

DAFTAR PUSTAKA

- A, A. J., Haumont, M., Chellun, A. D., Massaer, A. M., Indonesia, A. B., Tufaro, F., Bollen, B. A., & Jacobs, A. P. (1998). Glikoprotein B (gB) virus varicella zoster berperan dalam pengikatan virus ke permukaan sel heparan sulfat proteoglikan. *53*, 197–207.
- Agustiyanti, D. F., Syakuran, L. A., & ... (2022). Ta Cloning Untuk Perbanyakan Plasmid Rekombinan Penyandi Gen Spike Hexapro Foldon. *Prosiding Seminar*, 181–188.
- Amin Rani, N., Moin, A. T., Patil, R., Barketullah Robin, T., Zubair, T., Nawal, N., Sami, M. R. S., Morshed, M. M., Zhai, J., Xue, M., Hossain, M., Zheng, C., Abul Manchur, M., & Islam, N. N. (2023). Designing a polyvalent vaccine targeting multiple strains of varicella zoster virus using integrated bioinformatics approaches. *Frontiers in Microbiology*, *14*, 1–19. <https://doi.org/10.3389/fmicb.2023.1291868>
- Ananda, C. P., & Paujiah, E. (2021). Sosialisasi Vaksinasi Covid-19 Melalui Media Cetak untuk Meningkatkan Pemahaman Masyarakat. *Proceedings UIN Sunan Gunung Djati Bandung*, *1*(32), 53 dari 62.
- Angues, R. V., & Bustos, Y. P. (2023). Navigating Uncharted Waters: Could COVID-19 and Certain COVID-19 Vaccines Promote Malignancy? *Authorea Preprints*. <https://www.authorea.com/users/508862/articles/586489-navigating-uncharted-waters-could-covid-19-and-or-certain-covid-19-vaccines-promote-malignancy>
- Apriani, F. D., & Saftarina, F. (2022). Penatalaksanaan Holistik Anak Usia 9 Tahun Dengan Varisela Melalui Pendekatan Kedokteran Keluarga. *J. Ked. Mulawarman*, *9*(3), 2022.
- Avizena Ilhami, M. S., Yuniati, L., Anastasia, R., Waspodo, N. N., & Susanti, M. (2024). Karakteristik Penderita Varicella Di Puskesmas Maccini Sawah Makassar Tahun 2018-2022. *Jurnal Kesehatan Masyarakat*, *8*(1), 1–5.
- Bahrami, A. A., Payandeh, Z., Khalili, S., Zakeri, A., & Bandehpour, M. (2019). Immunoinformatics: In Silico Approaches and Computational Design of a Multi-epitope, Immunogenic Protein. *International Reviews of Immunology*, *38*(6), 307–322. <https://doi.org/10.1080/08830185.2019.1657426>
- Baljic, R. (2012). Characteristics of chickenpox in children and adults at a tertiary health center in Sarajevo, Bosnia-Herzegovina. *Journal of Microbiology and Infectious Diseases*, *2*(2), 6467. <https://doi.org/10.5799/ahinjs.02.2012.02.0044>
- Bateman, N. W., Tarney, C. M., Abulez, T., Soltis, A. R., Zhou, M., Conrads, K., Litzi, T., Oliver, J., Hood, B., Driggers, P., Viollet, C., Dalgard, C., Wilkerson, M., Catherino, W., Hamilton, C. A., Darcy, K. M., Casablanca, Y., Al-Hendy, A., Segars, J., Larry Maxwell, G. (2021). Proteogenomic landscape of uterine leiomyomas from hereditary leiomyomatosis and renal cell cancer patients. *Scientific Reports*, *11*(1), 1–14. <https://doi.org/10.1038/s41598-021-88585-x>
- Bibi, S., Ullah, I., Zhu, B., Adnan, M., Liaqat, R., Kong, W. B., & Niu, S. (2021). In silico analysis of epitope-based vaccine candidate against tuberculosis using reverse vaccinology. *Scientific Reports*, *11*(1), 1–16. <https://doi.org/10.1038/s41598-020-80899-6>

- Boratyn, G. M., Camacho, C., Cooper, P. S., Coulouris, G., Fong, A., Ma, N., Madden, T. L., Matten, W. T., McGinnis, S. D., Merezuk, Y., Raytselis, Y., Sayers, E. W., Tao, T., Ye, J., & Zaretskaya, I. (2013). BLAST: a more efficient report with usability improvements. *Nucleic Acids Research*, 41(Web Server issue), 29–33. <https://doi.org/10.1093/nar/gkt282>
- Burley, S. K., Berman, H. M., Bhikadiya, C., Bi, C., Chen, L., Di Costanzo, L., Christie, C., Dalenberg, K., Duarte, J. M., Dutta, S., Feng, Z., Ghosh, S., Goodsell, D. S., Green, R. K., Guranović, V., Guzenko, D., Hudson, B. P., Kalro, T., Liang, Y., Zardecki, C. (2019). RCSB Protein Data Bank: Biological macromolecular structures enabling research and education in fundamental biology, biomedicine, biotechnology and energy. *Nucleic Acids Research*, 47(D1), D464–D474. <https://doi.org/10.1093/nar/gky1004>
- Bursal, E., Abdullah Yılmaz, M., Aras, A., Türkan, F., Yildiko, Ü., Kılıç, Ö., & Dey, A. (2021). Determination of Phenolic Content, Biological Activity, and Enzyme Inhibitory Properties with Molecular Docking Studies of *Rumex nepalensis*, an Endemic Medicinal Plant. *Journal of Food and Nutrition Research*, 9(3), 114–123. <https://doi.org/10.12691/jfnr-9-3-3>
- Chatanaka, M. K., Ulndreaj, A., Sohaei, D., & Prassas, I. (2022). Immunoinformatics: Pushing the boundaries of immunology research and medicine. *ImmunoInformatics*, 5 (August 2021), 100007. <https://doi.org/10.1016/j.immuno.2021.100007>
- Derbise, A., Guillas, C., Gerke, C., Carniel, E., Pizarro-Cerdà, J., & Demeure, C. E. (2020). Subcutaneous vaccination with a live attenuated *Yersinia pseudotuberculosis* plague vaccine. *Vaccine*, 38(8), 1888–1892. <https://doi.org/10.1016/j.vaccine.2020.01.014>
- Du, Z., Su, H., Wang, W., Ye, L., Wei, H., Peng, Z., Anishchenko, I., Baker, D., & Yang, J. (2021). The trRosetta server for fast and accurate protein structure prediction. *Nature Protocols*, 16(12), 5634–5651. <https://doi.org/10.1038/s41596-021-00628-9>
- Farooq, M., Batool, M., Kim, M. S., & Choi, S. (2021). Toll-Like Receptors as a Therapeutic Target in the Era of Immunotherapies. *Frontiers in Cell and Developmental Biology*, 9 (October), 1–15. <https://doi.org/10.3389/fcell.2021.756315>
- Firmansyah, M. A., Susilo, A., Haryanti, S. D., & Herowati, R. (2021). Desain Vaksin Berbasis Epitop dengan Pendekatan Bioinformatika untuk Menekan Glikoprotein Spike SARS-CoV-2 Epitope-Based Vaccine Design with Bioinformatics Approach to Suppress Spike Glycoprotein of SARS-CoV-2 1 . PENDAHULUAN Dunia saat ini memerangi pand. *Farmasi Indonesia*, 18(2), 82–96.
- Gabutti, G., Bolognesi, N., Sandri, F., Florescu, C., & Stefanati, A. (2019). Varicella zoster virus vaccines: An update. *ImmunoTargets and Therapy*, 8, 15–28. <https://doi.org/10.2147/ITT.S176383>
- Gasteiger, E., Hoogland, C., Gattiker, A., Duvaud, S., Wilkins, M. R., Appel, R. D., & Bairoch, A. (2005). The Proteomics Protocols Handbook. *The Proteomics Protocols Handbook*, 571–608. <https://doi.org/10.1385/1592598900>
- Gershon, A. A., Breuer, J., Cohen, J. I., Cohrs, R. J., Gershon, M. D., Gilden, D., Grose, C., Hambleton, S., Kennedy, P. G. E., Oxman, M. N., Seward, J. F., & Yamanishi, K. (2015). Varicella zoster virus infection. *Nature Reviews*

- Disease Primers*, 1(July), 1–19. <https://doi.org/10.1038/nrdp.2015.16>
- Heo, L., Park, H., & Seok, C. (2013). GalaxyRefine: Protein structure refinement driven by side-chain repacking. *Nucleic Acids Research*, 41(Web Server issue), 384–388. <https://doi.org/10.1093/nar/gkt458>
- Huy, T. X. N., Nguyen, T. T., Reyes, A. W. B., Vu, S. H., Min, W. G., Lee, H. J., Lee, J. H., & Kim, S. (2021). Immunization With a Combination of Four Recombinant *Brucella abortus* Proteins Omp16, Omp19, Omp28, and L7/L12 Induces T Helper 1 Immune Response Against Virulent *B. abortus* 544 Infection in BALB/c Mice. *Frontiers in Veterinary Science*, 7(January), 1–10. <https://doi.org/10.3389/fvets.2020.577026>
- Indah Setiyani Ulum, Abdi, D. A., Floria Eva, Waspodo, N. N., & Jusli Aras. (2023). Karakteristik Pasien Varicella Pada Anak di Puskesmas Tamalanrea Jaya Makassar. *Fakumi Medical Journal: Jurnal Mahasiswa Kedokteran*, 3(5), 374–380. <https://doi.org/10.33096/fmj.v3i5.233>
- Kar, T., Narsaria, U., Basak, S., Deb, D., Castiglione, F., Mueller, D. M., & Srivastava, A. P. (2020). A candidate multi-epitope vaccine against SARS-CoV-2. *Scientific Reports*, 10 (1), 1–24. <https://doi.org/10.1038/s41598-020-67749-1>
- Khairkhah, N., Aghasadeghi, M. R., Namvar, A., & Bolhassani, A. (2020). Design of novel multiepitope constructs-based peptide vaccine against the structural S, N and M proteins of human COVID-19 using immunoinformatics analysis. *PLoS ONE*, 15(10 October), 1–28. <https://doi.org/10.1371/journal.pone.0240577>
- Khasana, A. S. N., Hartono, N. L. S., Permatasari, V. O., Ramadhan, D. L., & Sumadi, F. A. N. (2023). In Silico Design Of B-Cell Epitope Based Peptide Vaccine For Varicella Zoster Virus. *Indonesian Journal of Biotechnology and Biodiversity*, 7(1), 1–11. <https://doi.org/10.47007/ijobb.v7i1.157>
- Kurniawan, M., Dessy, N., & Tatang, M. (2019). *Varicella Zoster Pada Anak*. 26–26. <http://www.pediatriconcall.com>.
- Lamiable, A., Thevenet, P., Rey, J., Vavrusa, M., Derreumaux, P., & Tuffery, P. (2016). PEP-FOLD3: faster denovo structure prediction for linear peptides in solution and in complex. *Nucleic Acids Research*, 44(1), W449–W454. <https://doi.org/10.1093/nar/gkw329>
- Larsen, M. V., Lundegaard, C., Lamberth, K., Buus, S., Lund, O., & Nielsen, M. (2007). Large-scale validation of methods for cytotoxic T-lymphocyte epitope prediction. *BMC Bioinformatics*, 8, 1–12. <https://doi.org/10.1186/1471-2105-8-424>
- Lee, S. J., Park, H. J., Ko, H. L., Lee, J. E., Lee, H. J., Kim, H., & Nam, J. H. (2020). Evaluation of glycoprotein E subunit and live attenuated varicella-zoster virus vaccines formulated with a single-strand RNA-based adjuvant. *Immunity, Inflammation and Disease*, 8(2), 216–227. <https://doi.org/10.1002/iid3.297>
- Li, H., Chen, Q., Shan, C., Guo, C., Yang, X., Chen, Y., Zhu, J., & Ouyang, Q. (2020). Characterizing the Binding Sites for GK Domain of DLG1 and DLG4 via Molecular Dynamics Simulation. *Frontiers in Molecular Biosciences*, 7(January), 1–9. <https://doi.org/10.3389/fmolb.2020.00001>
- López-Blanco, J. R., Garzón, J. I., & Chacón, P. (2011). iMod: Multipurpose normal mode analysis in internal coordinates. *Bioinformatics*, 27(20), 2843–2850. <https://doi.org/10.1093/bioinformatics/btr497>

- Mahendra, B. (2012). Pengenalan Peran MHC dan Kanker Serviks. *Majalah Obstetri & Ginekolog*, 20, 84–87.
- Murtia Margha, N. P. T., & Wardhana, M. (2021). Karakteristik Penderita Cacar Air (Varicella) Di Rumah Sakit Umum Pusat Sanglah, Denpasar Periode April 2015 - April 2016. *E-Jurnal Medika Udayana*, 10(6), 50. <https://doi.org/10.24843/mu.2021.v10.i6.p10>
- Muthmainnah, P. R., Syahril, K., Rahmawati, Nulanda, M., & Dewi, A. S. (2022). Fakumi medical journal. *Jurnal Mahasiswa Kedokteran*, 2(5), 359–367.
- Naveed, M., Tehreem, S., Arshad, S., Bukhari, S. A., Shabbir, M. A., Essa, R., Ali, N., Zaib, S., Khan, A., Al-Harrasi, A., & Khan, I. (2021). Design of a novel multiple epitope-based vaccine: An immunoinformatics approach to combat SARS-CoV-2 strains. *Journal of Infection and Public Health*, 14(7), 938–946. <https://doi.org/10.1016/j.jiph.2021.04.010>
- O'Brien, K. L., & Nolan, T. (2019). The WHO position on rabies immunization – 2018 updates. *Vaccine*, 37, A85–A87. <https://doi.org/10.1016/j.vaccine.2018.10.014>
- Oluwagbemi, O. O., Oladipo, E. K., Kolawole, O. M., Oloke, J. K., Adelusi, T. I., Irewolede, B. A., Dairo, E. O., Ayeni, A. E., Kolapo, K. T., Akindiya, O. E., Oluwasegun, J. A., & Oluwadara, B. F. (2022). *Vaccine Candidates*.
- Ong, E., He, Y., & Yang, Z. (2020). Epitope promiscuity and population coverage of Mycobacterium tuberculosis protein antigens in current subunit vaccines under development. *Infection, Genetics and Evolution*, 80(January), 104186. <https://doi.org/10.1016/j.meegid.2020.104186>
- Panonsih, R. N., Valentine, A., Rizardi, F., Rachmawati, E., Risdinar, R., Imalambasi, N. N., Faatin, N. N., Fachmi, M., Wahyu, D., Ningrum, S., Fitriani, A., Kulit, D., Sakit, R., Bintang, P., Studi, P., Dokter, P., & Malahayati, U. (2024). *Herpes Zoster pada Wajah Bagian Kanan Herpes Zoster of Right Facial Region*. 14, 820–824.
- Peters, B., Nielsen, M., & Sette, A. (2020). T Cell Epitope Predictions. *Annual Review of Immunology*, 38, 123–145. <https://doi.org/10.1146/annurev-immunol-082119-124838>
- Prasasty, V. D., & Istyastono, E. P. (2019). Data of small peptides in SMILES and three-dimensional formats for virtual screening campaigns. *Data in Brief*, 27, 104607. <https://doi.org/10.1016/j.dib.2019.104607>
- Putri, Y. D. (2022). Aspek Klinis dan Tata Laksana Varicella pada Kehamilan. *Jurnal Kedokteran Nanggroe Medika*, b5(4), 45–53. [file:///C:/Users/USER/Downloads/212-Article Text-733-1-10-20230403.pdf](file:///C:/Users/USER/Downloads/212-Article%20Text-733-1-10-20230403.pdf)
- Rawal, K., Sinha, R., Abbasi, B. A., Chaudhary, A., Nath, S. K., Kumari, P., Preeti, P., Saraf, D., Singh, S., Mishra, K., Gupta, P., Mishra, A., Sharma, T., Gupta, S., Singh, P., Sood, S., Subramani, P., Dubey, A. K., Strych, U., ... Bottazzi, M. E. (2021). Identification of vaccine targets in pathogens and design of a vaccine using computational approaches. *Scientific Reports*, 11(1), 1–25. <https://doi.org/10.1038/s41598-021-96863-x>
- Renadi, S., Pratita, A. T. K., Mardianingrum, R., & Ruswanto, dan R. (2023). The Potency of Alkaloid Derivates as Anti-Breast Cancer Candidates: In Silico Study. *Jurnal Kimia Valensi*, 9(1), 89–108. <https://doi.org/10.15408/jkv.v9i1.31481>
- Rezaldi, F., Taupiqurrohman, O., Fadillah, M. F., Rochmat, A., Humaedi, A., &

- Fadhilah, F. (2021). Identifikasi Kandidat Vaksin COVID-19 Berbasis Peptida dari Glikoprotein Spike SARS CoV-2 untuk Ras Asia secara In Silico. *Jurnal Biotek Medisiana Indonesia*, 10(1), 77–85. <https://ejournal2.litbang.kemkes.go.id/index.php/jbmi/article/view/5031/2299>
- Salaudiddin, M., Kayesh, M. E. H., Ahammed, M. S., Saha, S., & Hossain, M. G. (2024). Development of membrane protein-based vaccine against lumpy skin disease virus (LSDV) using immunoinformatic tools. *Veterinary Medicine and Science*, 10(3), 1–20. <https://doi.org/10.1002/vms3.1438>
- Santoso, A. R., & Sidarta, E. (2021). Pengaruh evolusi virus H3N2 pada perubahan hemagglutinin, neuraminidase dan efeknya terhadap Major Histocompatibility Complex (MHC) kelas II di Indonesia pada tahun 2005-2019. *Tarumanagara Medical Journal*, 3(2), 220–229. <https://doi.org/10.24912/tmj.v4i1.13712>
- Schulze, M. S. E. D., Anders, A. K., Sethi, D. K., & Call, M. J. (2013). Disruption of Hydrogen Bonds between Major Histocompatibility Complex Class II and the Peptide N-Terminus Is Not Sufficient to Form a Human Leukocyte Antigen-DM Receptive State of Major Histocompatibility Complex Class II. *PLoS ONE*, 8(7), 1–15. <https://doi.org/10.1371/journal.pone.0069228>
- Sinaga, E. W. (2020). Tingkat Pengetahuan Ibu Hamil tentang Bahaya Sicanang Kecamatan Medan Belawan Tahun 2018. *Jurnal Ilmiah Kebidanan Imelda*, 4(2), 74–78.
- Smiline Girija, A. S. (2020). Delineating the Immuno-Dominant Antigenic Vaccine Peptides Against gacS-Sensor Kinase in *Acinetobacter baumannii*: An in silico Investigational Approach. *Frontiers in Microbiology*, 11(September), 1–10. <https://doi.org/10.3389/fmicb.2020.02078>
- Syakuran, L. 'Abdan. (2020). Desain Kandidat Vaksin SARS-CoV-2 Menggunakan Pendekatan Immunoinformatika. *ResearchGate*, August, 1–11. <https://doi.org/10.13140/RG.2.2.33453.31202>
- Tama, F., & Brooks, C. L. (2006). Symmetry, form, and shape: Guiding principles for robustness in macromolecular machines. *Annual Review of Biophysics and Biomolecular Structure*, 35, 115–133. <https://doi.org/10.1146/annurev.biophys.35.040405.102010>
- Tamam, B., Syah, D., N. Lioe, H., T. Suhartono, M., & Ananta Kusuma, W. (2018). Beberapa Penciri Berbasis Sekuens Untuk Mengenali Sifat Fungsional Peptida Bioaktif: Studi Eksplorasi. *Jurnal Teknologi Dan Industri Pangan*, 29(1), 1–9. <https://doi.org/10.6066/jtip.2018.29.1.1>
- Tao, Y., Zhang, Y., Li, Y., Liu, Q., Zhu, J., Ji, M., Feng, G., & Xu, Z. (2024). Computer-aided designing of a novel multi-epitope DNA vaccine against severe fever with thrombocytopenia syndrome virus. *BMC Infectious Diseases*, 24(1), 1–12. <https://doi.org/10.1186/s12879-024-09361-6>
- Taupiqurrohman, O., Yusuf, ; Muhammad, Nuswantara, ; Sukma, Subroto, D. T., Penelitian, P., Lipi, B., & Bogor, C. (2016). Perancangan Vaksin Virus Papilloma Manusia Tipe-16 Berbasis Epitop dengan Berbantuan Immunoinformatika. *Jurnal Pendidikan Kimia (JPKIM)*, 8(3), 178–182. <https://jurnal.unimed.ac.id/2012/index.php/jpk/article/view/4535>
- van Aalten, D. M. F., Findlay, J. B. C., Berendsen, H. J. C., & Amadei, A. (1997). Calculating Protein Essential Dynamics. *IJ. Comp. Chem.*, 18(2), 169–181.
- Weng, G., Wang, E., Wang, Z., Liu, H., Zhu, F., Li, D., & Hou, T. (2019).

- HawkDock: a web server to predict and analyze the protein-protein complex based on computational docking and MM/GBSA. *Nucleic Acids Research*, 47(W1), W322–W330. <https://doi.org/10.1093/nar/gkz397>
- Yan, Y., Zhang, D., Zhou, P., Li, B., & Huang, S. Y. (2017). HDock: A web server for protein-protein and protein-DNA/RNA docking based on a hybrid strategy. *Nucleic Acids Research*, 45(W1), W365–W373. <https://doi.org/10.1093/nar/gkx407>
- Yang, Z., Bogdan, P., & Nazarian, S. (2021). An in silico deep learning approach to multi-epitope vaccine design: a SARS-CoV-2 case study. *Scientific Reports*, 11(1), 1–21. <https://doi.org/10.1038/s41598-021-81749-9>
- Yokomichi, H., Kojima, R., Horiuchi, S., Ooka, T., Akiyama, Y., Miyake, K., Mochizuki, M., Otawa, S., Shinohara, R., & Yamagata, Z. (2021). Effectiveness of influenza vaccination in infants and toddlers with and without prior infection history: The Japan Environment and Children's Study. *Vaccine*, 39(13), 1800–1804. <https://doi.org/10.1016/j.vaccine.2021.02.044>