

## CURRICULUM VITAE (CV)

### Ha Thanh Dong, Ph.D., Assistant Professor

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### 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 has been actively conducting basic and applied research in the field of aquatic animal health since 2007. His research has centered on the discovery and characterization of aquatic pathogens, particularly infectious and emerging infectious diseases of economically important aquaculture species in Asia. His research group has investigated and developed detection methods for a number of emerging pathogens in tilapia, Asian sea bass, and whiteleg shrimp. He's also working on fish vaccine development and other disease-control strategies, such as nanobubble technology, and immunostimulants. He has authored over 75 international peer-reviewed articles related to this field.

### Track Record

- ✚ Internationally known for his work in emerging infectious diseases in tropical aquaculture, disease diagnostics, disease pathogenesis, fish vaccine development and nanobubble technology
- ✚ Published over 75 international peer-reviewed publications
- ✚ Expert resource for the Food and Agriculture Organization (FAO) of the United Nations
- ✚ External consultant/partner for projects led by WorldFish center
- ✚ Editorial Advisory Board of Journal of Fish Diseases (Wiley) and Aquaculture (Elsevier)
- ✚ Serving as referee of over 20 international peer-reviewed journals
- ✚ Top 1% of reviewers in Plant and Animal Science on Publons global review database in 2019
- ✚ Keynote, invited speakers, chair of session at international conferences
- ✚ Reviewer for international funds/awards

## Research Expertise

- Aquatic Animal Health
- Infectious and Emerging Infectious Diseases
- Disease Diagnostics
- Disease Pathogenesis
- Fish Immunology and Vaccines
- Aquatic Microbiology & Biotechnology

## Researcher ID

- Scopus Author ID: 56416917400
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## International peer-reviewed publications (2014-2020, \* corresponding author)

1. Dinh-Hung N, **Dong HT**, Soontara C, Rodkhum C, Nimitkul S, Srisapome P, Kayansamruaj P and Chatchaiphan S (2022) Co-infection of *Candidatus* Piscichlamydia Trichopodus (Order *Chlamydiales*) and *Henneguya* sp. (Myxosporea, Myxobolidae) in snakeskin gourami, *Trichopodus pectoralis* (Regan 1910). *Front. Vet. Sci.* 9: 847977.
2. 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, HT\*** (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, 167.
3. Dien, L. T., Linh, N. V., Mai, T. T., Senapin, S., St-Hilaire, S., Rodkhum, C., & **Dong, HT\*** (2022). Impacts of oxygen and ozone nanobubbles on bacteriophage in aquaculture system. *Aquaculture*, 551, 737894. <https://doi.org/10.1016/j.aquaculture.2022.737894>
4. Hoai, T. D., Ninh, D. T., Giang, N. T. H., Senapin, S., & **Dong, HT\*** (2022). Detection and characterization of Kudoa thunni from uncooked yellowfin tuna (*Thunnus albacares*) in Southeast Asia. *Parasitology International*, 87, 102536.
5. Barnes AC, Silayeva O, Landos M, **Dong HT**, Lusiastuti A, Phuoc LH, Delamare-Deboutteville J (2021) Autogenous vaccination in aquaculture: A locally enabled solution towards reduction of the global antimicrobial resistance problem. *Reviews in Aquaculture*. 2021; 00: 1– 12. <https://doi.org/10.1111/raq.12633>.
6. Lueangyangyuen, A. Senapin S, **Dong HT**, 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, <https://doi.org/10.1016/j.pep.2021.106013>.
7. Debnath PP, Dinh-Hung N, Taengphu S Nguyen VV, Delamare-Deboutteville J, Senapin S, Mohan CV, **Dong HT**, & Rodkhum C. (2022). Tilapia Lake Virus was not detected in non-tilapine species within tilapia polyculture systems of Bangladesh. *Journal of Fish Diseases*, 45, 77– 87. <https://doi.org/10.1111/jfd.13537>
8. Throngnumchai B, Jitrakorn S, Sangsuriya P, Unajak S, Khunrae P, **Dong HT**, Saksmerprom 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 Expr Purif*, 184:105876. doi: 10.1016/j.pep.2021.105876.
9. Taengphu S., Kayansamruaj P., Kawato Y., Delamare-Deboutteville J., Chadag V., **Dong HT\***, Saengchan S\* (2021). Concentration and quantification of *Tilapia tilapinevirus* from

- water using a simple iron flocculation coupled with probe-based RT-qPCR. *bioRxiv*, <https://doi.org/10.1101/2021.08.10.455809>.
10. Dien LT, Ky LB, Huy BT, Mursalim MF, Kayansamruaj P, Senapin S, Rodkhum C, & **Dong, HT\*** (2021). 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*, 1–16. <https://doi.org/10.1111/tbed.14321>.
  11. Mai TT, Kayansamruaj P, Taengphu S, Senapin S, Costa JZ, del-Pozo J, Thompson KD, Rodkhum C\*, **Dong HT\*** (2021) Efficacy of heat-killed and formalin-killed vaccines against *Tilapia tilapinevirus* in juvenile Nile tilapia (*Oreochromis niloticus*), *Journal of Fish Diseases* 44, 2097-2109.
  12. Kerdee P, Dinh-Hung N, **Dong HT**, Hirono I, Soontara C, Areechon N, Srisapoome P, Kayansamruaj P., (2021) Molecular evidence for the homologous strains of infectious spleen and kidney necrosis virus (ISKNV) genotype I infecting the inland freshwater cultured Asian sea bass (*Lates calcarifer*) in Thailand, *Archives of Virology*, 166, 3061–3074.
  13. Dien LT, Linh NV, Sangpo P, Senapin S, St-Hilaire S, Rodkhum C\*, **Dong HT\*** (2021) Ozone nanobubble treatments improve survivability of Nile tilapia (*Oreochromis niloticus*) challenged with a pathogenic multi-drug-resistant *Aeromonas hydrophila*. *Journal Fish Diseases*, 00: 1– 13. <https://doi.org/10.1111/jfd.13451>
  14. Delamare-Deboutteville J\*, Taengphu S, Gan HM, Kayansamruaj P, Debnath PP, Barnes A, Wilkinson S, Kawasaki M, Mohan CV, Senapin S, **Dong HT\*** (2021). Rapid genotyping of tilapia lake virus (TiLV) using Nanopore sequencing. *Journal Fish Diseases*, 00: 1–12. <https://doi.org/10.1111/jfd.13467>
  15. Nguyen VL, Dien TL, Panphut W, Thapinta A, Senapin S, St-Hilaire S, Rodkhum C, **Dong HT\*** (2021). Ozone nanobubble modulates the innate defense system of Nile tilapia (*Oreochromis niloticus*) against *Streptococcus agalactiae*. *Fish and Shellfish Immunology*, 112, 64-73.
  16. Dinh-Hung N, Sangpo P, Kruangkum T, Kayansamruaj P, Rung-ruangkijkrai T, Senapin S, Rodkhum C\*, **Dong HT\*** (2021) Dissecting the localization of *Tilapia tilapinevirus* in the brain of the experimentally infected Nile tilapia (*Oreochromis niloticus*). *Journal of Fish Diseases*, <https://doi.org/10.1111/jfd.13367>.
  17. Machimbirike VI, Uthaipaisanwong P, Khunrae P, **Dong HT**, Senapin S, Rattanarojpong T, Sutheworapong S\* (2021) Comparative genomics of *Edwardsiella ictaluri* revealed four distinct host-specific genotypes and thirteen potential vaccine candidates. *Genomics*, 113, 1976-1987.
  18. Domingos JA\*, Shen X, Terence C, Senapin S, **Dong HT**, Tan MR, Gibson-Kueh S and Jerry DR (2021) Scale drop disease virus (SDDV) and *Lates calcarifer* herpes virus (LCHV) co-infection downregulate immune relevant pathways and cause splenic and kidney necrosis in barramundi under commercial farming conditions. *Frontiers in Genetics*. <https://doi.org/10.3389/fgene.2021.666897>.
  19. Lan NGT, Salin KR\*, Longyant S, Senapin S, **Dong HT\*** (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, 7-13 (IF = 3.29, Q1).
  20. Jhunkeaw C, Khongcharoen N, Rungrueng N, Sangpo P, Panphut W, Thapinta A, Senapin S, St-Hilaire S, **Dong HT\*** (2021) Ozone nanobubble treatment in freshwater effectively reduced pathogenic fish bacteria and is safe for Nile tilapia (*Oreochromis niloticus*). *Aquaculture* 534, 736286 (IF = 3.22, Q1).
  21. Kwankijdomkul A, **Dong HT**, 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, 73-79 (IF = 3.29, Q1).
22. Rungrueng N, Meemetta W, Phiwsaiya K, **Dong HT**, Senapin S\*, Panphut W\* (2021). Ammonium sulfate improves sensitivity and avoids false negatives of polymerase chain reaction (PCR) for scale drop disease virus (SDDV) detection. *Aquaculture International* (In press), (IF = 1.36, Q3).
  23. Taengphu S, Sangsuriya P, Phiwsaiya K, Debnath PP, Delamare-Deboutteville J, Mohan CV, **Dong HT\***, 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, 15, 735423 (IF = 3.22, Q1).
  24. **Dong HT\***, Senapin S, Gangnonngiw W, Nguyen VV, Rodkhum C, Debnath PP, Delamare-Deboutteville J, Mohan CV\* (2020) Experimental infection reveals transmission of tilapia lake virus (TiLV) from tilapia broodstock to their reproductive organs and fertilized eggs. *Aquaculture* 515, 734541 (IF = 3.22, Q1).
  25. Charoenwai O, Senapin S, **Dong HT\***, Sonthi M\* (2020) Detection of scale drop disease virus (SDDV) from non-destructive samples and ectoparasites of Asian sea bass, *Lates calcarifer*. *Journal of Fish Diseases*, DOI: 10.1111/jfd.13290 (IF = 2.32, Q1).
  26. Meemetta W, Domingos JA, **Dong HT\***, 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 (IF=1.78, Q3).
  27. Jitrakorn S, Gangnonngiw W, Bunnontae M, Manajit O, Rattanarojpong T, Chaivisuthangkura P, **Dong HT\***, Saksmerprom 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, 73493 (IF = 3.22, Q1).
  28. Sangpo P, Thitamadee S, **Dong HT**, Senapin S\* (2020) *Aeromonas schubertii*, a novel bacterium recovered from AHPND affected farm is lethal to whiteleg shrimp, *Penaeus vannamei*. *Microbial Pathogenesis*, 149, 104501.
  29. Debnath PP, Deboutteville JD, Jansen MD, Phiwsaiya K, Dalia A, Hasan Md A, Senapin S, Mohan CV, **Dong HT**, 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, 1381-1389 (IF = 2.32, Q1).
  30. Kayansamruaj P\*, Soontara C, **Dong HT**, Phiwsaiyac 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, 1287-1298 (IF = 2.32, Q1).
  31. Kerdee P, **Dong HT**, Chokmangmeepisarn P, Rodkhum C, Srisapoome P, Areechon N, Del-Pozo J, Kayansamruaj P (2020) Simultaneous detection of scale drop disease virus and *Flavobacterium columnare* from diseased freshwater-reared *Lates calcarifer*. *Diseases of Aquatic Organisms*, 140, 119-128 (IF = 1.37, Q2).
  32. Nguyen VV, **Dong HT**, 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 (IF = 2.91, Q2).
  33. Thawornwattana Y, **Dong HT**, Phiwsaiya K, Sangsuriya K, Senapin S\*, Aiewsakun P\* (2020) Tilapia lake virus (TiLV): Genomic epidemiology and its early origin. *Transboundary and Emerging Diseases*. DOI: 10.1111/tbed.13693 (IF = 4.18, Q1).
  34. Hai LD, Chockmangmeepisan P, Sakulworakan R, **Dong HT**, Kayansamruaj P, Rung-ruangkijkrai T, Pirarat N, & Rodkhum C\* (2020). Virulence properties and pathogenicity of *Flavobacterium columnare* in hybrid red tilapia (*Oreochromis* sp.). *The Thai Journal of Veterinary Medicine*, 50, 103-108 (IF = 0.28, Q3).

35. Nurliyana M, Lukman B, Ina-Salwany MY, Zamri-Saad M, Annas S, **Dong HT**, Rodkhum C & Amal MNA\* (2020) First evidence of scale drop disease virus in farmed Asian seabass (*Lates calcarifer*) in Malaysia. *Aquaculture*, 528, 735600 (IF = 3.22, Q1).
36. Sriisan S, Boonchird C, Thitamadee S, Sonthi M, **Dong HT**, Senapin S\* (2020). A sensitive and specific SYBR Green-based qPCR assay for detecting scale drop disease virus (SDDV) in Asian sea bass. *Diseases of Aquatic Organisms*, 139, 131-137 (IF = 1.37, Q2).
37. Kayansamruaj P\*, Soontara C, Unajak S, **Dong HT**, Kondo H, Hirono I, Rodkhum C, Areechon N (2019) Comparative genomics inferred two distinct populations of piscine pathogenic *Streptococcus agalactiae*, serotype Ia ST7 and serotype III ST283, in Thailand and Vietnam. *Genomics*, 111, 1657-1667 (IF = 6.20, Q2).
38. Chiamkunakorn C, Machimbirike VI, Senapin S, Khunrae P, **Dong HT**, Rattanarojpong T\* (2019) Blood and liver biopsy for the non-destructive screening of tilapia lake virus. *Journal of Fish Diseases*, 42, 1629-1636 (IF = 2.32, Q1).
39. Mabrok M, Chokmangmeepisarn P, LaFrentz BR, Kayansamruaj P, **Dong HT**, 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 (IF = 3.22, Q1).
40. Huamanch LLP, Mora MC, Hung ALC, **Dong HT**, Senapin S\* (2019) Tilapia lake virus (TiLV) from Peru is genetically close to the Israeli isolates. *Aquaculture*, 510, 61-65 (IF = 3.22, Q1).
41. Vicente A, Taengphu S, Hung AL, Mora CM, **Dong HT**, Senapin S\* Detection of *Vibrio campbellii* and *V. parahaemolyticus* carrying full-length *pirAB*<sup>VP</sup> but only *V. campbellii* produces *Pir*<sup>VP</sup> toxins. *Aquaculture*, 734708 (IF = 3.22, Q1).
42. Nguyen VV, **Dong HT\***, Senapin S, Gangnonngiw W, Pirarat N, Kayansamruaj P. Rung-ruangkijkrui T, Rodkhum T\* (2019) Transmission of *Francisella noatuensis* subsp. *orientalis* from asymptotically infected hybrid red tilapia broodstock (*Oreochromis* sp.) to their offspring. *Microbial Pathogenesis*, 136, 103670 (IF = 2.91, Q2).
43. Nguyen VV, Rodkhum C, Senapin S\*, **Dong HT\*** (2019) Retrospective diagnosis of archived marine fish experienced unexplained mortality reveals dual infections of *Nocardia seriolae* and *Streptococcus iniae*. *Aquaculture International*, 27, 1503-1512 (IF = 1.36, Q3).
44. Charoenwai O, Meemetta W, Sonthi M, **Dong HT\***, Senapin S\* (2019) A validated semi-nested PCR for rapid detection of scale drop disease virus (SDDV) in Asian sea bass (*Lates calcarifer*). *Journal of Virological Methods*, 268, 37-41 (IF=1.78, Q3).
45. Machimbirike V.I, Jansen MD, Senapin S, Khunrae P, Rattanarojpong T\*, **Dong HT\*** (2019). Viral infections in tilapines: More than just tilapia lake virus. *Aquaculture*, 503, 508-518 (IF = 3.22, Q1).
46. Senapin S\*, **Dong HT**, Meemetta W, Gangnonngiw W, Sangsuriya P, R Vanichviriyakit R, Sonthi M, Nuangsaeng B (2019) Mortality from scale drop disease in farmed *Lates calcarifer* in Southeast Asia. *Journal of Fish Diseases*, 42, 119-127 (IF = 2.32, Q1).
47. **Dong HT\***, Senapin S\*, Jeamkunakorn C, Nguyen VV, Nguyen NT, Rodkhum C, Khunrae P, Rattanarojpong (2019) Natural occurrence of visceral white spot disease caused by *Edwardsiella ictaluri* in farmed red tilapia, *Oreochromis* sp. *Aquaculture*, 499, 17-23 (IF = 3.22, Q1).
48. Jansen DM\*, **Dong HT**, Mohan VC. (2018) Tilapia lake virus: a threat to the global tilapia industry?. *Reviews in Aquaculture*, 11, 725-739 (IF = 7.77, Q1).
49. Kayansamruaj P\*, **Dong HT**, Hirono I, Kondo H, Senapin S, Rodkhum C (2018) Genome characterization of piscine 'Scale drop and muscle necrosis syndrome'-associated strain of *Vibrio harveyi* focusing on bacterial virulence determinants. *Applied Microbiology*, 124, 652-666 (IF = 3.06, Q1).

50. **Dong HT**, Senapin S\*, Phiwsaiya K, Techatanakitarnan C, Dokladda K, Ruenwongsa P, Panijpan B\* (2018) Histopathology and culturable bacteria associated with “big belly” and “skin nodule” syndromes in ornamental Siamese fighting fish, *Betta splendens*. *Microbial Pathogenesis*, 122, 46-52 (IF = 2.91, Q2).
51. Senapin S, Shyam KU, Meemetta W, Rattanarojpong T, **Dong HT\*** (2018) Inapparent infection cases of tilapia lake virus (TiLV) in farmed tilapia. *Aquaculture*, 487, 51-55 (IF = 3.22, Q1).
52. Sotanon N, Saleeart A, Rattanarojpong T, **Dong HT**, Senapin S, Wongprasert K, Sarikavanij S, Khunrae P\* (2018) C-terminal domain of WSSV VP37 is responsible for shrimp haemocytes binding which can be inhibited by sulfated galactan. *Fish and Shellfish Immunology*, 77, 312-318 (IF = 3.29, Q1).
53. Mata W, Putita C, **Dong HT**, Kayansamruaj P, Senapin S, Rodkhum C\* (2018) Quinolone-resistant phenotype of *Flavobacterium columnare* isolates harbored point mutations in both *parC* and *gyrA* but not in either *gyrB* or *parE*. *Global Antimicrobial Resistance*, 15, 55-60 (IF = 2.70, Q2).
54. Ataguba GA, **Dong HT**, Rattanarojpong T, Senapin S, Salin KR\* (2018) *Piper betle* leaf extract inhibits multiple aquatic bacterial pathogens and in vivo *Streptococcus agalactiae* infection in Nile tilapia. *Turkish Journal of Fisheries and Aquatic Sciences*, 18, 671-680 (IF = 0.95, Q3).
55. **Dong HT\***, Jitrakorn S, Kayansamruaj P, Rodkhum C, Rattanarojpong T, Senapin S, Saksmerprom V\* (2017) Infectious spleen and kidney necrosis disease (ISKND) outbreaks in farmed barramundi (*Lates calcarifer*) in Vietnam. *Fish & Shellfish Immunology*, 68, 65-73 (IF = 3.29, Q1).
56. **Dong HT\***, Ataguba GA, Khunrae P, Rattanarojpong T, Senapin S\* (2017). Evidence of TiLV infection in tilapia hatcheries from 2012 to 2017 reveals probable global spread of the disease. *Aquaculture*, 470, 579-583 (IF = 3.22, Q1).
57. **Dong HT\***, S Siriroob, W Meemetta, W Santimanawong, W Gangnonngiw, N Pirarat, P Khunrae, T Rattanarojpong, R Vanichviriyakit, S Senapin\* (2017). Emergence of tilapia lake virus in Thailand and an alternative semi-nested RT-PCR for detection. *Aquaculture*, 476, 111-118 (IF = 3.22, Q1).
58. **Dong HT**, Techatanakitarnan C, Jindakittikul P, Thaiprayoon A, Taengphu S, Charoensapsri W, Khunrae P, Rattanarojpong T, Senapin S\* (2017). *Aeromonas jandaei* and *Aeromonas veronii* caused disease and mortality in Nile tilapia (*Oreochromis niloticus*). *Journal of Fish Diseases*, 40, 1395-1403 (IF = 2.32, Q1).
59. **Dong HT\***, S Taengphu, P Sangsuriya, W Charoensapsri, K Phiwsaiya, T Sornwatana, P Khunrae, T Rattanarojpong, S Senapin\* (2017). Recovery of *Vibrio harveyi* from scale drop and muscle necrosis disease in farmed barramundi, *Lates calcarifer* in Vietnam. *Aquaculture*, 473, 89-96 (IF = 3.22, Q1).
60. Phiwsaiya K, Charoensapsri W, Theangphu S, **Dong HT**, Sangsuriya P, Nguyen TTG, Pham QH, Amparyup P, Sritunyaluckasa K, Taengchaiyaphum S, Chaivisuthangkura P, Longyant S, Sithigorngul P, Senapin S\* (2017) A natural *Vibrio parahaemolyticus*  $\Delta$ *pirA*<sup>Vp</sup> *pirB*<sup>Vp+</sup> mutant kills shrimp but produces neither Pir<sup>Vp</sup> toxins nor acute hepatopancreatic necrosis disease lesions. *Applied and Environmental Microbiology*, 83, e00680-17 (IF = 4.11, Q1).
61. Kayansamruaj P, **Dong HT**, Hirono I, Kondo H, Senapin S, Rodkhum C\* (2017) Comparative genome analysis of fish pathogen *Flavobacterium columnare* reveals extensive sequence diversity within the species. *Infection, Genetics and Evolution*, 54, 7-17 (IF = 2.77, Q1).
62. Kayansamruaj P, **Dong HT**, Pirarat N, Nilubol D, Rodkhum C\* (2017) Efficacy of  $\alpha$ -enolase-based DNA vaccine against pathogenic *Streptococcus iniae* in Nile tilapia (*Oreochromis niloticus*). *Aquaculture*, 468, 102-106 (IF = 3.22, Q1).

63. Kayansamruaj P, Rangsichol A, **Dong HT**, Rodkhum C, Maita M, Katagiri T, Pirarat N.\* (2017) Outbreaks of ulcerative disease associated with ranavirus infection in barcoo grunter, *Scortum barcoo* (McCulloch & Waite). *Journal of Fish Diseases*, 40, 1341-1350 (IF = 2.32, Q1).
64. Kayansamruaj P, **Dong HT**, Nguyen VV, Le HD, Pirarat N, Rodkhum C\* (2017) Susceptibility of freshwater rearing Asian seabass (*Lates calcarifer*) to pathogenic *Streptococcus iniae*. *Aquaculture Research*, 48, 711-718 (IF = 1.75, Q2).
65. LaFrentz BR\*, García JC, **Dong HT**, Waldbieser GC, Rodkhum C, Wong FS, Chang SF (2017) Optimized reverse primer for 16S-RFLP analysis and genomovar assignment of *Flavobacterium columnare*. *Journal of Fish Diseases*, 40, 1103-1108 (IF = 2.32, Q1).
66. **Dong HT**, Senapin S, LaFrentz B, Rodkhum C\* (2016) Virulence assay of rhizoid and non-rhizoid morphotypes of *Flavobacterium columnare* in red tilapia, *Oreochromis* sp., fry. *Journal of Fish Diseases*, 39, 649-655 (IF = 2.32, Q1).
67. **Dong HT**, Nguyen VV, Kayansamruaj P, Gangnonngiw W, Pirarat N, Nilubol D, Senapin S, Pirarat N, Rodkhum C\* (2016) *Francisella noatunensis* subsp. *orientalis* infects striped catfish (*Pangasianodon hypophthalmus*) and common carp (*Cyprinus carpio*) but does not kill the hosts. *Aquaculture*, 464, 190-195 (IF = 3.22, Q1).
68. **Dong HT**, Nguyen VV, Gangnonngiw W, Phiwsaiya K, Charoensapsri W, Nilsen P, Pradeep JP, Withyachumnarnkul B, Senapin S\*, Rodkhum C\* (2016) Duplex PCR assay and *in situ* hybridization for detection of *Francisella* spp. and *Francisella noatunensis* subsp. *orientalis* in red tilapia. *Diseases of Aquatic Organisms*, 120, 39-47 (IF = 1.37, Q2).
69. **Dong HT**, Nguyen VV, Mata W, Kayansamruaj P, Senapin S, Nilubol D, Rodkhum C\* (2016) Diversity of non-*Flavobacterium columnare* bacteria associated with columnaris-like diseased fish. *The Thai Journal of Veterinary Medicine*, 46, 251-259 (IF = 0.28, Q3).
70. Nguyen VV, **Dong HT**, Senapin S, Pirarat N, Rodkhum C\* (2016) *Francisella noatunensis* subsp. *orientalis*, an emerging bacterial pathogen affecting cultured red tilapia (*Oreochromis* sp.) in Thailand. *Aquaculture Research*, 47, 3697-3702 (IF = 1.75, Q2).
71. Senapin S\*, **Dong HT**, Meemetta W, Siriphongphaew A, Charoensapsri W, Santimanawong W, Turner AW, Rodkhum C, Withyachumnarnkul B, Vanichviriyakit R\* (2016) *Hahella chejuensis* is the etiological agent of a novel red egg disease in tilapia (*Oreochromis* spp.) hatcheries in Thailand. *Aquaculture*, 454, 1-7 (IF = 3.22, Q1).
72. Peepim T, **Dong HT**, Senapin S, Khunrae P, Rattanarojpong T\* (2016) Epr3 is a conserved immunogenic protein among *Aeromonas* species and able to induce antibody response in Nile Tilapia. *Aquaculture*, 464, 399-409 (IF = 3.22, Q1).
73. **Dong HT**, Nguyen VV, Le HD, 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, 427-435 (IF = 3.22, Q1).
74. **Dong HT**, Nguyen VV, Phiwsaiya K, Gangnonngiw W, Withyachumnarnkul B, Rodkhum C\*, Senapin S\* (2015) Concurrent infections of *Flavobacterium columnare* and *Edwardsiella ictaluri* in striped catfish, *Pangasianodon hypophthalmus* in Thailand. *Aquaculture* 448:142-150 (IF = 3.22, Q1).
75. **Dong HT**, LaFrentz B, Pirarat N, Rodkhum C\* (2015) Phenotypic characterization and genetic diversity of *Flavobacterium columnare* isolated from red tilapia, *Oreochromis* sp., in Thailand. *Journal of Fish Diseases*, 38, 901-913 (IF = 2.32, Q1).

## Announcements

- **HT Dong**, S Siriroob, W Meemetta, W Santimanawong, W Gangnonngiw, N Pirarat, P Khunrae, T Rattanarojpong, R Vanichviriyakit and S Senapin (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>).

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

### Publications & proceedings in Vietnamese (2007-2011)

- **Dong HT**, Khue NV, Hanh NT (2011) Characteristics of *Streptococcus agalactiae*, causative agent of Streptococcosis in tilapia in Northern Vietnam. *National Aquaculture Conference for Students and Young Scientists*, pp348-356, (In Vietnamese with English abstract)
- Ha NT, **Dong HT**, Lien VTK, Thuy NT (2010) Detection of *Enterocytozoon hepatopenaei* in tiger shrimp (*Penaeus monodon*) infected by white feces culture in Vietnam. *Journal of Agriculture and Rural Development* 12, 45-50, (In Vietnamese with English abstract)
- **Dong HT**, Ha NT, Thuy NT, Ha NTT, May LT, Hong VTT (2010) Primary results of study on causative agent of mass mortality phenomenon of cultured black tiger shrimp in Hue province in 2010. *National Conference on Biotechnology 2010* (In Vietnamese)
- Hoa DT, Cuong NT, Dung NH, Giang NTT, Ut PV, Hue NTN, **Dong HT** (2009) First research on milky disease of cultured lobsters in Southern central provinces. *Journal of Science & Technology of Fisheries* 4: 3-12. (In Vietnamese with English abstract)
- Hoa DT, Dung NH, Cuong NT, Giang NTT, Ut PV, Hue NTN, **Dong HT** (2009) Milky disease: causative agents in cage cultured lobsters in central Vietnam. *Journal of Science & Technology of Fisheries*. Special Vol: 9-13. (In Vietnamese with English abstract)
- **Dong HT**, Hoa DT (2008) Identification of the causative agent of “visceral white spots” disease of striped catfish (*P. hypophthalmus*) in Ben Tre province. Conference proceedings of student research, Nha Trang University 2008: 1-9.
- Ha NTT, Hoa DT, **Dong HT** (2008) Research on changes in tissues of milky disease Spiny Lobster (*Panulirus ornatus*) by histopathological method. Conference proceedings of student research, Nha Trang University 2008: 10-15.
- Nhung NT, Dung LT, **Dong HT** (2008) Comparison of blood physiological parameters of healthy and milky-diseased spiny lobster (*Panulirus ornatus*). Conference proceedings of student research, Nha Trang University 2008: 39-44.
- **Dong HT**, Hoa DT (2007) Primary research on infection of Taura Syndrome Virus (TSV), White Spot Syndrome Virus (WSSV) and Hepatopancreatic Virus (BP, HPV, MBV) of cultured white shrimp (*Penaeus vannamei*) in Khanh Hoa province. Conference proceedings of student research, Nha Trang University 2007: 21-27.

### Selected oral presentations/lectures/round table

- 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 presentation).
- 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 presentation).
- Fish Jacuzzis (!) as a Way to Reduce Infectious Diseases in Aquaculture. The 1<sup>st</sup> International Conference on Sustainable Aquaculture, BIOTEC/NSTDA, 10-11 August 2021 (Invited presentation).
- Participation in the IDRC-ICARS roundtable on gender and antimicrobial resistance (AMR). 6<sup>th</sup> December 2021.
- Participation in Antimicrobial Resistance (AMR): Preventing the silent pandemic in food systems. 2021 Borlaug Dialogue, World Food Prize Events, 21 October 2021.



- Update on important diseases of tilapia. Aquaculture Biosecurity Webinar Series. Organized by FAO, December, 2020 (Invited presentation).
- Scale Drop Disease in Asian sea bass. National Research Institute of Aquaculture (NRIA), FRA, Japan, February 2020. Special seminar.
- Critical thinking drives aquaculture health research. Seminar in Marine Technology Course, Burapha University Chanthaburi Campus, November, February 2020 (Invited Speaker).
- Disease challenges in Asian sea bass (*Lates calcarifer*) aquaculture in Southeast Asia. National Cheng Kung University, Tainan, Taiwan, 7 December 2019 (Invited Speaker).
- 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 Speaker).
- Viral diseases of tilapia in ASEAN countries. The 18<sup>th</sup> Chulalongkorn University Veterinary Conference 2019 (CUVC2019), 24 April 2019, Impact Muang Thong Thani, Bangkok, Thailand (Invited speaker).
- Fish Diseases: The end is a new beginning. Seminar in Fisheries, Faculty of Fisheries, Kasetsart University, 26 March 2019 (Invited Lecture).
- 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 (Trainer).
- 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 (Trainer).
- Update on emerging infectious diseases of Asian sea bass in Southeast Asia. The 4<sup>th</sup> International Conference on Marine Aquaculture, hosted by Nha Trang University - National Taiwan Ocean University, December 2018 (Invited Speaker).
- 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 (Trainer).
- *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 (Trainer).
- Fish necropsy & sample collection for TiLV diagnosis, Sun Yat Sen University, Guangzhou, China. 18-24 June 2018 (Trainer).
- Scale drop disease vs. Scale drop and muscle necrosis disease in Asian Sea bass (*Lates calcarifer*) in Southeast Asia. Asian Aquaculture Conference 2018 (Invited Speaker).
- Emerging infection disease, a never ending threat for fish aquaculture industry. International Bioscience Conference 2018 (IBSC 2018), Krabi, Thailand 17-18 September 2018 (Keynote speaker).
- How to make “your stories” publish in international journals. Faculty of Science and Technology. Suan Sunandha Rajabhat University, 23<sup>rd</sup> April 2018. (Invited Presentation).
- Tilapia health research at KMUTT and Mahidol University. Aquatic Animal Health Research Workshop in Penang, 28-29<sup>th</sup> November 2017 (Invited and sponsored by WorldFish)
- Progress in research on Tilapia Lake Virus (TiLV). Biotechnology Center of Ho Chi Minh city, Ho Chi Minh city, Vietnam. November, 2017 (Invited speaker).
- Progress in research on Tilapia Lake Virus (TiLV). Department of Animal Health, Vietnam. Hanoi, 3<sup>rd</sup> October 2017 (Invited speaker, sponsored by FAO Vietnam).
- 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).

- Emergence of tilapia lake virus (TiLV) in the Asia-Pacific region and urgent needs. Special lecture, Asian Institute of Technology (AIT), Thailand, 17 July 2017.
- My research journey on fish disease in Thailand. Seminar in Marine Technology Course, Burapha University Chanthaburi Campus, 26 November, 2016 (Invited lecture).
- Bacterial diseases in farmed tilapia in Thailand. Seminar in Microbiology, Faculty of Science, King Mongkut's University of Technology Thonburi (KMUTT), 25<sup>th</sup> August 2016 (Invited lecture).
- Occurrence of multiple infections of bacteria and *Megalocytivirus* during disease outbreaks in Nile tilapia (*Oreochromis niloticus*) farms. Asian Pacific Aquaculture, Surabaya 27-29<sup>th</sup> April, 2016, (sponsored by Graduate School, Chulalongkorn University).
- Concurrent infections and miscellaneous diseases. ILDEX Vietnam, Aquaculture Symposium by Federation of Asian Veterinary Association (FAVA), Ho Chi Minh, Vietnam, 24<sup>th</sup> March 2016 (Keynote Speaker, sponsored by FAVA).
- 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, 24<sup>th</sup> March 2016 (Keynote Speaker, sponsored by FAVA).
- *Flavobacterium columnare* isolated from red tilapia (*Oreochromis* sp.): emphasis on genetic characterization and virulence of rhizoid and non-rhizoid morphotypes. *The 4<sup>th</sup> International Conference on Flavobacterium*. Auburn University, Auburn, AL, USA, 27-29 October 2015 (sponsored by Graduate School, Chulalongkorn University).
- *Cytophaga-Flavobacterium-Bacteroides* bacteria associated with diseases in aquatic animals and pathogenicity of *Flavobacterium columnare* morphotypes. *The 39<sup>th</sup> International Conference on Veterinary Sciences* (The 39<sup>th</sup> ICVS), Impact Muang Thang Thani, Nonthaburi, Thailand, 16-18 December 2014.