CURRICULUM VITAE

Ha Thanh Dong, Ph.D.
Aquaculture and Aquatic Resources Management
Department of Food, Agriculture and Bioresources
School of Environment, Resources and Development
Asian Institute of Technology (AIT)
PO Box 4, Klong Luang,
Pathumthani, Bangkok, Thailand.
E-mail: htdong@ait.ac.th,
or hadongntu@gmail.com
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Scopus ID: 56416917400

Education

2016	PhD.	Veterinary Pathobiology	Chulalongkorn University, Thailand
2014	MSc.	Veterinary Pathobiology	Chulalongkorn University, Thailand
2009	BSc.	Aquatic Animal Disease	Nha Trang University, Vietnam

Employment

July 2021- Present	Assistant Professor, Asian Institute of Technology
2018-2021	Lecturer, Suan Sunandha Rajabhat University, Thailand
2017-2018	Academic Researcher, King Mongkut's University of Technology Thonburi (KMUTT), Thailand
2016-2017	Postdoctoral Researcher, King Mongkut's University of Technology Thonburi (KMUTT), Thailand
2009-2011	Researcher, Research Institute for Aquaculture No.1, Vietnam

Biography

Dong is a dynamic researcher in the field of aquatic animal health, internationally recognized for his contributions to emerging infectious diseases in tropical aquaculture, disease diagnostics, host-pathogen interaction, fish vaccine development, and nanobubble technology. His primary focus lies in identifying and characterizing infectious pathogens that impact important aquaculture species, particularly tilapia, Asian sea bass, catfish, snake skin gourami, Siamese fighting fish, and whiteleg shrimp. Furthermore, Dong's innovative work extends to fish vaccine development, nanobubble technology, and other disease-control strategies, offering sustainable alternatives to antibiotics. His recent studies have revealed unprecedented applications of nanobubble technologies in enhancing efficacy of immersion vaccine in aquaculture, opening a promising new avenue for the further advancement of the industry. Dong has authored or co-authored over 100 international peer-reviewed articles in this field and currently serves as an advisory board member and/or guest editor for several reputable journals such as Aquaculture, Journal of Fish Diseases, and Vaccines. Additionally, he has served as a referee for more than 20 international peer-reviewed journals. In 2023, he was listed as one of the world's top 2% most-cited scientists in the field of Fisheries by Stanford University. Additionally, he has been honored to contribute as an expert resource or consultant for several projects led by the Food and Agriculture Organization of the United Nations (FAO), and the WorldFish Center.

Research interests

- Aquatic Animal Health
- Emerging Infectious Diseases
- Disease Diagnosis
- Host-Pathogen Interactions
- Fish Immunology and Vaccines
- Nanobubble Technology
- Alternatives to Antibiotics

Teaching

- ED71.9026: Aquaculture Health Management
- ED71.9027: Applied Microbiology and Biotechnology
- ED71.9028: Research Workshop and Seminar in Aquaculture

International peer-reviewed publications (*corresponding author)

2024

1. Lan, N. G. T., **Dong, H. T.***, Vinh, N.T., Salin, K.R., Senapin, S., Pimsannil, K., St-Hilaire, S., Shinn, A. P., Rodkhum, C. (2024) A novel vaccination strategy against *Vibrio harveyi* infection in Asian seabass (*Lates calcarifer*) with the aid of oxygen nanobubbles and chitosan. Fish & Shellfish Immunology [submitted].
2. Lan, N. G. T., **Dong, H. T*.**, Vinh, N. T., Senapin, S., Shinn, A. P., Salin, K. R., & Rodkhum, C. (2024) Immersion prime and oral boost vaccination with an inactivated *Vibrio harveyi* vaccine confers a specific immune response and protection in Asian seabass (*Lates calcarifer*). Fish & Shellfish Immunology, 144, 109293.
3. Dinh-Hung N., **Dong H.T**., Senapin S., Shinn A.P., Linh N.V., Dien L.T., Soontara C., Hirono I., Chatchaiphan S., Rodkhum C. (2024) Using ozone nanobubbles to mitigate the risk of mycobacteriosis in Siamese fighting fish (*Betta splendens*). Aquaculture 581, 740390
4. Dinh-Hung N., **Dong H.T.**, Senapin S., Linh N.V., Shinn A.P., Pirarat N., Hirono I., Chatchaiphan S., Rodkhum C. (2024) Infection and histopathological consequences in Siamese fighting fish (*Betta splendens*) due to exposure to a pathogenic *Mycobacterium chelonae* via different routes. Aquaculture, 579, 740191.

2023

5. Dinh-Hung N., **Dong H.T**., Shinn A.P., Rodkhum C., Phiwsaiya K., Wichianrat C., Soontara C., Senapin S., Chatchaiphan S. (2023) Lumpy skin disease of snakeskin gourami: A new record of metacercariae of *Posthodiplostomum* sp. (Digenea, Diplostomidae) in clinically sick snakeskin gourami, *Trichopodus pectoralis* Regan, 1910 (Pisces, Osphronemidae). Aquaculture 573, 739583.
6. Kumwan B., Bunnoy, A., Chatchaiphan, S., Kayansamruaj, P., **Dong, H.T.**, Senapin, S., Srisapoome, P. (2023) First investigation of the optimal timing of vaccination of Nile tilapia (*Oreochromis niloticus*) larvae against *Streptococcus agalactiae*. Vaccines, 11, 1753.
7. Vinh N.T., **Dong H.T.**, Lan N.G.T., Sangsuriya P., Salin K.R., Chatchaiphan S., Senapin S. (2023) Immunological response of 35 and 42 days old Asian seabass (*Lates calcarifer*, Bloch 1790) fry following immersion immunization with *Streptococcus iniae* heat-killed vaccine. Fish & Shellfish Immunology 138, 108802.
8. Raharjo H.M., Budiyansah H., Mursalim M.F., Chokmangmeepisarn P., Sakulworakan R., Debnath P.P., Sivaramasamy E., Intan S.T., Chuanchuen R., **Dong H.T.**, Mabrok M., Rodkhum C. (2023) The first evidence of blaCTX-M-55, QnrVC5, and novel insight into the genome of MDR *Vibrio vulnificus* isolated from Asian sea bass (*Lates calcarifer*) identified by resistome analysis. Aquaculture 571, 739500.

9. Jungi S.V., Machimbirike V.I., Linh N.V., Sangsuriya P., Salin K.R., Senapin S., **Dong H.T.** (2023) Synthetic peptides derived from predicted B cell epitopes of nervous necrosis virus (NNV) show antigenicity and elicit immunogenic responses in Asian seabass (*Lates calcarifer*). Fish & Shellfish Immunology 139, 108854.

10. Haenen O.L.M., **Dong H.T**., Hoai T.D., Crumlish M., Karunasagar I., Barkham T., Chen S.L., Zadoks R., Kiermeier A., Wang B., Gamarro E.G., Takeuchi M., Azmai M.N.A., Fouz B., Pakingking R., Jr., Wei Z.W., Bondad-Reantaso M.G. (2023) Bacterial diseases of tilapia, their zoonotic potential and risk of antimicrobial resistance. Reviews in Aquaculture 15 (S1), pp. 154 - 185.

11. Linh N.V., Khongcharoen N., Nguyen D.-H., Dien L.T., Rungrueng N., Jhunkeaw C., Sangpo P., Senapin S., Uttarotai T., Panphut W., St-Hilaire S., Van Doan H., **Dong H.T.** (2023) Effects of hyperoxia during oxygen nanobubble treatment on innate immunity, growth performance, gill histology, and gut microbiome in Nile tilapia, *Oreochromis niloticus*. Fish & Shellfish Immunology 143, 109191.

12. Promrug D., Wittayacom K., Nathapanan N., **Dong H.T.**, Thongyoo P., Unajak S., Reamtong O., Boonyuen U., Aroonnual A., Shioda T., Thirapanmethee K., Arthan D. (2023) Cocultures of *Enterococcus faecium* and *Aeromonas veronii* induce the secretion of bacteriocin-like substances against Aeromonas. Journal of Agricultural and Food Chemistry 71 (43), pp. 16194 - 16203.

13. Dinh-Hung N., **Dong H.T.**, Senapin S., Pimsannil K., Thompson K.D., Shinn A.P., Soontara C., Sirimanapong W., Chatchaiphan S., Rodkhum C. (2023) Insight into characteristics and pathogenicity of five rapidly growing non-tuberculous *Mycobacterium* species isolated from the Siamese fighting fish, *Betta splendens*. Aquaculture 575, 739822.

14. Nhinh D.T., Hoa D.T., Giang N.T.H., Van Van K., Dang L.T., Crumlish M., **Dong H.T.**, Hoai T.D. (2023) Synergistic infection of *Edwardsiella ictaluri* and *Flavobacterium oreochromis* in cage cultured tilapia (*Oreochromis* sp.). Journal of Fish Diseases 46 (10), pp. 1125 - 1136.

15. Phasunon R., Taengphu S., Panphut W., Chatchaiphan S., **Dong H.T.**, Senapin S. (2023) Improving the diagnosis of *Streptococcus iniae* using a novel probe-based qPCR assay combined with an enrichment step. Journal of Fish Diseases 46 (12), pp. 1391 - 1401.

16. Dinh-Hung N., **Dong H.T.**, Taengphu S., Soontara C., Rodkhum C., Senapin S., Chatchaiphan S. (2023) *Streptococcus suis* is a lethal pathogen in snakeskin gourami, *Trichopodus pectoralis.* Aquaculture 566, 739173.

17. Dang M., Dien T.D., Van U.P., Ha V.T., Dung V.V., Hieu N.T.D., Hua V.C., Hue N.T.K., Giang N.T.T., Truong V.H., **Dong H.T.** (2023) The first description of histopathology of Lates calcarifer herpesvirus (LCHV) infection in barramundi (*Lates calcarifer*). Aquaculture 565, 739091.

18. Delamare-Deboutteville J., Meemetta W., Pimsannil K., Sangpo P., Gan H.M., Mohan C.V., **Dong H.T.**, Senapin S. (2023) A multiplexed RT-PCR assay for nanopore whole genome sequencing of tilapia lake virus (TiLV). Scientific Reports 13 (1), 20276.

19. Lakshmi S., Smith D., **Dong H.T.**, Thompson K.D., Elumalai P. (2023) Tilapia lake virus disease: Vaccine strategies to control the threat to tilapia aquaculture, Reviews in Aquaculture 15 (4), pp. 1590 - 1599.

20. **Dong H.T***., Chaijarasphong T., Barnes A.C., Delamare-Deboutteville J., Lee P.A., Senapin S., Mohan C.V., Tang K.F.J., McGladdery S.E., Bondad-Reantaso M.G. (2023) From the basics to emerging diagnostic technologies: What is on the horizon for tilapia disease diagnostics? Reviews in Aquaculture 15 (S1), pp. 186 - 212.

21. Dien L.T., Ngo T.P.H., Nguyen T.V., Kayansamruaj P., Salin K.R., Mohan C.V., Rodkhum C., **Dong H.T*.** (2023) Non-antibiotic approaches to combat motile Aeromonas infections in aquaculture: Current state of knowledge and future perspectives, Reviews in Aquaculture 15 (1), pp. 333 - 366.

2022

22. Jungi, S.V., Sangsuriya, P., Taengphu, S., Phiwsaiya, K., Sonthi, M., Nuangsaeng, B., Salin, K.R., Senapin, S., **Dong, H.T.*** (2022) Detection of nervous necrosis virus RGNNV genotype in pearl gentian grouper (*Epinephelus lanceolatus* ♂ × *E. fuscoguttatus* ♀) fry imported to Thailand. Aquaculture, 561, 738659.

23. Dien, L.T., Ky, L.B., Huy, B.T., Mursalim, M.F., Kayansamruaj, P., Senapin, S., Rodkhum, C., **Dong, H.T*.** (2022) Characterization and protective effects of lytic bacteriophage pAh6.2TG against a pathogenic multidrug-resistant *Aeromonas hydrophila* in Nile tilapia (*Oreochromis niloticus*). Transboundary and Emerging Diseases, 69 (4), pp. e435-e450.

24. Debnath, P.P., Jansen, M.D., Delamare-Deboutteville, J., Mohan, C.V., **Dong, H.T.**, Rodkhum, C. (2022) Is tilapia mortality a latent concern for the aquaculture sector of Bangladesh? An epidemiology and health economic impact study. Aquaculture, 560, 738607.

25. Chamtim, P., Suwan, E., **Dong, H.T.**, Sirisuay, S., Areechon, N., Wangkahart, E., Hirono, I., Mavichak, R., Unajak, S. (2022) Combining segments 9 and 10 in DNA and recombinant protein vaccines conferred superior protection against tilapia lake virus in hybrid red tilapia (*Oreochromis* sp.) compared to single segment vaccines. Frontiers in Immunology, 13, 935480.

26. Bunpote, T., Sangsuriya, P., Senapin, S., Srisapoome, P., Khunrae, P., Unajak, S., **Dong, H.T.**, Rattanarojpong, T. (2022) Immunoproteomic identification of OmpA with potential stimulation of serum-specific antibody in Nile tilapia (*Oreochromis niloticus*) and its ability to protect against *Edwardsiella ictaluri* infection. Aquaculture Research, 53 (8), pp. 3214-3227.

27. Machimbirike, V.I., Crumlish, M., **Dong, H.T.**, Santander, J., Khunrae, P., Rattanarojpong, T. (2022) *Edwardsiella ictaluri*: A systemic review and future perspectives on disease management. Reviews in Aquaculture, 14 (3), pp. 1613-1636.

28. Taengphu, S., Kayansamruaj, P., Kawato, Y., Delamare-Deboutteville, J., Mohan, C.V., **Dong, H.T.***, Senapin, S. (2022) Concentration and quantification of *Tilapia tilapinevirus* from water using a simple iron flocculation coupled with probe-based RT-qPCR. (2022) PeerJ, 10, e13157.

29. Linh, N.V., Dien, L.T., Sangpo, P., Senapin, S., Thapinta, A., Panphut, W., St-Hilaire, S., Rodkhum, C., **Dong, H.T.*** (2022) Pre-treatment of Nile tilapia (*Oreochromis niloticus*) with ozone nanobubbles improve efficacy of heat-killed *Streptococcus agalactiae* immersion vaccine. Fish and Shellfish Immunology, 123, pp. 229-237.

30. Hoai, T.D., Nhinh, D.T., Giang, N.T.H., Senapin, S., **Dong, H.T.*** (2022) Detection and characterization of *Kudoa thunni* from uncooked yellowfin tuna (*Thunnus albacares*) in Southeast Asia. Parasitology International, 87, 102536.

31. Dien, L.T., Linh, N.V., Mai, T.T., Senapin, S., St-Hilaire, S., Rodkhum, C., **Dong, H.T.*** (2022) Impacts of oxygen and ozone nanobubbles on bacteriophage in aquaculture system. Aquaculture, 551, 737894.

32. Dinh-Hung, N., **Dong, H.T.**, Soontara, C., Rodkhum, C., Nimitkul, S., Srisapoome, P., Kayansamruaj, P., Chatchaiphan, S. (2022) Co-infection of Candidatus *Piscichlamydia Trichopodus* (Order *Chlamydiales*) and *Henneguya* sp. (Myxosporea, Myxobolidae) in Snakeskin Gourami *Trichopodus pectoralis* (Regan 1910). Frontiers in Veterinary Science, 9, 847977.

33. Barnes, A.C., Silayeva, O., Landos, M., **Dong, H.T.**, Lusiastuti, A., Phuoc, L.H., Delamare-Deboutteville, J. (2022) Autogenous vaccination in aquaculture: A locally enabled solution towards reduction of the global antimicrobial resistance problem. Reviews in Aquaculture, 14 (2), pp. 907-918.

34. Mai, T.T., Kayansamruaj, P., Soontara, C., Kerddee, P., Nguyen, D.-H., Senapin, S., Costa, J.Z., Del-pozo, J., Thompson, K.D., Rodkhum, C., **Dong, H.T.*** (2022) Immunization of Nile tilapia (*Oreochromis niloticus*) broodstock with tilapia lake virus (TiLV) inactivated vaccines elicits protective antibody and passive maternal antibody transfer. Vaccines, 10 (2), 167.

35. Lueangyangyuen, A., Senapin, S., **Dong, H.T.**, Unajak, S., Wangkahart, E., Khunrae, P. (2022) Expression and purification of S5196-272 and S6200-317 proteins from Tilapia Lake Virus (TiLV) and their potential use as vaccines. Protein Expression and Purification, 190, 106013.

36. Dien, L.T., Ngo, T.P.H., Nguyen, T.V., Kayansamruaj, P., Salin, K.R., Mohan, C.V., Rodkhum, C., **Dong, H.T.*** (2022) Non-antibiotic approaches to combat motile Aeromonas infections in aquaculture: Current state of knowledge and future perspectives. Reviews in Aquaculture.

37. Raharjo, H.M., Budiyansah, H., Mursalim, M.F., Chokmangmeepisarn, P., Sakulworakan, R., Madyod, S., Sewaka, M., Sonthi, M., Debnath, P.P., Elayaraja, S., Rung-ruangkijkrai, T., **Dong, H.T.**, Rodkhum, C. (2022) Distribution of Vibrionaceae in farmed Asian sea bass, *Lates calcarifer* in Thailand and their high prevalence of antimicrobial resistance. Journal of Fish Diseases, 45 (9), pp. 1355-1371.

38. **Dong, H.T.***, Sangpo, P., Dien, L.T., Mai, T.T., Linh, N.V., del-Pozo, J., Salin, K.R., Senapin, S. (2022) Usefulness of the pancreas as a prime target for histopathological diagnosis of *Tilapia parvovirus* (TiPV) infection in Nile tilapia, *Oreochromis niloticus*. Journal of Fish Diseases, 45 (9), pp. 1323-1331.

39. Nhinh, D.T., Giang, N.T.H., Van V., K., Dang, L.T., **Dong, H.T.**, Hoai, T.D. (2022) Widespread presence of a highly virulent *Edwardsiella ictaluri* strain in farmed tilapia, *Oreochromis* spp. Transboundary and Emerging Diseases.

40. Debnath, P.P., Dinh-Hung, N., Taengphu, S., Nguyen, V.V., Delamare-Deboutteville, J., Senapin, S., Vishnumurthy Mohan, C., **Dong, H.T.**, Rodkhum, C. (2022) Tilapia lake virus was not detected in non-tilapine species within tilapia polyculture systems of Bangladesh. Journal of Fish Diseases, 45 (1), pp. 77-87.

41. Linh N.V., Dien L.T., **Dong H.T.**, Khongdee N., Hoseinifar S.H., Musthafa M.S., Dawood M.A.O., Van Doan H. (2022) Efficacy of different routes of formalin-killed vaccine administration on immunity and disease resistance of Nile tilapia (*Oreochromis niloticus*) challenged with *Streptococcus agalactiae*, Fishes, 7 (6), art. no. 398.

2021

42. Mai, T.T., Kayansamruaj, P., Taengphu, S., Senapin, S., Costa, J.Z., del-Pozo, J., Thompson, K.D., Rodkhum, C., **Dong, H.T.*** (2021) Efficacy of heat-killed and formalin-killed vaccines against Tilapia tilapinevirus in juvenile Nile tilapia (*Oreochromis niloticus*). Journal of Fish Diseases, 44 (12), pp. 2097-2109.

43. Kerddee, P., Dinh-Hung, N., **Dong, H.T.**, Hirono, I., Soontara, C., Areechon, N., Srisapoome, P., Kayansamruaj, P. (2021) Molecular evidence for homologous strains of infectious spleen and kidney necrosis virus (ISKNV) genotype I infecting inland freshwater cultured Asian sea bass (*Lates calcarifer*) in Thailand. Archives of Virology, 166 (11), pp. 3061-3074.

44. Delamare-Deboutteville, J., Taengphu, S., Gan, H.M., Kayansamruaj, P., Debnath, P.P., Barnes, A., Wilkinson, S., Kawasaki, M., Vishnumurthy Mohan, C., Senapin, S., **Dong, H.T.*** (2021) Rapid genotyping of tilapia lake virus (TiLV) using Nanopore sequencing. Journal of Fish Diseases, 44 (10), pp. 1491-1502.

45. Dien, L.T., Linh, N.V., Sangpo, P., Senapin, S., St-Hilaire, S., Rodkhum, C., **Dong, H.T.*** (2021) Ozone nanobubble treatments improve survivability of Nile tilapia (*Oreochromis niloticus*) challenged with a pathogenic multi-drug-resistant *Aeromonas hydrophila*. Journal of Fish Diseases, 44 (9), pp. 1435-1447.

46. Throngnumchai, B., Jitrakorn, S., Sangsuriya, P., Unajak, S., Khunrae, P., **Dong, H.T.**, Saksmerprome, V., Rattanarojpong, T. (2021) Refolded recombinant major capsid protein (MCP) from Infectious Spleen and Kidney Necrosis Virus (ISKNV) effectively stimulates serum specific antibody and immune related genes response in Nile tilapia (*Oreochromis niloticus*). Protein Expression and Purification, 184, 105876.

47. Dinh-Hung, N., Sangpo, P., Kruangkum, T., Kayansamruaj, P., Rung-ruangkijkrai, T., Senapin, S., Rodkhum, C., **Dong, H.T.*** (2021) Dissecting the localization of *Tilapia tilapinevirus* in the

brain of the experimentally infected Nile tilapia, *Oreochromis niloticus* (L.). Journal of Fish Diseases, 44 (8), pp. 1053-1064.

48. Machimbirike, V.I., Uthaipaisanwong, P., Khunrae, P., **Dong, H.T.**, Senapin, S., Rattanarojpong, T., Sutheeworapong, S. (2021) Comparative genomics of *Edwardsiella ictaluri* revealed four distinct host-specific genotypes and thirteen potential vaccine candidates. Genomics, 113 (4), pp. 1976-1987.

49. Domingos, J.A., Shen, X., Terence, C., Senapin, S., **Dong, H.T.**, Tan, M.R., Gibson-Kueh, S., Jerry, D.R. (2021) Scale Drop Disease Virus (SDDV) and Lates calcarifer Herpes Virus (LCHV) Coinfection downregulate immune-relevant pathways and cause splenic and kidney necrosis in barramundi under commercial farming conditions. Frontiers in Genetics, 12, 666897.

50. Linh, N.V., Dien, L.T., Panphut, W., Thapinta, A., Senapin, S., St-Hilaire, S., Rodkhum, C., **Dong, H.T.*** (2021) Ozone nanobubble modulates the innate defense system of Nile tilapia (*Oreochromis niloticus*) against *Streptococcus agalactiae*. Fish and Shellfish Immunology, 112, pp. 64-73.

51. Rungrueng, N., Meemetta, W., Phiwsaiya, K., **Dong, H.T.**, Panphut, W., Senapin, S. (2021) Ammonium sulfate improves sensitivity and avoids false negatives of polymerase chain reaction (PCR) for scale drop disease virus (SDDV) detection. Aquaculture International, 29 (2), pp. 527-538.

52. Charoenwai, O., Senapin, S., **Dong, H.T.***, Sonthi, M. (2021) Detection of scale drop disease virus from non-destructive samples and ectoparasites of Asian sea bass, *Lates calcarifer*. Journal of Fish Diseases, 44 (4), pp. 461-467.

53. Jhunkeaw, C., Khongcharoen, N., Rungrueng, N., Sangpo, P., Panphut, W., Thapinta, A., Senapin, S., St-Hilaire, S., **Dong, H.T.*** (2021) Ozone nanobubble treatment in freshwater effectively reduced pathogenic fish bacteria and is safe for Nile tilapia (*Oreochromis niloticus*). Aquaculture, 534, 736286.

54. Kwankijudomkul, A., **Dong, H.T.**, Longyant, S., Sithigorngul, P., Khunrae, P., Rattanarojpong, T., Senapin, S. (2021) Antigenicity of hypothetical protein HP33 of *Vibrio harveyi* Y6 causing scale drop and muscle necrosis disease in Asian sea bass. Fish and Shellfish Immunology, 108, pp. 73-79.

55. Thu Lan, N.G., Salin, K.R., Longyant, S., Senapin, S., **Dong, H.T**.* (2021) Systemic and mucosal antibody response of freshwater cultured Asian seabass (*Lates calcarifer*) to monovalent and bivalent vaccines against *Streptococcus agalactiae* and *Streptococcus iniae*. Fish and Shellfish Immunology, 108, pp. 7-13.

56. Thawornwattana, Y., **Dong, H.T.**, Phiwsaiya, K., Sangsuriya, P., Senapin, S., Aiewsakun, P. (2021) Tilapia lake virus (TiLV): Genomic epidemiology and its early origin. Transboundary and Emerging Diseases, 58 (2), pp. 435-444.

<u>2020</u>

57. Sangpo, P., Thitamadee, S., **Dong, H.T.**, Senapin, S. (2020) *Aeromonas schubertii*, a novel bacterium recovered from AHPND affected farm is lethal to whiteleg shrimp, *Penaeus vannamei*. Microbial Pathogenesis, 149, 104501.

58. Nurliyana, M., Lukman, B., Ina-Salwany, M.Y., Zamri-Saad, M., Annas, S., **Dong, H.T.**, Rodkhum, C., Amal, M.N.A. (2020) First evidence of scale drop disease virus in farmed Asian seabass (*Lates calcarifer*) in Malaysia. Aquaculture, 528, 735600.

59. Debnath, P.P., Delamare-Deboutteville, J., Jansen, M.D., Phiwsaiya, K., Dalia, A., Hasan, M.A., Senapin, S., Mohan, C.V., **Dong, H.T.**, Rodkhum, C. (2020) Two-year surveillance of tilapia lake virus (TiLV) reveals its wide circulation in tilapia farms and hatcheries from multiple districts of Bangladesh. Journal of Fish Diseases, 43 (11), pp. 1381-1389.

60. Meemetta, W., Domingos, J.A., **Dong, H.T.***, Senapin, S. (2020) Development of a SYBR Green quantitative PCR assay for detection of Lates calcarifer herpesvirus (LCHV) in farmed barramundi. Journal of Virological Methods, 285, 113920.

61. Kayansamruaj, P., Soontara, C., **Dong, H.T.**, Phiwsaiya, K., Senapin, S. (2020) Draft genome sequence of scale drop disease virus (SDDV) retrieved from metagenomic investigation of infected barramundi, *Lates calcarifer* (Bloch, 1790). Journal of Fish Diseases, 43 (10), pp. 1287-1298.

62. Nguyen, V.V., **Dong, H.T.**, Senapin, S., Kayansamruaj, P., Pirarat, N., Rung-ruangkijkrai, T., Tiawsirisup, S., Rodkhum, C. (2020) Synergistic infection of *Ichthyophthirius multifiliis* and *Francisella noatunensis* subsp. *orientalis* in hybrid red tilapia (*Oreochromis* sp.) Microbial Pathogenesis, 147, 104369.

63. Taengphu, S., Sangsuriya, P., Phiwsaiya, K., Debnath, P.P., Delamare-Deboutteville, J., Mohan, C.V., **Dong, H.T.***, Senapin, S. (2020) Genetic diversity of tilapia lake virus genome segment 1 from 2011 to 2019 and a newly validated semi-nested RT-PCR method. Aquaculture, 526, 735423.

64. Mabrok, M., Chokmangmeepisarn, P., LaFrentz, B.R., Kayansamruaj, P., **Dong, H.T.**, Rodkhum, C. (2020) Development of a species-specific polymerase chain reaction for highly sensitive detection of *Flavobacterium columnare* targeting chondroitin AC lyase gene. Aquaculture, 521, 734597.

65. Jitrakorn, S., Gangnonngiw, W., Bunnontae, M., Manajit, O., Rattanarojpong, T., Chaivisuthangkura, P., **Dong, H.T.**, Saksmerprome, V. (2020) Infectious cell culture system for concurrent propagation and purification of Megalocytivirus ISKNV and nervous necrosis virus from Asian Sea bass (*Lates calcarifer*). Aquaculture, 520, 734931.

66. Vicente, A., Taengphu, S., Hung, A.L., Mora, C.M., **Dong, H.T.**, Senapin, S. (2020) Detection of *Vibrio campbellii* and *V. parahaemolyticus* carrying full-length pirABVp but only *V. campbellii* produces PirVp toxins. Aquaculture, 519, 734708.

67. Hai, L.D., Chockmangmeepisan, P., Sakulworakan, R., **Dong, H.T.**, Kayansamruaj, P., Rung-Ruangkijkrai, T., Pirarat, N., Rodkhum, C. (2020) Virulence properties and pathogenicity of *Flavobacterium columnare* in hybrid red tilapia (*Oreochromis* sp.). Thai Journal of Veterinary Medicine, 50 (1), pp. 103-108.

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96. Kayansamruaj, P., **Dong, H.T.**, Pirarat, N., Nilubol, D., Rodkhum, C. (2017) Efficacy of α-enolase-based DNA vaccine against pathogenic *Streptococcus iniae* in Nile tilapia (*Oreochromis niloticus*). Aquaculture, 468, pp. 102-106.

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105. **Dong, H.T.**, Nguyen, V.V., Le, H.D., Sangsuriya, P., Jitrakorn, S., Saksmerprome, V., Senapin, S., Rodkhum, C. (2015) Naturally concurrent infections of bacterial and viral pathogens in disease outbreaks in cultured Nile tilapia (*Oreochromis niloticus*) farms. Aquaculture, 448, pp. 427-435.

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Non-refereed publications

1. Tang, K.F.J., Bondad-Reantaso, M.G., Surachetpong, W., **Dong, H.T.**, Fejzic, N., Wang, Q., Wajsbrot, N. & Hao, B. 2021. Tilapia lake virus disease strategy manual. FAO Fisheries and Aquaculture Circular No. 1220. Rome, FAO. https://doi.org/10.4060/cb7293en

2. **Dong**, H.T., Siriroob, S., Meemetta, W., Santimanawong, W., Gangnonngiw, W., Pirarat, N., Khunrae, P., Rattanarojpong, T., Vanichviriyakit, R., and Senapin, S. (2017). A warning and an improved PCR detection method for tilapia lake virus (TiLV) disease in Thai tilapia farms. Network of Aquaculture Centres in Asia-Pacific (https://enaca.org/?id=858).

3. **Dong**, H.T., Rattanarojpong, T., and Senapin, S. (2017). Urgent update on possible worldwide spread of tilapia lake virus (TiLV). Network of Aquaculture Centres in Asia-Pacific (https://enaca.org/?id=870).

Book chapter

Shinn A.P., **Dong H.T.**, Vinh N.T., Wongwaradechkul R., Lio-Po G.D. (2023) Infectious diseases of warmwater fish in fresh water. In Climate Change on Diseases and Disorders of Finfish in Cage Culture, pp. 202 – 277. CABI International.

Conference presentations

1. Nanobubbles: an innovative approach to combat antimicrobial resistance (AMR) in aquaculture. Recent trends in vaccines and biomaterials for animal health (RTVBAH 2024), 1-2 Feb 2024, Alagappa University, India, keynote presentation.
2. Environmental (e)DNA/RNA: a valuable tool for surveillance of unseen threats in aquaculture water and diseases forecasting. The 3rd International Conference on Aquatic Animal Epidemiology, ICAR-National Bureau of Fish Genetic Resources, Lucknow, November 29 to December 01, 2023, invited presentation.
3. Emerging Infectious Diseases of Tilapia. Project UTF /ZAM/077/ZAM: Technical Assistance to the Zambia Aquaculture Enterprise Development, FAO. 26 April 2023, Siavonga, Zambia, invited presentation.
4. Principle of Disease Diagnosis. Project Terminal Workshop of Component 4 (Aquatic Animal Health) of Project UTF /ZAM/077/ZAM: Technical Assistance to the Zambia Aquaculture Enterprise Development, FAO. 26 April 2023, Siavonga, Zambia, invited presentation.
5. Basics of Fish Health Management. Project Terminal Workshop of Component 4 (Aquatic Animal Health) of Project UTF /ZAM/077/ZAM: Technical Assistance to the Zambia Aquaculture Enterprise Development, FAO. 26 April 2023, Siavonga, Zambia, invited presentation.
6. Alternatives to Antibiotics: Current Status and Future Trends, World Aquaculture Singapore, November 29-December 2, 2022 Singapore, (Adisseo special session, invited lecture)
7. Tilapia Lake Virus (TiLV) Occurrences and Distribution in The World. Project Terminal Workshop (PTW) GCP/RAF/510/MUL: Enhancing capacity/risk reduction of emerging Tilapia Lake Virus (TiLV) to African tilapia aquaculture, FAO. 14-18 November 2022, Accra, Ghana, invited presentation.
8. Emerging and Re-Emerging Viral Diseases of Tilapia. International Technical Seminar on Tilapia Health, GCP/RAF/510/MUL: Enhancing capacity/risk reduction of emerging Tilapia Lake Virus (TiLV) to African tilapia aquaculture, FAO. 18 November 2022, Akosombo, Ghana, invited presentation.
9. Bacterial Diseases of Tilapia, Their Zoonotic Potential, and Risk of Antimicrobial Resistance (AMR). International Technical Seminar on Tilapia Health, GCP/RAF/510/MUL: Enhancing capacity/risk reduction of emerging Tilapia Lake Virus (TiLV) to African tilapia aquaculture, FAO. 18 November 2022, Akosombo, Ghana, invited presentation.
10. Alternatives to Antibiotics: Current status and what lies ahead for Asian Aquaculture. 13th Asian Fisheries and Aquaculture Forum, Taiwan, 31 May – 02 June, 2022 (Adisseo special session, invited lecture)
11. Nanobubble Technology: a non-chemical approach for aquaculture health management, the webinar hosted by the Anhui Academy in China, 14 February 2022, invited lecture.
12. Back to basics and emerging diagnostic technologies: what's in the horizon for tilapia disease diagnostics? Tilapia health: *quo vadis.* Organized by FAO, 1-3 December 2021, invited lecture.
13. Nanobubble technology as a novel strategy to combat AMR in modern aquaculture, Antimicrobial Resistance (AMR): Preventing the silent pandemic in food systems, 2021 Borlaug Dialogue, World Food Prize Events, 21 October 2021, invited lecture by IDRC.
14. Diagnostic testing: Level I & II. Virtual Course on an Active Surveillance Design Using a 12-point Checklist for Diseases of Aquatic Species. TCP/EGY/3705: Enhancing biosecurity governance to support sustainable aquaculture production in Egypt. Organized by FAO, 31 Aug – 2 Sep 2021, invited lecture.
15. Fish Jacuzzis (!) as a Way to Reduce Infectious Diseases in Aquaculture. The 1st International Conference on Sustainable Aquaculture, BIOTEC/NSTDA, 10-11 August 2021, invited lecture.
16. Update on important diseases of tilapia. Aquaculture Biosecurity Webinar Series. Organized by FAO, December, 2020, invited lecture.
17. Scale Drop Disease in Asian sea bass. National Research Institute of Aquaculture (NRIA), FRA, Japan, February 2020. Special seminar, invited lecture.
18. Critical thinking drives aquaculture health research. Seminar in Marine Technology Course, Burapha University Chanthaburi Campus, November, February 2020, invited lecture.

19. Disease challenges in Asian sea bass (*Lates calcarifer*) aquaculture in Southeast Asia. National Cheng Kung University, Tainan, Taiwan, 7 December 2019, invited lecture.
20. Disease challenges in farmed Tilapia and Asian sea bass. BactiVac workshop on Vaccines for Tilapia, Biotechnology Center of Ho Chi Minh city, Ho Chi Minh city, Vietnam, 23-25 September, 2019, invited lecture.
21. Viral diseases of tilapia in ASEAN countries. The 18th Chulalongkorn University Veterinary Conference 2019 (CUVC2019), 24 April 2019, Impact Muang Thong Thani, Bangkok, Thailand, invited lecture.
22. Fish Diseases: The end is a new beginning. Seminar in Fisheries, Faculty of Fisheries, Kasetsart University, 26 March 2019, invited lecture.
23. Bacterial Diseases of Tilapia. Intensive training course to enhance capacity/risk reduction of emerging Tilapia Lake Virus (TiLV) to African tilapia aquaculture kicks off in Kisumu, Kisumu, Kenya, 04-13 December 2018, invited lecture.
24. TiLV Diagnostics. Intensive training course to enhance capacity/risk reduction of emerging tilapia lake virus (TiLV) to African tilapia aquaculture kicks off in Kisumu, Kisumu, Kenya, 04-13 December 2018, invited lecture.
25. Update on emerging infectious diseases of Asian sea bass in Southeast Asia. The 4th International Conference on Marine Aquaculture, hosted by Nha Trang University - National Taiwan Ocean University, December 2018, invited lecture
26. Emerging and re-emerging and new diseases of tilapia. FAO/China Intensive training course on tilapia lake virus (TiLV), Sun Yat Sen University, Guangzhou, China. 18-24 June 2018, invited lecture.
27. *In situ* hybridization for TiLV. FAO/China Intensive training course on tilapia lake virus (TiLV), Sun Yat Sen University, Guangzhou, China. 18-24 June 2018, invited lecture.
28. Fish necropsy & sample collection for TiLV diagnosis, FAO/China Intensive training course on tilapia lake virus (TiLV), Sun Yat Sen University, Guangzhou, China. 18-24 June 2018, invited lecture.
29. Scale drop disease vs. Scale drop and muscle necrosis disease in Asian Sea bass (*Lates calcarifer*) in Southeast Asia. Asian Aquaculture Conference 2018, AIT, Thailand, invited lecture.
30. Emerging infection disease, a never-ending threat for fish aquaculture industry. International Bioscience Conference 2018 (IBSC 2018), Krabi, Thailand 17-18 September 2018, Keynote presentation.
31. How to make "your stories" publish in international journals. Faculty of Science and Technology. Suan Sunandha Rajabhat University, 23rd April 2018, invited lecture.
32. Tilapia health research at KMUTT and Mahidol University. Aquatic Animal Health Research Workshop in Penang, 28-29th November 2017, invited presentation.
33. Progress in research on Tilapia Lake Virus (TiLV). Biotechnology Center of Ho Chi Minh city, Ho Chi Minh city, Vietnam. November, 2017, invited lecture.
34. Progress in research on Tilapia Lake Virus (TiLV). Department of Animal Health, Vietnam. Hanoi, 3rd October 2017, invited speaker, sponsored by FAO Vietnam.
35. Update on tilapia lake virus (TiLV) research in Thailand and possible strategies for control. Emergency Regional Consultation for Prevention and Management of Tilapia Lake Virus (TiLV) in the Asia-Pacific. Guangzhou, China, 27-28 Sep. 2017 (Keynote presentation, sponsored by NACA & Sun Yet Sen University).
36. My research journey on fish disease in Thailand. Seminar in Marine Technology Course, Burapha University Chanthaburi Campus, 26 November, 2016, invited lecture.
37. Bacterial diseases in farmed tilapia in Thailand. Seminar in Microbiology, Faculty of Science, King Mongkut's University of Technology Thonburi (KMUTT), 25th August 2016, invited lecture.
38. Concurrent infections and miscellaneous diseases. ILDEX Vietnam, Aquaculture Symposium by Federation of Asian Veterinary Association (FAVA), Ho Chi Minh, Vietnam, 24th March 2016 (Keynote presentation, sponsored by FAVA).
39. Columnaris disease in tilapia (*Oreochromis* sp.) and striped catfish (*Pangasianodon hypophthalmus*). ILDEX Vietnam, Aquaculture Symposium by Federation of Asian Veterinary Association (FAVA), Ho Chi Minh, Vietnam, 24th March 2016 (Keynote presentation, sponsored by FAVA).