

References

1. Abd El-Ghffar, E. A., Al-Sayed, E., Shehata, S. M., Eldahshan, O. A., & Efferth, T. (2018). The protective role of *Ocimum basilicum L.* (Basil) against aspirin-induced gastric ulcer in mice: Impact on oxidative stress, inflammation, motor deficits and anxiety-like behavior. *Food & Function*, 9(8), 4457–4468. doi:10.1039/c8fo00538a
2. Abdel-Raheem, I. T. (2010). Gastroprotective Effect of Rutin against Indomethacin-Induced Ulcers in Rats. *Basic & Clinical Pharmacology & Toxicology*, 107(3), 742–750. doi:10.1111/j.1742-7843.2010.00568.x
3. Abdul Wahab, S. M., Jantan, I., Haque, M. A., & Arshad, L. (2018). Exploring the Leaves of *Annona muricata L.* as a Source of Potential Anti-inflammatory and Anticancer Agents. *Frontiers in Pharmacology*, 9. doi:10.3389/fphar.2018.00661
4. Abedi, F., Razavi, B. M., & Hosseinzadeh, H. (2019). A review on gentisic acid as a plant derived phenolic acid and metabolite of aspirin: Comprehensive pharmacology, toxicology, and some pharmaceutical aspects. *Phytotherapy Research*. doi:10.1002/ptr.6573
5. Ábrigo, J., Elorza, A. A., Riedel, C. A., Vilos, C., Simon, F., Cabrera, D., ... Cabello-Verrugio, C. (2018). Role of Oxidative Stress as Key Regulator of Muscle Wasting during Cachexia. *Oxidative Medicine and Cellular Longevity*, 2018, 1–17. doi:10.1155/2018/2063179
6. Abubakar, A., & Haque, M. (2020). Preparation of medicinal plants: Basic extraction and fractionation procedures for experimental purposes. *Journal of Pharmacy And Bioallied Sciences*, 12(1), 1. doi:10.4103/jpbs.jpbs_175_19
7. Adefisayo, M. A., Akomolafe, R. O., Akinsomisoye, S. O., Alabi, Q. K., Ogundipe, O. L., Omole, J. G., & Olamilosoye, K. P. (2017). Gastro-protective effect of methanol extract of *Vernonia amygdalina* (del.) leaf on aspirin-induced gastric ulcer in Wistar rats. *Toxicology Reports*, 4, 625–633. doi:10.1016/j.toxrep.2017.11.004
8. Aeri, V., Kaushik, U., & Mir, S. (2015). Cucurbitacins - An insight into medicinal leads from nature. *Pharmacognosy Reviews*, 9(17), 12. doi:10.4103/0973-7847.156314
9. Ahmad, M., Aslam, B., Muhammad, F., Mohsin, M., & Raza, A. (2019). Gastro protective and antioxidant potential of *Euphorbia prostrata* against aspirin induced gastric ulcers in rabbits. *Pak. J. Pharm. Sci.*, Vol.32, No.1, pp.007-013.

10. Ai, G., Dachineni, R., Kumar, D. R., Alfonso, L. F., Marimuthu, S., & Bhat, G. J. (2016). Aspirin inhibits glucose-6-phosphate dehydrogenase activity in HCT 116 cells through acetylation: Identification of aspirin-acetylated sites. *Molecular Medicine Reports*, 14(2), 1726–1732. doi:10.3892/mmr.2016.5449
11. Akah, P., Orisakwe, O., Gamaniel, K., & Shittu, A. (1998). Evaluation of Nigerian traditional medicines: II. effects of some Nigerian folk remedies on peptic ulcer. *Journal of Ethnopharmacology*, 62(2), 123–127. doi:10.1016/s0378-8741(98)00060-9
12. Akhtar, A. H., & Ahmad, K. U. (1995). Anti-ulcerogenic evaluation of the methanolic extracts of some indigenous medicinal plants of Pakistan in aspirin-ulcerated rats. *Journal of Ethnopharmacology*, 46(1), 1–6. doi:10.1016/0378-8741(94)01220-t
13. Akhtar, M. S., Akhtar, A. H., & Khan, M. A. (1992). Antiulcerogenic Effects of Ocimum basilicum Extracts, Volatile Oils and Flavonoid Glycosides in Albino Rats. *International Journal of Pharmacognosy*, 30(2), 97–104. doi:10.3109/13880209209053966
14. Akhtar, M. S., & Munir, M. (1989). Evaluation of the gastric antiulcerogenic effects of *Solanum nigrum*, *Brassica oleracea* and *Ocimum basilicum* in rats. *Journal of Ethnopharmacology*, 27(1-2), 163–176. doi:10.1016/0378-8741(89)90088-3
15. Akuodor, G., Essien, A., David-Oku, E., Chilaka, K., Akpan, J., Ezeokpo, B., & Ezeonwumelu, J. (2013). Gastroprotective effect of the aqueous leaf extract of *Guiera senegalensis* in Albino rats. *Asian Pacific Journal of Tropical Medicine*, 6(10), 771–775. doi:10.1016/s1995-7645(13)60136-4
16. Alara, O. R., Abdurahman, N. H., Abdul Mudalip, S. K., & Olalere, O. A. (2017). PHYTOCHEMICAL and pharmacological properties OF VERNONIA AMYGDALINA: A review. *Journal of Chemical Engineering and Industrial Biotechnology*, 2(1), 80-96. doi:10.15282/jceib.v2i1.3871
17. Alara, O. R., Abdurahman, N. H., Ukaegbu, C. I., & Kabbashi, N. A. (2019). Extraction and characterization of bioactive compounds in Vernonia amygdalina leaf ethanolic extract comparing Soxhlet and microwave-assisted extraction techniques. *Journal of Taibah University for Science*, 13(1), 414–422. doi:10.1080/16583655.2019.1582460
18. Alebachew, M., Kinfu, Y., Makonnen, E., Bekuretsion, Y., & Urga, K. (2013). Toxic effects of aqueous leaf extract of *vernonia bipontini vatke* on blood, liver and kidney

- tissue of mice. *Momona Ethiopian Journal of Science*, 5(2), 15.
doi:10.4314/mejs.v5i2.91487
19. Ali Khan, M. S., Mat Jais, A. M., & Afreen, A. (2013). Prostaglandin Analogous and Antioxidant Activity Mediated Gastroprotective Action of *Tabernaemontana divaricata* (L.) R. Br. Flower Methanolic Extract against Chemically Induced Gastric Ulcers in Rats. *BioMed Research International*, 2013, 1–18.
doi:10.1155/2013/185476
20. ALI KHAN, M. S., NAZAN, S., & MAT JAIS, A. M. (2017). FLAVONOIDS AND ANTIOXIDANT ACTIVITY MEDIATED GASTROPROTECTIVE ACTION OF LEATHERY MURDAH, *TERMINALIA CORIACEA* (ROXB.) WIGHT & ARN. LEAF METHANOLIC EXTRACT IN RATS. *Arquivos de Gastroenterologia*, 54(3), 183–191.
doi:10.1590/s0004-2803.201700000-21
21. Allen, P. J., Vessey, J. A., & Schapiro, N. (2009). Primary Care of the Child With a Chronic Condition E-Book. *Elsevier Health Sciences*.
22. Altinoz, M. A., Elmacı, I., Cengiz, S., Emekli-Alturfan, E., & Ozpinar, A. (2018). From epidemiology to treatment: Aspirin's prevention of brain and breast-cancer and cardioprotection may associate with its metabolite gentisic acid. *Chemico-Biological Interactions*, 291, 29–39.
23. Antonisamy, P., Subash-Babu, P., Albert-Baskar, A., Alshatwi, A. A., Aravinthan, A., Ignacimuthu, S., ... Kim, J.-H. (2016). Experimental study on gastroprotective efficacy and mechanisms of luteolin-7-O-glucoside isolated from *Ophiorrhiza mungos* Linn. in different experimental models. *Journal of Functional Foods*, 25, 302–313.
doi:10.1016/j.jff.2016.06.003
24. Araki, H., Yagi, K., Suzuki, K., & et al. (2000). Roles of prostaglandin E receptor subtypes in cytoprotective action of prostaglandin E2 in rat stomachs. *Alimental Pharmacol Ther.*, 14, 18-25.
25. Araujo, V., Arnal, C., Boronat, M., Ruiz, E., & Dominguez, C. (1998). Oxidant-antioxidant imbalance in blood of children with juvenile rheumatoid arthritis. *Biofactors*, 8, 155–159.
26. AVMA Guidelines for the Euthanasia of Animals: 2020 Edition posted. (n.d.). Retrieved September 29, 2020, from <https://olaw.nih.gov/news/avma-guidelines-euthanasia-animals-2020-edition-posted.html>

27. Ayala, A., Muñoz, M. F., & Argüelles, S. (2014). Lipid Peroxidation: Production, Metabolism, and Signaling Mechanisms of Malondialdehyde and 4-Hydroxy-2-Nonenal. *Oxidative Medicine and Cellular Longevity*, 2014, 1–31.
doi:10.1155/2014/360438
28. Azer, S. A. & Hossein, A. (2020). Gastritis. *Treasure Island (FL): StatPearls Publishing*.
29. Aziz, N., Kim, M. Y., & Cho, J. Y. (2018). Anti-inflammatory effects of luteolin: A review of in vitro, in vivo, and in silico studies. *Journal of Ethnopharmacology*, 225, 342–358. doi:10.1016/j.jep.2018.05.019
30. Azmir, J., Zaidul, I. S. M., Rahman, M. M., Sharif, K. M., Mohamed, A., Sahena, F., ... Omar, A. K. M. (2013). Techniques for extraction of bioactive compounds from plant materials: A review. *Journal of Food Engineering*, 117(4), 426–436.
doi:10.1016/j.jfoodeng.2013.01.014
31. Bachhav, R., Kumar, R. S., Saudagar, R., & Vaibhav, V. B. (2017). Anti-ulcer potential of saponin fraction of Trichopus zeylanicus on a various experimental animal models. *International Journal of Green Pharmacy*, 11, 11-16.
32. Baigent, C., Blackwell, L., Collins, R., et al. (2009). Aspirin in the primary and secondary prevention of vascular disease: collaborative meta-analysis of individual participant data from randomised trials. *Lancet*, 373, 1849–1860.
33. Balestrieri, M. L., Castaldo, D., Balestrieri, C., Quagliuolo, L., Giovane, A., & Servillo, L. (2002). Modulation by flavonoids of PAF and related phospholipids in endothelial cells during oxidative stress. *Journal of Lipid Research*, 44(2), 380–387.
doi:10.1194/jlr.m200292-jlr200
34. Baliga, M. S., Bhat, H. P., Joseph, N., & Fazal, F. (2011). Phytochemistry and medicinal uses of the bael fruit (Aegle marmelos Correa): A concise review. *Food Research International*, 44(7), 1768–1775. doi:10.1016/j.foodres.2011.02.008
35. Bandyopadhyay, D., Biswas, K., Bhattacharyya, M., Reiter, R. J., & Banerjee, R.K. (2002). Involvement of reactive oxygen species in gastric ulceration, protection by melatonin. *Indian J Exp Biol.*, 40, 693-705.
36. Banu, K. S. & Catherine, L. (2015). General Techniques Involved in Phytochemical Analysis. *International Journal of Advanced Research in Chemical Science*, Volume 2, Issue 4, PP 25-32.

37. Barboza, J. N., Da Silva Maia Bezerra Filho, C., Silva, R. O., Medeiros, J. V., & De Sousa, D. P. (2018). An overview on the anti-inflammatory potential and antioxidant profile of eugenol. *Oxidative Medicine and Cellular Longevity*, 2018, 1-9. doi:10.1155/2018/3957262
38. Baron, J. A., Senn, S., Voelker, M., Lanas, A., Laurora, I., Thielemann, W., ... McCarthy, D. (2013). Gastrointestinal Adverse Effects of Short-Term Aspirin Use: A Meta-Analysis of Published Randomized Controlled Trials. *Drugs in R&D*, 13(1), 9–16. doi:10.1007/s40268-013-0011-y
39. Bathoorn, E., Daly, P., Gaiser, B., Sternad, K., Poland, C., MacNee, W., & Drost, E. M. (2011). Cytotoxicity and Induction of Inflammation by Pepsin in Acid in Bronchial Epithelial Cells. *International Journal of Inflammation*, 2011, 1–5. doi:10.4061/2011/569416
40. Becker, J. C., Domschke, W., & Pohle, T. (2004). Current approaches to prevent NSAID-induced gastropathy - COX selectivity and beyond. *British Journal of Clinical Pharmacology*, 58(6), 587–600. doi:10.1111/j.1365-2125.2004.02198.x
41. Becker, J. C., Grosser, N., Boknik, P., Schröder, H., Domschke, W., & Pohle, T. (2003). Gastroprotection by vitamin C—a heme oxygenase-1-dependent mechanism? *Biochemical and Biophysical Research Communications*, 312(2), 507–512. doi:10.1016/j.bbrc.2003.10.146
42. Begum, S., Perwaiz, S., Siddiqui, B. S., Khan, S., Fayyaz, S., & Ramzan, M. (2011). Chemical Constituents of Cordia latifolia and Their Nematicidal Activity. *Chemistry & Biodiversity*, 8(5), 850–861. doi:10.1002/cbdv.201000058
43. Ben-Hamida, A., Man, W. K., McNeil, N., & Spencer, J. (1998). Histamine, xanthine oxidase generated oxygen-derived free radicals and Helicobacter pylori in gastroduodenal inflammation and ulceration. *Inflammation Research*, 47(4), 193–199. doi:10.1007/s000110050317
44. Benjamin, I., Griggs, R. C., Andreoli, T. E., & Fitz, J. G. (2010). Andreoli and Carpenter's Cecil Essentials of Medicine E-Book. *Elsevier Health Sciences*.
45. Berstock, J. R., & Whitehouse, M. R. (2019). How to prepare and manage a systematic review and meta-analysis of clinical studies. *EFORT Open Reviews*, 4(5), 213-220. doi:10.1302/2058-5241.4.180049

46. Bilski, J., Mazur-Bialy, A., Wojcik, D., Zahradnik-Bilska, J., Brzozowski, B., Magierowski, M., ... Brzozowski, T. (2017). The Role of Intestinal Alkaline Phosphatase in Inflammatory Disorders of Gastrointestinal Tract. *Mediators of Inflammation*, 2017, 1–9. doi:10.1155/2017/9074601
47. Bissinger, R., Modicano, P., Alzoubi, K., Honisch, S., Faggio, C., Abed, M., & Lang, F. (2014). Effect of saponin on erythrocytes. *International Journal of Hematology*, 100(1), 51–59. doi:10.1007/s12185-014-1605-z
48. Borges, T. J., Wieten, L., van Herwijnen, M. J. C., Broere, F., van der Zee, R., Bonorino, C., & van Eden, W. (2012). The anti-inflammatory mechanisms of Hsp70. *Frontiers in Immunology*, 3. doi:10.3389/fimmu.2012.00095
49. Brzozowski, T., Konturek, P. C., Konturek, S. J., Sliwowski, Z., Drozdowicz, D., Kwiecień, S., ... Hahn, E. (2000). Gastroprotective and ulcer healing effects of nitric oxide-releasing non-steroidal anti-inflammatory drugs. *Digestive and Liver Disease*, 32(7), 583–594. doi:10.1016/s1590-8658(00)80840-3
50. Budianto, N. E. W. (2019). EKSTRAK DAUN AVICENNIA ALBA DALAM MENCEGAH PENINGKATAN KEASAMAN LAMBUNG MUS MUSCULUS YANG DIINDUKSI ASPIRIN. *Jurnal Ilmiah Kedokteran Wijaya Kusuma*, 8(1), 40-53.
51. Budiono, J., Achadiyani, & Girawan, D. (2016). Effect of Mangosteen Pericarp Extract on Gastric Mucosal Damage Induced by Aspirin. *Althea Medical Journal*, 3(3).
52. Burchum, J. & Rosenthal, L. (2014). Lehne's Pharmacology for Nursing Care - E-Book. *Elsevier Health Sciences*.
53. Cadavid, A. P. (2017). Aspirin: The Mechanism of Action Revisited in the Context of Pregnancy Complications. *Frontiers in Immunology*, 8. doi:10.3389/fimmu.2017.00261
54. Caesar, L. K., & Cech, N. B. (2019). Synergy and antagonism in natural Product extracts: When 1 + 1 does not equal 2. *Natural Product Reports*, 36(6), 869-888. doi:10.1039/c9np00011a
55. Caldas, I. P., Alves, G. G., Barbosa, I. B., Scelza, P., de Noronha, F., & Scelza, M. Z. (2018). In vitro cytotoxicity of dental adhesives: A systematic review. *Dental Materials*. doi:10.1016/j.dental.2018.11.028
56. Caiello, I., Minnone, G., Holzinger, D., Vogl, T., Prencipe, G., Manzo, A., ... Strippoli, R. (2014). IL-6 Amplifies TLR Mediated Cytokine and Chemokine Production:

Implications for the Pathogenesis of Rheumatic Inflammatory Diseases. *PLoS ONE*, 9(10), e107886. doi:10.1371/journal.pone.0107886

57. Cárdeno, A., Aparicio-Soto, M., Montserrat-de la Paz, S., Bermudez, B., Muriana, F. J. G., & Alarcón-de-la-Lastra, C. (2015). Squalene targets pro- and anti-inflammatory mediators and pathways to modulate over-activation of neutrophils, monocytes and macrophages. *Journal of Functional Foods*, 14, 779–790.
doi:10.1016/j.jff.2015.03.009
58. Carvalho, C. A. de, Fernandes, K. M., Matta, S. L. P., Silva, M. B. da, Oliveira, L. L. de, & Fonseca, C. C. (2011). Evaluation of antiulcerogenic activity of aqueous extract of *Brassica oleracea* var. *capitata* (cabbage) on Wistar rat gastric ulceration. *Arquivos de Gastroenterologia*, 48(4), 276–282. doi:10.1590/s0004-28032011000400011
59. Castañeda, A. A., Denning, J. W., Chang, L., & Mercer, D. W. (1999). Does Upregulation of Inducible Nitric Oxide Synthase (iNOS) Render the Stomach More Susceptible to Damage? *Journal of Surgical Research*, 84(2), 174–179.
doi:10.1006/jsre.1999.5637
60. Chan, C. C. & Rodger, I. W. (1997). Selective cyclooxygenase-2 inhibitors as potential therapeutic agents for inflammatory diseases. *Advances in Experimental Medicine and Biology*, vol. 407, pp. 157–161.
61. Chan, F. K., Lanas, A., Scheiman, J., Berger, M. F., Nguyen, H., & Goldstein, J. L. (2010). Celecoxib versus omeprazole and diclofenac in patients with osteoarthritis and rheumatoid arthritis (CONDOR): a randomised trial. *Lancet*, 376(9736), 173–179.
62. Chalmers, I. & Altman, D. G. (1995). Systematic reviews. *London: BMJ Publishing Group*.
63. Chang, J., Wang, M., Jian, Y., & et al. (2019). Health-promoting phytochemicals and antioxidant capacity in different organs from six varieties of Chinese kale. *Sci Rep.*, 9, 20344. <https://doi.org/10.1038/s41598-019-56671-w>
64. Chatterjee, A. & Bandyopadhyay, S. K. (2014). "Herbal Remedy: An Alternate Therapy of Nonsteroidal Anti-Inflammatory Drug Induced Gastric Ulcer Healing". *Ulcers*, vol. 2014, 13 pages. <https://doi.org/10.1155/2014/361586>
65. Che, C. & Zhang, H. (2019). Plant Natural Products for Human Health. *International Journal of Molecular Sciences*, 20(4), 830. doi:10.3390/ijms20040830

66. Chen, G., Li, Y., Wang, W., & Deng, L. (2018). Bioactivity and pharmacological properties of α -mangostin from the mangosteen fruit: a review. *Expert Opinion on Therapeutic Patents*, 28(5), 415–427. doi:10.1080/13543776.2018.1455829
67. Chinedu, O. H., Emenike, A. F., & Augusta, A. E. (2020). Phytochemical and antioxidant properties of Diodia Sarmentosa swartz leaves. *Mongolian Journal of Chemistry*, 21(47), 27-32. doi:10.5564/mjc.v21i47.1430
68. Ching, C. K. & Lam, S. K. (1994). Antacids. *Drugs*, 47(2), 305–317. doi:10.2165/00003495-199447020-00006
69. Cho, K. N., Choi, J. Y., Kim, C.-H., Baek, S. J., Chung, K. C., Moon, U. Y., ... Yoon, J.-H. (2004). Prostaglandin E2 Induces MUC8 Gene Expression via a Mechanism Involving ERK MAPK/RSK1/cAMP Response Element Binding Protein Activation in Human Airway Epithelial Cells. *Journal of Biological Chemistry*, 280(8), 6676–6681. doi:10.1074/jbc.m412722200
70. Clara, M. V., Puig, M. N., Mendoza, C. S., Yera, A. O., Cuevas, C. M., Hernández, N. M., & Ferreiro, R. M. (2012). Effects of D-002 on aspirin-induced ulcers and neutrophil infiltration on the gastric mucosa. *Revista Cubana de Farmacia.*, 46(2), 249-258.
71. Cosa, P., Vlietinck, A. J., Berghe, D. V., & Maes, L. (2006). Anti-infective potential of natural products: How to develop a stronger in vitro ‘proof-of-concept’. *Journal of Ethnopharmacology*, 106, 290–302.
72. Cross, S. (2013). Underwood's Pathology. *Elsevier Health Sciences*.
73. Cryer, B. & Spechler, S. J. (2006). Peptic ulcer disease. In: Feldman M, Friedman LS, Brandt LJ, editors. *Sleisenger and Fordtran's Gastrointestinal and Liver Disease* 8th Edition. Philadelphia: Saunders, pp. 1089–1110.
74. Cuzick, J., Thorat, M., Bosetti, C., Brown, P., Burn, J., Cook, N., . . . Umar, A. (2015). Estimates of benefits and harms of prophylactic use of aspirin in the general population. *Annals of Oncology*, 26(1), 47-57. doi:10.1093/annonc/mdu225
75. Da Silva, F. V., de Barros Fernandes, H., Oliveira, I. S., Viana, A. F. S. C., da Costa, D. S., Lopes, M. T. P., ... de Cássia Meneses Oliveira, R. (2016). Beta-cyclodextrin enhanced gastroprotective effect of (–)-linalool, a monoterpenoid present in rosewood essential oil, in gastric lesion models. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 389(11), 1245–1251. doi:10.1007/s00210-016-1298-3

76. Das, K., Tiwari, R. K., & Shrivastava, D. K. (2010). Techniques for evaluation of medicinal plant products as antimicrobial agents: Current methods and future trends. *J Med Plants Res.*, 4, 104–11.
77. De Jesus, N. Z. T., Falcão, H. de S., Gomes, I. F., Leite, T. J. de A., Lima, G. R. de M., Barbosa-Filho, J. M., ... Batista, L. M. (2012). Tannins, Peptic Ulcers and Related Mechanisms. *International Journal of Molecular Sciences*, 13(3), 3203–3228. doi:10.3390/ijms13033203
78. Demarque, D. P., Callejon, D. R., de Oliveira, G. G., Silva, D. B., Carollo, C. A., & Lopes, N. P. (2018). The role of tannins as antiulcer agents: a fluorescence-imaging based study. *Revista Brasileira de Farmacognosia*, 28(4), 425–432. doi:10.1016/j.bjp.2018.03.011
79. De Sousa Falcão, H., Leite, J., Barbosa-Filho, J., De Athayde-Filho, P., De Oliveira Chaves, M., Moura, M., ... Batista, L. (2008). Gastric and Duodenal Antiulcer Activity of Alkaloids: A Review. *Molecules*, 13(12), 3198–3223. doi:10.3390/molecules13123198
80. Desser, L., Holomanova, D., Zavadova, E., Pavelka, K., Mohr, T., Herbacek, I. (2001). Oral therapy with proteolytic enzymes decreases excessive TGF β levels in human blood. *Cancer Chemother Pharmacol.*, 47, S10–S15.
81. Devi, K. P., Malar, D. S., Nabavi, S. F., Sureda, A., Xiao, J., Nabavi, S. M., & Daglia, M. (2015). Kaempferol and inflammation: From chemistry to medicine. *Pharmacological Research*, 99, 1–10. doi:10.1016/j.phrs.2015.05.002
82. Dey, I., Lejeune, M., & Chadee, K. (2006). Prostaglandin E2 receptor distribution and function in the gastrointestinal tract. *British Journal of Pharmacology*, 149(6), 611–623. doi:10.1038/sj.bjp.0706923
83. Dhanani, T., Shah, S., Gajbhiye, N. A., & Kumar, S. (2017). Effect of extraction methods on yield, phytochemical constituents and antioxidant activity of *Withania somnifera*. *Arabian Journal of Chemistry*, 10, S1193–S1199. doi:10.1016/j.arabjc.2013.02.015
84. Do Nascimento, R., de Sales, I., de Oliveira Formiga, R., Barbosa-Filho, J., Sobral, M., Tavares, J., ... Batista, L. (2015). Activity of Alkaloids on Peptic Ulcer: What's New? *Molecules*, 20(1), 929–950. doi:10.3390/molecules20010929

85. Drini, M. (2016). Peptic ulcer disease and non-steroidal anti-inflammatory drugs. *Australian Prescriber*, 40(3), 91–93. doi:10.18773/austprescr.2017.037
86. Droege, W. (2002). Free radicals in the physiological control of cell function. *Physio. Rev.*, 82, 47–95.
87. Dura, A. (2019, February 06). ToxRTool - Toxicological data reliability assessment tool. Retrieved November 11, 2020, from <https://ec.europa.eu/jrc/en/scientific-tool/toxrtool-toxicological-data-reliability-assessment-tool>
88. Duraipandiyan V, Ayyanar M, & Ignacimuthu S. (2006). Antimicrobial activity of some ethnomedicinal plants used by Paliyar tribe from Tamil Nadu, India. *BMC Complementary Altern Med.*, 6, 35–41.
89. Eftekhar, N., Moghimi, A., Mohammadian Roshan, N. & et al. (2019). Immunomodulatory and anti-inflammatory effects of hydro-ethanolic extract of Ocimum basilicum leaves and its effect on lung pathological changes in an ovalbumin-induced rat model of asthma. *BMC Complement Altern Med.*, 19, 349. <https://doi.org/10.1186/s12906-019-2765-4>
90. El Kebir, D., József, L., Pan, W., Wang, L., Petasis, N. A., Serhan, C. N., & Filep, J. G. (2009). 15-Epi-lipoxin A4 Inhibits Myeloperoxidase Signaling and Enhances Resolution of Acute Lung Injury. *American Journal of Respiratory and Critical Care Medicine*, 180(4), 311–319. doi:10.1164/rccm.200810-1601oc
91. Ernst, H., Konturek, P. C., Brzozowski, T., Konturek, S. J., & Hahn, E. G. (1996). Subserosal application of transforming growth factor-beta 1 in rats with chronic gastric ulcers: effect on gastric ulcer healing and blood flow. *J Physiol Pharmacol.*, 47, 443–454
92. Espinosa-Diez, C., Miguel, V., Mennerich, D., Kietzmann, T., Sánchez-Pérez, P., Cadenas, S., & Lamas, S. (2015). Antioxidant responses and cellular adjustments to oxidative stress. *Redox Biology*, 6, 183–197. doi:10.1016/j.redox.2015.07.008
93. Fang, L., Chang, H. M., Cheng, J. C., Leung, P. C. K., & Sun, Y. P. (2014). TGF-β1 Induces COX-2 Expression and PGE2 Production in Human Granulosa Cells Through Smad Signaling Pathways. *The Journal of Clinical Endocrinology & Metabolism*, 99(7), E1217–E1226. doi:10.1210/jc.2013-4100

94. Feng, Z., Lu, X., Gan, L., Zhang, Q., & Lin, L. (2020). Xanthones, A Promising Anti-Inflammatory Scaffold: Structure, Activity, and Drug Likeness Analysis. *Molecules*, 25(3), 598. doi:10.3390/molecules25030598
95. Ferrández, A. & Lanas, A. (2002). Treatment and prevention of aspirin-induced gastroduodenal ulcers and gastrointestinal bleeding. *Expert Opinion on Drug Safety*, 1(3), 245–252. doi:10.1517/14740338.1.3.245
96. Ferri, F. F. (2013). Ferri's Clinical Advisor 2014 E-Book: 5 Books in 1. *Elsevier Health Sciences*.
97. Finkel, R., Clark, M. A., & Cubeddu, L. X. (2009). Pharmacology. *Lippincott Williams & Wilkins*.
98. Fishman, S. M., Christian, P., & West, K. P. (2000). The role of vitamins in the prevention and control of anaemia. *Public Health Nutrition*, 3(02). doi:10.1017/s1368980000000173
99. Forman, H. J., Zhang, H., & Rinna, A. (2009). Glutathione: Overview of its protective roles, measurement, and biosynthesis. *Molecular Aspects of Medicine*, 30(1-2), 1–12. doi:10.1016/j.mam.2008.08.006
100. Fumagalli, M., Sangiovanni, E., Vrhovsek, U., Piazza, S., Colombo, E., Gasperotti, M., ... Dell'Agli, M. (2016). Strawberry tannins inhibit IL-8 secretion in a cell model of gastric inflammation. *Pharmacological Research*, 111, 703–712. doi:10.1016/j.phrs.2016.07.028
101. Galuppo, M., Giacoppo, S., De Nicola, G. R., Iori, R., Navarra, M., Lombardo, G. E., ... Mazzon, E. (2014). Antiinflammatory activity of glucomoreringin isothiocyanate in a mouse model of experimental autoimmune encephalomyelitis. *Fitoterapia*, 95, 160–174. doi:10.1016/j.fitote.2014.03.018
102. García Rodríguez, L. A. & Hernández-Díaz, S. (2001). The risk of upper gastrointestinal complications associated with nonsteroidal anti-inflammatory drugs, glucocorticoids, acetaminophen, and combinations of these agents. *Arthritis Res.*, 3(2), 98–101.
103. García Rodríguez, L. A. & Jick, H. (1994). Risk of upper gastrointestinal bleeding and perforation associated with individual non-steroidal anti-inflammatory drugs. *Lancet*, 343(8900), 769–772.

104. Gastritis: Overview. (2018, June 28). Retrieved September 14, 2020, from <https://www.ncbi.nlm.nih.gov/books/NBK310265/>
105. Goel, R. K., Sairam, K., Dorababu, M., Prabha, T., & Rao, C. V. (2005). Effect of standardized extract of *Ocimum sanctum* Linn. on gastric mucosal offensive and defensive factors. *Indian Journal of Experimental Biology*, Vol. 43, pp. 715-721
106. Goldstein, J. & Cryer, B. (2015). Gastrointestinal injury associated with NSAID use: A case study and review of risk factors and preventative strategies. *Drug, Healthcare and Patient Safety*, 31. doi:10.2147/dhps.s71976
107. Goodman, C. C. & Fuller, K. S. (2011). Pathology for the Physical Therapist Assistant - E-Book. *Elsevier Health Sciences*.
108. Graziani, G. (2005). Apple polyphenol extracts prevent damage to human gastric epithelial cells in vitro and to rat gastric mucosa in vivo. *Gut*, 54(2), 193–200. doi:10.1136/gut.2004.046292
109. Greenson, J. K. (2015). Diagnostic Pathology: Gastrointestinal E-Book. *Elsevier Health Sciences*.
110. Greenstein, B. & Greenstein, A. (2007). Concise Clinical Pharmacology. *Pharmaceutical Press*.
111. Gupta, A., Kumar, R., Bhattacharyya, P., Bishayee, A., & Pandey, A. K. (2020). Terminalia bellirica (Gaertn.) Roxb. (Bahera) in health and disease: A systematic and comprehensive review. *Phytomedicine*, 153278. doi:10.1016/j.phymed.2020.153278
112. Gupta, R. C. (2012). Veterinary Toxicology: Basic and Clinical Principles. *Academic Press*.
113. Guzmán-Gómez, O., García-Rodríguez, R., Quevedo-Corona, L., Pérez-Pastén-Borja, R., Rivero-Ramírez, N., Ríos-Castro, E., . . . Chamorro-Cevallos, G. (2018). Amelioration of Ethanol-Induced Gastric Ulcers in Rats Pretreated with Phycobiliproteins of Arthrospira (Spirulina) Maxima. *Nutrients*, 10(6), 763. doi:10.3390/nu10060763
114. Hac-Wydro, K., Wydro, P., Jagoda, A., & Kapusta, J. (2007). The study on the interaction between phytosterols and phospholipids in model membranes. *Chemistry and Physics of Lipids*, 150(1), 22–34. doi:10.1016/j.chemphyslip.2007.06.211

115. Hadjipavlou-Litina, D., Kontogiorgis, C., Pontiki, E., Dakanali, M., Akoumianaki, A., & Katerinopoulos, H. E. (2007). Anti-inflammatory and antioxidant activity of coumarins designed as potential fluorescent zinc sensors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, 22(3), 287–292.
doi:10.1080/14756360601073914
116. Hääläinen, M., Nieminen, R., Vuorela, P., Heinonen, M., & Moilanen, E. (2007). Anti-Inflammatory Effects of Flavonoids: Genistein, Kaempferol, Quercetin, and Daidzein Inhibit STAT-1 and NF-κB Activations, Whereas Flavone, Isorhamnetin, Naringenin, and Pelargonidin Inhibit only NF-κB Activation along with Their Inhibitory Effect on iNOS Expression and NO Production in Activated Macrophages. *Mediators of Inflammation*, 2007, 1–10. doi:10.1155/2007/45673
117. Han, X., & Parker, T. L. (2017). Anti Inflammatory Activity of Cinnamon (*Cinnamomum zeylanicum*) Bark Essential Oil in a Human Skin Disease Model. *Phytotherapy Research*, 31(7), 1034–1038. doi:10.1002/ptr.5822
118. Hartman, C. L., & Ford, D. A. (2018). MPO (Myeloperoxidase) Caused Endothelial Dysfunction. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 38(8), 1676–1677. doi:10.1161/atvaha.118.311427
119. Hawkey, J., Karrasch, J. A., Szczepanski, L., et al. (1998). Omeprazole compared with misoprostol for ulcers associated with nonsteroidal antiinflammatory drugs. Omeprazole versus Misoprostol for NSAID-induced Ulcer Management (OMNIUM) Study Group. *The New England Journal of Medicine*, vol. 338, no. 11, pp. 727–734.
120. Heinrich, M., Williamson, E. M., Gibbons, S., & Barnes, J. (2012). Fundamentals of Pharmacognosy and Phytotherapy E-Book. *Elsevier Health Sciences*.
121. HelmyAbdou, K. A., Ahmed, R. R., Ibrahim, M. A., & Abdel-Gawad, D. R. (2019). The anti-inflammatory influence Of *Cinnamomum BURMANNII* AGAINST multi-walled Carbon nanotube-induced liver injury in rats. *Environmental Science and Pollution Research*, 26(35), 36063-36072. doi:10.1007/s11356-019-06707-5
122. Henkels, K. M., Frondorf, K., Gonzalez-Mejia, M. E., Doseff, A. L., & Gomez-Cambronero, J. (2010). IL-8-induced neutrophil chemotaxis is mediated by Janus kinase 3 (JAK3). *FEBS Letters*, 585(1), 159–166. doi:10.1016/j.febslet.2010.11.031

123. Hoshino, T., Tsutsumi, S., Tomisato, W., Hwang, H.-J., Tsuchiya, T., & Mizushima, T. (2003). Prostaglandin E2 Protects Gastric Mucosal Cells from Apoptosis via EP2and EP4 Receptor Activation. *Journal of Biological Chemistry*, 278(15), 12752–12758. doi:10.1074/jbc.m212097200
124. Hossain, M. A., Al-Raqmi, K. A., Al-Mijizy, Z. H., Weli, A. M., & Al-Riyami, Q. (2013). Study of total phenol, flavonoids contents and phytochemical screening of various leaves crude extracts of locally grown *Thymus vulgaris*. *Asian Pacific Journal of Tropical Biomedicine*, 3(9), 705-710. doi:10.1016/s2221-1691(13)60142-2
125. Huang, E. S., Strate, L. L., Ho, W. W., Lee, S. S., & Chan, A. T. (2011). Long-Term Use of Aspirin and the Risk of Gastrointestinal Bleeding. *The American Journal of Medicine*, 124(5), 426–433. doi:10.1016/j.amjmed.2010.12.022
126. Hudson, N., Murray, F. E., Cole, A. T., Filipowicz, B., & Hawkey, C. J. (1997). Effect of sucralfate on aspirin induced mucosal injury and impaired haemostasis in humans. *Gut*, 41(1), 19–23. doi:10.1136/gut.41.1.19
127. Hughes, N. A. (2001). Clinical Pharmacy (2nd Edition). *Macmillan Education AU*.
128. Huo, M., Cui, X., Xue, J., Chi, G., Gao, R., Deng, X., ... Wang, D. (2013). Anti-inflammatory effects of linalool in RAW 264.7 macrophages and lipopolysaccharide-induced lung injury model. *Journal of Surgical Research*, 180(1), e47–e54. doi:10.1016/j.jss.2012.10.050
129. Iacobuzio-Donahue, C. A. & Montgomery, E. A. (2011). Gastrointestinal and Liver Pathology E-Book: A Volume in the Series: Foundations in Diagnostic Pathology. *Elsevier Health Sciences*.
130. Ikeda, Y., Murakami, A., & Ohigashi, H. (2008). Ursolic acid: An anti- and pro-inflammatory triterpenoid. *Molecular Nutrition & Food Research*, 52(1), 26–42. doi:10.1002/mnfr.200700389
131. Ingle, K. P., Deshmukh, A. G., Padole, D. A., Dudhare, M. S., Moharil, M. P., Khelurkar, V. C. (2017). Phytochemicals: Extraction methods, identification, and detection of bioactive compounds from plant extracts. *J Pharmacogn Phytochem.*, 6, 32–6.

132. Iqbal, M., Verpoorte, R., Korthout, H. A., & Mustafa, N. R. (2012). Phytochemicals as a potential source for tnf- α inhibitors. *Phytochemistry Reviews*, 12(1), 65–93. doi:10.1007/s11101-012-9251-7
133. Ittaman, S. V., VanWormer, J. J., & Rezkalla, S. H. (2014). The Role of Aspirin in the Prevention of Cardiovascular Disease. *Clin Med Res.*, 12(3-4), 147–154.
134. Jahan, N., Naveed, S., Zeshan, M., & Tahir, M. A. (2016). How to Conduct a Systematic Review: A Narrative Literature Review. *Cureus*. doi:10.7759/cureus.864
135. Jainu, M., & Devi, C. S. S. (2004). Antioxidant effect of methanolic extract of *Solanum nigrum* berries on aspirin induced gastric mucosal injury. *Indian Journal of Clinical Biochemistry*, 19(1), 57–61. doi:10.1007/bf02872391
136. Jainu, M., & Devi, C. S. S. (2006). Antiulcerogenic and ulcer healing effects of *Solanum nigrum* (L.) on experimental ulcer models: Possible mechanism for the inhibition of acid formation. *Journal of Ethnopharmacology*, 104(1-2), 156–163. doi:10.1016/j.jep.2005.08.064
137. Jainu, M., Mohan, K. V., & Devi, C. S. S. (2006). Protective effect of *Cissus quadrangularis* on neutrophil mediated tissue injury induced by aspirin in rats. *Journal of Ethnopharmacology*, 104(3), 302–305. doi:10.1016/j.jep.2005.08.076
138. Jainu, M., Vijaimohan, K., & Kannan, K. (2010). *Cissus quadrangularis* L. extract attenuates chronic ulcer by possible involvement of polyamines and proliferating cell nuclear antigen. *Pharmacognosy Magazine*, 6(23), 225. doi:10.4103/0973-1296.66941
139. Jamal, A., Javed, K., Aslam, M., & Jafri, M. A. (2006). Gastroprotective effect of cardamom, *Elettaria cardamomum Maton*. fruits in rats. *Journal of Ethnopharmacology*, 103(2), 149–153. doi:10.1016/j.jep.2005.07.016
140. Jang, D. H., Shofer, F. S., Weiss, S. L., & Becker, L. B. (2016). Impairment of mitochondrial respiration following ex vivo cyanide exposure in peripheral blood mononuclear cells. *Clinical Toxicology*, 54(4), 303–307. doi:10.3109/15563650.2016.1139712
141. Jankovic, S. M., Aleksic, J., Rakovic, S., et al. (2009). Nonsteroidal antiinflammatory drugs and risk of gastrointestinal bleeding among patients on hemodialysis. *J Nephrol.*, 22(4), 502–507.

142. Jawanjal, H., Rajput, M. S., Agrawal, P., & Dange, V. (2012). Pharmacological Evaluation of Fruits of *Terminalia bellerica* Roxb. for Antiulcer Activity. *Journal of Complementary and Integrative Medicine*, 9(1). doi:10.1515/1553-3840.1556
143. Jensen, S. L., & Jensen, P. F. (1992). Role of Sucralfate in Peptic Disease. *Digestive Diseases*, 10(3), 153-161. doi:10.1159/000171353
144. Johnsen, S. P., Sorensen, H. T., Mellemkjoer, L., et al. (2001). Hospitalisation for upper gastrointestinal bleeding associated with use of oral anticoagulants. *Thromb Haemost.*, 86(2), 563–568.
145. Kaneko, N., Kurata, M., & Yamamoto, T. (2019). The role of interleukin-1 in general pathology. *Inflamm Regener*, 39, 12. <https://doi.org/10.1186/s41232-019-0101-5>
146. Kaunitz, J. D., & Akiba, Y. (2010). Purinergic regulation of duodenal surface pH and ATP concentration: implications for mucosal defence, lipid uptake and cystic fibrosis. *Acta Physiologica*, 201(1), 109–116. doi:10.1111/j.1748-1716.2010.02156.x
147. Khan, M. S. A., Khundmiri, S. U. K., Khundmiri, S. R., Al-Sanea, M. M., & Mok, P. L. (2018). Fruit-Derived Polysaccharides and Terpenoids: Recent Update on the Gastroprotective Effects and Mechanisms. *Frontiers in Pharmacology*, 9. doi:10.3389/fphar.2018.00569
148. Khan, K. S., Kunz, R., Kleijnen, J., & Antes, G. (2003). Five steps to conducting a systematic review. *J R Soc Med.*, 96(3), 118-121.
149. Klinkenberg-Knol, E. C., Nelis, F., Dent, J., et al. (2000). Long-term omeprazole treatment in resistant gastroesophageal reflux disease: efficacy, safety, and influence on gastric mucosa. *Gastroenterology*, vol. 118, no. 4, pp. 661–669.
150. Kim, S. J., Lee, H. J., Kim, B. S., Lee, D., Lee, S. J., Yoo, S. H., & Chang, H. I. (2011). Antiulcer Activity of Anthocyanins from Rubus coreanus via Association with Regulation of the Activity of Matrix Metalloproteinase-2. *Journal of Agricultural and Food Chemistry*, 59(21), 11786–11793. doi:10.1021/jf104192a
151. Kim, Y., Cha, S. J., Choi, H. J., & Kim, K. (2017). Omega Class Glutathione S-Transferase: Antioxidant Enzyme in Pathogenesis of Neurodegenerative Diseases. *Oxidative Medicine and Cellular Longevity*, 2017, 1–6. doi:10.1155/2017/5049532

152. Kim, Y. S., Cho, I. H., Jeong, M. J., Jeong, S. J., Nah, S. Y., Cho, Y.-S., ... Bae, C. S. (2011). Therapeutic Effect of Total Ginseng Saponin on Skin Wound Healing. *Journal of Ginseng Research*, 35(3), 360–367. doi:10.5142/jgr.2011.35.3.360
153. Kitay, A. M., Ferstl, F. S., Link, A., & Geibel, J. P. (2019). Induction of Secretagogue Independent Gastric Acid Secretion via a Novel Aspirin-Activated Pathway. *Frontiers in Physiology*, 10. doi:10.3389/fphys.2019.01264
154. Koch, M. (1999). Non-steroidal anti-inflammatory drug gastropathy: clinical results with misoprostol. *Italian Journal of Gastroenterology and Hepatology*, vol. 31, no. 1, pp. S54–S62.
155. Konturek, S. J., Brzozowski, T., & Pytko-Polonczyk, J. (1995). Nitric Oxide in Gastroprotective and Ulcer Healing Effects of Sucralfate. *Scandinavian Journal of Gastroenterology*, 30 (sup210), 22–27. doi:10.3109/00365529509090264
156. Kumar, V., Abbas, A. K., Fausto, N., & Aster, J. C. (2009). Robbins & Cotran Pathologic Basis of Disease E-Book. *Elsevier Health Sciences*.
157. Laine, L. (1996). Nonsteroidal anti-inflammatory drug gastropathy. *Gastrointest Endosc Clin N Am.*, 6, 489–504.
158. Laine, L. (2004). Proton pump inhibitor co-therapy with nonsteroidal anti-inflammatory drugs—nice or necessary? *Reviews in Gastroenterological Disorders*, vol. 4, supplement 4, pp. S33–S41.
159. Laine, L., Connors, L. G., Reicin, A., et al. (2003). Serious lower gastrointestinal clinical events with nonselective NSAID or coxib use. *Gastroenterology*, 124(2), 288–292.
160. Lakshmi, V. J., & Priya. A, L. (2021). A review on pharmacological effects of tulsi (*ocimum sanctum*). *American Journal of PharmTech Research*, 11(2), 86-98. doi:10.46624/ajptr.2021.v11.i2.007
161. Lallès, J. P. (2010). Intestinal alkaline phosphatase: multiple biological roles in maintenance of intestinal homeostasis and modulation by diet. *Nutrition Reviews*, 68(6), 323–332. doi:10.1111/j.1753-4887.2010.00292.x
162. Lanas, A., McCarthy, D., Voelker, M., Brueckner, A., Senn, S., & Baron, J. A. (2011). Short-Term Acetylsalicylic Acid (Aspirin) Use for Pain, Fever, or Colds — Gastrointestinal Adverse Effects. *Drugs in R&D*, 11(3), 277–288.

163. Lanas, A., Perez-Aisa, M. A., Feu, F., & et al. (2005). Investigators of the Asociación Española de Gastroenterología (AEG). A nationwide study of mortality associated with hospital admission due to severe gastrointestinal events and those associated with nonsteroidal antiinflammatory drug use. *Am J Gastroenterol.*, 100(8), 1685–1693.
164. Lavie, C. J., Howden, C. W., Scheiman, J., & Tursi, J. (2017). Upper Gastrointestinal Toxicity Associated With Long-Term Aspirin Therapy: Consequences and Prevention. *Current Problems in Cardiology*, 42(5), 146-164.
doi:10.1016/j.cpcardiol.2017.01.006
165. Lawrence, T. (2009). The Nuclear Factor NF- B Pathway in Inflammation. *Cold Spring Harbor Perspectives in Biology*, 1(6), a001651–a001651.
doi:10.1101/cshperspect.a001651
166. Lee, I. A., Kim, E. J., & Kim, D. H. (2012). Inhibitory Effect of β-Sitosterol on TNBS-Induced Colitis in Mice. *Planta Medica*, 78(09), 896–898. doi:10.1055/s-0031-1298486
167. Leelarungrayub, J., Manorsoi, J., & Manorsoi, A. (2017). Anti-inflammatory activity of niosomes entrapped with Plai oil (*Zingiber cassumunar Roxb.*) by therapeutic ultrasound in a rat model. *International Journal of Nanomedicine*, Volume 12, 2469–2476. doi:10.2147/ijn.s129131
168. Lee, J. H., Zhou, H. Y., Cho, S. Y., Kim, Y. S., Lee, Y. S., & Jeong, C. S. (2007). Anti-inflammatory mechanisms of apigenin: inhibition of cyclooxygenase-2 expression, adhesion of monocytes to human umbilical vein endothelial cells, and expression of cellular adhesion molecules. *Archives of Pharmacal Research*, 30(10), 1318–1327. doi:10.1007/bf02980273
169. Lehne, R. A. & Rosenthal, L. (2014). Pharmacology for Nursing Care - E-Book. Elsevier Health Sciences.
170. Lemos, M., Santin, J. R., Júnior, L. C. K., Niero, R., & Andrade, S. F. de. (2011). Gastroprotective activity of hydroalcoholic extract obtained from the leaves of *Brassica oleracea* var. *acephala* DC in different animal models. *Journal of Ethnopharmacology*, 138(2), 503–507. doi:10.1016/j.jep.2011.09.046

171. Leontiadis, G. I., Sreedharan, A., Dorward, S., et al. (2007). Systematic reviews of the clinical effectiveness and cost-effectiveness of proton pump inhibitors in acute upper gastrointestinal bleeding. *Health Technol Assess.*, 11(51), iii–iv, 1–164.
172. Loke, Y. K., Trivedi, A. N., & Singh, S. (2008). Meta-analysis: gastrointestinal bleeding due to interaction between selective serotonin uptake inhibitors and non-steroidal anti-inflammatory drugs. *Aliment Pharmacol Ther.*, 27(1), 31–40.
173. Mabrok, H. B., & Mohamed, M. S. (2019). Induction of COX-1, suppression of COX-2 and pro-inflammatory cytokines gene expression by moringa leaves and its aqueous extract in aspirin-induced gastric ulcer rats. *Molecular Biology Reports*. doi:10.1007/s11033-019-04874-9
174. Madaan, T., Choudhary, A. N., Gyenwalee, S., Thomas, S., Mishra, H., Tariq, M., ... Talegaonkar, S. (2017). Lutein, a versatile phyto-nutraceutical: An insight on pharmacology, therapeutic indications, challenges and recent advances in drug delivery. *PharmaNutrition*, 5(2), 64–75. doi:10.1016/j.phanu.2017.02.005
175. Madhu, C. S., Balaji, K. S., & Shankar, J. (2017). Haemostatic Property of New Cystein Protease(s) from Sesbania Grandiflora: It's Action on Fibrinogens. *Biocatal. Agric. Biotechnol.*, 12, 10–14.
176. Magierowski, M., Magierowska, K., Kwiecien, S., & Brzozowski, T. (2015). Gaseous Mediators Nitric Oxide and Hydrogen Sulfide in the Mechanism of Gastrointestinal Integrity, Protection and Ulcer Healing. *Molecules*, 20(5), 9099–9123. doi:10.3390/molecules20059099
177. Maguilnik, I., Neumann, W. L., Sonnenberg, A., & Genta, R. M. (2012). Reactive gastropathy is associated with inflammatory conditions throughout the gastrointestinal tract. *Alimentary Pharmacology & Therapeutics*, 36(8), 736–743. doi:10.1111/apt.12031
178. Mahmoud, S. S. (2016). Prevalence and Predictors of Gastritis among Patients Attending Health Care Facilities in Jazan, KSA. *International Journal of Preventive and Public Health Sciences*, Vol 2, Issue 1.
179. Mahmoud, Y. I., & Abd El-Ghffar, E. A. (2019). Spirulina ameliorates aspirin-induced gastric ulcer in albino mice by alleviating oxidative stress and inflammation. *Biomedicine & Pharmacotherapy*, 109, 314–321. doi:10.1016/j.biopha.2018.10.118

180. Majekodunmi, S. O. (2015). Review of extraction of medicinal plants for pharmaceutical research. *MRJMMS.*, 3, 521–7.
181. Mallapu, P. (2016). REVIEW: LIST OF MEDICINAL PLANTS FOR GASTRITIS. *International Journal of Current Advanced Research*, 5, 1570-1575.
182. Mantovani, A., Dinarello, C. A., Molgora, M., & Garlanda, C. (2019). Interleukin-1 and Related Cytokines in the Regulation of Inflammation and Immunity. *Immunity*, 50(4), 778–795. doi:10.1016/j.jimmuni.2019.03.012
183. Matsui, H., Shimokawa, O., Kaneko, T., Nagano, Y., Rai, K., & Hyodo, I. (2011). The pathophysiology of non-steroidal anti-inflammatory drug (NSAID)-induced mucosal injuries in stomach and small intestine. *Journal of Clinical Biochemistry and Nutrition*, 48(2), 107–111. doi:10.3164/jcbn.10-79
184. Matthew, L. O., & Osime, E. O. (2019). Haemostatic properties of Vernonia amygdalina and Chromolaena odorata leaf extracts using Wistar rat model. *Universa medicina*, Vol. 38, 131-138.
185. McGowan, J. & Sampson, M. (2005). Systematic reviews need systematic searchers. *J Med Libr Assoc.*, 93(1), 74–80.
186. Mebavý, L. (1987). Phenolic substances in tissue cultures of Centaurium erythraea. *Biologia Plantarum*, 29(2), 81–87. doi:10.1007/bf02878153
187. Merchant, M. A., & Modi, D. N. (2004). Acute and chronic effects of aspirin on hematological parameters and hepatic ferritin expression in mice. Indian Journal of Pharmacology, Vol 36, Issue 4, 226-230.
188. Michelson, A. D. (2011). Platelets. *Elsevier*.
189. Miller, J. L. (2013). Iron Deficiency Anemia: A Common and Curable Disease. *Cold Spring Harbor Perspectives in Medicine*, 3(7), a011866–a011866. doi:10.1101/cshperspect.a011866
190. Minanova, S., Mironov, V., Arkhipova, D., Khabibullina, A., Mironova, L., Zakirova, Y., & Milyukov, V. (2018). Biological Activity and Pharmacological Application of Pectic Polysaccharides: A Review. *Polymers*, 10(12), 1407. doi:10.3390/polym10121407
191. Mizuno, H., Akamatsu, T., & Kasuga, M. (1997). Induction of cyclooxygenase-2 in gastric mucosal lesions and its inhibition by the specific antagonist delays healing in mice. *Gastroenterology*, 112, 387–397.

192. Modi, K. P., Lahiri, S. K., Goswami, S. S., Santani, D. D., & Shah, M. B. (2012). Evaluation of Antiulcer Potential of *Mimusops hexandra* in Experimental Gastro Duodenal Ulcers. *Journal of Complementary and Integrative Medicine*, 9(1). doi:10.1515/1553-3840.1630
193. Mossa, A. T. H., Heikal, T. M., & Omara, E. A. A. (2014). Liver damage associated with exposure to aspirin and diazinon in male rats and the ameliorative effect of selenium. *Biomedicine & Aging Pathology*, 4(2), 137–145. doi:10.1016/j.biomag.2014.01.004
194. Moselhy, H. F., Reid, R. G., Yousef, S., & Boyle, S. P. (2012). A specific, accurate, and sensitive measure of total plasma malondialdehyde by HPLC. *Journal of Lipid Research*, 54(3), 852–858. doi:10.1194/jlr.d032698
195. Mukherjee, D., Nissen, S. E., and Topol, E. J. (2001). Risk of cardiovascular events associated with selective COX-2 inhibitors. *The Journal of the American Medical Association*, vol. 286, no. 8, pp. 954–959.
196. Mulik, M., Laddha, K., & Katekhaye, S. (2015). Quantification of β-amyrin in *Bauhinia racemosa* Lam. Flower buds using HPTLC. *Indian Drugs*. 52. 34-36.
197. Murakami, S., Muramatsu, M., & Tomisawa, K. (1999). Inhibition of GASTRIC H₊K₊-ATPASE By flavonoids: A Structure-Activity Study. *Journal of Enzyme Inhibition*, 14(2), 151-166. doi:10.3109/14756369909036551
198. MURAKAMI, Y., KAWATA, A., SUZUKI, S., & FUJISAWA, S. (2018). Cytotoxicity and Pro-/Anti-inflammatory Properties of Cinnamates, Acrylates and Methacrylates Against RAW264.7 Cells. *In Vivo*, 32(6), 1309–1322. doi:10.21873/invivo.11381
199. Nagano, Y., Matsui, H., Muramatsu, M., et al. (2005). Rebamipide significantly inhibits indomethacin-induced mitochondrial damage, lipid peroxidation, and apoptosis in gastric epithelial RGM-1 cells. *Dig Dis Sci.*, 50(Suppl 1), S76–S83.
200. Nailufar, F., & Tjandrawinata, R. R. (2017). The Evaluation of Proton Pump Inhibitor Bioactive Fraction DLBS2411 from *Cinnamomum burmannii* (Nees & T. Nees) in Animal Model of Gastric Ulceration Healing. *American Journal of Pharmacology and Toxicology*, 12(4), 79–88. doi:10.3844/ajptsp.2017.79.88
201. Nainwal, P., Nanda, D., Kalra, K., & Tripathi, S. M. (2010). Antiulcerogenic effect on the ethanol extract of the fruits of *Garcinia mangostana* on experimental gastric ulcer in rats. *Int J Toxicol Pharmacol Res.*, 2(1), 6–9.

202. Nandi, A., Yan, L. J., Jana, C. K., & Das, N. (2019). Role of Catalase in Oxidative Stress- and Age-Associated Degenerative Diseases. *Oxidative Medicine and Cellular Longevity*, 2019, 1–19. doi:10.1155/2019/9613090
203. Naseri, M. K. G., & Mard, S. A. (2007). Gastroprotective effect of *Alhagi maurorum* on experimental gastric ulcer in rats. *Pakistan J Med Sci*, 23(4), 570.
204. Nguyen, T. X. T., Dang, D. L., Ngo, V. Q., Trinh, T. C., Trinh, Q. N., Do, T. D., & Thanh, T. T. T. (2020). Anti-inflammatory activity of a new compound from Vernonia amygdalina. *Natural Product Research*, 1–6. doi:10.1080/14786419.2020.1788556
205. Nnamani, E. M., Akah, P. A., Okoli, C. O., Ezike, A. C., & Kenne, M. T. (2020). Gastroprotective effects Of β -sitosterol and β -sitosterol-3-O- β -D-glucopyranoside from BRIDELIA ferruginea STEM BARK. *American Journal of Pharmacology and Toxicology*, 15(1), 29-39. doi:10.3844/ajptsp.2020.29.39
206. Nogueira, A. O., Oliveira, Y. I. S., Adjafre, B. L., de Moraes, M. E. A., & Aragão, G. F. (2018). Pharmacological effects of the isomeric mixture of alpha and beta amyrin from Protium heptaphyllum : a literature review. *Fundamental & Clinical Pharmacology*. doi:10.1111/fcp.12402
207. Nussbaum, C., Klinke, A., Adam, M., Baldus, S., & Sperandio, M. (2013). Myeloperoxidase: A Leukocyte-Derived Protagonist of Inflammation and Cardiovascular Disease. *Antioxidants & Redox Signaling*, 18(6), 692–713. doi:10.1089/ars.2012.4783
208. Nwafor, P. A., & Okwuasaba, F. K. (2001). Effect of methanolic extract of Cassia nigricans leaves on rat gastrointestinal tract. *Fitoterapia*, 72(3), 206–214. doi:10.1016/s0367-326x(00)00303-8
209. Odo, C. E. & Odo, A. I. (2017). Ethanol extract of the leaves of *Carica papaya* affords protection against aspirin-induced gastric ulcer in rats. *Journal of Pharmacy Research*, Vol. 11, Issue 8, 1025-1029.
210. Ohe, K., Yokoya, H., Kitaura, T., Kunita, T., & Miyoshi, A. (1980). Increase in pepsin content in gastric mucosa during the course of aspirin-and taurocholate-induced gastric ulceration in rats. *Digestive Diseases and Sciences*, 25(11), 849–856. doi:10.1007/bf01338527

211. Oliveira, F., Andrade, L., de Sousa, É., & de Sousa, D. (2014). Anti-Ulcer Activity of Essential Oil Constituents. *Molecules*, 19(5), 5717–5747. doi:10.3390/molecules19055717
212. Onaolapo, A. Y., & Onaolapo, O. J. (2019). Herbal Beverages and Brain Function in Health and Disease. *Functional and Medicinal Beverages*, 313–349. doi:10.1016/b978-0-12-816397-9.00009-1
213. Onder, G., Pellicciotti, F., Gambassi, G., & Bernabei, R. (2004). NSAID-related psychiatric adverse events: who is at risk? *Drugs*, 64, 2619–2627.
214. Orisakwe, O., Afonne, J., Dioka, C., Ufearo, C., Okpogba, A. (1996). Some pharmacological properties of *Synclisia scabrida* III. *The Indian journal of medical research.*, 103, 282–4.
215. Ott, M., Gogvadze, V., Orrenius, S., & Zhivotovsky, B. (2007). Mitochondria, oxidative stress and cell death. *Apoptosis*, 12, 913–922.
216. Palhares, R. M., Drummond, M. G., Bruno, D. S. A. F., Cosenza, G. P., Brandão, M. D., & Oliveira, G. (2015). Medicinal Plants Recommended by the World Health Organization: DNA Barcode Identification Associated with Chemical Analyses Guarantees Their Quality. *Plos One*, 10(5). doi:10.1371/journal.pone.0127866
217. Palombo, E. A. (2011). Traditional Medicinal Plant Extracts and Natural Products with Activity against Oral Bacteria: Potential Application in the Prevention and Treatment of Oral Diseases. *Evidence-Based Complementary and Alternative Medicine*, 2011, 1–15. doi:10.1093/ecam/nep067
218. Pandey, A., & Tripathi, S. (2014). Concept of standardization, extraction, and pre-phytochemical screening strategies for herbal drug. *J Pharmacogn Phytochem.*, 2, 115–9.
219. Pandey, S., Cabot, P. J., Shaw, P. N., & Hewavitharana, A. K. (2016). Anti-inflammatory and immunomodulatory properties of *Carica papaya*. *Journal of Immunotoxicology*, 13(4), 590–602. doi:10.3109/1547691x.2016.1149528
220. Pariyani, R., Safinar Ismail, I., Azam, A. A., Abas, F., Shaari, K., & Sulaiman, M. R. (2015). Phytochemical screening and acute oral toxicity study of Java tea Leaf Extracts. *BioMed Research International*, 2015, 1–8. doi:10.1155/2015/742420
221. Park, J. U., Kang, J. H., Rahman, M. A. A., Hussain, A., Cho, J. S., & Lee, Y. I. (2019). Gastroprotective Effects of Plants Extracts on Gastric Mucosal Injury in

- Experimental Sprague-Dawley Rats. *BioMed Research International*, 2019, 1–11.
doi:10.1155/2019/8759708
222. Park, S. M., Yoo, B. C., Lee, H. R., Chung, H., & Lee, Y. S. (1992). Distribution of Prostaglandin E2 in Gastric and Duodenal Mucosa: Possible Role in the Pathogenesis of Peptic Ulcer. *Korean J Intern Med.*, 7(1), 1–8.
223. Pashankar, D. S., Bishop, W. P., & Mitros, F. A. (2002). Chemical Gastropathy: A Distinct Histopathologic Entity in Children. *Journal of Pediatric Gastroenterology and Nutrition*, 35(5), 653–657. doi:10.1097/00005176-200211000-00012
224. Pease, J. E., & Sabroe, I. (2002). The role of INTERLEUKIN-8 and its receptors in Inflammatory lung disease. *American Journal of Respiratory Medicine*, 1(1), 19–25.
doi:10.1007/bf03257159
225. Piazuelo, E. & Lanas, A. (2016). Clinical Effects of NSAIDs and COXIBs in Colon Cancer Prevention. *NSAIDs and Aspirin*, 203–218. doi:10.1007/978-3-319-33889-7_13
226. Pilotto, A., Franceschi, M., Leandro, G., & Di Mario, F. (2003). NSAID and aspirin use by the elderly in general practice: effect on gastrointestinal symptoms and therapies. *Drugs Aging*, 20, 701–710.
227. Pooler, C. (2009). Porth Pathophysiology: Concepts of Altered Health States. *Lippincott Williams & Wilkins*.
228. Putri, Cynthia A., et al. (2019). Efek Gastroprotektif Ekstrak Etanol Daun Pepaya (*Carica Papaya L.*) pada Tikus Jantan yang Diinduksi Aspirin. *Eksakta*, vol. 19, no. 2, pp. 98–104, doi:10.20885/eksakta.vol19.iss2.art1.
229. Quilez, A., Montserrat-de la Paz, S., De la Puerta, R., Fernández-Arche, M., and García-Giménez, M. (2015). Validation of ethnopharmacological use as anti-inflammatory of a decoction from *Annona muricata* leaves. *Afr. J. Tradit. Complement. Altern. Med.*, 12, 14–20. doi: 10.4314/ajtcam.v12i4.3
230. Rainsford, K. D. (2007). Anti-inflammatory drugs in the 21st century. *Subcell Biochem.*, 42, 3–27.
231. Ray, A. & Srivastava, P. K. (2011). Obstructive Airway Diseases: Role of Lipid Mediators. *CRC Press*.

232. Robinson, M. G., Griffin, J. W., Bowers, J., et al. (1989). Effect of ranitidine gastroduodenal mucosal damage induced by nonsteroidal antiinflammatory drugs. *Digestive Diseases and Sciences*, vol. 34, no. 3, pp. 424–428.
233. Rocha Caldas, G. F., Oliveira, A. R. da S., Araújo, A. V., Lafayette, S. S. L., Albuquerque, G. S., Silva-Neto, J. da C., ... Wanderley, A. G. (2015). Gastroprotective Mechanisms of the Monoterpene 1,8-Cineole (Eucalyptol). *PLOS ONE*, 10(8), e0134558. doi:10.1371/journal.pone.0134558
234. Rosa, D. M., & Willoughby, D. A. (1971). Screens for anti-inflammatory drugs. *Journal of Pharmacy & Pharmacology*, 23, 297-298.
235. Rostom, A., Wells, G., Tugwell, P., Welch, V., Dubé, C., & McGowan, J. (2000). The prevention of chronic NSAID induced upper gastrointestinal toxicity: a Cochrane collaboration metaanalysis of randomized controlled trials. *J Rheumatol.*, 27(9), 2203–2214.
236. Roy, C., & Das, S. (2012). The protective role of *Aegle marmelos* on aspirin-induced gastro-duodenal ulceration in albino rat model: A possible involvement of antioxidants. *Saudi Journal of Gastroenterology*, 18(3), 188. doi:10.4103/1319-3767.96452
237. Sabitha, P., Kamath, A., & Adhikari, P. (2008). Prescription of aspirin for adults with diabetes. *International Journal of Diabetes in Developing Countries*, 28(2), 51. doi:10.4103/0973-3930.43099
238. Saibabu, V., Fatima, Z., Khan, L. A., & Hameed, S. (2015). Therapeutic Potential of Dietary Phenolic Acids. *Advances in Pharmacological Sciences*, 2015, 1–10. doi:10.1155/2015/823539
239. Saalu, L. C., Akunna, G. G., & Oyewopo, A. O. (2013). The HISTO-MORPHOMETRIC evidences of VERNONIA AMYGDALINA Leaf Extract-induced Testicular toxicity. *International Journal of Morphology*, 31(2), 662-667. doi:10.4067/s0717-95022013000200052
240. Salam, A. M., Lyles, J. T., & Quave, C. L. (2018). Methods in the Extraction and Chemical Analysis of Medicinal Plants. *Methods and Techniques in Ethnobiology and Ethnoecology*, 257–283.doi:10.1007/978-1-4939-8919-5_17
241. Samloff, I. M. (1989). Peptic ulcer: the many proteinases of aggression. *Gastroenterology*, 96, 586-95.

242. Samuels, T. L., Pearson, A. C. S., Wells, C. W., Stoner, G. D., & Johnston, N. (2013). Curcumin and anthocyanin inhibit pepsin-mediated cell damage and carcinogenic changes in airway epithelial cells. *Ann Oto Rhinol Laryn*, 122, 632–41.
243. Sanchez-Me, M. E., Cruz-Anton, L., Arrieta-Ba, D., Olivares-C, I. M., Rojas-Mart, R., Martinez-C, D., & Arrieta, J. (2015). Gastroprotective activity Of METHYLEUGENOL from PEPEROMIA HISPIDULA ON Ethanol-Induced Gastric lesions in rats. *International Journal of Pharmacology*, 11(7), 697-704.
doi:10.3923/ijp.2015.697.704
244. Sanmugapriya, E., & Venkataraman, S. (2007). Antiulcerogenic potential of Strychnos potatorum Linn seeds on aspirin plus pyloric ligation-induced ulcers in experimental rats. *Phytomedicine.*, 14, 360–5.
245. Santos, F. A., & Rao, V. S. N. (2001). *Digestive Diseases and Sciences*, 46(2), 331–337. doi:10.1023/a:1005604932760
246. Sari, F. A., Sandhika, W., & Yuliawati, T. H. (2020). Tulsi (*Ocimum sanctum*) Leaf Ethanol Extract Reduces Inflammatory Cell Infiltration in Aspirin-Induced Gastritis Rats. *Jurnal Kedokteran Brawijaya*, 31(1), 49.
doi:10.21776/ub.jkb.2020.031.01.10
247. Sarkar, S. & Buha, D. (2008). Effect of ripe fruit pulp extract of *Cucurbita pepo* Linn. in aspirin induced gastric and duodenal ulcer in rats. *Indian Journal of Experimental Biology*, Vol., 46, pp. 639-645
248. Sasidharan, S., Chen, Y., Saravanan, D., Sundram, K., & Latha, L. (2010). Extraction, Isolation And Characterization Of Bioactive Compounds From Plants' Extracts. *African Journal of Traditional, Complementary and Alternative Medicines*, 8(1). doi:10.4314/ajtcam.v8i1.60483
249. Seleem, H. S., Ghobashy, H. A., & Zolfakar, A. S. (2010). Effect of aspirin versus aspirin and vitamin c on gastric mucosa (fundus) of adult male albino rats. histological and morphometric study. *Egypt J Histol.*, 33(2), 313–26.
250. Selloum, L., Bouriche, H., Tigrine, C., & Boudoukha, C. (2003). Anti-inflammatory effect of rutin on rat paw oedema, and on neutrophils chemotaxis and degranulation. *Experimental and Toxicologic Pathology*, 54(4), 313–318.
doi:10.1078/0940-2993-00260

251. Sen, T., & Samanta, S. K. (2014). Medicinal Plants, Human Health and Biodiversity: A Broad Review. *Advances in Biochemical Engineering/Biotechnology*, 59–110. doi:10.1007/10_2014_273
252. Serafim, C., et al. (2020). A review of the role of flavonoids in peptic ulcer (2010–2020). *Molecules*. 10.3390/molecules25225431
253. Shahidi, F., & Yeo, J. (2018). Bioactivities of Phenolics by Focusing on Suppression of Chronic Diseases: A Review. *International Journal of Molecular Sciences*, 19(6), 1573. doi:10.3390/ijms19061573
254. Shahidi, N. T., & Westring, D. W. (1970). Acetylsalicylic acid-induced hemolysis and its mechanism. *Journal of Clinical Investigation*, 49(7), 1334–1340. doi:10.1172/jci106349
255. Sharifi-Rad, M., Fokou, P., Sharopov, F., Martorell, M., Ademiluyi, A., Rajkovic, J., ... Sharifi-Rad, J. (2018). Antiulcer Agents: From Plant Extracts to Phytochemicals in Healing Promotion. *Molecules*, 23(7), 1751. doi:10.3390/molecules23071751
256. Sharma, S. (2019). The 5-Minute Clinical Consult 2020. *Wolters kluwer india Pvt Ltd.*
257. Shea-Donohue, T., Steel, L., Montcalm-Mazzilli, E., & Dubois, A. (1990). Aspirin-induced changes in gastric function: Role of endogenous prostaglandins and mucosal damage. *Gastroenterology*, 98(2), 284–292. doi:10.1016/0016-5085(90)90816-j
258. Shekari, M., Kordi-Tamandani, D. M., MalekZadeh, K., Sobti, R. C., Karimi, S., & Suri, V. (2012). Effect of anti-inflammatory (IL-4, IL-10) cytokine genes in relation to risk of cervical carcinoma. *Am J Clin Oncol.*, 35(6), 514–9.
259. Shivhare, M., Singour, P., Chaurasiya, P., & Pawar, R. (2012). *Trianthema portulacastrum* linn. (bishkhapra). *Pharmacognosy Reviews*, 6(12), 132. doi:10.4103/0973-7847.99947
260. Silva, R. O., Sousa, F. B. M., Damasceno, S. R. B., Carvalho, N. S., Silva, V. G., Oliveira, F. R. M. A., ... Medeiros, J. V. R. (2013). Phytol, a diterpene alcohol, inhibits the inflammatory response by reducing cytokine production and oxidative stress. *Fundamental & Clinical Pharmacology*, 28(4), 455–464. doi:10.1111/fcp.12049
261. Silverstein, F. E., Graham, D. Y., Senior, J. R., & et al. (1995). Misoprostol reduces serious gastrointestinal complications in patients with rheumatoid arthritis

- receiving nonsteroidal anti-inflammatory drugs. A randomized, double-blind, placebo-controlled trial. *Annals of Internal Medicine*, vol. 123, no. 4, pp. 241–249.
262. Sindhu, E. R., & Kuttan, R. (2012). Carotenoid lutein protects rats from gastric ulcer induced by ethanol. *Journal of Basic and Clinical Physiology and Pharmacology*, 23(1). doi:10.1515/jbcpp-2011-0032
263. Sinha, M., Gautam, L., Shukla, P. K., Kaur, P., Sharma, S., & Singh, T. P. (2013). Current Perspectives in NSAID-Induced Gastropathy. *Mediators of Inflammation*, 2013, 1-11. doi:10.1155/2013/258209
264. Sistani, K., Neda, A., Ardeshir & Rezaie, et al. (2019). Gastroprotective Effects of Betanin Against Ethanol-induced Gastric Ulcer in Rats. *Jundishapur Journal of Natural Pharmaceutical Products*. In Press. 10.5812/jjnpp.14473.
265. Smeriglio, A., Barreca, D., Bellocchio, E., & Trombetta, D. (2016). Chemistry, Pharmacology and Health Benefits of Anthocyanins. *Phytotherapy Research*, 30(8), 1265–1286. doi:10.1002/ptr.5642
266. Somasundaram, S., Hayllar, H., Rafi, S., Wrigglesworth, J. M., Macpherson, A. J., & Bjarnason, I. (1995). The biochemical basis of non-steroidal anti-inflammatory drug-induced damage to the gastrointestinal tract: a review and a hypothesis. *Scand J Gastroenterol.*, 30, 289–299.
267. Souissi, M., Azelmat, J., Chaieb, K., & Grenier, D. (2019). Antibacterial and anti-inflammatory activities of cardamom (*Elettaria cardamomum*) extracts: Potential therapeutic benefits for periodontal infections. *Anaerobe*, 102089. doi:10.1016/j.anaerobe.2019.102089
268. Sostres, C., Gargallo, C. J., & Lanas, A. (2013). Nonsteroidal anti-inflammatory drugs and upper and lower gastrointestinal mucosal damage. *Arthritis Res Ther.*, 15(Suppl 3), S3.
269. Souza, M. H. L. P. (2004). Gastric damage and granulocyte infiltration induced by indomethacin in tumour necrosis factor receptor 1 (TNF-R1) or inducible nitric oxide synthase (iNOS) deficient mice. *Gut*, 53(6), 791–796. doi:10.1136/gut.2002.012930
270. Sriganesh, K., Shanthanna, H., & Busse, J. (2016). A brief overview of systematic reviews and meta-analyses. *Indian Journal of Anaesthesia*, 60(9), 689. doi:10.4103/0019-5049.190628

271. Straube, S., Tramèr, M. R., Moore, R. A., Derry, S., & McQuay, H. J. (2009). Mortality with upper gastrointestinal bleeding and perforation: effects of time and NSAID use. *BMC Gastroenterology*, 9(1). doi:10.1186/1471-230x-9-41
272. Stuntz, M. & Bernstein, B. (2017). Recent trends in the prevalence of low-dose aspirin use for primary and secondary prevention of cardiovascular disease in the United States, 2012–2015. *Preventive Medicine Reports*, 5, 183-186. doi:10.1016/j.pmedr.2016.12.023
273. Sundalangi, Chelyne, F., et al. (2016). Gambaran Histopatologik Lambung Tikus Wistar Yang Diberikan Ekstrak Daun Sirsak (*Annona Muricata L.*) Setelah Induksi Aspirin. *eBiomedik*, vol. 4, no. 1, doi:10.35790/ebm.4.1.2016.12223.
274. Susilawati, N. M., Yuliet, Y., & Khaerati, K. (2016). Aktivitas Gastroprotektif Ekstrak Etanol Daun Gedi Hijau (*Abelmoschus manihot* (L.) Medik) Terhadap Tikus Putih Jantan (*Rattus norvegicus L.*) Yang Diinduksi Dengan Aspirin. *Natural Science: Journal of Science and Technology*, 5(3). doi:10.22487/25411969.2016.v5.i3.7213
275. Takahashi, S., Takeuchi, K., & Okabe, S. (1999). EP 4 receptor mediation of prostaglandin E 2 -stimulated mucus secretion by rabbit gastric epithelial cells. *Biochemical Pharmacology*, 58(12), 1997–2002. doi:10.1016/s0006-2952(99)00286-5
276. Takeuchi, K. (2010). Prostaglandin EP Receptors and Their Roles in Mucosal Protection and Ulcer Healing in the Gastrointestinal Tract. *Advances in Clinical Chemistry*, 121–144. doi:10.1016/s0065-2423(10)51005-9
277. Takeuchi, K. (2012). Pathogenesis of NSAID-induced gastric damage: Importance of cyclooxygenase inhibition and gastric hypermotility. *World Journal of Gastroenterology*, 18(18), 2147. doi:10.3748/wjg.v18.i18.2147
278. Takeuchi, K., & Amagase, K. (2017). Roles of prostaglandin E and EP receptors in mucosal protection and ulcer healing in the gastrointestinal tract. *Arch Dig Disord.*, Volume 1, Issue 2, 8-16. doi:10.3748/wjg.v18.i18.2147
279. Thatoi, H., Samantaray, D., & Das, S. K. (2016). The genus Avicennia, a pioneer group of dominant mangrove plant species with potential medicinal values: a review. *Frontiers in Life Science*, 9(4), 267–291. doi:10.1080/21553769.2016.1235619

280. Thorat, M. A. & Cuzick, J. (2014). Prophylactic use of aspirin: Systematic review of harms and approaches to mitigation in the general population. *European Journal of Epidemiology*, 30(1), 5-18. doi:10.1007/s10654-014-9971-7
281. Tiwari, P., Kumar, B., Kaur, M., Kaur, G., & Kaur, H. (2011). Phytochemical screening and extraction: A review. *Int Pharm Sci.*, 1, 98–106.
282. Tjandrawinata, R. R., & Nailufar, F. (2020). Gastroprotective Effect of DLBS2411 Bioactive Fraction from *Cinnamomum burmannii* Against Ethanol-Induced Gastric Damage in Rats. *Journal of Experimental Pharmacology*, Volume 12, 87–95.
283. Tomisato, W., Tsutsumi, S., Rokutan, K., Tsuchiya, T. and Mizushima, T. (2001). NSAIDs induce both necrosis and apoptosis in guinea pig gastric mucosal cells in primary culture. *American Journal of Physiology*, vol. 281, no. 4, pp. G1092–G1100.
284. Tovey. (2011). Dietary Phytosterols Protective Against Peptic Ulceration. *Gastroenterology Research*. doi:10.4021/gr328w
285. Truong, D. H., Nguyen, D. H., Ta, N. T. A., Bui, A. V., Do, T. H., & Nguyen, H. C. (2019). Evaluation of the Use of Different Solvents for Phytochemical Constituents, Antioxidants, and In Vitro Anti-Inflammatory Activities of *Severinia buxifolia*. *Journal of Food Quality*, 2019, 1–9. doi:10.1155/2019/8178294
286. Tuluce, Y., Ozkol, H., Koyuncu, I., & Ine, H. (2011). Gastroprotective effect of small centaury (*Centaurea erythraea L*) on aspirin-induced gastric damage in rats. *Toxicology and Industrial Health*, 27(8), 760–768. doi:10.1177/0748233710397421
287. Uddin, G., Siddiqui, B. S., Shah, S. Q., & Rauf, A. (2011). Preliminary Comparative Phytochemical Screening of *Diospyros lotus* Stewart. *Middle East Journal of Scientific Research*, 10(1), 78-81.
288. Umeh, V. N., Ilodigwe, E. E., Ajaghaku, D. L., Erhirhie, E. O., Moke, G. E., & Akah, P. A. (2014). Wound-healing Activity of the Aqueous Leaf Extract and Fractions of *Ficus exasperata* (Moraceae) and its Safety Evaluation on Albino Rats. *Journal of Traditional and Complementary Medicine*, 4(4), 246–252. doi:10.4103/2225-4110.139105
289. Vandras, K. F., Spigset, O., Mahic, M., & Slordal, L. (2010). Non-steroidal anti-inflammatory drugs: use and co-treatment with potentially interacting medications in the elderly. *Eur J Clin Pharmacol*, 66, 823-829.

290. Van Hecken, A., Schwartz, J. I., Depré, M., & et al. (2000). Comparative inhibitory activity of rofecoxib, meloxicam, diclofenac, ibuprofen, and naproxen on COX-2 versus COX-1 in healthy volunteers. *J Clin Pharmacol.*, 40(10), 1109–1120.
291. Verma, S., & Kumar, V. L. (2016). Attenuation of gastric mucosal damage by artesunate in rat: Modulation of oxidative stress and NF κ B mediated signaling. *Chemico-Biological Interactions*, 257, 46–53. doi:10.1016/j.cbi.2016.07.027
292. Vignais, P. V. (2002). The superoxide-generating NADPH oxidase: structural aspects and activation mechanism. *Cell Mol. Life Sci.*, 59 (9), 1428–1459.
293. Vo, Q. V., Trenerry, C., Rochfort, S., Wadeson, J., Leyton, C., & Hughes, A. B. (2013). Synthesis and anti-inflammatory activity of aromatic glucosinolates. *Bioorganic & Medicinal Chemistry*, 21(19), 5945–5954. doi:10.1016/j.bmc.2013.07.049
294. Wahyudi, W., Suwarso, E., & Nainggolan, M. (2018). ANTI-ULCER ACTIVITY OF AFRICAN LEAVES (VERNONIA AMYGDALINA DEL.) ETHANOL EXTRACT ON MALE RAT. *Asian Journal of Pharmaceutical and Clinical Research*, 11(3), 375. doi:10.22159/ajpcr.2018.v11i3.23565
295. Walangitan, J., Loho, L., & Durry, M. (2016). Efek Pemberian Ekstrak Kayu Manis (*Cinnamomum Burmannii*) Terhadap Gambaran Histopatologi Lambung Tikus Wistar Yang Diberi Aspirin. *eBiomedik*, vol. 2, no. 2, 489-495.
296. Walker, W. A. (2004). Pediatric Gastrointestinal Disease: Pathophysiology, Diagnosis, Management, Volume 1. *PMPH*.
297. Wallace, J. L. (1997). Nonsteroidal anti-inflammatory drugs and gastroenteropathy: the second hundred years. *Gastroenterology*, vol. 112, no. 3, pp. 1000–1016.
298. Wang, Y., Du, C., Zhang, N., Li, M., Liu, Y., Zhao, M., ... Luo, F. (2018). TGF- β 1 mediates the effects of aspirin on colonic tumor cell proliferation and apoptosis. *Oncology Letters*. doi:10.3892/ol.2018.8047
299. Wen, F., Chen, T., Yin, H., Lin, J., & Zhang, H. (2019). In vitro effects on THROMBIN of Paris saponins and in Vivo Hemostatic ACTIVITY evaluation of Paris FARGESII VAR. BREVIPETALA. *Molecules*, 24(7), 1420. doi:10.3390/molecules24071420

300. WHO (World Health Organization) (2011). The World Traditional Medicines Situation, in Traditional medicines: Global Situation, Issues and Challenges. *Geneva*, 3, 1–14.
301. Wongrakpanich, S., Wongrakpanich, A., Melhado, K., & Rangaswami, J. (2018). A Comprehensive Review of Non-Steroidal Anti-Inflammatory Drug Use in The Elderly. *Aging and Disease*, 9(1), 143. doi:10.14336/ad.2017.0306
302. Wyllie, R. & Hyams, J. S. (2010). Pediatric Gastrointestinal and Liver Disease E-Book. *Elsevier Health Sciences*.
303. Xu, D., Hu, M. J., Wang, Y. Q., & Cui, Y. L. (2019). Antioxidant Activities of Quercetin and Its Complexes for Medicinal Application. *Molecules*, 24(6), 1123. doi:10.3390/molecules24061123
304. Ye, H. Y., Jin, J., Jin, L. W., Chen, Y., Zhou, Z. H., & Li, Z. Y. (2016). Chlorogenic Acid Attenuates Lipopolysaccharide-Induced Acute Kidney Injury by Inhibiting TLR4/NF-κB Signal Pathway. *Inflammation*, 40(2), 523–529. doi:10.1007/s10753-016-0498-9
305. Yoshida, N., Sugimoto, N., Ochiai, J., Nakamura, Y., Ichikawa, H., Naito, Y., & Yoshikawa, T. (2002). Role of elastase and active oxygen species in gastric mucosal injury induced by aspirin administration in Helicobacter pylori-infected Mongolian gerbils. *Alimentary Pharmacology and Therapeutics*, 16(s2), 191–197. doi:10.1046/j.1365-2036.16.s2.32.x
306. Yoshida, N., Yoshikawa, T., Nakamura, Y., Arai, M., Matsuyama, K., Iinuma, S., ... Kondo, M. (1995). Role of neutrophil-mediated inflammation in aspirin-induced gastric mucosal injury. *Digestive Diseases and Sciences*, 40(11), 2300–2304. doi:10.1007/bf02063228
307. Yuniarto, A., Susilawati, E., Rahman, T. A., Setiawan, F., & Juanda, D. (2017). Gastric Ulcer Healing Effect of Bangle (*Zingiber cassumunar* (Roxb.)) Rhizome Extract in Aspirin-induced Rats Model. *IJPST*, Supplement 1, Nomor 1, 29-34.
308. Zhang, J., Fu, Z. L., Chu, Z. X., & Song, B. W. (2020). Gastroprotective Activity of the Total Flavones from Abelmoschus manihot (L.) Medic Flowers. *Evidence-Based Complementary and Alternative Medicine*, 2020, 1–9. doi:10.1155/2020/6584945

309. Zhang, W., Lian, Y., Li, Q., Sun, L., Chen, R., Lai, X., ... Sun, S. (2020). Preventative and Therapeutic Potential of Flavonoids in Peptic Ulcers. *Molecules*, 25(20), 4626. doi:10.3390/molecules25204626
310. Zhao, S., Zhang, J. B., & Wang, B. (2014). Gastroretentive drug delivery system for the treatment of *Helicobacter pylori*. *World Journal of Gastroenterology*, 20(28), 9321-9329.
311. Zhou, Y., Boudreau, D. M., & Freedman, A. N. (2014). Trends in the use of aspirin and nonsteroidal anti-inflammatory drugs in the general U.S. population. *Pharmacoepidemiol Drug Saf.*, 23(1), 43–50.