

## DAFTAR PUSTAKA

- Adianingsih, O.R., and V.D. Kharisma. 2019. Study of B cell epitope conserved region of the Zika virus envelope glycoprotein to develop multi-strain vaccine. *J. Appl. Pharm. Sci.* 9(01):098–103.
- Agus, A., I .Sumantri, T.W. Murti and J. Boem. 2013. Survey on the occurrence of aflatoxin B1 contamination in dairy ration and its carry over into the milk in Yogyakarta and Central Java Province of Indonesia. In: ISM-Mycored International Conference Europe 2013. Apulia, 27-31 May 2013. Apulia (Italy): CNR ISPA.
- Agustina, S., P. Widodo, A.P.Hidaya.2014. Analisis fenetik kultivar cabai besar capsicum annum l. Dan cabai kecil capsicum frutescens l. *Scripta biologica*, vol.1 (1) 117-125.
- Amdar, M.O., J. Doull, and C.D. Klaassen. 1991. Casarett and Doull's Toxicology. New York: Pergamon Press. Pp. 334-349.
- Anandakumar, P., S. Jagan, S. Kamaraj, G. Ramakrishnan,A.A. Titto, T. Devaki. 2008. Beneficial influence of capsaicin on lipid per-oxidation, membrane-bound enzymes and glycoprotein profile during experimental lung carcinogenesis. *J Pharm Pharmacol*;60:803–8
- Anandakumar , P., S. Kamaraj , S. Jagan , G. Ramakrishnan and T. Devaki. 2009. Effect of capsaicin on glucose metabolism studied in experimental lung carcinogenesis. *Nat. Prod. Research*, Volume 23 (8);762-774
- Anandakumar, P., S.Kamaraj, G. Ramakhrisnan, S. Jagan, T. Devaki. 2009. Chemopreventive task os Capsaicin against benzo(a)pirene-induced lung cancer in swiss albino mice. *Basic and Clinic Pharmacology and Toxicology*. 104: 360-365.
- Anastasia, Y. dan R. Widiastuti. 2015. Deteksi aflatoksin B1 pada pakan ayam menggunakan kromatografi cair spektrofotometri massa (KCSM). Dalam: Noor SM, Handiwirawan, Martindah E, Widiastuti R, Sianturi RSG, Herawati T, Purba M, Anggraeny YN, Batubara A, penyunting. *Teknologi Peternakan dan Veteriner untuk Peningkatan Daya Saing dan Mewujudkan Kedaulatan Pangan Hewani*. Prosiding Seminar Nasional Teknologi Peternakan dan Veteriner. Jakarta, 8-9 Oktober. Jakarta (Indonesia): Puslitbangnak. hlm. 496-504
- Animal Science Cornell University. Aflatoxins occurrence and health risks. 2004; 1-8. Biological control of aflatoxin contamination in groundnut. <http://www.aflatoxin.info/biocontrol.asp> ([10 Agustus 2005).

- Arroyo-Manzanares, N., J.F. Huertas-Pérez, A.M. García-Campaña, and L. Gámiz-Gracia. 2015. Aflatoxins in animal feeds: A straightforward and cost-effective analytical method. *Food Control*. 54:74-78
- Astawan, M., dan A.L. Kasih. 2008. Khasiat Warna Warni Makanan. Gramedia Pustaka Utama. Jakarta. *Prod Res*. 23(8):763-74.
- Bahri, S., R. Maryam, R. Widiastuti. 2005. Cemaran aflatoksin pada bahan pakan dan pakan di beberapa Propinsi Lampung & Jawa Timur. *JITV*.10 (3):236-241.
- Ballantyne, B., I. Marrs and P. Turner. 1995. *General and Applied Toxicology*. London : The Macmillan Press Ltd. Pp: 11-19.
- Balogh, J., D. Victor, E.H. Asham, S.G. Burroughs, M. Boktour, A. Saharia, X.Li, R.M. Ghobrial, H.P. Monsour Jr. 2016. HCC : a review. *J Hepatocell Carcinoma*;3:41-53. Published Oct 5. doi:10.2147/JHC.S61146
- Baskaran, P., L. Markert, J. Bennis, L. Zimmerman, J. Fox, B. Thyagarajan. 2019. Assessment of Pharmacology, Safety, and Metabolic activity of Capsaicin Feeding in Mice. *Sci Rep.*;9(1):8588. Published Jun 13. doi:10.1038/s41598-019-45050-0
- Bawulele, A. T., L. Loho, dan P. Lintong. 2016. Pengaruh cabe rawit terhadap gambaran histopatologik lambung tikus Wistar yang diinduksi aspirin. *eBiomedik*, 4(2).
- Benkerroum, N. 2020. *Chronic & Acute Toxicities of Aflatoxins: Mechanisms of Action*.
- Bennett, J.W., and M. Klich. 2003. Mycotoxins. *Clin Microbiol Rev* 16(3): 497-516.
- Berasain, C., J. Castillo, J. Prieto, M.A. Avila. 2007. New molecular targets for HCC: the ErbB1 signaling system. *Liver Int*. Mar; 27(2):174–185.
- Bhat, R., R.V. Rai, A.A. Karim. 2010. Mycotoxins in food and feed: Present status and future concerns. *Compr Rev Food Sci Food Saf*. 9:57-81.
- Bhide, R.S., L. J. Lombardo, J.T. Hunt, Z.W. Cai, J.C. Barrish, S. Galbraith, R. Jeyaseelan, S. Mortillo, B.S. Wautlet, B. Krishnan. 2010. The antiangiogenic activity in xenograft models of brivanib, a dual inhibitor of vascular endothelial growth actor receptor-2 and fibroblast growth factor receptor-1 kinases. *Mol CA Ther.*;9:369-378.
- Binder, E.M. 2007. Managing the risk of mycotoxins in modern feed production. *Anim Feed Sci Technol*. 133:149-166.

- Bindhu, P.R., R. Krishnapillai, P.Thomas, dan P. Jayanti. 2014. Fact and Artifacts. *Journal of Oral and Maxillofacial Pathology*. 17 (3):397-401.
- Bley, K., G. Boorman, B. Mohammad, D. Mc Kenzie, S. Babbar. 2012. A comprehensive review of the carcinogenic and anticarcinogenic potential of capsaicin. *Toxicol Pathol.*;40(6):847-873. doi:10.1177/0192623312444471
- Branda, M., J.R.Wands. 2006. Signal transduction cascades and hepatitis B and C related HCC. *Hepatology*. 43(5):891–902.
- Breuhahn, K., T. Longerich, P. Schirmacher. 2006. Dysregulation of growth factor signaling in human hepatocellular carcinoma. *Oncogene*. 25(27):3787–3800.
- Bryden, W.L. 2007. Mycotoxins in the food chain: Human health implications. *Asia Pac J Clin Nutr*. 16:95-101.
- Bryden, W.L. 2009. Mycotoxins and mycotoxicoses: significance, occurrence and mitigation in the food chain. In: Ballantyne B, Marrs T, Syversen T, editors. *General and Applied Toxicology*. 3rd Ed. Chichester (UK): John Wiley & Sons. p. 3529-3553
- Bryden, W.L. 2012. Mycotoxin contamination of the feed supply chain: Implications for animal productivity and feed security. *Anim Feed Sci Technol*. 173:134–158.
- Cairns, D. 2004. *Intisari Kimia Farmasi*. Penerbit Buku Kedokteran EGC. Jakarta.
- Calvisi, D.F., S. Ladu, A.Gorden, M. Farina, E.A. Conner, J.S. Lee, V.M. Factor, S.s. Thorgeirsson. 2006. Ubiquitous activation of Ras and Jak/Stat pathways in human HCC. *Gastroenterology*. 130: 1117-1128.
- Cao-Lei, L., F. Veru, G. Elgbeili, M. Szyf, D.P. Laplante, & S. King. 2016. Dna Methylation Mediates The Effect Of Exposure To Prenatal Maternal Stress On Cytokine Production In Children At Age 13½ Years: Project Ice Storm. *Clinical Epigenetics*, 8(1), 54.
- Cereto-Massagué, A., M.J. Ojeda, C. Valls, M. Mulero, G. Pujadas, & S. Garcia-Vallve. 2015. Tools for in silico target fishing. *Methods*. 71: 98–103.
- Cervello, M., G. Augello, A. Cusimano, M.R. Emma, D. Balasus, A. Azzolina, J.A. McCubrey, G. Montalto. 2017. Pivotal roles of glycogen synthase-3 in hepatocellular carcinoma. *Adv Biol Regul*. 65:59-76. doi: 10.1016/j.jbior.2017.06.002
- Chada, S., M.Bashir, S. Babbar, A. Koganti, K. Bley. 2008. In vitro hepatic and skin metabolism of capsaicin. *Drug Metabo Dispos*. 36(4):670- 675. doi:10.1124/dmd.107.019240.

- Chan, J. Y.H., K.H. Kenneth, Lee, Yiu-oon Chui and M. T.Kuo. 2007. Molecular Aspect in Hepatocellular Carcinoma/edited by W.Y.Lau. Word Scientific Publisher. 243-278.
- Chen, J., J. Liang, S. Liu, S. Song, W. Guo, & F. Shen. 2018. Differential regulation of AKT1 contributes to survival and proliferation in hepatocellular carcinoma cells by mediating Notch1 expression. *Oncol Lett.*15(5):6857-6864. doi: 10.3892/ol.2018.8193.
- Chen, L.C., Y. Zhu, G. Papandreou, F. Schroff, and H. Adam. 2018. Encoder-Decoder With Atrous Separable Convolution For Semantic Image Segmentation. In *Proceedings Of The European Conference On Computer Vision (Eccv)* (Pp. 801-818).
- Chhabra, N, M.L. Aseri, V. Goyal, and S. Sankhla. 2012. Capsaicin : a promising therapy – a critical reappraisal. *Int J of Nutr, Pharmac, Neur dis.* 2(1):8- 15.
- Chihaya, K., N. Hamamatsu, S. Sakuno, E. Hamasaki, T. Nakajima, J.W. Bennett. 2003. Enzymatic conversion of averufin to hydroxyversicolorone and elucidation of a novel metabolic grid involved in aflatoxin biosynthesis. *Appl Environ Microbiol* 69: 66-73.
- Chuichulcherm, S., S.Prommakort, P. Srinophakun, and A. Thanapimmetha. 2013. Optimization of capsaicin purification from *Capsicum frutescens* Linn. with column chromatography using Taguchi design. *J. Industial Crop. Prod.*, Vol.44, January, Pages 473-479
- Comoglio, P.M., S. Giordano, L. Trusolino. 2008. Drug development of MET inhibitors: targeting oncogene addiction and expedience. *Nat Rev Drug Discov* 7: 504-516
- Cortés, G., M. Carvajal, I. Méndez-Ramírez, E. Ávila-González, N. Chilpa-Galván, P. Castillo-Urueta, and C. M. Flores. 2010. Identification and quantification of aflatoxins and aflatoxicol from poultry feed and their recovery poultry litter . *Poultry Science.* 89 (5): 993- 1001.
- Craig. 1990. *Pharmaceutical Dosage Forms : Tablet*, Vol. 2, New York: MarcelDekker Inc. 124-130, 158-183
- C-T Hu, J-R Wu, C-C. Cheng and W-S Wu. 2017. Review The Therapeutic Targeting of HGF/c-Met Signaling in HCC : Alternative Approaches. *CA.* 9: 58.
- Cullen, J. M., 2005. Mechanistic classification of liver Injury. *Toxicol Pathol.* 33: 6-8.

- Daina, A., O. Michielin, and V. Zoete. 2019. Swiss Target Prediction: updated data and new features for efficient prediction of protein targets of small molecules. *Nucleic Acids Research*. 47: 357-364.
- Dermawan, R. dan A. Harpenas. 2010. *Budidaya Cabai Unggul*. Penebar Swadaya. ISBN: 9789790024175
- Dianati, NA. 2015. Gout and Hyperuricemia. *Journal Majority*. 4(3):82-9
- Dima, C., G. Coman, M. Cotarlet, P. Alexe, S. Dima. 2013. Antioxidant and antibacterial properties of capsaicine microemulsions. *Food Technol*. 37(1):39-49.
- Dorner, JW. 2005. Biological control of aflatoxin contamination of crops. *Aflatoxin and Food Safety* 23: 425-450.
- Duarte, S.C., C.M. Lino, A. Pena. 2011. Ochratoxin A in feed of food-producing animals: An undesirable mycotoxin with health and performance effects. *Vet Microbiol*. 154:1-13.
- Duarte, S.C., C.M. Lino, A. Pena. 2012. Food safety implications of ochratoxin A in animal-derived food products. *Vet J*. 192:286-292.
- E Ohmit, Suzanne & Petrie, Joshua & T. Cross, Rachel & Johnson, Emileigh & S. Monto, Arnold. 2011. Influenza Hemagglutination-Inhibition Antibody Titer as a Correlate of Vaccine-Induced Protection. *The Journal of infectious diseases*. 204. 1879-1885.
- El-Nezami H.N., Polychronaki, S. Salminen, H. Mykkanen. 2002. Binding rather than metabolism may explain the interaction of two foodgrade Lactobacillus strains with zearalenone and its derivative-zearalenol. *Appl Environ Microbiol*. 68:3545-3549.
- Ernawati, L., B. Witjahyo, & A. Ismail. 2018. Pengaruh Pemberian Ekstrak Cabai Rawit (*Capsicum Frutescens* L.) Terhadap Gambaran Mikroskopis Ginjal Mencit Balb/C. *Jurnal Kedokteran Diponegoro*, 7(4), 1647-1660.
- European Commission. 2006. Commission Recommendation of 17 August 2006 on the presence of deoxynivalenol, zearalenone, ochratoxin A, T-2 and HT-2 and fumonisins in products intended for animal feeding (2006/576/EU). *Off J Eur Union*. L 229:7-9.
- European Commission. 2007. Decision 2002/657/EC of a confirmatory method for aflatoxin M1 in milk based on immunoaffinity columns and high performance liquid chromatography with fluorescence detection. *Anal Chim Acta*;594:257e64.

- European Communities. 2010. Commission Regulation (EU) No.165/2010 of 26 February.
- Faivre, S., E. Raymond, E. Boucher. 2009. Safety and efficacy of sunitinib in patients with advanced HCC : an open-label, multicentre, phase II study. *Lancet Oncol.* 10(8):794–800
- FAO. 2004. Worldwide Regulation for mycotoxins in food and feed in 2003. FAO Food and Nutrition Paper 81. Rome (Italy): FAO
- Farazi, P.A., R.A. DePinho. 2006. HCC pathogenesis: from genes to environment. *Nat Rev Cancer.* ;6:674-687.
- Fasullo, M., A. Smith, P. Egner, C. Cera. 2014. Activation of aflatoxin B1 by expression of human CYP1A2 polymorphisms in *Saccharomyces cerevisiae*. *Mutat Res Genet Toxicol Environ Mutagen* ;761:18-26. doi:10.1016/j.mrgentox.2014.01.009.
- Fattori, V., M.S.N. Hohmann, A.C. Rossaneis, A. Felipe. P.R.A.Waldiceu, Verri Jr. 2016. Capsaicin: Current Understanding of Its Mechanisms and Therapy of Pain and Other Pre-Clinical and Clinical Uses. *Molecules* 21, 844; doi:10.3390/molecules21070844
- Fedeles, B.I., S. C. Chawanthayatham, G.N. Wogan, J.M. Essigmann. 2017. Early detection of the aflatoxin B1 mutational fingerprint: A diagnostic tool for liver . *Mol. Cell. Oncol.* 4, e1329693:1–e1329693:3.
- Formstecher, E., J.W. Ramos, M. Fauquet, D.A. Calderwood, J.C. Hsieh, B. Canton, X.T. Nguyen, J.V. Barnier, J. Camonis, M.H. Ginsberg and H. Chneiweiss. 2001. Pea-15 Mediates Cytoplasmic Sequestration Of Erk Map Kinase. *Developmental Cell*, 1(2), Pp.239-250.
- Francisco, J.S., L. Waldo, J. Garcia, L. Isadora, S. Karin. 2018. Histopathological and immunohistochemical characterisation of hepatic granulomas in *Leishmania donovani* infected BALB/c mice: a time-course study. *Parasit.Vect.J.*;11(73):1–9.
- Gallagher, E.P., K.L. Kunze, P.L. Stapleton, D.L. Eaton. 1996. The kinetics of aflatoxin B1 oxidation by human cDNA-expressed and human liver microsomal cytochromes P450 1A2 and 3A4. *Toxicol Appl Pharmacol*;141:595–606.
- Galvez, F.C.F., M.L.D.L. Francisco, B.J. Villarino, A.O Lustre, A.V.A. Resurreccion. 2003. Manual sorting to eliminate aflatoxin from peanuts. *J Food Protect* 66: 1879-1884.

- Garnett, C.T., C.Palena, M. Chakarboroty, K.Y. Tsang, J. Schlom, and J.W. Hodge. 2004. Sublethal Irradiation Of Human Tumor Cells Modulates Phenotype Resulting In Enhanced Killing By Cytotoxic T Lymphocytes. *Cancer Research*, 64(21), 7985-7994.
- GenNet Information Systems, Inc. 2005. LIVER CANCER. GenNet. (22 Des.) .
- Georgescu, S.R., M.I. Sârbu, C. Matei. 2017. Capsaicin: Friend or Foe in Skin Cancer and Other Related Malignancies?. *Nutrients*.;9(12):1365. Published 2017 Dec 16. doi:10.3390/nu9121365
- Giordano, S., and A. Columbano. 2014. Met as a therapeutic target in HCC: Facts and hopes. *Journal of Hepatology*, 60(2), 442–452.
- Godfrey, S. B., D. Kitya, A. Lubega, O.O. Jasper, B.W. Anok, and B.K. David. 2013. Review of the Biological and Health Effects of Aflatoxins on Body Organs and Body Systems. DOI: 10.5772/51201
- Goldman, B.B., and W.T. Wipke. 2000. Qsd Quadratic Shape Descriptors. 2. Molecular Docking Using Quadratic Shape Descriptors (Qsdock). *Proteins: Structure, Function, And Bioinformatics*, 38(1), 79-94.
- Golmakani, M.T, and M. Moayyedi. 2015. “Comparison of heat and mass transfer of different microwave- assisted extraction methods of essential oil from Citrus limon (Lisbon variety) peel,” *Food Sci. Nutr.*, vol. 3, no. 6; 506–518,.
- Goodsell, D.S. 2001. The Molecular Perspective: Cytochrome P450. *The Oncologist* 6(2): 205-206.
- Gowda, N.K.S., H.V.L.N. Swamy, P. Mahajan. 2013. Recent advances for control, counteraction and amelioration of potential aflatoxins in animal feeds. In: Razzaghi Abyaneh M, editor. Aflatoxins-Recent Advances and Future Prospects. Rijeka (Croatia): InTech.
- Gschwind, A., O.M. Fischer, and A. Ullrich. 2004. The Discovery Of Receptor Tyrosine Kinases: Targets For Cancer Therapy. *Nature Reviews Cancer*, 4(5), 361-370.
- Guex, N., M.C, Peitsch, and T. Schwede. 2009. Automated comparative protein structure modeling with SWISS-MODEL and Swiss-PdbViewer: a historical perspective. *Electrophoresis*. 30:162–73.
- Gürbay, A., S. Aydın, G. Girgin, A.B. Engin, and G. Şahin. 2006. Assessment of Aflatoxin M1 Levels in Milk in Ankara, Turkey. *Food Control*; 17 (1): 1–4.

- Hagler, W.M., J.N.R. Towers, C.J. Mirocha, R.M. Eppley, W.L. Bryden. 2001. Zearalenone: mycotoxin or mycoestrogen? In: Summerell, Leslie JF, Backhouse D, Bryden WL, Burgess LW, editors. *Fusarium Paul E Nelson Meml Symp.* Saint Paul (US): APS Press. p. 321-331.
- Hamid, A.S., I.G. Tesfamariam, Y. Zhang, Z.G. Zhang. 2013. Aflatoxin B1-induced HCC in developing countries: Geographical distribution, mechanism of action and prevention. *Oncol Lett.*;5(4):1087–1092. doi:10.3892/ol.2013.1169
- Hastuti, U.S. 2001. Hepatotoksisitas Citrinin, Pantulin, dan Aflatoksin B1 Pada Mencit (*Mus musculus*). Disertasi. Program Pascasarjana Universitas Airlangga Surabaya.
- Hastuti, U.S. 2006. Pengaruh Berbagai Dosis Citrinin Terhadap Kerusakan Struktur Hepatosit Mencit (*Mus Musculus*) Pada Tiga Zona Lobulus Hepar Jurnal Kedokteran Brawijaya, Vol. XXII, No. 3, Desember: 121-126.  
HCC and molecular therapies. *Curr Opin Gastroenterol.* ;25:186-194.
- Hidana, R. dan D. Anisa. 2015. Efektivitas Ekstrak Cabai Rawit (*Capsicum frutescens* L) Terhadap Kematian Larva Nyamuk *Aedes albopictus*. Jurnal Kesehatan Bakti Tunas Husada Vol. 14 (1).
- Hussain, I., J. Anwar, M.A. Munawar, dan M.R. Asi. 2008. Variation Of Levels Of Aflatoxin M1 In Raw Milk From Different Localities In The Central Areas Of Punjab, Pakistan. *Food Control*, 19(12), 1126-1129.
- Jung, D., B. Hagenbuch, L. Gresh, M. Pontoglio, P.J. Meier, and G.A. Kullak-Ublick. 2001. Characterization of the Human OATP-C (SLC21A6) Gene Promoter and Regulation of Liver-specific OATP Genes by Hepatocyte Nuclear Factor 1 $\alpha$ . Vol. 276 (40), October 5, pp. 37206–37214.
- Jungst, C., B. Cheng, R. Gehrke. 2004. Oxidative damage is increased in human liver tissue adjacent to hepatocellular carcinoma. *Hepatology* 39: 1663–72.
- Karakilcik, A.Z., M. Zerin, O. Arslan, Y. Nazligul, H. Vural. 2004. Effects of vitamin C and E on liver enzymes and biochemical parameters of rabbits exposed to aflatoxin B1. *Vet Human Toxicol* 46(4): 190-192.
- Kharisma, V.D., L. Septiadi, and S. Syafrudin. 2018. Prediction of Novel Bioactive Compound from *Zingiber officinale* as Non-nucleoside Reverse Transcriptase Inhibitors (NNRTIs) of HIV-1 through Computational Study. *Bioinformatics and Biomedical Research Journal* 1.2 : 49-55.
- Kucukcakan, B., M.Z. Hayrulai. 2015. Challenging role of dietary aflatoxin B1 exposure and hepatitis B infection on risk of HCC. *Open Access Maced. J. Med. Sci.*, 3, 363–369.



- Kudo, M. 2012. Signaling pathway/molecular targets and new targeted agents under development in HCC. *World J Gastroenterol* November 14; 18(42): 6005-6017.
- Kumar, V., R.S. Cotran, S.L. Robbins. 2013. Buku ajar patologi. Jakarta: EGC;.
- Kuntz, B., and H.D. Kuntz. 2008. Hepatology textbook and atlas. 3<sup>rd</sup> Ed. Springer medizin verlag Heidelberg, Germany, pp 16-77.
- Kuo, M.T. Z. Liu, Y. Wei, , Y.C. Lin-Lee, S. Tatebe, G.B. Mills and H. Unate. 2002. Induction of human MDR1 gene expression by 2-acetylaminofluorene is mediated by effectors of the phosphoinositide 3-kinase pathway that activate NF-kappaB signaling. *Oncogene*;21:1945–1954.
- Kuo, M.T., and N. Savaraj. 2006. Roles of reactive oxygen species in hepatocarcinogenesis and drug resistance gene expression in liver cancers. *Mol Carcinog* 45:701–9.
- Kusrini, E., Tristantini, D., ., S., Setianingrum, V., & Yulizar, Y. (2014). Fluorescence Properties of Microcomposite Ternary Europium Triethylene Glycol Picrate Complex Doped in Polymer. *International Journal Of Technology*, 5(1), 70-78. doi:10.14716/ijtech.v5i1.155
- Kwon, S.K., and A. Moon. 2005. Synthesis of 3-alkylthio-6-allylthiopiridazinyne derivatives and their antihepatocarcinoma activity. *Arch Pharm Res* 28(4):391-394.
- Lam, B.Q., L. Dai and Z. Qin. 2016. The role of HGF/c-MET signaling pathway in lymphoma. *Journal of Hematology & Oncology* 9:135
- Lee, S.H., R.L. Richardson, R.H. Dashwood, and S.J. Baek. 2012. Capsaicin represses transcriptional activity of B-catenin in human colorectal cancer cells. *J Nutr Biochem* 23: 646-655.
- Leichter, J. J, S. Wankel, A. Paytan, K. Hanson, S. Miller, and M.A. Altabet. 2007. Nitrogen And Oxygen Isotopic Signatures Of Subsurface Nitrate Seaward Of The Florida Keys Reef Tract. *Limnology And Oceanography*, 52(3), 1258-1267.
- Lewis, L, M. Onsongo, H. Njapau, H.S. Rogers, G. Luber, S. Kieszak. 2005. Aflatoxin contamination of commercial maize products during an outbreak of acute aflatoxicosis in Eastern and Central Kenya: *Environ Health Perspect.*; 113: 1763-7.
- Liaw, K.Y., P.H. Lee, F.C. Wu. 1997 . Zinc, copper, and superoxide dismutase in hepatocellular carcinoma. *Am J Gastroenterol* 92:2260–63.

- Li Y, Q. Xie, F. Lu, J. Zhao, P.Mao, Z. Li, S. Liu, H. Zhuang. 2009. Association between epidermal growth factor 61A/G polymorphism and hepatocellular carcinoma susceptibility in Chinese patients. *Liver Int* Oct 15. doi: 10.1111/j.1478-3231.2009.02134.x.
- Li, K., F. Yang, G. Zhang, S. Song, Y. Li Y, D. Ren, & C.P. Song. 2017. A Mitogen-Activated Protein Kinase, Modulates Abscisic Acid Responses Through The Mkk5-Mpk6 Kinase Cascade. *Plant Physiology*, 173(2), 1391-1408.
- Lin, C.H., W.C. Lu, C.W. Wang, Y.C. Chan, M.K. Chen. 2013. Capsaicin induces cell cycle arrest and apoptosis in human KB cancer cells. *BMC Complementary and Alternative Medicine*. 13:1472-6882.doi:10.1186/1472-6882-13-46.
- Lin, I. C., and T.C. Liao. 2017. A Survey Of Blockchain Security Issues And Challenges. *Ij Network Security*, 19(5), 653-659.
- Lin, Z.Y., and W.L. Chuang. 2017. Contrary influence of clinically applied sorafenib concentrations among hepatocellular carcinoma patients. *Biomed Pharmacother*.86:27-31. doi: 10.1016/j.biopha.2016.11.144.
- Liu, P., E. Kimmoun, A. Legrand. 2002. Activation of NF- $\kappa$ B, AP-1 and Stat transcriptions is a frequent and early event in human carcinomas. *J Hepatol* 37:63–71.
- Liu, W., L. Wang , C. Zheng, L. Liu, J. Wang, D. Li, Y. Tan, X. Zhao, X. L. He, W. Shu. 2018. Microcystin-LR increases genotoxicity induced by aflatoxin B1 through oxidative stress and DNA base excision repair genes in human hepatic cell lines. *Environ. Pollut.*, 233, 455–463
- Liu, Y., and F. Wu. 2010. Global burden of aflatoxin-induced HCC : A risk assessment. *Environ. Health Perspect.*, 118, 818–824.
- Lo, Y.C., Y.C. Yang, I.C. Wu, F.C. Kuo, C.M. Liu, H.W. Wang, C.H. Kuo, J.Y. Wu, D.C. Wu. 2005. Capsaicin-induced cell death in a human gastric adenocarcinoma cell line. *World J Gastroenterol*. Oct 28;11(40):6254-7.
- Lu, F. 2010. *Toksikologi Dasar*. Jakarta. UI Press.
- Luo, J., N.L. Solimini, S.J. Elledge. 2009. Principles of cancer therapy: oncogene and non-oncogene addiction. *Cell*. Mar 6; 136(5):823–837.
- Luo, J., B.D. Manning, L.C. Cantley. 2003. Targeting the PI3K-AKT pathway in human cancer: Rationale and promise. *Cancer Cell*;4:257–262.

- M. Lu, C. Chen, Y. Lan, J. Xiao, R. Li, J. Huang, Q. Huang, Y. Cao and C. Ho, 2020. Capsaicin - the Major Bioactive Ingredient of Chili Peppers: Bio-efficacy and Delivery Systems. *Food Funct.*, DOI: 10.1039/D0FO00351D : 1-32
- Mabbett, T. 2005. Integrated management of mycotoxins. *Poultry International* 44(8): 10-14.
- Maeda, S., H. Kamata, J.L. Luo. 2005.  $KK\beta$  couples hepatocyte death to cytokine-driven compensatory proliferation that promotes chemical hepatocarcinogenesis. *Cell* 121:977–90.
- Mahmmoud, Y.A. 2008a. Capsaicin stimulates uncoupled ATP hydrolysis by the sarcoplasmic reticulum calcium pump. *Journal of Biological Chemistry*, 283(31), 21418-21426.
- Mahmmoud, Y.A. 2008<sup>b</sup>. Capsazepine, a synthetic vanilloid that converts the Na, K-ATPase to Na-ATPase. *Proceedings of the National Academy of Sciences*, 105(5), 1757-1761.
- Makfoeld, D. 1993. Mikotoksin Pangan. Yogyakarta : Penerbit Kanisius. Hal. 15-205.
- Marchese, S., A. Polo, A. Ariano, S. Velotto, S. Costantini, L. Severino. 2018 Aflatoxin B1 and M1: Biological Properties and Their Involvement in Cancer Development. *Toxins (Basel)*;10(6):214. Published 2018 May 24. doi:10.3390/toxins10060214
- Marin, D.E., and I. Taranu. 2012. Overview on aflatoxins and oxidative stress. *Toxin Rev.*, 31: 32–43.
- Martin, Alfred. 1993. *Farmasi Fisik Jilid I Edisi III*. Jakarta: UI Press
- Martindah, E., R. Widiastuti, R.S.G Sianturi, T. Herawati, M. Purba, Y.N. Anggraeny, A. Batubara, penyunting. 2015. *Teknologi Peternakan dan Veteriner untuk Peningkatan Daya Saing dan Mewujudkan Kedaulatan Pangan Hewani*. Prosiding Seminar Nasional Teknologi Peternakan dan Veteriner. Jakarta, 8-9 Oktober. Jakarta (Indonesia): Puslitbangnak. hlm. 525-531
- Mater, D. Benjamin, and K. Subhas Venayagamoorthy. 2014. "The Quest For An Unambiguous Parameterization Of Mixing Efficiency In Stably Stratified Geophysical Flows." *Geophysical Research Letters* 41.13): 4646-4653.
- Medscape. 2003. HCC Prevention: A Daily Dose of Broccoli Sprouts? *Medscape General Medicine* 5(1). [http://www.medscape.com/viewarticle/448881\\_8](http://www.medscape.com/viewarticle/448881_8) (20 Desember 005).
- Merat, S., K.S. Farzaneh, M. Nouraie, M.H. Derakhshan, S.M. Tavanga, S. Mossaffa, R. Malekzadeh, M. Sotoudeh. 2010. A Modification of the Brunt System for

Scoring Liver Histology of Patients with Non-Alcoholic Fatty Liver Disease  
Archives of Iranian Medicine, Volume 13, Number 1, : 38 – 44.

- Min, B., L. Gu, A.M. McClung, C.J. Bergman, and M.H. Chen. 2012. Free And Bound Total Phenolic Concentrations, Antioxidant Capacities, And Profiles Of Proanthocyanidins And Anthocyanins In Whole Grain Rice (*Oryza Sativa* L.) Of Different Bran Colours. *Food Chemistry*, 133(3), 715-722.
- Min, L., B. He, L. Hui. 2011. Mitogen-activated protein kinases in HCC development. *Seminars in CA Biology* 21 (2011)10–20. doi: 10.1016/j.semcancer.2010.10.011. Epub Oct 20
- Mínguez, B., V. Tovar, D. Chiang, A. Villanueva, J.M. Llovet. 2009. Pathogenesis of hepatocellular carcinoma and molecular therapies. *Curr Opin Gastroenterol.* ;25:186-194.
- Mitchell, R. 2006. *Dasar Patologis Penyakit*. Ed ke-7. New York (US): Elsevier inc.
- Mori, A., S. Lehmann, J. O’Kelly, T. Kumagai, J.C. Desmond, M. Pervan. 2006. Capsaicin, a component of red peppers, inhibits the growth of androgen independent, p53 mutant prostate cancer cells. *Cancer Res.* 66(6):3222– 3229.
- Nebert, D.W., D.W. Russell. 2002. Clinical importance of the cytochromes P 450 (review). *Lancet* 360: 1155-1 162 V.
- Novak, M., J.A. Madej, P. Dziegeil. 2007. Intensity of Cox 2 expression in Cell of Soft Tissue Fibrosarcomas in Dog As Related to Grade of Tumor malignation. *Bull Vet. inst Pulawy* 51, 275-279.
- Nugraha, A., K. Khotimah, I.M.C.M. Rietjens. 2018. Risk assessment of aflatoxin B1 exposure from maize and peanut consumption in Indonesia using the margin of exposure and liver risk estimation approaches. *Food Chem. Toxicol.* 113, 134–144.
- Park, S.Y, J.Y. Kim, Su-Mi Lee, Chung-Hwan Jun, Sung-Bum Cho, Chang - Hwan Park, Young- Eun Joo, Hyun-Soo Kim, Sung-Kyu Choi and Jong-Sun Rew. 2014. Capsaicin induces apoptosis & modulates MAPK signaling in human gastric cancer cells. *Molecular medicine reports.* 9: 499-502.
- Patil, R., S. Das, A. Stanley, L. Yadav, A. Sudhakar, A.K. Varma. 2010. Optimized Hydrophobic Interactions and Hydrogen Bonding at the Target-Ligand Interface Leads the Pathways of Drug-Designing. *PLoS ONE* 5(8): e12029. <https://doi.org/10.1371/journal.pone.0012029>.
- Peruzzi, B. 2006. *Targeting the c-Met Signaling Pathway in Cancer*. *Clinical Cancer Research*, 12(12), 3657–3660.

- Pikarsky, E., R.M. Porat, I. Stein. 2004. NF- $\kappa$ B functions as a tumor promoter in I nflammation-associated cancer. *Nature* 431:461–6.
- Prabawati, S.Y. 2006. *Aspek Kimiawi Racun Afiatoksin Dalam Bahan Pangan Dan Pencegahannya*. Kaunia Jurnal Sains Dan Teknologi Vol. II , No. 2,
- Popryadukhin, P.V., G. Y. Yukinab , I. P. Dobrovolskayac , E. M. Ivankovaa , and V. E. Yudin. 2018. Bioresorption of Porous 3D Matrices Based on Collagen in Liver and Muscular Tissue. *Cell and Tissue Biology*, Vol. 12 (3); 247–255.
- Ramírez, D., and J.Caballero. 2016. Is it reliable to use common molecular docking methods for comparing the binding affinities of enantiomer pairs for their protein target?. *International journal of molecular sciences* 17.4 : 525.
- Retnani, Y., E.D. Putra, L. Herawati. 2011. The effect of different water spraying level and stroge periode on endurance of pellet broiler finisher. *Agripet*. 11:10-14.
- Reyes-Escogido, M. L., E. G. Gonzalez-Mondragon, And E. Vazquez-Tzompantzi. 2011. Chemical and Pharmacological Aspect of Capsaicin. *Molecules*.16:1235-1270.
- Rieswijk, L., S.M. Claessen, O. Bekers , M. van Herwijnen, D.H. Theunissen, D.G. Jennen, T.M. de Kok, J.C. Kleinjans, S.G. van Breda. 2016. Aflatoxin B1 induces persistent epigenomic effects in primary human hepatocytes associated with HCC. *Toxicology*. 350–352: 1–39.
- Robbins, S.L., R.S. Cotran dan V. Kumar. 2007. Buku ajar Patolog.Ed.7 Vol.1.Buku Kedokteran EGC. Jakarta.
- Roberts, L.R., G.J. Gores. 2005. HCC: molecular pathways and new therapeutic targets. *Semin Liver Dis*. 25(2):212–225.
- Roberts, P.J., C.J. Der. 2007. Targeting the Raf-MEK-ERK mitogenactivated protein kinase cascade for the treatment of cancer. *Oncogene*. 26: 3291-3310.
- Roy, S. Samir, and M. Kapoor. 2018. In silico identification and analysis of the binding site for aminocoumarin type inhibitors in the C-terminal domain of Hsp90." *Journal of Molecular Graphics and Modelling* 84 : 215-235.
- Rushing, B.R., M.I. Selim. 2017. Structure and oxidation of pyrrole adducts formed between aflatoxin B2a and biological amines. *Chem. Res. Toxicol.*, 30, 1275–1285.
- Ruth, C., and Seong-Ho Lee. 2016. Review Anticancer Properties of Capsaicin Against Human Cancer. *Anticancer Research* 36: 837-844

- Sa'anchez, A.M., M.G. Sa´nchez, S. Malagarie-Cazenave, I. Olea N, Di´az-Laviada. 2006. Induction of apoptosis in prostate tumor PC-3 cells and inhibition of xenograft prostate tumor growth by the vanilloid capsaicin. *Apoptosis*. 11(1):89–99
- Sahin, F., R. Kannangai, O. Adegbola, J. Wang, G. Su, M. Torbenson. 2004. mTOR and P70 S6 kinase expression in primary liver neoplasms. *Clin Cancer Res*. 10: 8421-8425.
- Sakuno, E, K. Yabe, H. Nakajima. 2003. Involvement of two cytosolic enzymes and a novel intermediate, 5'-oxoaverantin, in the pathway from 5'-hydroxyoxoaverantin to averuvin in aflatoxin biosynthesis. *Appl EnvironMicrobial* 69: 6418-6426.
- Sarmanu, 2017. Dasar Metodologi Penelitian Kuantitatif Kualitatif dan Statistika. Penerbit Airlangga University Press, Surabaya.
- Semela, D., A.C. Piguet, M. Kolev, K. Schmitter, R. Hlushchuk, V. Djonov, C. Stoupis, J.F. Dufour. 2007. Vascular remodeling and anti tumoral effects of mTOR inhibition in a rat model of HCC. *J Hepatol*; 46: 840-848.
- Shen H.M., C.Y. Shi, Y. Shen, C.H. Ong. 1996. Detection of elevated reactive oxygen species levels in cultured rat hepatocytes treated with aflatoxin B1. *Free Rad Biol Med*;21:134– 146.
- Shen, Haitao . 2013. Aflatoxin G1-induced oxidative stress causes DNA damage and triggers apoptosis through MAPK signaling pathway in A549 cells. *Food and chemical toxicology* 62 : 661-669.
- Shi, J., J. He, J. Lin, X. Sun, F. Sun , C. Ou, C. Jiang. 2016. Distinct response of the hepatic transcriptome to Aflatoxin B1 induced HCC and resistance in rats. *Sci. Rep.* 6, 31898:1–31898:9.
- Shin, H.S, and S.K. Kwon. 2003. Hepatoprotective of synthetic of 3-alkoxy-6-allylthiopyridazine derivatives on aflatoxin B1-induced chronic and acute toxicity. *Duksung Women's University J* 32: 175-185.
- Sieghart, W., T. Fuereder, K. Schmid, D. Cejka, J. Werzowa, F. Wrba, X. Wang, D. Gruber, S. Rasoul- Rockenschaub, M. Peck Radosavljevic, V. Wacheck. 2007. Mammalian target of rapamycin pathway activity in hepatocellular carcinomas of patients undergoing liver transplantation. *Transplantation*. 83: 425-432.
- Singer, H. S., C.M. Morris, P.N. Williams, D.Y. Yoon, J.J. Hong, & A.W. Zimmerman, 2006. Antibrain Antibodies In Children With Autism And Their Unaffected Siblings. *Journal Of Neuroimmunology*, 178(1-2), 149-155.

- Skrbi, B., J. Zivancev, I. Antic, M. Godula. 2014. Levels of aflatoxin M1 in different types of milk collected in Serbia: Assessment of human and animal exposure. *Food Control*. 40:113-119.
- SNI. 2009a. SNI 3148.3:2009. Pakan konsentrat-Bagian 3: Ayam ras petelur (layer concentrate). Jakarta (Indonesia): Standar Nasional Indonesia.
- SNI. 2009b. SNI 3148.5:2009. Pakan konsentrat-Bagian 5: Ayam ras pedaging (broiler concentrate). Jakarta (Indonesia): Standar Nasional Indonesia.
- Song, P., X. Yang, H. Li, X. Huang, G. Guo, X. Zhou, Y. Xu, M. Cai, P. Zhu, S.Wang, Zhao, and D. Zhang. 2017. HCC treated with anti-epidermal growth factor receptor antibody nimotuzumab: A case report. *Medicine (Baltimore)*. 96(39):e8122. doi: 10.1097/MD.00000000000008122.
- Soriano, J.M., L. Gonzalez And A.I. Catala. 2005. Mechanism of action of sphingolipids and their metabolites in the toxicity of fumonisin BI . *Prog. Lipid. Res.* 44(6): 345-356.
- Spangenberg, H.C., R. Thimme, H.E. Blum. 2009. Targeted therapy for hepatocellular carcinoma. *Nat Rev Gastroenterol Hepatol*. 6: 423-432
- Suhita, N.L.P.R., I.W. Sudira, I.B.O. Winaya. 2013. Histopatologi ginjal tikus putih akibat pemberian ekstrak pegagan (*Centella asiatica*) peroral [skripsi]. Denpasar (ID): Universitas Udayana.
- Sukmanadi, M., S.A. Sudjarwo, M.H. Effendi. 2020. Molecular Mechanism of Capsaicin from (*Capsicum Annuum L.*) on Expression of MAPK1 And AKT1 Protein as Candidate of Anticancer Drugs: *In Silico* Study. *Pharmacogn J.* ;12(4).
- Sung, Y., Y.Y. Chang, and N.L. Ting. 2005. Capsaicin Biosynthesis in Water-Stresses Hot Pepper Fruits. *Botanical Bulletin of Academica Sinica*. 46:35-42
- Surh, Y.J. 2002. More Than Spice: Capsaicin in Hot Chili Peppers Makes Tumor Cells Commit Suicide. *CancerSpectrum Knowledge Environment*. 94(17): 1263–1265.
- Susanto, H., V.D. Kharisma, D. Listyorini, A. Taufiq, S. Sunaryono, & Aulanni'am. 2018. Effectivity of Black Tea Polyphenol in Adipogenesis Related IGF-1 and Its Receptor Pathway Through In Silico Based Study. *Journal of Physics: Conference Series*. 1093 (1), 012037. doi :10.1088/1742-6596/1093/1/012037.
- Syafrudin, S., L. Septiadi, N.T.S. Alfaruqi, D. Wahyudi, and V.D. Kharisma. 2018. The In Silico Analysis And Identification Of Possible Inhibitor Of H5n1 Virus. *Bioinformatics And Biomedical Research Journal*, 1(2), 33-39.

- Takahashi, Y., and T. Fukusato. 2014. Histopathology of nonalcoholic fatty liver disease/nonalcoholic steatohepatitis. *World journal of gastroenterology: WJG*, 20 (42), 15539.
- Tanabe, K.K., A. Lemoine, D.M. Finkelstein. 2008. Epidermal growth factor gene functional polymorphism and the risk of hepatocellular carcinoma in patients with cirrhosis. *Jama*. Jan 2; 299(1):53–60.
- Tangendjaja, B., S.Rahmawati, E. Wina. 2008. Mycotoxin contamination on corn used by feed mills in Indonesia. *Indonesia J Agric Sci*. 9:68-76
- Thoennissen, N.H., J. O’Kelly, D. Lu , G.B. Iwanski, D.T. La, S. Abbassi, A. Leiter, B. Karlan, R. Mehta, and H.P. Koeffler. 2010. Capsaicin causes cell-cycle arrest and apoptosis in ER-positive and -negative breast cancer cells by modulating the EGFR/HER-2 pathway. *Oncogene* 29: 285-296.
- Thrasher, J.D. 2012. Aflatoxicosis in animals. *Aflatoxins and Health/ AFLATOXICOSIS\_IN\_ANIMALS.pdf*.
- Trott, O., and J.O. Arthur. 2010. AutoDock Vina: improving the speed and accuracy of docking with a new scoring function, efficient optimization, and multithreading. *Journal of computational chemistry* 31.2 : 455-461.
- Tsakiris, I.N., M.N. Tzatzarakis, A.K. Alegakis, M.I. Vlachou, E.A. Renieri, A.M. Tsatsakis. 2013. Risk assessment scenarios of children’s exposure to aflatoxin M1 residues in different milk types from the Greek market. *Food Chem Toxicol*. 56:261-265.
- Van de Venter T. 2000. Emerging food-borne diseases: A global responsibility. *Food Nutr Agric*. 26:4-13.
- Vegad, J.L., M. Swamy. 2010. *Veterinary Systemic Pathology*. Ed ke-2. India (IN): ibdc publishers.ss
- Villanueva, A., P. Newell, D.Y. Chiang, S.L. Friedman, J.M. Llovet. 2007. Genomics and signaling pathways in hepatocellular carcinoma. *Semin Liver Dis*. Feb; 27(1):55–76.
- Wacoo, A.P., D. Wendiro, P.C. Vuzi, J.F. Hawumba. 2014. Methods for detection of aflatoxins in agricultural food crops. *J Appl Chem*. 2014:1-15.
- Wang, S, Z. He, D. Li, M. Li, W. Li, W. Zhu, X. Xing, X. Zeng, Q. Wang, G. Dong, Y. Xiao, W. Chen, L. Chen. 2017. Aberrant methylation of RUNX3 is present in Aflatoxin B1-induced transformation of the L02R cell line. *Toxicology*. 385: 1–9.



- Waterhouse, A., M. Bertoni, S. Bienert, G. Studer, G. Tauriello, R. Gumienny, F.T. Heer, T.A.P deBeer, C. Rempfer, L. Bordoli, R. Lepore, & T. Schwede. SWISS-MODEL: homology modelling of protein structures & complexes. *Nucl. Acids Res*, 2018; 46:296–303.
- Whittaker, S., R. Marais, and A. Zhu. 2010. The role of signaling pathways in the development and treatment of hepatocellular carcinoma. *Oncogene* 29, 4989–5005. <https://doi.org/10.1038/onc.2010.236>
- Widiastuti, R. dan R. Firmansyah. 2005. Cemaran zearalenon dan deoksinivalenol pada pakan sapi dan babi. Pros. Seminar Nasional Peternakan dan Veteriner. Bogor, 12- 13 September 2005. Puslitbang Peternakan, Bogor. hIm. 968-971.
- Wilkinson, J., D. Rood, D. Minior, Guillard, M. Darre, L.K. Silbart. 2003. Immune response to a mucosally administered aflatoxin B1 Vaccine. *Poult Sci* 82:1565-1572.
- Wang, H.M., S.M. Chuang, Y.C. Su, Y.H. Li, and P.J. Chueh. 2011. Down-regulation of tumor-associated NADH oxidase, tNOX (ENOX2), enhances capsaicin-induced inhibition of gastric cancer cell growth. *Cell Biochem Biophys* 61: 355-366.
- Wu, F., F. Narrod, M. Tiongco, and Y. Liu. 2011. The Health economics of aflatoxins: Global burden of disease Aflacontrol Working Paper 4 February International Food Policy Research Institute. 2033 K Street,NW
- Wu, J., R. Chen, C. Zhang. 2016. Bioactivation and Regioselectivity of Pig Cytochrome P450 3A29 towards Aflatoxin B<sub>1</sub>. *Toxins (Basel)*;8(9):267. Published Sep 12. doi:10.3390/toxins 8090267.
- Wu,J., S. Zhu, Y. Wu. 2019. Multiple CH/π Interactions Maintain the Binding of Aflatoxin B<sub>1</sub> in the Active Cavity of Human Cytochrome P450 1A2. *Toxins (Basel)*;11(3):158. Published 2019 Mar 12. doi:10.3390/toxins11030158
- Xiang, X., H.G. Qin, X.M. You, Y.Y. Wang, L.N. Qi, L. Ma, B.D. Xiang, J.H. Zhong, L.Q. Li. 2017. Expression of P62 in hepatocellular carcinoma involving hepatitis B virus infection and aflatoxin B1 exposure. *CA Med*. 6, 2357–2369.
- Yabe, K., N. Chihaya, S. Hamamatsu, E. Sakuno, T. Hamasaki, H. Nakajima, J.W. Bennett 2003. Enzymatic conversion of averufin to hydroxyversicolorone and elucidation of a novel metabolic grid involved in aflatoxin biosynthesis. *Appl Envir. Microb* 69: 66-73.
- Yujin, H., S. Toffanin, A. Lachenmayer, A. Villanueva, B. Minguez, and J.M.Llovet. 2010. Molecular classification and novel targets in HCC: recent advancements. *Semin Liver Dis*. 30(1): 35–51.

- Yu-Tsai Lin, Hung-Chen Wang, Yi-Chiang Hsu, Chung-Lung Cho, Ming-Yu Yang and Chih-Yen Chien. 2017. Capsaicin Induces Autophagy and Apoptosis in Human Nasopharyngeal Carcinoma Cells by Downregulating the PI3K/AKT/mTOR Pathway. *Int. J. Mol. Sci.* 18: 1343.
- Zain, M.E. 2011. Impact of mycotoxins on humans & animals. *J Saudi Chem Soc.* 15:129-144.
- Zhang, J., W. Huang, S.S. Chua, P. Wei, and D.D. Moore. 2002. Modulation of acetaminophen-induced hepatotoxicity by xenobiotic receptor CAR. *Science.* 298: 422-424.
- Zhang, W., H. He, M. Zang, Q. Wu, H. Zhao, L.L. Lu, P. Ma, H. Zheng, N. Wang, Y. Zhang. 2017. Genetic Features of Aflatoxin-Associated HCC. *Gastroenterology.* 153: 249–262.
- Zhao, Y., C. Sun, F. Shi, C.K. Firepong. . 2016. Preparation, Characterization, and Pharmacokinetics Study of Capsaicin Via Hydroxypropyl-Beta Cyclodextrin Encapsulation. *J Pharm Biol*;54(1).
- Zheng, L., J. Chen, Z. Ma, W. Liu, F. Yang, Z. Yang, K. Wang, X. Wang, D. He, and L. Li. 2015. Capsaicin causes inactivation and degradation of the androgen receptor by inducing the restoration of miR449a in prostate cancer. *Oncology Rep* 34: 1027-E 1034.
- Zhou, P., M. Kudo, Y. Minami, H. Chung, T. Inoue, T. Fukunaga, K. Maekawa. 2007. What is the best time to evaluate treatment response after radiofrequency ablation of hepatocellular carcinoma using contrast-enhanced sonography. *Oncology.* 72(1): 92-97.
- Zhu, A.X., D.V. Sahani, D.G. Duda. 2009. Efficacy, safety, and potential biomarkers of sunitinib monotherapy in advanced hepatocellular carcinoma: a phase II study. *J. Clin Oncol.* 27(18):3027–3035.
- Zinedine, A., and J. Mañes. 2009. Occurrence and legislation of mycotoxins in food and feed from Morocco. *Food Control.* 20:334-344.