

## DAFTAR PUSTAKA

- Ademosun, A. O., Oboh, G., Olasehinde, T. A., & Adeoyo, O. O. (2018). From folk medicine to functional food: A review on the bioactive components and pharmacological properties of citrus peels. *Oriental Pharmacy and Experimental Medicine*, 18(1), 9–20.
- Alazzouni, A. S., Dkhil, M. A., Gadelmawla, M. H. A., Gabri, M. S., Farag, A. H., & Hassan, B. N. (2021). Ferulic acid as anticarcinogenic agent against 1,2-dimethylhydrazine induced colon cancer in rats. *Journal of King Saud University - Science*, 33(2), 101354.
- Balboa-Beltrán, E., Cruz, R., Carracedo, A., & Barros, F. (2015). Delimiting Allelic Imbalance of TYMS by Allele-Specific Analysis. *Medicine*, 94(27).
- Barreca, D., Gattuso, G., Bellocco, E., Calderaro, A., Trombetta, D., Smeriglio, A., Laganà, G., Daglia, M., Meneghini, S., & Nabavi, S. M. (2017). Flavonones: Citrus phytochemical with health-promoting properties. *BioFactors (Oxford, England)*, 43(4), 495–506.
- Barreca, D., Mandalari, G., Calderaro, A., Smeriglio, A., Trombetta, D., Felice, M. R., & Gattuso, G. (2020). Citrus Flavones: An Update on Sources, Biological Functions, and Health Promoting Properties. *Plants*, 9(3).
- Basu, S., Thorat, R., & Dalal, S. N. (2015). MMP7 Is Required to Mediate Cell Invasion and Tumor Formation upon Plakophilin3 Loss. *PLoS ONE*, 10(4).
- Beisken, S., Meinl, T., Wiswedel, B., de Figueiredo, L. F., Berthold, M., & Steinbeck, C. (2013). KNIME-CDK: Workflow-driven cheminformatics. *BMC Bioinformatics*, 14, 257.
- Benavente-García, O., & Castillo, J. (2008). Update on Uses and Properties of Citrus Flavonoids: New Findings in Anticancer, Cardiovascular, and Anti-inflammatory Activity. *Journal of Agricultural and Food Chemistry*, 56(15), 6185–6205.
- Ben-David, A. (2008). About the relationship between ROC curves and Cohen's kappa. *Engineering Applications of Artificial Intelligence*, 21(6), 874–882.
- Birchmeier, C., Birchmeier, W., Gherardi, E., & Vande Woude, G. F. (2003). Met, metastasis, motility and more. *Nature Reviews. Molecular Cell Biology*, 4(12), 915–925.
- Bozzano, M., Bruttomesso, R., Cimatti, A., Junttila, T., Ranise, S., van Rossum, P., & Sebastiani, R. (2006). Efficient theory combination via boolean search. *Information and Computation*, 204(10), 1493–1525.

- Cancer Genome Atlas Network. (2012). Comprehensive molecular characterization of human colon and rectal cancer. *Nature*, *487*(7407), 330–337.
- Carini, F., Mazzola, M., Rappa, F., Jurjus, A., Geagea, A. G., Kattar, S. A., Bou-Assi, T., Jurjus, R., Damiani, P., Leone, A., & Tomasello, G. (2017). Colorectal Carcinogenesis: Role of Oxidative Stress and Antioxidants. *Anticancer Research*, *37*(9), 4759–4766.
- Chandrashekar, D. S., Bashel, B., Balasubramanya, S. A. H., Creighton, C. J., Ponce-Rodriguez, I., Chakravarthi, B. V. S. K., & Varambally, S. (2017). UALCAN: A Portal for Facilitating Tumor Subgroup Gene Expression and Survival Analyses. *Neoplasia (New York, N.Y.)*, *19*(8), 649–658.
- Chen, C., Huang, H., & Wu, C. H. (2017). Protein Bioinformatics Databases and Resources. *Methods in molecular biology (Clifton, N.J.)*, *1558*, 3–39.
- Cheng, H., Jiang, X., Zhang, Q., Ma, J., Cheng, R., Yong, H., Shi, H., Zhou, X., Ge, L., & Gao, G. (2020). Naringin inhibits colorectal cancer cell growth by repressing the PI3K/AKT/mTOR signaling pathway. *Experimental and Therapeutic Medicine*, *19*(6), 3798–3804.
- Chidambara Murthy, K. N., Jayaprakasha, G. K., Kumar, V., Rathore, K. S., & Patil, B. S. (2011). Citrus limonin and its glucoside inhibit colon adenocarcinoma cell proliferation through apoptosis. *Journal of Agricultural and Food Chemistry*, *59*(6), 2314–2323.
- Choudhuri, S. (2014). Chapter 4—The Beginning of Bioinformatics\*\*The opinions expressed in this chapter are the author’s own and they do not necessarily reflect the opinions of the FDA, the DHHS, or the Federal Government. Dalam S. Choudhuri (Ed.), *Bioinformatics for Beginners* (hlm. 73–76). Academic Press.
- Clark, I. M., Swingler, T. E., Sampieri, C. L., & Edwards, D. R. (2008). The regulation of matrix metalloproteinases and their inhibitors. *The International Journal of Biochemistry & Cell Biology*, *40*(6–7), 1362–1378.
- Cui, N., Hu, M., & Khalil, R. A. (2017). Biochemical and Biological Attributes of Matrix Metalloproteinases. *Progress in Molecular Biology and Translational Science*, *147*, 1–73.
- Dai, Y. (James), DeFrances, M. C., Zou, C., Johnson, C. J., & Zarnegar, R. (2009). The Met protooncogene is a transcriptional target of NFkappaB: Implications for cell survival. *Journal of cellular biochemistry*, *107*(6),
- Daina, A., Michielin, O., & Zoete, V. (2019). SwissTargetPrediction: Updated data and new features for efficient prediction of protein targets of small molecules. *Nucleic Acids Research*, *47*(W1), W357–W364.

- Decock, J., Thirkettle, S., Wagstaff, L., & Edwards, D. R. (2011). Matrix metalloproteinases: Protective roles in cancer. *Journal of Cellular and Molecular Medicine*, 15(6), 1254–1265.
- Deryugina, E. I., & Quigley, J. P. (2006). Matrix metalloproteinases and tumor metastasis. *Cancer Metastasis Reviews*, 25(1), 9–34.
- Dey, D. K., Chang, S. N., Vadlamudi, Y., Park, J. G., & Kang, S. C. (2020). Synergistic therapy with tangeretin and 5-fluorouracil accelerates the ROS/JNK mediated apoptotic pathway in human colorectal cancer cell. *Food and Chemical Toxicology: An International Journal Published for the British Industrial Biological Research Association*, 143, 111529.
- Egeblad, M., & Werb, Z. (2002). New functions for the matrix metalloproteinases in cancer progression. *Nature Reviews. Cancer*, 2(3), 161–174.
- Fabricant, D. S., & Farnsworth, N. R. (2001). The value of plants used in traditional medicine for drug discovery. *Environmental Health Perspectives*, 109 Suppl 1, 69–75.
- Fang, Y., & Zhang, X. (2016). Targeting NEK2 as a promising therapeutic approach for cancer treatment. *Cell Cycle*, 15(7), 895–907.
- Fanjul-Fernández, M., Folgueras, A. R., Cabrera, S., & López-Otín, C. (2010). Matrix metalloproteinases: Evolution, gene regulation and functional analysis in mouse models. *Biochimica et Biophysica Acta (BBA) - Molecular Cell Research*, 1803(1), 3–19.
- Fernández-Majada, V., Aguilera, C., Villanueva, A., Vilardell, F., Robert-Moreno, A., Aytés, A., Real, F. X., Capella, G., Mayo, M. W., Espinosa, L., & Bigas, A. (2007). Nuclear IKK activity leads to dysregulated Notch-dependent gene expression in colorectal cancer. *Proceedings of the National Academy of Sciences of the United States of America*, 104(1), 276–281.
- Franqui Machin, R., Zhan, X., Xu, H., Frech, I., Tricot, G. J., & Zhan, F. (2016). Nek2 Stabilization By Usp7 Leads to Activation of NF-Kb in Multiple Myeloma. *Blood*, 128(22), 4418–4418.
- Frieling, J. S., Li, T., Tauro, M., & Lynch, C. C. (2020). Prostate cancer-derived MMP-3 controls intrinsic cell growth and extrinsic angiogenesis. *Neoplasia (New York, N.Y.)*, 22(10), 511–521.
- Fu, Z., Jiao, Y., Li, Y., Ji, B., Jia, B., & Liu, B. (2019). TYMS presents a novel biomarker for diagnosis and prognosis in patients with pancreatic cancer. *Medicine*, 98(51), e18487.

- Geiger, T. R., & Peeper, D. S. (2009). Metastasis mechanisms. *Biochimica et Biophysica Acta (BBA) - Reviews on Cancer*, 1796(2), 293–308.
- Gialeli, C., Theocharis, A. D., & Karamanos, N. K. (2011). Roles of matrix metalloproteinases in cancer progression and their pharmacological targeting: MMPs as potential targets in malignancy. *FEBS Journal*, 278(1), 16–27.
- Giannakis, M., Mu, X. J., Shukla, S. A., Qian, Z. R., Cohen, O., Nishihara, R., Bahl, S., Cao, Y., Amin-Mansour, A., Yamauchi, M., Sukawa, Y., Stewart, C., Rosenberg, M., Mima, K., Inamura, K., Noshio, K., Nowak, J. A., Lawrence, M. S., Giovannucci, E. L., ... Garraway, L. A. (2016). Genomic Correlates of Immune-Cell Infiltrates in Colorectal Carcinoma. *Cell Reports*, 15(4), 857–865.
- Gilang, Y., Hermawan, A., Fitriyanti, A., & Jenie, R. I. (2012). Hesperidin Increases Cytotoxic Effect of 5-Fluorouracil on WiDr Cells. *Indonesian Journal of Cancer Chemoprevention*, 3(2), 404–409.
- Gkouveris, I., Nikitakis, N. G., Aseervatham, J., Rao, N., & Ogbureke, K. U. (2017). Matrix metalloproteinases in head and neck cancer: Current perspectives. *Metalloproteinases In Medicine*, 4, 47–61.
- Goh, J. X. H., Tan, L. T.-H., Goh, J. K., Chan, K. G., Pusparajah, P., Lee, L.-H., & Goh, B.-H. (2019). Nobiletin and Derivatives: Functional Compounds from Citrus Fruit Peel for Colon Cancer Chemoprevention. *Cancers*, 11(6).
- Gong, Y., Dong, R., Gao, X., Li, J., Jiang, L., Zheng, J., Cui, S., Ying, M., Yang, B., Cao, J., & He, Q. (2019). Neohesperidin prevents colorectal tumorigenesis by altering the gut microbiota. *Pharmacological Research*,
- Gonzalez-Avila, G., Sommer, B., Mendoza-Posada, D. A., Ramos, C., Garcia-Hernandez, A. A., & Falfan-Valencia, R. (2019). Matrix metalloproteinases participation in the metastatic process and their diagnostic and therapeutic applications in cancer. *Critical Reviews in Oncology/Hematology*, 137, 57–83.
- Ha, N.-H., Faraji, F., & Hunter, K. W. (2013). Mechanisms of Metastasis. Dalam Y. H. Bae, R. J. Mrensny, & K. Park (Ed.), *Cancer Targeted Drug Delivery: An Elusive Dream* (hlm. 435–458). Springer. [https://doi.org/10.1007/978-1-4614-7876-8\\_17](https://doi.org/10.1007/978-1-4614-7876-8_17)
- Hanahan, D., & Weinberg, R. A. (2011). Hallmarks of Cancer: The Next Generation. *Cell*, 144(5), 646–674.
- Hayden, M. S., & Ghosh, S. (2008). Shared Principles in NF- $\kappa$ B Signaling. *Cell*, 132(3), 344–362.

- Hermawan, A., & Putri, H. (2019). Targets and molecular mechanisms of a citrus flavonoid, hesperidin, against luminal breast cancer cells: An integrative bioinformatics analysis. *Asian Pacific Journal of Tropical Biomedicine*, 9(12), 531.
- Herszényi, L., Hritz, I., Lakatos, G., Varga, M. Z., & Tulassay, Z. (2012). The behavior of matrix metalloproteinases and their inhibitors in colorectal cancer. *International Journal of Molecular Sciences*, 13(10), 13240–13263.
- Hodgkinson, N., Kruger, C. A., & Abrahamse, H. (2017). Targeted photodynamic therapy as potential treatment modality for the eradication of colon cancer and colon cancer stem cells. *Tumor Biology*, 39(10), 1010428317734691.
- Huang, H. (2018). Matrix Metalloproteinase-9 (MMP-9) as a Cancer Biomarker and MMP-9 Biosensors: Recent Advances. *Sensors (Basel, Switzerland)*, 18(10).
- Huang, W.-C., Sala-Newby, G. B., Susana, A., Johnson, J. L., & Newby, A. C. (2012). Classical macrophage activation up-regulates several matrix metalloproteinases through mitogen activated protein kinases and nuclear factor- $\kappa$ B. *PLoS One*, 7(8), e42507.
- Iizuka, S., Ishimaru, N., & Kudo, Y. (2014). Matrix Metalloproteinases: The Gene Expression Signatures of Head and Neck Cancer Progression. *Cancers*, 6(1), 396–415.
- Ikawati, M., Armandari, I., Khumaira, A., & Ertanto, Y. (2020). Effects of Peel Extract from *Citrus reticulata* and Hesperidin, A Citrus Flavonoid, on Macrophage Cell Line. *Indonesian Journal of Pharmacy*, 30(4), 260.
- Indriyani, L., Hermawan, A., & Jenie, R. I. (2012). Combination of Tangeretin and 5-Fluorouracil Modulates Cell Cycle and Induce Apoptosis on WiDr Cells. *Indonesian Journal of Cancer Chemoprevention*, 3(1), 364–369.
- Jabłońska-Trypuć, A., Matejczyk, M., & Rosochacki, S. (2016). Matrix metalloproteinases (MMPs), the main extracellular matrix (ECM) enzymes in collagen degradation, as a target for anticancer drugs. *Journal of Enzyme Inhibition and Medicinal Chemistry*, 31(sup1), 177–183.
- Jackson, B. C., Nebert, D. W., & Vasiliou, V. (2010). Update of human and mouse matrix metalloproteinase families. *Human Genomics*, 4(3), 1–8.
- Jang, H.-Y., Hong, O.-Y., Youn, H. J., Kim, M.-G., Kim, C.-H., Jung, S. H., & Kim, J.-S. (2020). 15d-PGJ2 inhibits NF- $\kappa$ B and AP-1-mediated MMP-9 expression and invasion of breast cancer cell by means of a heme oxygenase-1-dependent mechanism. *BMB Reports*, 53(4), 212–217.

- Jonsson, A., Hjalmarsson, C., Falk, P., & Ivarsson, M.-L. (2018). Stability of matrix metalloproteinase-9 as biological marker in colorectal cancer. *Medical Oncology*, *35*(4), 1–6.
- Kang, S., Dong, S. M., Kim, B.-R., Park, M. S., Trink, B., Byun, H.-J., & Rho, S. B. (2012). Thioridazine induces apoptosis by targeting the PI3K/Akt/mTOR pathway in cervical and endometrial cancer cells. *Apoptosis*, *17*(9), 989–997.
- Kessenbrock, K., Plaks, V., & Werb, Z. (2010). Matrix Metalloproteinases: Regulators of the Tumor Microenvironment. *Cell*, *141*(1), 52–67.
- Klupp, F., Neumann, L., Kahlert, C., Diers, J., Halama, N., Franz, C., Schmidt, T., Koch, M., Weitz, J., Schneider, M., & Ulrich, A. (2016). Serum MMP7, MMP10 and MMP12 level as negative prognostic markers in colon cancer patients. *BMC Cancer*, *16*.
- Kops, G. J. P. L., Weaver, B. A. A., & Cleveland, D. W. (2005). On the road to cancer: Aneuploidy and the mitotic checkpoint. *Nature Reviews. Cancer*, *5*(10), 773–785.
- Koul, H. K., Pal, M., & Koul, S. (2013). Role of p38 MAP Kinase Signal Transduction in Solid Tumors. *Genes & Cancer*, *4*(9–10), 342–359.
- Kumar, N., & Pruthi, V. (2014). Potential applications of ferulic acid from natural sources. *Biotechnology Reports (Amsterdam, Netherlands)*, *4*, 86–93.
- Lans, C., & van Asseldonk, T. (2020). Dr. Duke's Phytochemical and Ethnobotanical Databases, a Cornerstone in the Validation of Ethnoveterinary Medicinal Plants, as Demonstrated by Data on Pets in British Columbia. Dalam Á. Máthé (Ed.), *Medicinal and Aromatic Plants of North America* (hlm. 219–246). Springer International Publishing.
- Lawrence, T. (2009). The Nuclear Factor NF- $\kappa$ B Pathway in Inflammation. *Cold Spring Harbor Perspectives in Biology*, *1*(6).
- Lee, S. J., Lee, J., Park, S. H., Park, J. O., Lim, H. Y., Kang, W. K., Park, Y. S., & Kim, S. T. (2018). c-MET Overexpression in Colorectal Cancer: A Poor Prognostic Factor for Survival. *Clinical Colorectal Cancer*, *17*(3), 165–169.
- Lee, S.-Y., Jang, C., & Lee, K.-A. (2014). Polo-Like Kinases (Plks), a Key Regulator of Cell Cycle and New Potential Target for Cancer Therapy. *Development & Reproduction*, *18*(1), 65–71.
- Li, S., Lo, C.-Y., & Ho, C.-T. (2006). Hydroxylated Polymethoxyflavones and Methylated Flavonoids in Sweet Orange (*Citrus sinensis*) Peel. *Journal of Agricultural and Food Chemistry*, *54*(12), 4176–4185.

- Lin, D.-C., Zhang, Y., Pan, Q.-J., Yang, H., Shi, Z.-Z., Xie, Z.-H., Wang, B.-S., Hao, J.-J., Zhang, T.-T., Xu, X., Zhan, Q.-M., & Wang, M.-R. (2011). PLK1 Is transcriptionally activated by NF- $\kappa$ B during cell detachment and enhances anoikis resistance through inhibiting  $\beta$ -catenin degradation in esophageal squamous cell carcinoma. *Clinical Cancer Research: An Official Journal of the American Association for Cancer Research*, 17(13), 4285–4295.
- Lin, W.-W., & Karin, M. (2007). A cytokine-mediated link between innate immunity, inflammation, and cancer. *The Journal of Clinical Investigation*, 117(5), 1175–1183.
- Link, A., Balaguer, F., Shen, Y., Lozano, J. J., Leung, H.-C. E., Boland, C. R., & Goel, A. (2013). Curcumin Modulates DNA Methylation in Colorectal Cancer Cells. *PLOS ONE*, 8(2), e57709.
- Markowitz, S. D., & Bertagnolli, M. M. (2009). Molecular Origins of Cancer. *The New England journal of medicine*, 361(25), 2449–2460.
- Marshall, D. C., Lyman, S. K., McCauley, S., Kovalenko, M., Spangler, R., Liu, C., Lee, M., O'Sullivan, C., Barry-Hamilton, V., Ghermazien, H., Mikels-Vigdal, A., Garcia, C. A., Jorgensen, B., Velayo, A. C., Wang, R., Adamkewicz, J. I., & Smith, V. (2015). Selective Allosteric Inhibition of MMP9 Is Efficacious in Preclinical Models of Ulcerative Colitis and Colorectal Cancer. *PLOS ONE*, 10(5), e0127063.
- Marumoto, T., Zhang, D., & Saya, H. (2005). Aurora-A - a guardian of poles. *Nature Reviews. Cancer*, 5(1), 42–50.
- Maurel, J., Nadal, C., Garcia-Albeniz, X., Gallego, R., Carcereny, E., Almendro, V., Mármol, M., Gallardo, E., Maria Augé, J., Longarón, R., Martínez-Fernandez, A., Molina, R., Castells, A., & Gascón, P. (2007). Serum matrix metalloproteinase 7 levels identifies poor prognosis advanced colorectal cancer patients. *International Journal of Cancer*, 121(5), 1066–1071.
- Meiyanto, E., Hermawan, A., & Anindyajati, A. (2012). Natural Products for Cancer-Targeted Therapy: Citrus Flavonoids as Potent Chemopreventive Agents. *Asian Pacific Journal of Cancer Prevention*, 13(2), 427–436.
- Meiyanto, E., & Larasati, Y. A. (2019). The Chemopreventive Activity of Indonesia Medicinal Plants Targeting on Hallmarks of Cancer. *Advanced Pharmaceutical Bulletin*, 9(2), 219–230.
- Mitchell, S., Vargas, J., & Hoffmann, A. (2016). Signaling via the NF $\kappa$ B system. *Wiley Interdisciplinary Reviews. Systems Biology and Medicine*, 8(3), 227–241.

- Moghaddam, G., Ebrahimi, S. A., Rahbar-Roshandel, N., & Foroumadi, A. (2012). Antiproliferative Activity of Flavonoids: Influence of the Sequential Methoxylation State of the Flavonoid Structure. *Phytotherapy Research*, 26(7), 1023–1028.
- Morley, K. L., Ferguson, P. J., & Koropatnick, J. (2007). Tangeretin and nobiletin induce G1 cell cycle arrest but not apoptosis in human breast and colon cancer cells. *Cancer Letters*, 251(1), 168–178.
- Murphy, G., & Nagase, H. (2008). Progress in matrix metalloproteinase research. *Molecular Aspects of Medicine*, 29(5), 290–308.
- Nakayama, M., & Oshima, M. (2018). Mutant p53 in colon cancer. *Journal of Molecular Cell Biology*, 11(4), 267–276.
- Neal, C. P., Fry, A. M., Moreman, C., McGregor, A., Garcea, G., Berry, D. P., & Manson, M. M. (2014). Overexpression of the Nek2 kinase in colorectal cancer correlates with beta-catenin relocalization and shortened cancer-specific survival. *Journal of Surgical Oncology*, 110(7), 828–838.
- Ni, M., Liu, X., Wu, J., Zhang, D., Tian, J., Wang, T., Liu, S., Meng, Z., Wang, K., Duan, X., Zhou, W., & Zhang, X. (2018). Identification of Candidate Biomarkers Correlated With the Pathogenesis and Prognosis of Non-small Cell Lung Cancer via Integrated Bioinformatics Analysis. *Frontiers in Genetics*, 9, 469.
- Nicola, G., Berthold, M. R., Hedrick, M. P., & Gilson, M. K. (2015). Connecting proteins with drug-like compounds: Open source drug discovery workflows with BindingDB and KNIME. *Database*, 2015(bav087).
- Nigg, E. A. (2001). Mitotic kinases as regulators of cell division and its checkpoints. *Nature Reviews Molecular Cell Biology*, 2(1), 21–32.
- Novitasari, D., Handayani, S., & Jenie, R. I. (2018). Ethanolic Extract of *Hedyotis corymbosa* L. Inhibits Migration and MMP-9 Activity on Metastatic Breast Cancer Cells. *Indonesian Journal of Cancer Chemoprevention*, 9(1), 16–22.
- Oikonomou, E., & Pintzas, A. (2006). Cancer Genetics of Sporadic Colorectal Cancer: BRAF and PI3KCA Mutations, their Impact on Signaling and Novel Targeted Therapies. *Anticancer Research*, 26(2A), 1077–1084.
- Ozanne, B. W., Spence, H. J., McGarry, L. C., & Hennigan, R. F. (2007). Transcription factors control invasion: AP-1 the first among equals. *Oncogene*, 26(1),

- P. Mazanetz, M., J. Marmon, R., B. T. Reisser, C., & Morao, I. (2012). Drug Discovery Applications for KNIME: An Open Source Data Mining Platform. *Current Topics in Medicinal Chemistry*, 12(18), 1965–1979.
- Pang, L., Wang, D.-W., Zhang, N., Xu, D.-H., & Meng, X.-W. (2016). Elevated serum levels of MMP-11 correlate with poor prognosis in colon cancer patients. *Cancer Biomarkers: Section A of Disease Markers*, 16(4), 599–607.
- Park, H. J., Kim, M.-J., Ha, E., & Chung, J.-H. (2008a). Apoptotic effect of hesperidin through caspase3 activation in human colon cancer cells, SNU-C4. *Phytomedicine*, 15(1), 147–151.
- Park, H. J., Kim, M.-J., Ha, E., & Chung, J.-H. (2008b). Apoptotic effect of hesperidin through caspase3 activation in human colon cancer cells, SNU-C4. *Phytomedicine*, 15(1), 147–151.
- Pires, B. R. B., Mencalha, A. L., Ferreira, G. M., de Souza, W. F., Morgado-Díaz, J. A., Maia, A. M., Corrêa, S., & Abdelhay, E. S. F. W. (2017). NF-kappaB Is Involved in the Regulation of EMT Genes in Breast Cancer Cells. *PLoS ONE*, 12(1).
- Pohl, A., Azuma, M., Zhang, W., Yang, D., Ning, Y., Winder, T., Danenberg, K., & Lenz, H.-J. (2011). Pharmacogenetic profiling of Aurora kinase B is associated with overall survival in metastatic colorectal cancer. *The Pharmacogenomics Journal*, 11(2), 93–99.
- Polistena, A., Cucina, A., Dinicola, S., Stene, C., Cavallaro, G., Ciardi, A., Orlando, G., Arena, R., D’ermo, G., Cavallaro, A., Johnson, L. B., & Toma, G. D. (2014). MMP7 Expression in Colorectal Tumours of Different Stages. *In Vivo*, 28(1), 105–110.
- Pratomo, I., Larasati, Handayani, S., & Meiyanto, E. (2008). Chemoprevention effects of ethanolic extract Keprok Citrus peels (*Citrus reticulata*) on epithelial mammary and liver cells of Sprague Dawley rats induced by 7,12-Dimethylbenz-[a]anthracene. *Proceeding The International symposium on Molecular targeted Therapy*, 83–93.
- Pretzsch, E., Bösch, F., Neumann, J., Ganschow, P., Bazhin, A., Guba, M., Werner, J., & Angele, M. (2019). Mechanisms of Metastasis in Colorectal Cancer and Metastatic Organotropism: Hematogenous versus Peritoneal Spread. *Journal of Oncology*, 2019, e7407190.
- Qiu, P., Dong, P., Guan, H., Li, S., Ho, C.-T., Pan, M.-H., McClements, D. J., & Xiao, H. (2010). Inhibitory effects of 5-hydroxy polymethoxyflavones on colon cancer cells. *Molecular Nutrition & Food Research*, 54 Suppl 2, S244-252.

- Rapley, J., Baxter, J. E., Blot, J., Wattam, S. L., Casenghi, M., Meraldi, P., Nigg, E. A., & Fry, A. M. (2005). Coordinate regulation of the mother centriole component nlp by nek2 and plk1 protein kinases. *Molecular and Cellular Biology*, 25(4), 1309–1324.
- Roeb, E., Arndt, M., Jansen, B., Schumpelick, V., & Matern, S. (2004). Simultaneous determination of matrix metalloproteinase (MMP)-7, MMP-1, -3, and -13 gene expression by multiplex PCR in colorectal carcinomas. *International Journal of Colorectal Disease*, 19(6), 518–524.
- Rohmah, A. L., Amalia, F., Rivanti, E., Putri, D. D. P., & Nurulita, N. A. (2013). Cytotoxic Activity and Apoptosis Induction of Ethanolic Extract of Pericarps of Mangosteen (*Garcinia mangostana* Linn.) on WiDr Cells and Interaction Study of Alpha-mangosteen to IKK and VEGF Based on Molecular Docking. *Indonesian Journal of Cancer Chemoprevention*, 4(1), 470–476.
- Rosário, M., & Birchmeier, W. (2003). How to make tubes: Signaling by the Met receptor tyrosine kinase. *Trends in Cell Biology*, 13(6), 328–335.
- Rubin, D. C., Shaker, A., & Levin, M. S. (2012). Chronic intestinal inflammation: Inflammatory bowel disease and colitis-associated colon cancer. *Frontiers in Immunology*, 3.
- Said, A. H., Raufman, J.-P., & Xie, G. (2014). The Role of Matrix Metalloproteinases in Colorectal Cancer. *Cancers*, 6(1), 366–375.
- Sarkar, I. N., Law, W., & Balick, M. J. (2019). Identifying Phytochemicals from Biomedical Literature Utilizing Semantic Knowledge Sources. *MEDINFO 2019: Health and Wellbeing e-Networks for All*, 264, 278–282.
- Sarvestani, N. N., Sepehri, H., Delphi, L., & Farimani, M. M. (2018). Eupatorin and Salvigenin Potentiate Doxorubicin-Induced Apoptosis and Cell Cycle Arrest in HT-29 and SW948 Human Colon Cancer Cells. *Asian Pacific Journal of Cancer Prevention : APJCP*, 19(1), 131–139.
- Scartozzi, M., Giampieri, R., Maccaroni, E., Mandolesi, A., Biagetti, S., Alfonsi, S., Giustini, L., Loretelli, C., Faloppi, L., Bittoni, A., Bianconi, M., Del Prete, M., Bearzi, I., & Cascinu, S. (2012). Phosphorylated AKT and MAPK expression in primary tumours and in corresponding metastases and clinical outcome in colorectal cancer patients receiving irinotecan-cetuximab. *Journal of Translational Medicine*, 10, 71.
- Sharma, V., & Sarkar, I. N. (2013). Bioinformatics opportunities for identification and study of medicinal plants. *Briefings in Bioinformatics*, 14(2), 238–250.

- Shi, H., Xu, J. M., Hu, N. Z., Wang, X. L., Mei, Q., & Song, Y. L. (2006). Transfection of mouse macrophage metalloelastase gene into murine CT-26 colon cancer cells suppresses orthotopic tumor growth, angiogenesis and vascular endothelial growth factor expression. *Cancer Letters*, 233(1), 139–150.
- Song, H., Zhou, Y., Peng, A., Liu, J., Wu, X., Chen, W., & Liu, Z. (2020). <p>Aurora-B Promotes Osteosarcoma Cell Growth and Metastasis Through Activation of the NPM1/ERK/NF- $\kappa$ ; &beta;/MMPs Axis</p>. *Cancer Management and Research*, 12, 4817–4827.
- Steward, W. P., & Brown, K. (2013). Cancer chemoprevention: A rapidly evolving field. *British Journal of Cancer*, 109(1), 1–7.
- Sun, S.-C. (2012). The noncanonical NF- $\kappa$ B pathway. *Immunological Reviews*, 246(1), 125–140.
- Sydow, D., Morger, A., Driller, M., & Volkamer, A. (2019). TeachOpenCADD: A teaching platform for computer-aided drug design using open source packages and data. *Journal of Cheminformatics*, 11.
- Tang, Z., Kang, B., Li, C., Chen, T., & Zhang, Z. (2019). GEPIA2: An enhanced web server for large-scale expression profiling and interactive analysis. *Nucleic Acids Research*, 47(W1), W556–W560.
- Thomas, C. M., Iii, R. C. W., Wyatt, J. E., Pendleton, M. H., Torrenegra, R. D., Rodriguez, O. E., Harirforoosh, S., Ballester, M., Lightner, J., Krishnan, K., & Ramsauer, V. P. (2012). Anti-Neoplastic Activity of Two Flavone Isomers Derived from *Gnaphalium elegans* and *Achyrocline bogotensis*. *PLOS ONE*, 7(6), e39806.
- Trusolino, L., Bertotti, A., & Comoglio, P. M. (2010). MET signalling: Principles and functions in development, organ regeneration and cancer. *Nature Reviews Molecular Cell Biology*, 11(12), 834–848.
- Tsareva, S. A., Moriggl, R., Corvinus, F. M., Wiederanders, B., Schütz, A., Kovacic, B., & Friedrich, K. (2007). Signal Transducer and Activator of Transcription 3 Activation Promotes Invasive Growth of Colon Carcinomas through Matrix Metalloproteinase Induction. *Neoplasia (New York, N.Y.)*, 9(4), 279–291.
- Vlantis, K., Wullaert, A., Sasaki, Y., Schmidt-Supprian, M., Rajewsky, K., Roskams, T., & Pasparakis, M. (2011). Constitutive IKK2 activation in intestinal epithelial cells induces intestinal tumors in mice. *The Journal of Clinical Investigation*, 121(7), 2781–2793.

- Waas, E. T., Lomme, R. M. L. M., DeGroot, J., Wobbes, T., & Hendriks, T. (2002). Tissue levels of active matrix metalloproteinase-2 and -9 in colorectal cancer. *British Journal of Cancer*, *86*(12), 1876–1883.
- Wong, J. C. T., Chan, S. K., Schaeffer, D. F., Sagaert, X., Lim, H. J., Kennecke, H., Owen, D. A., Suh, K. W., Kim, Y.-B., & Tai, I. T. (2011). Absence of MMP2 Expression Correlates with Poor Clinical Outcomes in Rectal Cancer, and Is Distinct from MMP1-Related Outcomes in Colon Cancer. *Clinical Cancer Research*, *17*(12), 4167–4176.
- Woo, M., Park, K., Nam, J., & Kim, J. C. (2007). Clinical implications of matrix metalloproteinase-1, -3, -7, -9, -12, and plasminogen activator inhibitor-1 gene polymorphisms in colorectal cancer. *Journal of Gastroenterology and Hepatology*, *22*(7), 1064–1070.
- Wooller, S. K., Benstead-Hume, G., Chen, X., Ali, Y., & Pearl, F. M. G. (2017). Bioinformatics in translational drug discovery. *Bioscience Reports*, *37*(4).
- Wu, X., Song, M., Qiu, P., Li, F., Wang, M., Zheng, J., Wang, Q., Xu, F., & Xiao, H. (2018). A metabolite of nobiletin, 4'-demethylnobiletin and atorvastatin synergistically inhibits human colon cancer cell growth by inducing G0/G1 cell cycle arrest and apoptosis. *Food & Function*, *9*(1), 87–95.
- Wu, X., Song, M., Qiu, P., Rakariyatham, K., Li, F., Gao, Z., Cai, X., Wang, M., Xu, F., Zheng, J., & Xiao, H. (2017). Synergistic chemopreventive effects of nobiletin and atorvastatin on colon carcinogenesis. *Carcinogenesis*, *38*(4), 455–464.
- Wulandari, F., Ikawati, M., Meiyanto, E., Kirihata, M., & Hermawan, A. (2020). Bioinformatic analysis of CCA-1.1, a novel curcumin analog, uncovers furthest noticeable target genes in colon cancer. *Gene Reports*, *21*, 100917.
- Xi, W., Fang, B., Zhao, Q., Jiao, B., & Zhou, Z. (2014). Flavonoid composition and antioxidant activities of Chinese local pummelo (*Citrus grandis* Osbeck.) varieties. *Food Chemistry*, *161*, 230–238.
- Xia, Y., Shen, S., & Verma, I. M. (2014). NF- $\kappa$ B, an active player in human cancers. *Cancer immunology research*, *2*(9), 823–830.
- Xu, W., Jiang, H., Zhang, F., Gao, J., & Hou, J. (2017). MicroRNA-330 inhibited cell proliferation and enhanced chemosensitivity to 5-fluorouracil in colorectal cancer by directly targeting thymidylate synthase. *Oncology Letters*, *13*(5), 3387–3394.
- Yang, H., Jiang, P., Liu, D., Wang, H.-Q., Deng, Q., Niu, X., Lu, L., Dai, H., Wang, H., & Yang, W. (2019). Matrix Metalloproteinase 11 Is a Potential

Therapeutic Target in Lung Adenocarcinoma. *Molecular Therapy Oncolytics*, 14, 82–93.

Zhang, J., Wang, Y., Shen, Y., He, P., Ding, J., & Chen, Y. (2018). G9a stimulates CRC growth by inducing p53 Lys373 dimethylation-dependent activation of Plk1. *Theranostics*, 8(10), 2884–2895.

Zhang, X., Huang, S., Guo, J., Zhou, L., You, L., Zhang, T., & Zhao, Y. (2016). Insights into the distinct roles of MMP-11 in tumor biology and future therapeutics (Review). *International Journal of Oncology*, 48(5), 1783–1793.

Zheng, Q., Hirose, Y., Yoshimi, N., Murakami, A., Koshimizu, K., Ohigashi, H., Sakata, K., Matsumoto, Y., Sayama, Y., & Mori, H. (2002). Further investigation of the modifying effect of various chemopreventive agents on apoptosis and cell proliferation in human colon cancer cells. *Journal of Cancer Research and Clinical Oncology*, 128(10), 539–546.