

DAFTAR PUSTAKA

1. GLOBOCAN [Internet]. Global Cancer Observatory. [cited 2023 June 30]. Available from: <https://gco.iarc.fr/today/online-analysis-multi-bars>.
2. GLOBOCAN [Internet]. Indonesia Cancer Observatory. [cited 2023 June 30]. Available from: <https://gco.iarc.fr/today/data/factsheets/populations/360-indonesia-fact-sheets>.
3. Nedeljković M, Damjanović A. Mechanisms of Chemotherapy Resistance in Triple-Negative Breast Cancer-How We Can Rise to the Challenge. *Cells*. 2019 Aug 22;8(9):957.
4. Berger ER, Park T, Saridakis A, Golshan M, Greenup RA, Ahuja N. Immunotherapy Treatment for Triple Negative Breast Cancer. *Pharmaceuticals (Basel)*. 2021 Aug 4;14(8):763.
5. Camorani S, Fedele M, Zannetti A, Cerchia L. TNBC Challenge: Oligonucleotide Aptamers for New Imaging and Therapy Modalities. *Pharmaceuticals (Basel)*. 2018 Nov 13;11(4):123.
6. Deputi Bidang Koordinasi Sumber Daya Maritim. Laporan Kinerja 2020. Indonesia: Kementerian Koordinator Bidang Kemaritiman dan Investasi. 2020.
7. McCall B, McPartland CK, Moore R, Frank-Kamenetskii A, Booth BW. Effects of Astaxanthin on the Proliferation and Migration of Breast Cancer Cells In Vitro. *Antioxidants (Basel)*. 2018 Oct 4;7(10):135.
8. Luparello C, Ragona D, Asaro DML, Lazzara V, Affranchi F, Arizza V, Vazzana M. Cell-Free Coelomic Fluid Extracts of the Sea Urchin *Arbacia lixula* Impair Mitochondrial Potential and Cell Cycle Distribution and Stimulate Reactive Oxygen Species Production and Autophagic Activity in Triple-Negative MDA-MB231 Breast Cancer Cells. *Journal of Marine Science and Engineering*. 2020; 8(4):261.
9. Masuda H, Zhang D, Bartholomeusz C, Doihara H, Hortobagyi GN, Ueno NT. Role of epidermal growth factor receptor in breast cancer. *Breast Cancer Res Treat*. 2012 Nov;136(2):331-45.
10. Shiao JP, Wu CC, Chang SJ, Pan MR, Liu W, Ou-Yang F, Chen FM, Hou MF, Shih SL, Luo CW. FAK Regulates VEGFR2 Expression and Promotes Angiogenesis in Triple-Negative Breast Cancer. *Biomedicines*. 2021 Nov 29;9(12):1789.
11. Giri S, Bader A. A low-cost, high-quality new drug discovery process using patient-derived induced pluripotent stem cells. *Drug Discov Today*. 2015;20(1):37-49.
12. Dona R, Frimayanti N, Ikhtiarudin I, Iskandar B, Maulana F, Silalahi NT. Studi in silico, Sintesis, Dan Uji Sitotoksik Senyawa P-Metoksi Kalkon Terhadap Sel Kanker Payudara MCF-7. *Jurnal Sains Farmasi & Klinis*. 2019;6(3):243.
13. Wang L, Wang N, Zhang W, Cheng X, Yan Z, Shao G, Wang X, Wang R, Fu C. Therapeutic peptides: current applications and future directions. *Signal Transduct Target Ther*. 2022 Feb 14;7(1):48.

14. Sigismund S, Avanzato D, Lanzetti L. Emerging functions of the EGFR in cancer. *Mol Oncol*. 2018 Jan;12(1):3-20.
15. Shen M, Jiang YZ, Wei Y, Ell B, Sheng X, Esposito M, Kang J, Hang X, Zheng H, Rowicki M, Zhang L, Shih WJ, Celià-Terrassa T, Liu Y, Cristea I, Shao ZM, Kang Y. Tinagl1 Suppresses Triple-Negative Breast Cancer Progression and Metastasis by Simultaneously Inhibiting Integrin/FAK and EGFR Signaling. *Cancer Cell*. 2019 Jan 14;35(1):64-80.e7.
16. Korolkova OY, Widatalla SE, Williams SD, Whalen DS, Beasley HK, Ochieng J, Grewal T, Sakwe AM. Diverse Roles of Annexin A6 in Triple-Negative Breast Cancer Diagnosis, Prognosis and EGFR-Targeted Therapies. *Cells*. 2020 Aug 7;9(8):1855.
17. Qin JJ, Yan L, Zhang J, Zhang WD. STAT3 as a potential therapeutic target in triple negative breast cancer: a systematic review. *J Exp Clin Cancer Res*. 2019 May 14;38(1):195.
18. Sirkisoon SR, Carpenter RL, Rimkus T, Anderson A, Harrison A, Lange AM, Jin G, Watabe K, Lo HW. Interaction between STAT3 and GLI1/tGLI1 oncogenic transcription factors promotes the aggressiveness of triple-negative breast cancers and HER2-enriched breast cancer. *Oncogene*. 2018 May;37(19):2502-2514.
19. Zhang Q, Raje V, Yakovlev VA, Yacoub A, Szczepanek K, Meier J, Derecka M, Chen Q, Hu Y, Sisler J, Hamed H, Lesnefsky EJ, Valerie K, Dent P, Lerner AC. Mitochondrial localized Stat3 promotes breast cancer growth via phosphorylation of serine 727. *J Biol Chem*. 2013 Oct 25;288(43):31280-8.
20. Li LX, Zhou JX, Calvet JP, Godwin AK, Jensen RA, Li X. Lysine methyltransferase SMYD2 promotes triple negative breast cancer progression. *Cell Death Dis*. 2018 Feb 27;9(3):326.
21. Wang S, Yao Y, Yao M, Fu P, Wang W. Interleukin-22 promotes triple negative breast cancer cells migration and paclitaxel resistance through JAK-STAT3/MAPKs/AKT signaling pathways. *Biochem Biophys Res Commun*. 2018 Sep 10;503(3):1605-1609.
22. Owen KL, Brockwell NK, Parker BS. JAK-STAT Signaling: A Double-Edged Sword of Immune Regulation and Cancer Progression. *Cancers (Basel)*. 2019 Dec 12;11(12):2002.
23. Jansson S, Bendahl PO, Grabau DA, Falck AK, Fernö M, Aaltonen K, Rydén L. The three receptor tyrosine kinases c-KIT, VEGFR2 and PDGFR α , closely spaced at 4q12, show increased protein expression in triple-negative breast cancer. *PLoS One*. 2014 Jul 15;9(7):e102176.
24. Elaimy AL, Amante JJ, Zhu LJ, Wang M, Walmsley CS, FitzGerald TJ, Goel HL, Mercurio AM. The VEGF receptor neuropilin 2 promotes homologous recombination by stimulating YAP/TAZ-mediated Rad51 expression. *Proc Natl Acad Sci U S A*. 2019 Jul 9;116(28):14174-14180.
25. Yang WJ, Zhang GL, Cao KX, Liu XN, Wang XM, Yu MW, Li JP, Yang GW. Heparanase from triple-negative breast cancer and platelets acts as an enhancer of metastasis. *Int J Oncol*. 2020 Oct;57(4):890-904.

26. Wahba HA, El-Hadaad HA. Current approaches in treatment of triple-negative breast cancer. *Cancer Biol Med*. 2015 Jun;12(2):106-16.
27. Brouckaert O, Wildiers H, Floris G, Neven P. Update on triple-negative breast cancer: prognosis and management strategies. *Int J Womens Health*. 2013; 4:511-20.
28. *Arbacia lixula* [Internet]. Worms - world register of marine species - *arbacia lixula* (Linnaeus, 1758). [cited 2022Dec4]. Available from: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=124249>
29. *Arbacia lixula* [Internet]. *Arbacia lixula*, Black sea urchin. [cited 2022Dec4]. Available from: <https://www.sealifebase.ca/summary/Arbacia-lixula.html>
30. Cirino P, Brunet C, Ciaravolo M, et al. The Sea Urchin *Arbacia lixula*: A Novel Natural Source of Astaxanthin. *Mar Drugs*. 2017;15(6):187. Published 2017 Jun 21.
31. Symonds RC, Kelly MS, Caris-Veyrat C, Young AJ. Carotenoids in the sea urchin *Paracentrotus lividus*: occurrence of 9'-cis-echinenone as the dominant carotenoid in gonad colour determination. *Comp Biochem Physiol B Biochem Mol Biol*. 2007;148(4):432-444.
32. Widyananda MH, Pratama SK, Samoedra RS, Sari FN, Kharisma VD, Ansori AN, et al. Molecular docking study of sea urchin (*arbacia lixula*) peptides as multi-target inhibitor for non-small cell lung cancer (NSCLC) Associated Proteins. *Journal of Pharmacy & Pharmacognosy Research*. 2021;9(4):484–96.
33. Xia X. Bioinformatics and Drug Discovery. *Curr Top Med Chem*. 2017;17(15):1709-1726.
34. Shaker B, Ahmad S, Lee J, Jung C, Na D. In silico methods and tools for drug discovery. *Comput Biol Med*. 2021 Oct;137:104851.
35. Malathi K, Ramaiah S. Bioinformatics approaches for new drug discovery: a review. *Biotechnol Genet Eng Rev*. 2018 Oct;34(2):243-260.
36. Salmaso V, Moro S. Bridging Molecular Docking to Molecular Dynamics in Exploring Ligand-Protein Recognition Process: An Overview. *Front Pharmacol*. 2018 Aug 22;9:923.
37. Chen G, Seukep AJ, Guo M. Recent Advances in Molecular Docking for the Research and Discovery of Potential Marine Drugs. *Mar Drugs*. 2020 Oct 30;18(11):545.
38. Tripathi A, Bankaitis VA. Molecular Docking: From Lock and Key to Combination Lock. *J Mol Med Clin Appl*. 2017;2(1):10.16966/2575-0305.106.
39. Gupta S, Kapoor P, Chaudhary K, Gautam A, Kumar R; Open Source Drug Discovery Consortium; Raghava GP. In silico approach for predicting toxicity of peptides and proteins. *PLoS One*. 2013 Sep 13;8(9):e73957.
40. Dimitrov I, Bangov I, Flower DR, Doytchinova I. AllerTOP v.2--a server for in silico prediction of allergens. *J Mol Model*. 2014 Jun;20(6):2278.
41. Sciani JM, Emerenciano AK, Cunha da Silva JR, Pimenta DC. Initial peptidomic profiling of Brazilian sea urchins: *Arbacia lixula*, *Lytechinus variegatus* and *Echinometra lucunter*. *J Venom Anim Toxins Incl Trop Dis*. 2016;22:17.
42. Pantsar T, Poso A. Binding Affinity via Docking: Fact and Fiction. *Molecules*. 2018 Jul 30;23(8):1899.

43. WHO [Internet]. Triple-negative breast cancer: Details, diagnosis, and signs. [cited 2023 Oct 8]. Available from: <https://www.cancer.org/cancer/types/breast-cancer/about/types-of-breast-cancer/triple-negative.html>
44. Khan MA, Jain VK, Rizwanullah M, Ahmad J, Jain K. PI3K/AKT/mTOR pathway inhibitors in triple-negative breast cancer: a review on drug discovery and future challenges. *Drug Discov Today*. 2019 Nov;24(11):2181-2191.
45. Messeha SS, Noel S, Zarmouh NO, Womble T, Latinwo LM, Soliman KFA. Involvement of AKT/PI3K Pathway in Sanguinarine's Induced Apoptosis and Cell Cycle Arrest in Triple-negative Breast Cancer Cells. *Cancer Genomics Proteomics*. 2023 Jul-Aug;20(4):323-342.
46. Reva BA, Finkelstein AV, Skolnick J. What is the probability of a chance prediction of a protein structure with an rmsd of 6 Å? *Fold Des*. 1998;3(2):141-7.
47. Martorana F, Motta G, Payone G, Motta L, Stella S, Vitale SR, Manzella L, Vigneri P. AKT Inhibitors: New Weapons in the Fight Against Breast Cancer? *Front Pharmacol*. 2021 Apr 29;12:662232.
48. Uko NE, Güner OF, Matesic DF, Bowen JP. Akt Pathway Inhibitors. *Curr Top Med Chem*. 2020;20(10):883-900.
49. Changavi AA, Shashikala A, Ramji AS. Epidermal Growth Factor Receptor Expression in Triple Negative and Nontriple Negative Breast Carcinomas. *J Lab Physicians*. 2015 Jul-Dec;7(2):79-83.
50. Nakai K, Hung MC, Yamaguchi H. A perspective on anti-EGFR therapies targeting triple-negative breast cancer. *Am J Cancer Res*. 2016 Aug 1;6(8):1609-23.
51. Hu X, Li J, Fu M, Zhao X, Wang W. The JAK/STAT signaling pathway: from bench to clinic. *Signal Transduct Target Ther*. 2021 Nov 26;6(1):402.
52. Dewi C, Fristiohady A, Amalia R, Khairul Ikram NK, Ibrahim S, Muchtaridi M. Signaling Pathways and Natural Compounds in Triple-Negative Breast Cancer Cell Line. *Molecules*. 2022 Jun 7;27(12):3661
53. Balko JM, Schwarz LJ, Luo N, Estrada MV, Giltane JM, Dávila-González D, Wang K, Sánchez V, Dean PT, Combs SE, Hicks D, Pinto JA, Landis MD, Doimi FD, Yelensky R, Miller VA, Stephens PJ, Rimm DL, Gómez H, Chang JC, Sanders ME, Cook RS, Arteaga CL. Triple-negative breast cancers with amplification of JAK2 at the 9p24 locus demonstrate JAK2-specific dependence. *Sci Transl Med*. 2016 Apr 13;8(334):334ra53.
54. Chen M, Pockaj B, Andreozzi M, Barrett MT, Krishna S, Eaton S, Niu R, Anderson KS. JAK2 and PD-L1 Amplification Enhance the Dynamic Expression of PD-L1 in Triple-negative Breast Cancer. *Clin Breast Cancer*. 2018 Oct;18(5):e1205-e1215.