DAFTAR PUSTAKA

Aileen, S., Bhassu, S., Seong, S., Yusoff, K. 2025. Newly developed mRNA vaccines induce immune responses in *Litopenaeus vannamei* shrimps during primary vaccination. Dev. Comp. Immunol. 162, 105264.

Ali, M., Depamede, S.N., Septions, B.D.H., Mukhlis, A., Alim, S., Amin, M. & Ashari, M. 2015. Characterization of VP28 and VP19-encoding genes and protein sequence of white spot syndrome virus (WSSV) isolated from Indonesia. In International Seminar on Tropical Natural Resouces, Universitas Mataram

Arcier, J.M, Herman, F., Lightner, D.V. 1999. A viral disease associated with mortalities in hatchery-reared post-larvae of the giant freshwater prawn *Macrobrachium rosenbergii*. Dis Aquat Org 38:177–181

Arulmoorthy, M. P., Anandajothi, E., Vasudevan, S., & Suresh, E. 2020. Major viral diseases in culturable penaeid shrimps: a review. Aquaculture international 28(5), 1939-1967.

Bonami, J.R. A review on the diseases of freshwater prawns with special focus on white tail disease of *Macrobrachium rosenbergii*. Aquac. Res. 2012, 43, 1029–1037.

Bonami, J.R., Shi, Z., Qian, D. 2005. White tail disease of the giant freshwater prawn, *Macrobrachium rosenbergii*: separation of the associated virions and characterization of MrNV as a new type of nodavirus. J Fish Dis 28:23–31

Bonami, J.R., Widada, J,S. 2011. Viral diseases of the giant freshwater prawns *Macrobrachium rosenbergii*: a review. Journal of Invertebrate Pathology 106, 131–142.

Boone, L. 1931. A collection of anomuran and macruran Crustacea from the Bay of Panama and the fresh waters of the Canal Zone. Bulletin of the American Museum of Natural History. 63: 137-189.

Burnley, N. A. Salsabila, and K. K. Thakur. 2023. Survey of farm management and biosecurity practices on shrimp farms on Java Island, Indonesia. Frontiers in Aquaculture. 2: 1169149.

Chappell, J. D., & Dermody, T. S. 2015. Biology of Viruses and Viral Diseases. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 1681–1693.e4.

Cheng, W., Zhang, H., Wang, P., Wei, Y., Li, T., Zhou, Y., Mao, Y. 2021. Clinical signs of naturally white spot syndrome virus (WSSV)-infected kuruma shrimp *Marsupenaeus japonicas*, based on their physiological and behavioural states. Aquaculture 533, 736104.

Coelho, M.G.L., Silva, A.C.G., Nova, C.M.V.V., Neto, J.M.O., Lima, A.C.N., Feijó, R.G., Apolinário, D.F., Maggioni, R., Gesteira, T.C.V. Susceptibility of the wild southern brown shrimp (*Farfantepenaeus subtilis*) to infectious hypodermal and hematopoietic necrosis (IHHN) and infectious myonecrosis (IMN). Aquaculture 294: 1–4.

Cox, N., De Swaef, E., Corteel, M., Van Den Broeck, W., Bossier, P., Dantas-Lima, J.J., Nauwynck, H.J. 2023. The way of water: unravelling white spot syndrome virus (WSSV) transmission dynamics in *LitoPenaeus vannamei* shrimp. Viruses 15.

Desrina, Haditomo, A.H.C., Prayitno, S.B. 2011. Survei keberadaan virus White spot syndrome (WSS) pada cacing polychaeta di tambak udang: studi kasus di Kendal. Jurnal LITBANG Provinsi Jawa Tengah 9(2): 124-129.

Desrina, Prayitno, S.B., Verdegem, M.C.J., Verreth, J.A.J., Vlak, J.M. White spot syndrome virus host range and impact on transmission. Rev Aquac. 2022; 14(4): 1843-1860.

Dhar, A. K., Cowley, J. A., Hasson, K. W., & Walker, P. J. 2004. Genomic organization, biology, and diagnosis of Taura syndrome virus and yellowhead virus of penaeid shrimp. Advances in virus research 63: 353.

Dharan, V & Aarattuthodi. 2021. Rivers's Postulates Fulfulled for Blue Catfish Alloherpervirus. Frontiers in Environmental Microbiology, 7(3): 80-84.

Dugassa, H., and D. G. Gaetan. 2018. Biology of white leg shrimp, *Penaeus vannamei*: review. World Journal of Fish and Marine Sciences 10(2): 5-17.

Durand, S., Lightner, D.V., Redman, R.M., Bonami, J.R., 1997. Ultrastructure and morphogenesis of white spot syndrome baculovirus (WSSV). Dis. Aquat. Org. 29, 205–211.

Escobedo-Bonilla, C., Alday-Sanz, V., Wille, M., Sorgeloos, P., & Pensaert, M. 2008. A review on the morphology, molecular characterization,morphogenesis and pathogenesis of white spot syndrome virus. Journal of Fish Diseases, 31: 1–18.

FAO, The State of World Fisheries and Aquaculture 2022, 2022 [Online]. Available: https://openknowledge.fao.org/handle/20.500.14283/cc0461en. [Diakses pada 14 Juni 2025].

FAO. 2018. The State of World Fisheries and Aquaculture: Meeting the Sustainable Development Goals. Food and Agriculture Organization of the United Nations, Rome. [Diakses pada 14 Juni 2025].

FAO. 2024. The State of World Fisheries and Aquaculture 2024 – Blue Transformation in action. Rome. https://doi.org/10.4060/cd0683en. [Diakses pada 14 Juni 2025].

Flegel, T.W., 2012. Historic emergence, impact and current status of shrimp pathogens in Asia. J. Invertebr. Pathol. 110: 166–173.

Francis, F.R. 2005. Introduction to fish health management. IFAS Extension. Fisheries and Aquatic Sciences Department University of Florida US CIR 921: 1-4.

Ganguly, S. 2017. Viral Diseases Infecting Finfishes and Ornamental Fishes: A Review of Relevance to Sustainable Aquaculture,Int. J. Pure App. Biosci.5(1):282-284.

Garlock, T.M., Asche, F., Anderson, J.L., Eggert, H., Anderson, T.M., Che, B., Tveretas, R. 2024. Enviromental, economic, and social indicator. Nat. Commun.15(1): 5274.

Goddard, S., Delghandi, M., 2020. Importance of the conservation and management of freshwater to aquaculture. Encycl. World's Biomes 35–44.

Green, C., Haukenes, A. 2015. The Role of Stress in Fish Disease Southern Regional Aquaculture Center,

Hameed, A.S.S., Abdul Majeed, S., Vimal, S., Madan, N., Rajkumar, T., Santhoshkumar, S., & Sivakumar, S. 2017. Studies on the occurrence of *infectious myonecrosis virus* in pond-reared *LitoPenaeus vannamei* (Boone, 1931) in India. Journal of fish diseases, 40(12): 1823–1830.

Hameed, A.S.S., Ravi, M., Farook, M.A., Taju, G., HernandezHerrera, R.I., & Bonami, J.R. 2011. Screening the postlarvae of *Macrobrachium rosenbergii* for early detection of *Macrobrachium rosenbergii Noda Virus* (MrNV) and extra small virus (XSV) by RT–PCR and immunological techniques. Aquaculture, 317(1–4): 42–47.

Hasan, M.J., Sultana, S., Khan, M.N., Islam, H.M.R., Islam, M.N. 2024. Molecular diagnosis appended by histopathological signature delineates the white spot syndrome virus (WSSV) infection in penaeid shrimps. Comparative Immunology Reports 6, 200138.

Hayakijkosol, O.; La Fauce, K.; Owens, L. Experimental infection of redclaw crayfish (*Cherax quadricarinatus*) with *Macrobrachium rosenbergii nodavirus*, the aetiological agent of white tail disease. Aquaculture 2011, 319, 25–29

Heckman, J. J., Pinto, R., & Savelyev, P. A. 2020. Rencana Strategis 2020-2024 Deputi Bidang Koordinasi Sumber Daya Maritim. Angewandte Chemie International Edition, 6(11), 951–952.

Hossain, M.K., Islam, K.T., Hossain, M.D. and Rahman M.H. 2011. Environmental impact assessment of fish diseases on fish production. J. Sci. Foundation 9(1&2): 125-131.

Hsieh, C.Y., Chuang, P.C., Chen, L.C., Tu, C., Chien, M.S., Huang, K.C., Kao, H.F., Tung, M.C., Tsai, S.S., 2006. Infectious hypodermal and haematopoietic necrosis virus (IHHNV) infections in giant freshwater prawn, Macrobrachium rosenbergii. Aquaculture 258, 73–79.

Huang, H.J., Tang, S.L., Chang, Y.C., Wang, H.C., Ng, T. H., Garmann, R. F., Chen, Y.W., Huang, J.Y., Kumar, R., Chang, S.H., Wu, S.R., Chao, C.Y., Matoba, K., Kenji, I., Gelbart, W. M., Ko, T.P., Wang, H.J., Lo, C.-F., Chen, L.L., & Wang, H.C. 2023. Multiple Nucleocapsid Structural Forms of Shrimp White Spot Syndrome Virus Suggests a Novel Viral Morphogenetic Pathway. International Journal of Molecular Sciences, 24(8), 7525.

Islam, S. I., Mou, M. J., Sanjida, S., Mahfuj, S. 2023. A review on molecular detection techniques of white spot syndrome virus: Perspectives of problems and solutions in shrimp farming. Veterinary Medicine and Science, 9: 778–801.

Johnson, S.K. 1995. Handbook of Shrimp Disease. Department of Wildlife and Fisheries Science. Texas A&M University.

Kalagayan, H., Godin, D., Kanna, R., Hagino, G., Sweeney, J.,Wyban, J., Brock J,. 1991. IHHNV Virus as an Etiological Factor in Runt-Deformity Syndrome of Juvenile Penaeus vannamei Cultured In Hawaii. J. World Aquacult. Soc. 22(4): 235–243.

Kementerian Kelautan dan Perikanan. 2021. Keputusan Menteri Kelautan Dan Perikanan Republik Indonesia Nomor 17 Tahun 2021 Tentang Penetapan Jenis Penyakit Ikan Karantina, Organisme Penyebab, Golongan, Dan Media Pembawa.

Kibenge, F.S.B. 2019. Emerging viruses in aquaculture. Current Opinion in Virology 34: 97-103.

Koesharyani, I. and Gardenia, L. 2014. Detection of *Macrobranchium rosenbergii* Nodavirus (MrNV) and extra small virus (XSV) disease on giant freshwater prawn, *Macrobranchium rosenbergii* at Samas, Yogyakarta. Indonesian Aquaculture Journal 9(1): 33-40.

Krell, P.J., Ozsahin, E., 2021. Nimaviruses (Nimaviridae). In: Encyclopedia of Virology. Elsevier, pp. 808–818.

Kumar, S.S., Bharathi, R.A., Rajan, J.J.S., Alavandi, S.V., Poornima, M., Balasubramanian, C.P., Ponniah, A.G. 2013. Viability of white spot syndrome virus (WSSV) in sediment during sun-drying (drainable pond) and under non-drainable pond conditions indicated by infectivity to shrimp. Aquaculture, 402-403: 119-126

Kumar, S.S., Sivakumar, S., Abdul Majeed, S., Vimal, S., Taju, G., Sahul Hameed, A.S. 2021. In vitro propagation of *infectious myonecrosis virus* in C6/36 mosquito cell line. J. Fish Dis 44: 987–992.

Kusna, M., Prayitno, S.B., Sarjito, Wijayanto, D. 2023. Estimated economic losses due to white spot syndrome virus (WSSV) disease in intensive vannamei shrimp culture business in Kendal Regency. Bioflux 16(5): 2615-2625.

Lee, D., Yu, Y. B., Choi, J. H., Jo, A. H., Hong, S. M., Kang, J. C., & Kim, J. H. 2022. Viral Shrimp Diseases Listed by the OIE: A Review. Viruses, 14(3), 585.

Li, C., Weng, S., He, J. 2019. WSSV-host interaction: Host response and immune evasion. Fish and Shellfish Immunology, 84: 558-571.

Li, F., Gao, M., Xu, L. & Yang, F. 2017. Comparative genomic analysis of three white spot syndrome virus isolates of different virulence. Virus Genes 53(2): 249-258.

Liao, I.C., Chien, Y.H. 2011. The Pacific White Shrimp, *Litopenaeus vannamei*, in Asia: The World's Most Widely Cultured Alien Crustacean. In: Galil, B., Clark, P., Carlton, J. (eds) In the Wrong Place - Alien Marine Crustaceans: Distribution, Biology and Impacts. Invading Nature - Springer Series in Invasion Ecology 6: 589-519.

Lightner, D. V. 2011. Virus diseases of farmed shrimp in the Western Hemisphere (the Americas): a review. Journal of Invertebrate Pathology, 106(1), 110-130.

Lightner, D.V. A handbook of shrimp pathology and diagnostic procedures for diseases of cultured penaeid shrimp. 1996. World Aquaculture Society, Baton Rouge, LA.

Liu, H., Meng, C., Li, D.L., Liu, L.-K. 2019. White spot syndrome virus infection in a crustacean. Fish & Shellfish Immunology, 91, 470.

Lotz, J.M., Soto, M.A. 2002. Model of white spot syndrome virus (WSSV) epi-demics in *LitoPenaeus vannamei*. Dis Aquat Organ. 50(3):199-209.137.

Louten J. 2016. Virus Replication. Essential Human Virology, 49–70.

Manan, H., Zhong, J.M.H., Othman, F., Ikhwanuddi, M., 2015. Histopathology of the hepatopancreas of Pacific white shrimp, *Penaeus vannamei* from none early mortality syndrome (EMS) shrimp ponds. J. Fish. Aquat. Sci. 10, 562–568.

Martorelli, S.R., Overstreet, R.M., Jovanovich-Alvillar, J.A., 2010. First report of viral pathogens WSSV and IHHNV in Argentine crustaceans. Bull. Mar. Sci. 86, 117–131.

Mendoza-Cano, F., Sánchez-Paz, A., 2013. Development and validation of a quantitative real-time polymerase chain assay for universal detection of the white spot syndrome virus in marine crustaceans. Virol. J. 10, 186.

Millard, R.S., Ellis, R.P., Bateman, K.S., Bickley, L.K., Tyler, C.R., van Aerle, R., Santos, E. M., 2021. How do abiotic environmental conditions influence shrimp susceptibility to disease? A critical analysis focussed on white spot disease. J. Invertebr. Pathol. 186, 107369.

Mugunthan, S.P., Loganathan, N., Shanmugaraj, B., Chandra, H.M. 2025. A narrative review on the white spot syndrome virus and the perspective of vaccine development. Vacunas 26, 100382.

Murwantoko, M., Bimantara, A., Roosmanto, R., & Kawaichi, M. 2016. Macrobrachium rosenbergii nodavirus infection in a giant freshwater prawn hatchery in Indonesia. SpringerPlus, 5(1), 1729.

Nunan, L.M, Poulos, B.T, Lightner, D.V. 1998. Reverse transcription polymerase chain reaction (RT PCR) used for the detection of Taura Syndrome Virus (TSV) in experimentally infected shrimp. Dis. Aquat. Org. 34: 87-91.

Oakey, J., Smith, C., Underwood, D., Afsharnasab, M., Alday-Sanz, V., Dhar, A., & Crook, A. 2019. Global distribution of white spot syndrome virus genotypes determined using a novel genotyping assay. Archives of virology 164: 2061-2082.

Owens, L., La Fauce, K., Juntunen, K., Hayakijkosol, O., Zeng, C., 2009. *Macrobrachium rosenbergii nodavirus* disease (white tail disease) in Australia. Diseases of Aquatic Organisms 85: 175–180.

Patanasatienkul, T., M. Gautam, K. L. Hammell, D. Gilang, M. K. V. C. Delhino, H.

Pazir, M.K., Afsharnab, M., Niamaimandi, N., Khadem, H., Akbarpour, E., Zendebudi, A.A. 2012 Histopathological observation of white spot syndrome virus and infectious hypodermal and hematopoietic necrosis virus in shrimp farms, *LitoPenaeus vannamei*, in Bushehr Province, Iran. Asian Journal of Animal Sciences 6: 209-219.

Pazir, M.K., Afsharnasab, M., Jafari, B., Sharifpour, I., Motalebi, A.A., Dashtiannasab, A. 2011. Detection and identification of white spot syndrome virus (WSSV) and infectious hypodermal and hematopoietic necrosis virus (IHHNV) of Litopenaus vannamei from Bushehr and Sistan and Baloochestan provinces, Iran, during 2009-2010, Iranian J. Fish. Sci. 10: 708–726.

Pénzes, J.J., Söderlund-Venermo, M., Canuti, M., Eis-Hübinger, A.M., Hughes, J., Cotmore, S.F., Harrach, B., 2020. Reorganizing the family Parvoviridae: a

revised taxonomy independent of the canonical approach based on host association. Arch. Virol. 165 (9): 2133–2146.

Post. G. 1987. Textbook of Fish Health. TFH Publication. United States of Amerika

Poulos, B. T., Tang, K. F., Pantoja, C. R., Bonami, J. R., & Lightner, D. V. 2006. Purification and characterization of infectious myonecrosis virus of penaeid shrimp. *Journal of General Virology*, *87*(4), 987-996.

Pradeep, B., Rai, P., Mohan, S.A., Shekhar, M.S., Karunasagar, I., 2012. Biology, host range, pathogenesis and diagnosis of white spot syndrome virus. Indian J. Virol. 23, 161–174.

Prasad, K.P., Shyam, K.U., Banu, H., Jeena, K., Krishnan, R. 2017. Infectious *Myonecrosis Virus* (IMNV)–An alarming viral pathogen to Penaeid shrimps. Aquaculture 477: 99–105

Putri, D. A. S., Rosjadi, F., Sundari, M. S., & Daya. 2016. Dwi Ayu Sekarini Putri, Firman Rosjadi, Made Siti Sundari. Ekonomi Dan Bisnis, 2017, 11–18.

Qayoom, U., Gireesh-Babu, P., Kumar, G., Chaudhari, A. 2023. WSSV susceptibility in the early stagers of Peneaus vannamei shows relationship with bodyweight. Journal of Invertebrate Pathology 198: 107912.

Qian, D., Shi, Z., Zhang, S., Cao, Z., Liu, W., Li, L., Xie, Y., Cambournac, I., Bonami, J.R., 2003. Extra small virus-like particles (XSV) and nodavirus associated with whitish muscle disease in the giant freshwater prawn *Macrobrachium rosenbergii*. Journal of Fish Diseases 26, 521–527.

Rai, P., Pradeep, B., Karunasagar, I., Karunasagar, I. 2009. Detection of viruses in *Penaeus monodon* from India showing signs of slow growth syndrome. Aquaculture 289 (2009): 231–235

Rai, P., Safeena, M.P., Krabsetsve, K., La Fauce, K., Owens, L., Karunasagar, I. 2012. Genomics, molecular epidemiology and diagnostics of infectious hypodermal and hematopoietic necrosis virus. Indian J. Virol. 23(2): 203–214.

Rajendran, K.V., Vijayan, K.K., Santiago, T.C., Krol, R.M. 1999. Experimental host range and histopathology of white spot syndrome virus (WSSV) infection in shrimp, prawns, crabs and lobsters from India. J. Fish Dis. 22, 183–191.

Reyes-López, M.A., Salazar-Marroquín, E.L., Oliva-Hernández, A.A., Salinas-López, N., Narváez-Zapata, J.A., 2009. White-spot syndrome virus diagnostics in frozen shrimp stocks imported to Mexico. CyTA - J. Food 7, 89–94.

Riaz, T., Akram, M., Rashid, A., Ansari, R., Laila, U., Bankole, M. M., & Parmar, P. 2023. Role of nanoparticles in disease management. International Archives of Integrated Medicine, 10(8).

Roberts, R. J. 2012. Fish Pathology. Fourth Edition. Blackwell Publishing Ltd.

Sánchez-Paz, A. 2010. White spot syndrome virus: an overview on an emergent concern. Vet. Res. 41, 43.

Seibert, C.H., Borsa, M., Rosa, R.D., Cargnin-Ferreira, E., Pereira, A.M.L., Grisard, E.C., Zanetti, C.R., Pinto, A.R. 2010. Detection of major capsid protein of infectious myonecrosis virus in shrimps using monoclonal antibodies. J. Virol. Methods 169: 169–175.

Senapin, S., Phewsaiya, K., Briggs, M., Flegel, T.W. 2007. Outbreaks *of infectious myonecrosis virus* (IMNV) in Indonesia confirmed by genome sequencing and use of an alternative RT-PCR detection method. Journal of Aquaculture266: 32-38.

Stentiford, G. D., Bonami, J. R., & Alday-Sanz, V. 2009. A critical review of susceptibility of crustaceans to Taura syndrome, Yellowhead disease and White Spot Disease and implications of inclusion of these diseases in European legislation. *Aquaculture*, *291*(1-2), 1-17.

Suwoyo, H. S. and E. A. Hendrajat. 2021. High density aquaculture of white shrimp (*Litopenaeus vannamei*) in controlled tank. IOP Conf. Series: Earth and Environmental Science. 777.

Talukder, A.S., Punom, N.J., Eshik, M.M.E., Begum, M.K., Islam, H.M.R., Hossain, Z., Rahman, M.S. 2021. Molecular identification of white spot syndrome virus (WSSV) and associated risk factors for white spot disease (WSD) prevalence in shrimp (Penaeus monodon) aquaculture in Bangladesh. Journal of Invertebrate Pathology 179: 10735.

Tang, K.F.J., Navarro, S.A. & Lightner, D.V. 2007. A pcr assay for discriminating between infectious hypodermal and hematopoietic necrosis virus (IHHNV) and virus-related sequences in the genome of *Penaeus monodon*. Dis. Aquat. Org., 74, 165–170.

Tang, X., Wu, J., Siravaman, J., Hew, C.L. 2007. Crystal structures of major envelope proteins VP26 and VP28 from white spot syndrome virus shed light on their evolutionary relationship, J. Virol. 81:6709–6717.

Tasakka, A.C.M.A.R, Latama, G., Hidayani, A.A., Parenrengi, A., Tenriulo, A., Relatami, A.N.R., Moore, A., Shaheen, A. 2022. variability of White spot syndrome virus (WSSV) envelope protein VP28 from diseased shrimp (*LitoPenaeus vannamei*) in Indonesia. Sains Malaysiana 51(9): 2775-2788.

Van Hulten, M.C.W., Witteveldt, J., Snippe, M., Vlak, J.M. 2001. White spot syndrome virus envelope protein VP28 is involved in the systemic infection of shrimp. Virology 285, 228–233.

Vankara, A. P., Thummala, C., & Ahammed, P. R. 2022. Occurrence of monogeneans on selected cyprinid fishes from the river Penna in YSR district, Andhra Pradesh. Journal of Experimental Zoology India, (1).

Verbruggen, B., Bickley, L. K., Van Aerle, R., Bateman, K. S., Stentiford, G. D., Santos, E. M., & Tyler, C. R. 2016. Molecular Mechanisms of White Spot Syndrome Virus Infection and Perspectives on Treatments. Viruses, 8(1), 23.

Verma, A.K., Gupta, S., Singh, S.P., Nagpure, N.S., 2017. An update on mechanism of entry of white spot syndrome virus into shrimps. Fish Shellfish Immunol. 67, 141–146.

Wang, C.S., Chang, J.S., Shih, H.H., Chen, S.N.. 2008. *Macrobrachium rosenbergii nodavirus* infection in *M. rosenbergii* (de Man) with white tail disease cultured in Taiwan. Journal of Fish Diseases 31: 415–422.

Wang, H. C., Hirono, I., Maningas, M. B. B., Somboonwiwat, K., Stentiford, G., & ICTV Report Consortium. 2019. ICTV virus taxonomy profile: Nimaviridae. Journal of General Virology, 100(7), 1053-1054.

Wikumpriya, G.C., Prabhatha, M.W.S., Lee, J., Kim, C.H. 2023. Epigenetic modulations for prevention of infectious diseases in shrimp aquaculture. Genes (Basel) 14, 1682.

WOAH. 2024. Manual of Diagnostic Tests for Aquatic Animal. https://www.woah.org/en/what-we-do/standards/codes-and-manuals/ (Diakses pada 21 Mei 2025).

Yoganandhan, K., Thirupathi, S., & Hameed, A. S. 2003. Biochemical, physiological and hematological changes in *white spot syndrome virus*-infected shrimp, Penaeus indicus. Aquaculture 221(1-4): 1-11.

Yu, J.Y., Yang, N., Hou, Z.H. 2021. Research progress on hosts and carriers, prevalence, virulence of infectious hypodermal and hematopoietic necrosis virus (IHHNV). J. Invertebr. Pathol, 183, 107556.

Zhao, Z. Y., Yin, Z. X., Weng, S. P., Guan, H. J., Li, S. D., Xing, K., Chan, S. M., and He, J. G., 2007. Profiling of differentially expressed genes in hepatopancreas of white spot syndrome virus-resistant shrimp (*Litopenaeus vannamei*) by suppression subtractive hybridisation. Fish & Shellfish Immunology, 22 (5): 520-534.

Zhu, L., Zhang, S., Hou, C., Liang, X., Dehwah, M. A. S., Tan, B., & Shi, L. 2021. The T cell factor, pangolin, from *LitoPenaeus vannamei* play a positive role in the immune responses against *white spot syndrome virus* infection. Developmental & Comparative Immunology 119: 104041.