

REFERENCES

- Abbas, A. K., Lichtman, A. H., & Pillai, S. (2019). *Basic immunology e-book: functions and disorders of the immune system*. Else
- Aboudounya, M. M., & Heads, R. J. (2021). COVID-19 and toll-like receptor 4 (TLR4): SARS-CoV-2 may bind and activate TLR4 to increase ACE2 expression, facilitating entry and causing hyperinflammation. *Mediators of inflammation*, 2021.vier Health Sciences.pg 64
- Bethesda. (2020). *Drugs and lactation database (LactMed)*. National Institutes of Health: National Library of Medicine; 2020 [cited 2020 Oct 15].
- Bange, E. M., Han, N. A., Wileyto, P., Kim, J. Y., Gouma, S., Robinson, J., ... & Huang, A. C. (2021). CD8+ T cells contribute to survival in patients with COVID-19 and hematologic cancer. *Nature medicine*, 27(7), 1280-1289.
- Borghans, J., & Ribeiro, R. M. (2017). T-cell Immunology: The maths of memory. *Elife*, 6, e26754.
- Cao, C., Cai, Z., Xiao, X., Rao, J., Chen, J., Hu, N., ... & Xue, Y. (2021). The architecture of the SARS-CoV-2 RNA genome inside virion. *Nature communications*, 12(1), 1-14.
- Cascella, M., Rajnik, M., Aleem, A., Dulebohn, S., & Di Napoli, R. (2021). Features, evaluation, and treatment of coronavirus (COVID-19). *StatPearls*.
- Centers for Disease Control and Prevention. (2021). *Healthcare Workers*. Retrieved 1 December 2021, from <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>
- Cevik, M., Kuppalli, K., Kindrachuk, J., & Peiris, M. (2020). Virology, transmission, and pathogenesis of SARS-CoV-2. *bmj*, 371.
- Cruz-Tapias, P., Castiblanco, J., & Anaya, J. M. (2013). Major histocompatibility complex: antigen processing and presentation. In *Autoimmunity: From Bench to Bedside* [Internet]. El Rosario University Press.
- Djalante, R., Lassa, J., Setiamarga, D., Sudjatma, A., Indrawan, M., Haryanto, B., Mahfud, C., Sinapoy, M. S., Djalante, S., Rafliana, I., Gunawan, L. A., Surtiari, G., & Warsilah, H. (2020). Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020. *Progress in disaster science*, 6, 100091. <https://doi.org/10.1016/j.pdisas.2020.100091>
- Dhar Chowdhury, S., & Oommen, A. M. (2020). Epidemiology of COVID-19. *Journal of Digestive Endoscopy*, 11(1), 3-7. <https://doi.org/10.1055/s-0040-1712187>
- Dong, R., Chu, Z., Yu, F., & Zha, Y. (2020). Contriving multi-epitope subunit of vaccine for COVID-19: immunoinformatics approaches. *Frontiers in immunology*, 1784.
- Embgrenbroich, M., & Burgdorf, S. (2018). Current concepts of antigen cross-presentation. *Frontiers in immunology*, 9, 1643.
- Ganesh, B., Rajakumar, T., Malathi, M., Manikandan, N., Nagaraj, J., Santhakumar, A., Elangovan, A., & Malik, Y. S. (2021). Epidemiology and pathobiology of SARS-CoV-2 (COVID-19) in comparison with SARS, MERS: An updated overview of current knowledge and future perspectives. *Clinical epidemiology and global health*, 10, 100694. <https://doi.org/10.1016/j.cegh.2020.100694>
- Gustiananda, M., Sulisty, B. P., Agustriawan, D., & Andarini, S. (2021). Immunoinformatics Analysis of SARS-CoV-2 ORF1ab Polyproteins to Identify Promiscuous and Highly Conserved T-Cell Epitopes to Formulate Vaccine for Indonesia and the World Population. *Vaccines*, 9(12), 1459.
- Ibarrondo, F. J., Fulcher, J. A., Goodman-Meza, D., Elliott, J., Hofmann, C., Hausner, M. A., ... & Yang, O. O. (2020). Rapid decay of anti-SARS-CoV-2 antibodies in persons with mild Covid-19. *New England Journal of Medicine*, 383(11), 1085-1087.
- Jung, J. H., Rha, M. S., Sa, M., Choi, H. K., Jeon, J. H., Seok, H., ... & Shin, E. C. (2021). SARS-CoV-2-specific T cell memory is sustained in COVID-19 convalescent patients for 10 months with successful development of stem cell-like memory T cells. *Nature communications*, 12(1), 1-12.
- Khan, M. T., Irfan, M., Ahsan, H., Ahmed, A., Kaushik, A. C., Khan, A. S., ... & Wei, D. Q. (2021). Structures of SARS-CoV-2 RNA-Binding Proteins and Therapeutic Targets. *Intervirolgy*, 64(2), 55-68.

- Kumar, S., Nyodu, R., Maurya, V. K., & Saxena, S. K. (2020). Morphology, Genome Organization, Replication, and Pathogenesis of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). *Coronavirus Disease 2019 (COVID-19): Epidemiology, Pathogenesis, Diagnosis, and Therapeutics*, 23–31. https://doi.org/10.1007/978-981-15-4814-7_3
- Lauer, S. A., Grantz, K. H., Bi, Q., Jones, F. K., Zheng, Q., Meredith, H. R., ... & Lessler, J. (2020). The incubation period of coronavirus disease 2019 (COVID-19) from publicly reported confirmed cases: estimation and application. *Annals of internal medicine*, 172(9), 577-582.
- Long, Q. X., Tang, X. J., Shi, Q. L., Li, Q., Deng, H. J., Yuan, J., ... & Huang, A. L. (2020). Clinical and immunological assessment of asymptomatic SARS-CoV-2 infections. *Nature medicine*, 26(8), 1200-1204.
- Li, X., Geng, M., Peng, Y., Meng, L., & Lu, S. (2020). Molecular immune pathogenesis and diagnosis of COVID-19. *Journal of pharmaceutical analysis*, 10(2), 102–108. <https://doi.org/10.1016/j.jpha.2020.03.001>
- Li, H., Liu, S. M., Yu, X. H., Tang, S. L., & Tang, C. K. (2020). Coronavirus disease 2019 (COVID-19): current status and future perspectives. *International journal of antimicrobial agents*, 55(5), 105951. <https://doi.org/10.1016/j.ijantimicag.2020.105951>
- Lotfi, M., Hamblin, M. R., & Rezaei, N. (2020). COVID-19: Transmission, prevention, and potential therapeutic opportunities. *Clinica chimica acta; international journal of clinical chemistry*, 508, 254–266. <https://doi.org/10.1016/j.cca.2020.05.044>
- Moss, P. (2022). The T cell immune response against SARS-CoV-2. *Nature immunology*, 1-8.
- Murphy, K., & Weaver, C. (2016). *Janeway's immunobiology*. Garland science.
- Martinez, I. L., Llinàs, D. T., Romero, M. B., & Salazar, L. M. (2020). High Mutation Rate in SARS-CoV-2: Will It Hit Us the Same Way Forever. *J. Infect. Dis. Epidemiol*, 6, 176.
- McGill. (2021). COVID19 Vaccine Tracker. Retrieved 17 September 2021, from <https://covid19.trackvaccines.org/agency/who/>
- Mizumoto, K., Kagaya, K., Zarebski, A., & Chowell, G. (2020). Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020. *Euro surveillance : bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin*, 25(10), 2000180. <https://doi.org/10.2807/1560-7917.ES.2020.25.10.2000180>
- Oli, A. N., Obialor, W. O., Ifeanyichukwu, M. O., Odimegwu, D. C., Okoyeh, J. N., Emechebe, G. O., ... & Ibeanu, G. C. (2020). Immunoinformatics and vaccine development: an overview. *ImmunoTargets and therapy*, 9, 13.
- Olejniak, J., Hume, A. J., & Mühlberger, E. (2018). Toll-like receptor 4 in acute viral infection: Too much of a good thing. *PLoS pathogens*, 14(12), e1007390.
- Poran, A., Harjanto, D., Malloy, M., Arieta, C. M., Rothenberg, D. A., Lenkala, D., ... & Gaynor, R. B. (2020). Sequence-based prediction of SARS-CoV-2 vaccine targets using a mass spectrometry-based bioinformatics predictor identifies immunogenic T cell epitopes. *Genome medicine*, 12(1), 1-15.
- Rosendahl Huber, S., van Beek, J., de Jonge, J., Luytjes, W., & van Baarle, D. (2014). T cell responses to viral infections - opportunities for Peptide vaccination. *Frontiers in immunology*, 5, 171. <https://doi.org/10.3389/fimmu.2014.00171>
- Suryawanshi, R. K., Koganti, R., Agelidis, A., Patil, C. D., & Shukla, D. (2021). Dysregulation of cell signaling by SARS-CoV-2. *Trends in microbiology*, 29(3), 224-237.
- van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Williamson, B. N., Tamin, A., Harcourt, J. L., Thornburg, N. J., Gerber, S. I., Lloyd-Smith, J. O., de Wit, E., & Munster, V. J. (2020). Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. *The New England journal of medicine*, 382(16), 1564–1567. <https://doi.org/10.1056/NEJMc2004973>
- Wang, M. Y., Zhao, R., Gao, L. J., Gao, X. F., Wang, D. P., & Cao, J. M. (2020). SARS-CoV-2: structure, biology, and structure-based therapeutics development. *Frontiers in cellular and infection microbiology*, 10.

- World Health Organization. (2021). Coronavirus (COVID-19) Dashboard. Retrieved 1 December 2021, from <https://covid19.who.int/>
- World Health Organization. (2021). Tracking SARS-CoV-2 variants. Retrieved 1 December 2021, from <https://covid19.who.int/>
- World health organization. (2021). Vaccines. Retrieved 1 december 2021. https://www.who.int/health-topics/vaccines-and-immunization#tab=tab_1
- Yashvardhini, N., Kumar, A., & Jha, D. K. (2021). Immunoinformatics Identification of B-and T-Cell Epitopes in the RNA-Dependent RNA Polymerase of SARS-CoV-2. *Canadian Journal of Infectious Diseases and Medical Microbiology*, 2021.
- Zhou, L., Ayeh, S. K., Chidambaram, V., & Karakousis, P. C. (2021). Modes of transmission of SARS-CoV-2 and evidence for preventive behavioral interventions. *BMC Infectious Diseases*, 21(1), 1-9.