, N., Erukashvily, N., Voloshin, S., Shuvaev, V., & Sidorkevich, S. (2022). CML-

- 363 Recent Perspective of Next-Generation Sequencing (NGS) in Non-BCR:: ABL Mechanisms of Resistance in Patients With Chronic Myeloid Leukemia. *Clinical Lymphoma Myeloma and Leukemia*, 22, S294.
- Laneuville, P. (1995). Abl tyrosine protein kinase. *Semin Immunol*, 7(4), 255-266. <https://doi.org/10.1006/smim.1995.0030>
- Lavrov, A. V., Chelysheva, E. Y., Adilgereeva, E. P., Shukhov, O. A., Smirnikhina, S. A., Kochergin-Nikitsky, K. S., Yakushina, V. D., Tsaur, G. A., Mordanov, S. V., Turkina, A. G., & Kutsev, S. I. (2019). Exome, transcriptome and miRNA analysis don't reveal any molecular markers of TKI efficacy in primary CML patients. *BMC Med Genomics*, 12(Suppl 2), 37. <https://doi.org/10.1186/s12920-019-0481-z>
- Leak, S., Horne, G. A., & Copland, M. (2023). Targeting BCR-ABL1-positive leukaemias: A review article. *Cambridge Prisms: Precision Medicine*, 1, e21. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10953774/pdf/S275261432300091a.pdf>
- Lee, R. C., Feinbaum, R. L., & Ambros, V. (1993). The *C. elegans* heterochronic gene *lin-4* encodes small RNAs with antisense complementarity to *lin-14*. *Cell*, 75(5), 843-854. [https://doi.org/10.1016/0092-8674\(93\)90529-y](https://doi.org/10.1016/0092-8674(93)90529-y)
- Lennox, K. A., & Behlke, M. A. (2010). A direct comparison of anti-microRNA oligonucleotide potency. *Pharm Res*, 27(9), 1788-1799. <https://doi.org/10.1007/s11095-010-0156-0>
- Leonardi, L., Sibérl, S., Alifano, M., Cremer, I., & Joubert, P.-E. (2021). Autophagy modulation by viral infections influences tumor development. *Frontiers in Oncology*, 11, 743780.
- Lewis, B. P., Shih, I. H., Jones-Rhoades, M. W., Bartel, D. P., & Burge, C. B. (2003). Prediction of mammalian microRNA targets. *Cell*, 115(7), 787-798. [https://doi.org/10.1016/s0092-8674\(03\)01018-3](https://doi.org/10.1016/s0092-8674(03)01018-3)
- Li, H., Liu, L., Zhuang, J., Liu, C., Zhou, C., Yang, J., Gao, C., Liu, G., & Sun, C. (2019). Identification of key candidate targets and pathways for the targeted treatment of leukemia stem cells of chronic myelogenous leukemia using bioinformatics analysis. *Mol Genet Genomic Med*, 7(9), e851. <https://doi.org/10.1002/mgg3.851>
- Li, H., Tian, X., Wang, P., Huang, M., Xu, R., & Nie, T. (2019). MicroRNA-582-3p negatively regulates cell proliferation and cell cycle progression in acute myeloid leukemia by targeting cyclin B2. *Cell Mol Biol Lett*, 24, 66. <https://doi.org/10.1186/s11658-019-0184-7>
- Li, J., Yang, Z., Yu, B., Liu, J., & Chen, X. (2005). Methylation protects miRNAs and siRNAs from a 3'-end uridylation activity in Arabidopsis. *Current biology*, 15(16), 1501-1507. [https://www.cell.com/current-biology/pdf/S0960-9822\(05\)00773-6.pdf](https://www.cell.com/current-biology/pdf/S0960-9822(05)00773-6.pdf)
- Li, J., & Zhang, Y. (2019). Current experimental strategies for intracellular target identification of microRNA. *ExRNA*, 1(1), 1-8.
- Li, M., Chen, T., He, J. J., Wu, J. H., Luo, J. Y., Ye, R. S., Xie, M. Y., Zhang, H. J., Zeng, B., Liu, J., Xi, Q. Y., Jiang, Q. Y., Sun, J. J., & Zhang, Y. L. (2019). Plant MIR167e-5p Inhibits Enterocyte Proliferation by Targeting beta-Catenin. *Cells*, 8(11). <https://doi.org/10.3390/cells8111385>
- Li, Q., Gao, R., Chen, Y., Xie, S., Sun, X., Gong, H., He, F., Sun, Y., Lu, S., Chen, X., Qi, M., Li, M., & Huang, T. (2023). Identification of miR-192 target genes in

- porcine endometrial epithelial cells based on miRNA pull-down. *Mol Biol Rep*, 50(5), 4273-4284. <https://doi.org/10.1007/s11033-023-08349-w>
- Li, Q., Wu, Y., Zhang, J., Yi, T., & Li, W. (2016). MicroRNA-130a regulates cell malignancy by targeting RECK in chronic myeloid leukemia. *Am J Transl Res*, 8(2), 955-967. <https://www.ncbi.nlm.nih.gov/pubmed/27158382>
- Li, S., & Xia, M. (2019). Review of high-content screening applications in toxicology. *Archives of toxicology*, 93, 3387-3396. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7011178/pdf/nihms-1068048.pdf>
- Li, W., Zhao, Y., Qiu, L., & Ma, J. (2019). [Effect of Quercetin on Wnt/beta-Catenin Signal Pathway of K562 and K562R Cells]. *Zhongguo Shi Yan Xue Ye Xue Za Zhi*, 27(5), 1409-1415. <https://doi.org/10.19746/j.cnki.issn.1009-2137.2019.05.009>
- Li, X., Liu, X., Xu, W., Zhou, P., Gao, P., Jiang, S., Lobie, P. E., & Zhu, T. (2013). c-MYC-regulated miR-23a/24-2/27a cluster promotes mammary carcinoma cell invasion and hepatic metastasis by targeting Sprouty2. *Journal of Biological Chemistry*, 288(25), 18121-18133. [https://www.jbc.org/article/S0021-9258\(20\)45803-X/pdf](https://www.jbc.org/article/S0021-9258(20)45803-X/pdf)
- Li, Y., Wang, H., Tao, K., Xiao, Q., Huang, Z., Zhong, L., Cao, W., Wen, J., & Feng, W. (2013). miR-29b suppresses CML cell proliferation and induces apoptosis via regulation of BCR/ABL1 protein. *Exp Cell Res*, 319(8), 1094-1101. <https://doi.org/10.1016/j.yexcr.2013.02.002>
- Li, Y. L., Tang, J. M., Chen, X. Y., Luo, B., Liang, G. H., Qu, Q., & Lu, Z. Y. (2020). MicroRNA-153-3p enhances the sensitivity of chronic myeloid leukemia cells to imatinib by inhibiting B-cell lymphoma-2-mediated autophagy. *Hum Cell*, 33(3), 610-618. <https://doi.org/10.1007/s13577-020-00367-1>
- Liang, H., Zhang, S., Fu, Z., Wang, Y., Wang, N., Liu, Y., Zhao, C., Wu, J., Hu, Y., & Zhang, J. (2015). Effective detection and quantification of dietetically absorbed plant microRNAs in human plasma. *The Journal of nutritional biochemistry*, 26(5), 505-512. <https://www.sciencedirect.com/science/article/pii/S0955286315000169?via%3Dihub>
- Ligasova, A., Frydrych, I., & Koberna, K. (2023). Basic Methods of Cell Cycle Analysis. *Int J Mol Sci*, 24(4). <https://doi.org/10.3390/ijms24043674>
- Lim, Y. M., Eng, W. L., & Chan, H. K. (2017). Understanding and challenges in taking tyrosine kinase inhibitors among Malaysian chronic myeloid leukemia patients: a qualitative study. *Asian Pacific journal of cancer prevention: APJCP*, 18(7), 1925. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5648400/pdf/APJCP-18-1925.pdf>
- Lin, H., Rothe, K., Chen, M., Wu, A., Babaian, A., Yen, R., Zeng, J., Ruschmann, J., Petriv, O. I., O'Neill, K., Maetzig, T., Knapp, D. J. H. F., Nakamichi, N., Brinkman, R., Birol, I., Forrest, D. L., Hansen, C., Keith Humphries, R., Eaves, C. J., & Jiang, X. (2020). The miR-185/PAK6 axis predicts therapy response and regulates survival of drug-resistant leukemic stem cells in CML [Article]. *Blood*, 136(5), 596-609. <https://doi.org/10.1182/blood.2019003636>
- Ling, Q., Li, F., Zhang, X., Mao, S., Lin, X., Pan, J., Ye, W., Wei, W., Qian, Y., & Hu, C. (2021). MAP4K1 functions as a tumor promotor and drug mediator for AML via modulation of DNA damage/repair system and MAPK pathway. *EBioMedicine*, 69, 103441.

- Litmanovich, A., Khazim, K., & Cohen, I. (2018). The role of interleukin-1 in the pathogenesis of cancer and its potential as a therapeutic target in clinical practice. *Oncology and therapy*, 6(2), 109-127. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7359982/pdf/40487_2018_Article_89.pdf
- Liu, J., Kreimer, A., & Li, W. V. (2023). Differential variability analysis of single-cell gene expression data. *Brief Bioinform*, 24(5). <https://doi.org/10.1093/bib/bbad294>
- Liu, X., Hua, F., Yang, D., Lin, Y., Zhang, L., Ying, J., Sheng, H., & Wang, X. (2022). Roles of neuroligins in central nervous system development: focus on glial neuroligins and neuron neuroligins. *Journal of Translational Medicine*, 20(1), 418. <https://doi.org/10.1186/s12967-022-03625-y>
- Liu, Y., Song, Y., Ma, W., Zheng, W., & Yin, H. (2013). Decreased microRNA-30a levels are associated with enhanced ABL1 and BCR-ABL1 expression in chronic myeloid leukemia. *Leuk Res*, 37(3), 349-356. <https://doi.org/10.1016/j.leukres.2012.12.003>
- Liu, Y., Zheng, W., Song, Y., Ma, W., & Yin, H. (2013). Low expression of miR-196b enhances the expression of BCR-ABL1 and HOXA9 oncogenes in chronic myeloid leukemogenesis. *PLoS One*, 8(7), e68442. <https://doi.org/10.1371/journal.pone.0068442>
- Liu, Y. Y., Jiao, W. Y., Li, T., & Bao, Y. Y. (2019). MiRNA-409-5p dysregulation promotes imatinib resistance and disease progression in children with chronic myeloid leukemia. *Eur Rev Med Pharmacol Sci*, 23(19), 8468-8475. https://doi.org/10.26355/eurev_201910_19159
- Loher, P., & Rigoutsos, I. (2012). Interactive exploration of RNA22 microRNA target predictions. *Bioinformatics*, 28(24), 3322-3323. <https://doi.org/10.1093/bioinformatics/bts615>
- Loscocco, F., Visani, G., Galimberti, S., Curti, A., & Isidori, A. (2019). BCR-ABL Independent Mechanisms of Resistance in Chronic Myeloid Leukemia. *Front Oncol*, 9, 939. <https://doi.org/10.3389/fonc.2019.00939>
- Lu, Y.-h., & Huang, Z.-y. (2021). Global identification of circular RNAs in imatinib (IM) resistance of chronic myeloid leukemia (CML) by modulating signaling pathways of circ_0080145/miR-203/ABL1 and circ_0051886/miR-637/ABL1. *Molecular Medicine*, 27(1), 148. <https://doi.org/10.1186/s10020-021-00395-z>
- Ludwig, N., Becker, M., Schumann, T., Speer, T., Fehlmann, T., Keller, A., & Meese, E. (2017). Bias in recent miRBase annotations potentially associated with RNA quality issues. *Sci Rep*, 7(1), 5162. <https://doi.org/10.1038/s41598-017-05070-0>
- Lukasik, A., Brzozowska, I., Zielenkiewicz, U., & Zielenkiewicz, P. (2017). Detection of Plant miRNAs Abundance in Human Breast Milk. *Int J Mol Sci*, 19(1). <https://doi.org/10.3390/ijms19010037>
- Luo, J., Gao, Y., Lin, X., & Guan, X. (2021). Systematic analysis reveals a lncrna-mirna-mrna network associated with dasatinib resistance in chronic myeloid leukemia [Article]. *Annals of Palliative Medicine*, 10(2), 1727-1738. <https://doi.org/10.21037/apm-20-343>
- Ma, G., Lu, D., Wu, Y., Liu, J., & Arlinghaus, R. B. (1997). Bcr phosphorylated on tyrosine 177 binds Grb2. *Oncogene*, 14(19), 2367-2372. <https://doi.org/10.1038/sj.onc.1201053>

- Ma, J., Wang, C., Long, K., Zhang, H., Zhang, J., Jin, L., Tang, Q., Jiang, A., Wang, X., Tian, S., Chen, L., He, D., Li, D., Huang, S., Jiang, Z., & Li, M. (2017). Exosomal microRNAs in giant panda (*Ailuropoda melanoleuca*) breast milk: potential maternal regulators for the development of newborn cubs. *Sci Rep*, 7(1), 3507. <https://doi.org/10.1038/s41598-017-03707-8>
- Ma, J., Wu, D., Yi, J., Yi, Y., Zhu, X., Qiu, H., Kong, R., Lin, J., Qian, J., & Deng, Z. (2019). MiR-378 promoted cell proliferation and inhibited apoptosis by enhanced stem cell properties in chronic myeloid leukemia K562 cells [Article]. *Biomedicine and Pharmacotherapy*, 112, Article 108623. <https://doi.org/10.1016/j.biopha.2019.108623>
- Macfarlane, L. A., & Murphy, P. R. (2010). MicroRNA: Biogenesis, Function and Role in Cancer. *Curr Genomics*, 11(7), 537-561. <https://doi.org/10.2174/138920210793175895>
- Manchester, K. (1995). Value of A260/A280 ratios for measurement of purity of nucleic acids. *Biotechniques*, 19(2), 208-210.
- Maragkakis, M., Reczko, M., Simossis, V. A., Alexiou, P., Papadopoulos, G. L., Dalamagas, T., Giannopoulos, G., Goumas, G., Koukis, E., Kourtis, K., Vergoulis, T., Koziris, N., Sellis, T., Tsanakas, P., & Hatzigeorgiou, A. G. (2009). DIANA-microT web server: elucidating microRNA functions through target prediction. *Nucleic Acids Res*, 37(Web Server issue), W273-276. <https://doi.org/10.1093/nar/gkp292>
- Martins, J. R. B., Moraes, L. N., Cury, S. S., Capannacci, J., Carvalho, R. F., Nogueira, C. R., Hokama, N. K., & Hokama, P. O. M. (2021). MiR-125a-3p and miR-320b differentially expressed in patients with chronic myeloid leukemia treated with allogeneic hematopoietic stem cell transplantation and imatinib mesylate [Article]. *International Journal of Molecular Sciences*, 22(19), Article 10216. <https://doi.org/10.3390/ijms221910216>
- Marzano, F., Caratozzolo, M. F., Consiglio, A., Licciulli, F., Liuni, S., Sbisà, E., D'Elia, D., Tullo, A., & Catalano, D. (2020). Plant miRNAs Reduce Cancer Cell Proliferation by Targeting MALAT1 and NEAT1: A Beneficial Cross-Kingdom Interaction. *Front Genet*, 11, 552490. <https://doi.org/10.3389/fgene.2020.552490>
- Mayr, C. (2017). Regulation by 3'-untranslated regions. *Annual review of genetics*, 51(1), 171-194.
- Melo, J. V. (1996). The diversity of BCR-ABL fusion proteins and their relationship to leukemia phenotype. *Blood*, 88(7), 2375-2384. <https://www.sciencedirect.com/science/article/pii/S0006497120623308?via%3Dihub>
- Melo, J. V., & Deininger, M. W. (2004). Biology of chronic myelogenous leukemia--signaling pathways of initiation and transformation. *Hematol Oncol Clin North Am*, 18(3), 545-568, vii-viii. <https://doi.org/10.1016/j.hoc.2004.03.008>
- Mico, V., Martin, R., Lasuncion, M. A., Ordovas, J. M., & Daimiel, L. (2016). Unsuccessful Detection of Plant MicroRNAs in Beer, Extra Virgin Olive Oil and Human Plasma After an Acute Ingestion of Extra Virgin Olive Oil. *Plant Foods Hum Nutr*, 71(1), 102-108. <https://doi.org/10.1007/s11130-016-0534-9>
- Million, R. P., & Van Etten, R. A. (2000). The Grb2 binding site is required for the induction of chronic myeloid leukemia-like disease in mice by the Bcr/Abl tyrosine kinase. *Blood, The Journal of the American Society of Hematology*, 96(2), 664-670.

<https://www.sciencedirect.com/science/article/pii/S0006497120720999?via%3Dihub>

- Milojkovic, D., & Apperley, J. (2009). Mechanisms of Resistance to Imatinib and Second-Generation Tyrosine Inhibitors in Chronic Myeloid Leukemia. *Clin Cancer Res*, 15(24), 7519-7527. <https://doi.org/10.1158/1078-0432.CCR-09-1068>
- Minciacchi, V. R., Kumar, R., & Krause, D. S. (2021). Chronic myeloid leukemia: a model disease of the past, present and future. *Cells*, 10(1), 117. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7827482/pdf/cells-10-00117.pdf>
- Miranda, K. C., Huynh, T., Tay, Y., Ang, Y.-S., Tam, W.-L., Thomson, A. M., Lim, B., & Rigoutsos, I. (2006). A pattern-based method for the identification of MicroRNA binding sites and their corresponding heteroduplexes. *Cell*, 126(6), 1203-1217. [https://www.cell.com/cell/pdf/S0092-8674\(06\)01099-3.pdf](https://www.cell.com/cell/pdf/S0092-8674(06)01099-3.pdf)
- Mohamad, S. F. S., & Elias, M. H. (2021). Potential treatment for chronic myeloid leukemia using microRNA: in silico comparison between plants and human microRNAs in targeting BCR-ABL1 gene. *Egyptian Journal of Medical Human Genetics*, 22(1), 35. <https://doi.org/10.1186/s43042-021-00156-x>
- Mohanty, J. N., Sahoo, S., Routray, S. P., & Bhuyan, R. (2022). Does the diverse source of miRNAs affect human health? An approach towards diagnosis and therapeutic management. *Gene Reports*, 28, 101656. <https://doi.org/https://doi.org/10.1016/j.genrep.2022.101656>
- Moradi, F., Babashah, S., Sadeghizadeh, M., Jalili, A., Hajifathali, A., & Roshandel, H. (2019). Signaling pathways involved in chronic myeloid leukemia pathogenesis: The importance of targeting Musashi2-Numb signaling to eradicate leukemia stem cells. *Iran J Basic Med Sci*, 22(6), 581-589. <https://doi.org/10.22038/ijbms.2019.31879.7666>
- Nagar, B., Bornmann, W. G., Pellicena, P., Schindler, T., Veach, D. R., Miller, W. T., Clarkson, B., & Kuriyan, J. (2002). Crystal structures of the kinase domain of c-Abl in complex with the small molecule inhibitors PD173955 and imatinib (STI-571). *Cancer Res*, 62(15), 4236-4243. <https://www.ncbi.nlm.nih.gov/pubmed/12154025>
<https://cancerres.aacrjournals.org/content/canres/62/15/4236.full.pdf>
- Nandakumar, M., Malathi, P., Sundar, A., Rajadurai, C., Philip, M., & Viswanathan, R. (2021). Role of miRNAs in the host-pathogen interaction between sugarcane and Colletotrichum falcatum, the red rot pathogen. *Plant Cell Reports*, 40, 851-870. <https://link.springer.com/article/10.1007/s00299-021-02682-9>
- Nath, A., Wang, J., & Stephanie Huang, R. (2017). Pharmacogenetics and Pharmacogenomics of Targeted Therapeutics in Chronic Myeloid Leukemia. *Mol Diagn Ther*, 21(6), 621-631. <https://doi.org/10.1007/s40291-017-0292-x>
- Navabi, A., Akbari, B., a, b., Abdalsamadi, M., & Naseri, S. (2022). The role of microRNAs in the development, progression and drug resistance of chronic myeloid leukemia and their potential clinical significance. *Life sci.*, 296, 120437. <https://doi.org/10.1016/j.lfs.2022.120437>
- Neshat, M. S., Raitano, A. B., Wang, H.-G., Reed, J. C., & Sawyers, C. L. (2000). The survival function of the Bcr-Abl oncogene is mediated by Bad-dependent and-independent pathways: roles for phosphatidylinositol 3-kinase and Raf. *Molecular and Cellular Biology*, 20(4), 1179-1186. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC85238/pdf/mb001179.pdf>

- Nielsen, C. B., Shomron, N., Sandberg, R., Hornstein, E., Kitzman, J., & Burge, C. B. (2007). Determinants of targeting by endogenous and exogenous microRNAs and siRNAs. *RNA*, *13*(11), 1894-1910. <https://doi.org/10.1261/rna.768207>
- Noorolyai, S., Shajari, N., Baghbani, E., Sadreddini, S., & Baradaran, B. (2019). The relation between PI3K/AKT signalling pathway and cancer. *Gene*, *698*, 120-128.
- O'Brien, J., Hayder, H., Zayed, Y., & Peng, C. (2018). Overview of MicroRNA Biogenesis, Mechanisms of Actions, and Circulation. *Front Endocrinol (Lausanne)*, *9*, 402. <https://doi.org/10.3389/fendo.2018.00402>
- Oliveira, A. C., Bovolenta, L. A., Nachtigall, P. G., Herkenhoff, M. E., Lemke, N., & Pinhal, D. (2017). Combining Results from Distinct MicroRNA Target Prediction Tools Enhances the Performance of Analyses. *Front Genet*, *8*, 59. <https://doi.org/10.3389/fgene.2017.00059>
- Ørom, U. A., & Lund, A. H. (2007). Isolation of microRNA targets using biotinylated synthetic microRNAs. *Methods*, *43*(2), 162-165. <https://www.sciencedirect.com/science/article/pii/S1046202307000977?via%3Dihub>
- Orrenius, S., Nicotera, P., & Zhivotovsky, B. (2011). Cell death mechanisms and their implications in toxicology. *Toxicological Sciences*, *119*(1), 3-19.
- Ozkan, I., Kocak, P., Yildirim, M., Unsal, N., Yilmaz, H., Telci, D., & Sahin, F. (2021). Garlic (*Allium sativum*)-derived SEVs inhibit cancer cell proliferation and induce caspase mediated apoptosis. *Sci Rep*, *11*(1), 14773. <https://doi.org/10.1038/s41598-021-93876-4>
- Pan, D., Yang, W., Zeng, Y., Li, W., Wang, K., Zhao, L., Li, J., Ye, Y., & Guo, Q. (2021). AKR1C3 decreased CML sensitivity to Imatinib in bone marrow microenvironment via dysregulation of miR-379-5p. *Cell Signal*, *84*, 110038. <https://doi.org/10.1016/j.cellsig.2021.110038>
- Panda, S. K., Ray, S., Nayak, S. R., Behera, S., Bhanja, S. S., & Acharya, V. (2020). A review on cell cycle checkpoints in relation to cancer. *The Journal of Medical Sciences*, *5*(4), 88-95.
- Paraskevopoulou, M. D., Georgakilas, G., Kostoulas, N., Vlachos, I. S., Vergoulis, T., Reczko, M., Filippidis, C., Dalamagas, T., & Hatzigeorgiou, A. G. (2013). DIANA-microT web server v5. 0: service integration into miRNA functional analysis workflows. *Nucleic acids research*, *41*(W1), W169-W173.
- Pérez-Lamas, L., Luna, A., Boque, C., Senin, M. A., Xicoy, B., Giraldo, P., Perez Lopez, R., Ruiz Nuno, C., De las Heras, N., & Mora Casterá, E. (2022). Toxicity of Asciminib in Real Clinical Practice; Analysis of Side Effects and Cross-Intolerance with Tyrosine Kinase Inhibitors. *Blood*, *140*(Supplement 1), 3925-3928.
- Phatak, P., & Donahue, J. M. (2017). Biotinylated Micro-RNA Pull Down Assay for Identifying miRNA Targets. *Bio Protoc*, *7*(9), e2253. <https://doi.org/10.21769/BioProtoc.2253>
- Pickering, M. T., Stadler, B. M., & Kowalik, T. F. (2009). miR-17 and miR-20a temper an E2F1-induced G1 checkpoint to regulate cell cycle progression. *Oncogene*, *28*(1), 140-145. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768269/pdf/nihms127494.pdf>
- Pinelli, S., Alinovi, R., Poli, D., Corradi, M., Pelosi, G., Tiseo, M., Goldoni, M., Cavallo, D., & Mozzoni, P. (2021). Overexpression of microRNA-486 affects

- the proliferation and chemosensitivity of mesothelioma cell lines by targeting PIM1. *Int J Mol Med*, 47(6), 117. <https://doi.org/10.3892/ijmm.2021.4950>
- Pinzón, N., Li, B., Martinez, L., Sergeeva, A., Presumey, J., Apparailly, F., & Seitz, H. (2017). microRNA target prediction programs predict many false positives. *Genome Research*, 27(2), 234-245. <https://genome.cshlp.org/content/27/2/234.full.pdf>
- Pirro, S., Zanella, L., Kenzo, M., Montesano, C., Minutolo, A., Potesta, M., Sobze, M. S., Canini, A., Cirilli, M., Muleo, R., Colizzi, V., & Galgani, A. (2016). MicroRNA from *Moringa oleifera*: Identification by High Throughput Sequencing and Their Potential Contribution to Plant Medicinal Value. *PLoS One*, 11(3), e0149495. <https://doi.org/10.1371/journal.pone.0149495>
- Poh, A. R., O'Donoghue, R. J., & Ernst, M. (2015). Hematopoietic cell kinase (HCK) as a therapeutic target in immune and cancer cells. *Oncotarget*, 6(18), 15752-15771. <https://doi.org/10.18632/oncotarget.4199>
- Poudel, G., Tolland, M. G., Hughes, T. P., & Pagani, I. S. (2022). Mechanisms of Resistance and Implications for Treatment Strategies in Chronic Myeloid Leukaemia. *Cancers*, 14(14), 3300. (Cancers)
- Präbst, K., Engelhardt, H., Ringgeler, S., & Hübner, H. (2017). Basic colorimetric proliferation assays: MTT, WST, and resazurin. *Cell viability assays: methods and protocols*, 1-17.
- Qin, Y.-Z., & Huang, X.-J. (2016). Molecular detection of BCR-ABL in chronic myeloid leukemia. In *Chronic Myeloid Leukemia* (pp. 1-15). Springer.
- Querfeld, C., Pacheco, T., Foss, F. M., Halwani, A. S., Porcu, P., Seto, A. G., Ruckman, J., Landry, M. L., Jackson, A. L., & Pestano, L. A. (2016). Preliminary results of a phase 1 trial evaluating MRG-106, a synthetic microRNA antagonist (LNA anti-miR) of microRNA-155, in patients with CTCL. *Blood*, 128(22), 1829.
- Quillet, A., Saad, C., Ferry, G., Anouar, Y., Vergne, N., Lecroq, T., & Dubessy, C. (2020). Improving bioinformatics prediction of microRNA targets by ranks aggregation. *Frontiers in Genetics*, 10, 1330. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6997536/pdf/fgene-10-01330.pdf>
- Radhi, K. A., Hamzah, I. H., & Matti, B. F. (2022). The role of miRNA -181C between different BCR-ABL p210 transcript levels and between different levels of imatinib optimal response in CML patients [Article]. *Human Gene*, 34, Article 201128. <https://doi.org/10.1016/j.humgen.2022.201128>
- Rakesh, R., PriyaDharshini, L. C., Sakthivel, K. M., & Rasmi, R. R. (2022). Role and regulation of autophagy in cancer [Article]. *Biochimica et Biophysica Acta - Molecular Basis of Disease*, 1868(7), Article 166400. <https://doi.org/10.1016/j.bbadis.2022.166400>
- Ramos-Brossier, M., Montani, C., Lebrun, N., Gritti, L., Martin, C., Seminatore-Nole, C., Toussaint, A., Moreno, S., Poirier, K., Dorseuil, O., Chelly, J., Hackett, A., Gez, J., Bieth, E., Faudet, A., Heron, D., Frank Kooy, R., Loeys, B., Humeau, Y., . . . Billuart, P. (2014). Novel IL1RAPL1 mutations associated with intellectual disability impair synaptogenesis. *Human Molecular Genetics*, 24(4), 1106-1118. <https://doi.org/10.1093/hmg/ddu523>
- Rath, S. N., Das, D., Konkimalla, V. B., & Pradhan, S. K. (2016). In Silico Study of miRNA Based Gene Regulation, Involved in Solid Cancer, by the Assistance of Argonaute Protein. *Genomics Inform*, 14(3), 112-124. <https://doi.org/10.5808/GI.2016.14.3.112>

- Réb , C., & Ghiringhelli, F. (2020). Interleukin-1  and cancer. *Cancers*, 12(7), 1791. https://mdpi-res.com/d_attachment/cancers/cancers-12-01791/article_deploy/cancers-12-01791.pdf?version=1593856588
- Reynaud, D., Pietras, E., Barry-Holson, K., Mir, A., Binnewies, M., Jeanne, M., Sala-Torra, O., Radich, J. P., & Passegu , E. (2011). IL-6 controls leukemic multipotent progenitor cell fate and contributes to chronic myelogenous leukemia development. *Cancer Cell*, 20(5), 661-673. <https://doi.org/10.1016/j.ccr.2011.10.012>
- Rinc n-Riveros, A., Morales, D., Rodr guez, J. A., Villegas, V. E., & L pez-Kleine, L. (2021). Bioinformatic tools for the analysis and prediction of ncRNA interactions. *International Journal of Molecular Sciences*, 22(21), 11397. https://mdpi-res.com/d_attachment/ijms/ijms-22-11397/article_deploy/ijms-22-11397.pdf?version=1634887594
- Riolo, G., Cantara, S., Marzocchi, C., & Ricci, C. (2020). miRNA Targets: From Prediction Tools to Experimental Validation. *Methods Protoc*, 4(1). <https://doi.org/10.3390/mps4010001>
- Riss, T. L., Moravec, R. A., Niles, A. L., Duellman, S., Benink, H. A., Worzella, T. J., & Minor, L. (2016). Cell viability assays. *Assay Guidance Manual [Internet]*.
- Ritchie, W., Rasko, J. E., & Flamant, S. (2013). MicroRNA target prediction and validation. *Adv Exp Med Biol*, 774, 39-53. https://doi.org/10.1007/978-94-007-5590-1_3
- Rittavee, Y., Artus, J., Desterke, C., Simanic, I., de Souza, L. E. B., Riccaldi, S., Coignard, S., Ijeh, Y., Hugues, P., Bennaceur-Griscelli, A., Turhan, A. G., & Foudi, A. (2023). miR-495-3p sensitizes BCR-ABL1-expressing leukemic cells to tyrosine kinase inhibitors by targeting multidrug resistance 1 gene in T315I mutated cells. *Exp Hematol*, 118, 40-52. <https://doi.org/10.1016/j.exphem.2022.12.003>
- Roberts, J. T., & Borchert, G. M. (2017). Computational Prediction of MicroRNA Target Genes, Target Prediction Databases, and Web Resources. *Methods Mol Biol*, 1617, 109-122. https://doi.org/10.1007/978-1-4939-7046-9_8
- Rodr guez-Garcia, A., Sola-Landa, A., & Barreiro, C. (2023). RNA Preparation and RNA-Seq Bioinformatics for Comparative Transcriptomics. *Methods Mol Biol*, 2704, 99-113. https://doi.org/10.1007/978-1-0716-3385-4_6
- Rudich, A., Garzon, R., & Dorrance, A. (2022). Non-Coding RNAs Are Implicit in Chronic Myeloid Leukemia Therapy Resistance. *Int J Mol Sci*, 23(20). <https://doi.org/10.3390/ijms232012271>
- Rufino-Palomares, E. E., Reyes-Zurita, F. J., Lupi n ez, J. A., & Medina, P. P. (2014). MicroRNAs as oncogenes and tumor Suppressors. *MicroRNAs in Medicine*, 223-243.
- Rupaimoole, R., & Slack, F. J. (2017). MicroRNA therapeutics: towards a new era for the management of cancer and other diseases. *Nature reviews Drug discovery*, 16(3), 203. <https://www.nature.com/articles/nrd.2016.246>
- Sadri Nahand, J., Salmaninejad, A., Mollazadeh, S., Tamehri Zadeh, S. S., Rezaee, M., Sheida, A. H., Sadoughi, F., Dana, P. M., Rafiyan, M., & Zamani, M. (2022). Virus, Exosome, and MicroRNA: New Insights into Autophagy. In *Cell Biology and Translational Medicine, Volume 17: Stem Cells in Tissue Differentiation, Regulation and Disease* (pp. 97-162). Springer.
- Saiyed, A. N., Vasavada, A. R., & Johar, S. K. (2023). Employing in silico investigations to determine the cross-kingdom approach for Curcuma longa

- miRNAs and their human targets. *Beni-Suef University Journal of Basic and Applied Sciences*, 12(1), 3. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9823259/pdf/43088_2022_Article_330.pdf
- Saiyed, A. N., Vasavada, A. R., & Johar, S. R. K. (2022). Recent trends in miRNA therapeutics and the application of plant miRNA for prevention and treatment of human diseases. *Futur J Pharm Sci*, 8(1), 24. <https://doi.org/10.1186/s43094-022-00413-9>
- Salati, S., Salvestrini, V., Carretta, C., Genovese, E., Rontauroli, S., Zini, R., Rossi, C., Ruberti, S., Bianchi, E., Barbieri, G., Curti, A., Castagnetti, F., Gugliotta, G., Rosti, G., Bergamaschi, M., Tafuri, A., Tagliafico, E., Lemoli, R., & Manfredini, R. (2017). Deregulated expression of miR-29a-3p, miR-494-3p and miR-660-5p affects sensitivity to tyrosine kinase inhibitors in CML leukemic stem cells. *Oncotarget*, 8(30), 49451-49469. <https://doi.org/10.18632/oncotarget.17706>
- Salgia, R., Pisick, E., Sattler, M., Li, J. L., Uemura, N., Wong, W. K., Burky, S. A., Hirai, H., Chen, L. B., & Griffin, J. D. (1996). p130CAS forms a signaling complex with the adapter protein CRKL in hematopoietic cells transformed by the BCR/ABL oncogene. *J Biol Chem*, 271(41), 25198-25203. <https://doi.org/10.1074/jbc.271.41.25198>
- Samad, A. F. A., & Kamaroddin, M. F. (2023). Innovative approaches in transforming microRNAs into therapeutic tools. *Wiley Interdiscip Rev RNA*, 14(1), e1768. <https://doi.org/10.1002/wrna.1768>
- Sánchez-Martínez, C., Lallena, M. J., Sanfeliciano, S. G., & de Dios, A. (2019). Cyclin dependent kinase (CDK) inhibitors as anticancer drugs: Recent advances (2015–2019). *Bioorganic & medicinal chemistry letters*, 29(20), 126637.
- Schaefer, B., & Behrends, S. (2017). Translocation of heme oxygenase-1 contributes to imatinib resistance in chronic myelogenous leukemia. *Oncotarget*, 8(40), 67406-67421. <https://doi.org/10.18632/oncotarget.18684>
- Schurch, N. J., Schofield, P., Gierliński, M., Cole, C., Sherstnev, A., Singh, V., Wrobel, N., Gharbi, K., Simpson, G. G., & Owen-Hughes, T. (2016). How many biological replicates are needed in an RNA-seq experiment and which differential expression tool should you use? *RNA*, 22(6), 839-851. <https://rnajournal.cshlp.org/content/22/6/839.full.pdf>
- Shah, A., Bloomquist, E., Tang, S., Fu, W., Bi, Y., Liu, Q., Yu, J., Zhao, P., Palmby, T. R., Goldberg, K. B., Chang, C. J. G., Patel, P., Alebachew, E., Tilley, A., Pierce, W. F., Ibrahim, A., Blumenthal, G. M., Sridhara, R., Beaver, J. A., & Pazdur, R. (2018). FDA Approval: Ribociclib for the Treatment of Postmenopausal Women with Hormone Receptor-Positive, HER2-Negative Advanced or Metastatic Breast Cancer. *Clin Cancer Res*, 24(13), 2999-3004. <https://doi.org/10.1158/1078-0432.CCR-17-2369>
- Shannon, P., Markiel, A., Ozier, O., Baliga, N. S., Wang, J. T., Ramage, D., Amin, N., Schwikowski, B., & Ideker, T. (2003). Cytoscape: a software environment for integrated models of biomolecular interaction networks. *Genome Res*, 13(11), 2498-2504. <https://doi.org/10.1101/gr.1239303>
- Shen, N., Liu, S., Cui, J., Li, Q., You, Y., Zhong, Z., Cheng, F., Guo, A. Y., Zou, P., Yuan, G., & Zhu, X. (2019). Tumor necrosis factor α knockout impaired tumorigenesis in chronic myeloid leukemia cells partly by metabolism

- modification and miRNA regulation [Article]. *OncoTargets and Therapy*, 12, 2355-2364. <https://doi.org/10.2147/OTT.S197535>
- Sherbenou, D. W., Wong, M. J., Humayun, A., McGreevey, L. S., Harrell, P., Yang, R., Mauro, M., Heinrich, M. C., Press, R. D., Druker, B. J., & Deininger, M. W. (2007). Mutations of the BCR-ABL-kinase domain occur in a minority of patients with stable complete cytogenetic response to imatinib. *Leukemia*, 21(3), 489-493. <https://doi.org/10.1038/sj.leu.2404554>
- Sillaber, C., Gesbert, F., Frank, D. A., Sattler, M., & Griffin, J. D. (2000). STAT5 activation contributes to growth and viability in Bcr/Abl-transformed cells. *Blood*, 95(6), 2118-2125.
- Silva Rodrigues, D. V., Silva Monteiro, V. V., Navegantes-Lima, K. C., de Brito Oliveira, A. L., de França Gaspar, S. L., Gonçalves Quadros, L. B., & Monteiro, M. C. (2018). MicroRNAs in cell cycle progression and proliferation: molecular mechanisms and pathways. *Non-coding RNA Investigation*, 2. <https://ncri.amegroups.org/article/view/4332>
- Singh, P., Yadav, R., Verma, M., & Chhabra, R. (2022). Antileukemic Activity of hsa-miR-203a-5p by Limiting Glutathione Metabolism in Imatinib-Resistant K562 Cells [Article]. *Current issues in molecular biology*, 44(12), 6428-6438. <https://doi.org/10.3390/cimb44120438>
- Sirard, C., Laneuville, P., & Dick, J. E. (1994). Expression of bcr-abl abrogates factor-dependent growth of human hematopoietic M07E cells by an autocrine mechanism.
- Skorski, T., Kanakaraj, P., Nieborowska-Skorska, M., Ratajczak, M., Wen, S.-C., Zon, G., Gewirtz, A., Perussia, B., & Calabretta, B. (1995). Phosphatidylinositol-3 kinase activity is regulated by BCR/ABL and is required for the growth of Philadelphia chromosome-positive cells.
- Snow, J. W., Hale, A. E., Isaacs, S. K., Baggish, A. L., & Chan, S. Y. (2013). Ineffective delivery of diet-derived microRNAs to recipient animal organisms. *RNA Biol*, 10(7), 1107-1116. <https://doi.org/10.4161/rna.24909>
- Soltani, I., Gharbi, H., Hassine, I. B., Bouguerra, G., Douzi, K., Teber, M., Abbes, S., & Menif, S. (2017). Regulatory network analysis of microRNAs and genes in imatinib-resistant chronic myeloid leukemia. *Funct Integr Genomics*, 17(2-3), 263-277. <https://doi.org/10.1007/s10142-016-0520-1>
- Soverini, S., Gnani, A., Colarossi, S., Castagnetti, F., Abruzzese, E., Paolini, S., Merante, S., Orlandi, E., De Matteis, S., & Gozzini, A. (2009). Philadelphia-positive patients who already harbor imatinib-resistant Bcr-Abl kinase domain mutations have a higher likelihood of developing additional mutations associated with resistance to second-or third-line tyrosine kinase inhibitors. *Blood, The Journal of the American Society of Hematology*, 114(10), 2168-2171.
- Soverini, S., Hochhaus, A., Nicolini, F. E., Gruber, F., Lange, T., Saglio, G., Pane, F., Müller, M. C., Ernst, T., & Rosti, G. (2011). BCR-ABL kinase domain mutation analysis in chronic myeloid leukemia patients treated with tyrosine kinase inhibitors: recommendations from an expert panel on behalf of European LeukemiaNet. *Blood, The Journal of the American Society of Hematology*, 118(5), 1208-1215.
- Soverini, S., Mancini, M., Bavaro, L., Cavo, M., & Martinelli, G. (2018). Chronic myeloid leukemia: the paradigm of targeting oncogenic tyrosine kinase

- signaling and counteracting resistance for successful cancer therapy. *Mol Cancer*, 17(1), 49. <https://doi.org/10.1186/s12943-018-0780-6>
- Srutova, K., Curik, N., Burda, P., Savvulidi, F., Silvestri, G., Trotta, R., Klamova, H., Pecherkova, P., Sovova, Z., Koblihova, J., Stopka, T., Perrotti, D., & Polakova, K. M. (2018). BCR-ABL1 mediated miR-150 downregulation through MYC contributed to myeloid differentiation block and drug resistance in chronic myeloid leukemia. *Haematologica*, 103(12), 2016-2025. <https://doi.org/10.3324/haematol.2018.193086>
- St. George-Hyslop, F., Kivisild, T., & Livesey, F. J. (2022). The role of contactin-associated protein-like 2 in neurodevelopmental disease and human cerebral cortex evolution. *Frontiers in Molecular Neuroscience*, 15, 1017144. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9630569/pdf/fnmol-15-1017144.pdf>
- Stanley, E. R., & Chitu, V. (2014). CSF-1 receptor signaling in myeloid cells. *Cold Spring Harb Perspect Biol*, 6(6). <https://doi.org/10.1101/cshperspect.a021857>
- Stavast, C. J., & Erkeland, S. J. (2019). The Non-Canonical Aspects of MicroRNAs: Many Roads to Gene Regulation. *Cells*, 8(11). <https://doi.org/10.3390/cells8111465>
- Sticht, C., De La Torre, C., Parveen, A., & Gretz, N. (2018). miRWalk: An online resource for prediction of microRNA binding sites. *PLoS One*, 13(10), e0206239. <https://doi.org/10.1371/journal.pone.0206239>
- Strober, W. (2015). Trypan Blue Exclusion Test of Cell Viability. *Curr Protoc Immunol*, 111, A3 B 1-A3 B 3. <https://doi.org/10.1002/0471142735.ima03bs111>
- Subramanian, M., Li, X. L., Hara, T., & Lal, A. (2015). A biochemical approach to identify direct microRNA targets. *Methods Mol Biol*, 1206, 29-37. https://doi.org/10.1007/978-1-4939-1369-5_3
- Sun, J. M., Fan, H. Y., Zhu, Y., Pan, T. T., Wu, Y. P., Zhang, D. Y., & Hou, X. Y. (2023). Glioblastoma cellular MAP4K1 facilitates tumor growth and disrupts T effector cell infiltration. *Life Sci Alliance*, 6(12). <https://doi.org/10.26508/lsa.202301966>
- Tamai, M., Inukai, T., Kojika, S., Abe, M., Kagami, K., Harama, D., Shinohara, T., Watanabe, A., Oshiro, H., Akahane, K., Goi, K., Sugihara, E., Nakada, S., & Sugita, K. (2018). T315I mutation of BCR-ABL1 into human Philadelphia chromosome-positive leukemia cell lines by homologous recombination using the CRISPR/Cas9 system. *Scientific Reports*, 8(1), 9966. <https://doi.org/10.1038/s41598-018-27767-6>
- Tan, S. M., & Lieberman, J. (2016). Capture and Identification of miRNA Targets by Biotin Pulldown and RNA-seq. *Methods Mol Biol*, 1358, 211-228. https://doi.org/10.1007/978-1-4939-3067-8_13
- Tang, L., Huang, Z., Mei, H., & Hu, Y. (2023). Immunotherapy in hematologic malignancies: achievements, challenges and future prospects. *Signal Transduction and Targeted Therapy*, 8(1), 306. <https://doi.org/10.1038/s41392-023-01521-5>
- Tang, X., Chen, F., Xie, L. C., Liu, S. X., & Mai, H. R. (2022). Targeting metabolism: A potential strategy for hematological cancer therapy [Article]. *World Journal of Clinical Cases*, 10(10), 2990-3004. <https://doi.org/10.12998/wjcc.v10.i10.2990>

- Tastsoglou, S., Alexiou, A., Karagkouni, D., Skoufos, G., Zacharopoulou, E., & Hatzigeorgiou, A. G. (2023). DIANA-microT 2023: including predicted targets of virally encoded miRNAs. *Nucleic Acids Res*, 51(W1), W148-W153. <https://doi.org/10.1093/nar/gkad283>
- Tay, Y., Rinn, J., & Pandolfi, P. P. (2014). The multilayered complexity of ceRNA crosstalk and competition. *Nature*, 505(7483), 344-352. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4113481/pdf/nihms598451.pdf>
- Thomson, D. W., Bracken, C. P., Szubert, J. M., & Goodall, G. J. (2013). On measuring miRNAs after transient transfection of mimics or antisense inhibitors. *PLoS One*, 8(1), e55214. <https://doi.org/10.1371/journal.pone.0055214>
- To, K. K. W., Fong, W., Tong, C. W. S., Wu, M., Yan, W., & Cho, W. C. S. (2019). Advances in the discovery of microRNA-based anticancer therapeutics: latest tools and developments. *Expert Opin Drug Discov*, 1-21. <https://doi.org/10.1080/17460441.2020.1690449>
- Tsuji, Y. (2023). Optimization of Biotinylated RNA or DNA Pull-Down Assays for Detection of Binding Proteins: Examples of IRP1, IRP2, HuR, AUF1, and Nrf2. *Int J Mol Sci*, 24(4). <https://doi.org/10.3390/ijms24043604>
- Turner, N. C., Ro, J., André, F., Loi, S., Verma, S., Iwata, H., Harbeck, N., Loibl, S., Huang Bartlett, C., & Zhang, K. (2015). Palbociclib in hormone-receptor-positive advanced breast cancer. *New England Journal of Medicine*, 373(3), 209-219. <https://www.nejm.org/doi/pdf/10.1056/NEJMoa1505270?articleTools=true>
- Ufkin, M. L., Peterson, S., Yang, X., Driscoll, H., Duarte, C., & Sathyanarayana, P. (2014). MiR-125a regulates cell cycle, proliferation, and apoptosis by targeting the ErbB pathway in acute myeloid leukemia [Article]. *Leukemia Research*, 38(3), 402-410. <https://doi.org/10.1016/j.leukres.2013.12.021>
- Valadi, H., Ekström, K., Bossios, A., Sjöstrand, M., Lee, J. J., & Lötvall, J. O. (2007). Exosome-mediated transfer of mRNAs and microRNAs is a novel mechanism of genetic exchange between cells. *Nature cell biology*, 9(6), 654-659. <https://www.nature.com/articles/ncb1596>
- Van Etten, R. A. (1999). Cycling, stressed-out and nervous: cellular functions of c-Abl. *Trends Cell Biol*, 9(5), 179-186. [https://doi.org/10.1016/s0962-8924\(99\)01549-4](https://doi.org/10.1016/s0962-8924(99)01549-4)
- van Zandwijk, N., Pavlakis, N., Kao, S., Clarke, S., Lee, A., Brahmbhatt, H., MacDiarmid, J., Pattison, S., Leslie, F., & Huynh, Y. (2015). MesomiR 1: A Phase I study of TargomiRs in patients with refractory malignant pleural mesothelioma (MPM) and lung cancer (NSCLC). *Annals of Oncology*, 26, ii16.
- Voncken, J. W., van Schaick, H., Kaartinen, V., Deemer, K., Coates, T., Landing, B., Pattengale, P., Dorseuil, O., Bokoch, G. M., & Groffen, J. (1995). Increased neutrophil respiratory burst in bcr-null mutants. *Cell*, 80(5), 719-728.
- Walz, C., & Sattler, M. (2006). Novel targeted therapies to overcome imatinib mesylate resistance in chronic myeloid leukemia (CML). *Crit Rev Oncol Hematol*, 57(2), 145-164. <https://doi.org/10.1016/j.critrevonc.2005.06.007>
- Wan, C., Wen, J., Huang, Y., Li, H., Wu, W., Xie, Q., Liang, X., Tang, Z., Zhao, W., Cheng, P., & Liu, Z. (2020). Microarray analysis of differentially expressed microRNAs in myelodysplastic syndromes. *Medicine (Baltimore)*, 99(27), e20904. <https://doi.org/10.1097/MD.00000000000020904>

- Wang, C. J., Zou, H., & Feng, G. F. (2018). MiR-10b regulates the proliferation and apoptosis of pediatric acute myeloid leukemia through targeting HOXD10 [Article]. *European Review for Medical and Pharmacological Sciences*, 22(21), 7371-7378. <https://doi.org/10.26355/eurrev-201811-16275>
- Wang, S., Xu, J., Guo, Y., Cai, Y., Zhu, W., Meng, L., Jiang, C., & Lu, S. (2023). Successful Transfection of MicroRNA Mimics or Inhibitors in a Regular Cell Line and in Primary Cells Derived from Patients with Rheumatoid Arthritis. *Bio-protocol*, 13(18).
- Wang, V., & Wu, W. (2009). MicroRNA-based therapeutics for cancer. *BioDrugs*, 23(1), 15-23. <https://doi.org/10.2165/00063030-200923010-00002>
- Wang, W. Z., Pu, Q. H., Lin, X. H., Liu, M. Y., Wu, L. R., Wu, Q. Q., Chen, Y. H., Liao, F. F., Zhu, J. Y., & Jin, X. B. (2015). Silencing of miR-21 sensitizes CML CD34+ stem/progenitor cells to imatinib-induced apoptosis by blocking PI3K/AKT pathway. *Leuk Res*, 39(10), 1117-1124. <https://doi.org/10.1016/j.leukres.2015.07.008>
- Wang, Y., Yang, Y., Wang, X., Kawazoe, N., Yang, Y., & Chen, G. (2021). The varied influences of cell adhesion and spreading on gene transfection of mesenchymal stem cells on a micropatterned substrate. *Acta Biomater*, 125, 100-111. <https://doi.org/10.1016/j.actbio.2021.01.042>
- Wani, S., & Cloonan, N. (2014). Profiling direct mRNA-microRNA interactions using synthetic biotinylated microRNA-duplexes. *bioRxiv*, 005439.
- Watts, J. K. (2013). Locked nucleic acid: tighter is different. *Chem Commun (Camb)*, 49(50), 5618-5620. <https://doi.org/10.1039/c3cc40340h>
- Wilfinger, W. W., Mackey, K., & Chomczynski, P. (1997). Effect of pH and ionic strength on the spectrophotometric assessment of nucleic acid purity. *Biotechniques*, 22(3), 474-476, 478-481. <https://doi.org/10.2144/97223st01>
- Windisch, R., Pirschtat, N., Kellner, C., Chen-Wichmann, L., Lausen, J., Humpe, A., Krause, D. S., & Wichmann, C. (2019). Oncogenic Deregulation of Cell Adhesion Molecules in Leukemia. *Cancers (Basel)*, 11(3). <https://doi.org/10.3390/cancers11030311>
- Witten, L. W., Cheng, C. J., & Slack, F. J. (2019). miR-155 drives oncogenesis by promoting and cooperating with mutations in the c-Kit oncogene [Article]. *Oncogene*, 38(12), 2151-2161. <https://doi.org/10.1038/s41388-018-0571-y>
- Witwer, K. W., McAlexander, M. A., Queen, S. E., & Adams, R. J. (2013). Real-time quantitative PCR and droplet digital PCR for plant miRNAs in mammalian blood provide little evidence for general uptake of dietary miRNAs: limited evidence for general uptake of dietary plant xenomiRs. *RNA Biol*, 10(7), 1080-1086. <https://doi.org/10.4161/rna.25246>
- Wu, K., Guo, C., Li, Y., Yang, J., Zhou, Q., Cheng, S., Li, Y., Nie, B., & Zeng, Y. (2021). MicroRNA-18a-5p regulates the Warburg effect by targeting hypoxia-inducible factor 1[alpha] in the K562/ADM cell line. 22(4), 1069. <https://doi.org/10.3892/etm.2021.10503>
- Wu, Y. Y., Lai, H. F., Huang, T. C., Chen, Y. G., Ye, R. H., Chang, P. Y., Lai, S. W., Chen, Y. C., Lee, C. H., Liu, W. N., Dai, M. S., Chen, J. H., Ho, C. L., & Chiu, Y. L. (2021). Aberrantly reduced expression of miR-342-5p contributes to CCND1-associated chronic myeloid leukemia progression and imatinib resistance [Article]. *Cell Death and Disease*, 12(10), Article 908. <https://doi.org/10.1038/s41419-021-04209-2>

- Wylie, A. A., Schoepfer, J., Jahnke, W., Cowan-Jacob, S. W., Loo, A., Furet, P., Marzinzik, A. L., Pelle, X., Donovan, J., Zhu, W., Buonamici, S., Hassan, A. Q., Lombardo, F., Iyer, V., Palmer, M., Berellini, G., Dodd, S., Thohan, S., Bitter, H., . . . Sellers, W. R. (2017). The allosteric inhibitor ABL001 enables dual targeting of BCR-ABL1. *Nature*, *543*(7647), 733-737. <https://doi.org/10.1038/nature21702>
- Xi, E., Bai, J., Zhang, K., Yu, H., & Guo, Y. (2022). Genomic Variants Disrupt miRNA-mRNA Regulation. *Chemistry & Biodiversity*, *19*(10), e202200623. <https://doi.org/https://doi.org/10.1002/cbdv.202200623>
- Xiao, X., Sticht, C., Yin, L., Liu, L., Karakhanova, S., Yin, Y., Georgikou, C., Gladkikh, J., Gross, W., & Gretz, N. (2020). Novel plant microRNAs from broccoletti sprouts do not show cross-kingdom regulation of pancreatic cancer. *Oncotarget*, *11*(14), 1203. <https://www.oncotarget.com/article/27527/pdf/>
- Xie, F., Xiao, P., Chen, D., Xu, L., & Zhang, B. (2012). miRDeepFinder: a miRNA analysis tool for deep sequencing of plant small RNAs. *Plant Mol Biol*. <https://doi.org/10.1007/s11103-012-9885-2>
- Xishan, Z., Xianjun, L., Ziying, L., Guangxin, C., & Gang, L. (2014). The malignancy suppression role of miR-23a by targeting the BCR/ABL oncogene in chronic myeloid leukemia. *Cancer Gene Ther*, *21*(9), 397-404. <https://doi.org/10.1038/cgt.2014.44>
- Xishan, Z., Ziying, L., Jing, D., & Gang, L. (2015). MicroRNA-320a acts as a tumor suppressor by targeting BCR/ABL oncogene in chronic myeloid leukemia. *Scientific Reports*, *5*, 12460-12460. <https://doi.org/10.1038/srep12460>
- Xu, T., Zhu, Y., Xiong, Y., Ge, Y.-Y., Yun, J.-P., & Zhuang, S.-M. (2009). MicroRNA-195 suppresses tumorigenicity and regulates G1/S transition of human hepatocellular carcinoma cells. *Hepatology*, *50*(1), 113-121. <https://aasldpubs.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/hep.22919?download=true>
- Xun, Y., Tang, Y., Hu, L., Xiao, H., Long, S., Gong, M., Wei, C., Wei, K., & Xiang, S. (2019). Purification and Identification of miRNA Target Sites in Genome Using DNA Affinity Precipitation. *Front Genet*, *10*, 778. <https://doi.org/10.3389/fgene.2019.00778>
- Yacob, A. M., Muhamad, N. A., Chang, K. M., Hisham, H. A., Yusoff, Y. M., & Ibrahim, L. (2022). Hsa-miR-181a-5p, hsa-miR-182-5p, and hsa-miR-26a-5p as potential biomarkers for BCR-ABL1 among adult chronic myeloid leukemia treated with tyrosine kinase inhibitors at the molecular response. *BMC Cancer*, *22*(1), Article 332. <https://doi.org/10.1186/s12885-022-09396-5>
- Yap, E., Tumian, N. R., Azma, R. Z., Sharifah, N. A., Salwati, S., Hamidah, N. H., Elias, M. H., & Wong, C. L. (2017). Primary imatinib resistance in chronic myeloid leukemia patients in a developing country: BCR-ABL kinase domain mutations or BCR-ABL independent mechanisms? *Malays J Pathol*, *39*(2), 107-113. <https://www.ncbi.nlm.nih.gov/pubmed/28866691>
- Yi, R., Qin, Y., Macara, I. G., & Cullen, B. R. (2003). Exportin-5 mediates the nuclear export of pre-microRNAs and short hairpin RNAs. *Genes Dev*, *17*(24), 3011-3016. <https://doi.org/10.1101/gad.1158803>
- Yin, L., Yan, L., Yu, Q., Wang, J., Liu, C., Wang, L., & Zheng, L. (2022). Characterization of the MicroRNA Profile of Ginger Exosome-like Nanoparticles and Their Anti-Inflammatory Effects in Intestinal Caco-2 Cells.

- Journal of Agricultural and Food Chemistry*, 70(15), 4725-4734.
<https://doi.org/10.1021/acs.jafc.1c07306>
- Ying, X., Zhang, W., Fang, M., Zhang, W., Wang, C., & Han, L. (2019). miR-345-5p regulates proliferation, cell cycle, and apoptosis of acute myeloid leukemia cells by targeting AKT2. *J Cell Biochem*, 120(2), 1620-1629.
<https://doi.org/10.1002/jcb.27461>
- Yu, B., Yang, Z., Li, J., Minakhina, S., Yang, M., Padgett, R. W., Steward, R., & Chen, X. (2005). Methylation as a crucial step in plant microRNA biogenesis. *Science*, 307(5711), 932-935.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5137370/pdf/nihms832116.pdf>
- Yu, Y., Jia, T., & Chen, X. (2017). The 'how' and 'where' of plant microRNAs. *New Phytologist*, 216(4), 1002-1017.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6040672/pdf/nihms-979256.pdf>
- Yu, Y., Yang, L., Zhao, M., Zhu, S., Kang, R., Vernon, P., Tang, D., & Cao, L. (2012). Targeting microRNA-30a-mediated autophagy enhances imatinib activity against human chronic myeloid leukemia cells. *Leukemia*, 26(8), 1752-1760.
<https://doi.org/10.1038/leu.2012.65>
- Zaker, E., Nouri, N., Sorkhizadeh, S., Ghasemirad, H., Hajjafari, A. H., & Zare, F. (2023). The importance of personalized medicine in chronic myeloid leukemia management: a narrative review. *Egyptian Journal of Medical Human Genetics*, 24(1), 31. <https://doi.org/10.1186/s43042-023-00411-3>
- Zhang, B., Nguyen, L. X. T., Li, L., Zhao, D., Kumar, B., Wu, H., Lin, A., Pellicano, F., Hopcroft, L., Su, Y. L., Copland, M., Holyoake, T. L., Kuo, C. J., Bhatia, R., Snyder, D. S., Ali, H., Stein, A. S., Brewer, C., Wang, H., . . . Marcucci, G. (2018). Bone marrow niche trafficking of miR-126 controls the self-renewal of leukemia stem cells in chronic myelogenous leukemia [Article]. *Nature Medicine*, 24(4), 450-462. <https://doi.org/10.1038/nm.4499>
- Zhang, H., Li, H., Xi, H. S., & Li, S. (2012). HIF1 α is required for survival maintenance of chronic myeloid leukemia stem cells. *Blood*, 119(11), 2595-2607.
<https://doi.org/10.1182/blood-2011-10-387381>
- Zhang, L., Hou, D., Chen, X., Li, D., Zhu, L., Zhang, Y., Li, J., Bian, Z., Liang, X., & Cai, X. (2012). Exogenous plant MIR168a specifically targets mammalian LDLRAP1: evidence of cross-kingdom regulation by microRNA. *Cell research*, 22(1), 107-126.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3351925/pdf/cr2011158a.pdf>
- Zhang, Q., Xie, Z., Li, Y., Zhu, Q., Shi, H., Zhao, R., Yang, X., Tian, J., & Ma, L. (2023). The potential of *Lycium barbarum* miR166a in kidney cancer treatment. *Exp Cell Res*, 423(1), 113455. <https://doi.org/10.1016/j.yexcr.2022.113455>
- Zhang, X. T., Dong, S. H., Zhang, J. Y., & Shan, B. (2019). MicroRNA-577 promotes the sensitivity of chronic myeloid leukemia cells to imatinib by targeting NUP160. *Eur Rev Med Pharmacol Sci*, 23(16), 7008-7015.
https://doi.org/10.26355/eurrev_201908_18741
- Zhang, Y., Toh, L., Lau, P., & Wang, X. (2012). Human telomerase reverse transcriptase (hTERT) is a novel target of the Wnt/ β -catenin pathway in human cancer. *J Biol Chem*, 287(39), 32494-32511.
<https://doi.org/10.1074/jbc.M112.368282>

- Zhang, Y., Zhou, S. Y., Yan, H. Z., Xu, D. D., Chen, H. X., Wang, X. Y., Wang, X., Liu, Y. T., Zhang, L., Wang, S., Zhou, P. J., Fu, W. Y., Ruan, B. B., Ma, D. L., Wang, Y., Liu, Q. Y., Ren, Z., Liu, Z., Zhang, R., & Wang, Y. F. (2016). miR-203 inhibits proliferation and self-renewal of leukemia stem cells by targeting survivin and Bmi-1. *Sci Rep*, 6, 19995. <https://doi.org/10.1038/srep19995>
- Zhang, Z., Yu, J., Li, D., Zhang, Z., Liu, F., Zhou, X., Wang, T., Ling, Y., & Su, Z. (2010). PMRD: plant microRNA database. *Nucleic Acids Res*, 38(Database issue), D806-813. <https://doi.org/10.1093/nar/gkp818>
- Zhao, X., Li, L., Yuan, S., Zhang, Q., Jiang, X., & Luo, T. (2021). SPIB acts as a tumor suppressor by activating the NFκB and JNK signaling pathways through MAP4K1 in colorectal cancer cells. *Cell Signal*, 88, 110148. <https://doi.org/10.1016/j.cellsig.2021.110148>
- Zheng, Y., Wang, Y. P., Cao, H., Chen, Q., & Zhang, X. (2018). Integrated computational biology analysis to evaluate target genes for chronic myelogenous leukemia. *Mol Med Rep*, 18(2), 1766-1772. <https://doi.org/10.3892/mmr.2018.9125>
- Zhou, Z., Li, X., Liu, J., Dong, L., Chen, Q., Liu, J., Kong, H., Zhang, Q., Qi, X., Hou, D., Zhang, L., Zhang, G., Liu, Y., Zhang, Y., Li, J., Wang, J., Chen, X., Wang, H., Zhang, J., . . . Zhang, C. Y. (2015). Honeysuckle-encoded atypical microRNA2911 directly targets influenza A viruses. *Cell Res*, 25(1), 39-49. <https://doi.org/10.1038/cr.2014.130>
- Zhu, X., Zhang, J., Sun, Y., Wang, Y., Liu, Q., Li, P., Yu, S., Liu, N., Ye, J., Ma, D., & Ji, C. (2022). Restoration of miR-23a expression by chidamide sensitizes CML cells to imatinib treatment with concomitant downregulation of CRYAB [Article]. *Bioengineered*, 13(4), 8881-8892. <https://doi.org/10.1080/21655979.2022.2056322>
- Zimmerman, E. I., Dollins, C. M., Crawford, M., Grant, S., Nana-Sinkam, S. P., Richards, K. L., Hammond, S. M., & Graves, L. M. (2010). Lyn kinase-dependent regulation of miR181 and myeloid cell leukemia-1 expression: implications for drug resistance in myelogenous leukemia. *Mol Pharmacol*, 78(5), 811-817. <https://doi.org/10.1124/mol.110.066258>
- Zipeto, M. A., Court, A. C., Sadarangani, A., Delos Santos, N. P., Balaian, L., Chun, H. J., Pineda, G., Morris, S. R., Mason, C. N., Geron, I., Barrett, C., Goff, D. J., Wall, R., Pellicchia, M., Minden, M., Frazer, K. A., Marra, M. A., Crews, L. A., Jiang, Q., & Jamieson, C. H. M. (2016). ADAR1 Activation Drives Leukemia Stem Cell Self-Renewal by Impairing Let-7 Biogenesis [Article]. *Cell Stem Cell*, 19(2), 177-191. <https://doi.org/10.1016/j.stem.2016.05.004>