

Dr. Ha Thanh Dong

Instructor

Faculty of Science and Technology, Suan Sunandha Rajabhat University
1U Thong Nok Rd., Dusit, Bangkok 10300, Thailand.

E-mail: hadongntu@gmail.com or hathanh.do@ssru.ac.th

Nationality: Vietnamese

Scopus ID: 56416917400

Publons: <https://publons.com/researcher/1412081>

ResearchGate: https://www.researchgate.net/profile/Ha_Dong2



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

2018-Present	Instructor, Faculty of Science and Technology, Suan Sunandha Rajabhat University, Thailand.
2017-2018	Academic Researcher, Department of Microbiology, Faculty of Science, King Mongkut's University of Technology Thonburi (KMUTT), Thailand.
2016-2017	Postdoctoral Researcher, Department of Microbiology, Faculty of Science, KMUTT, Thailand.
2009-2011	Researcher, Aquatic Animal Diseases Unit, Research Institute for Aquaculture No.1, Vietnam.

Research Expertise

- Fish Pathology
- Emerging Infectious Diseases
- Molecular Detection Methods
- Disease Pathogenesis
- Fish Immunology

Track Record

- ✚ Expert resource for trainings on tilapia diseases organized by the Food and Agriculture Organization of the United Nations (FAO)
- ✚ External consultant for a WorldFish Bangladesh project
- ✚ Advisory board of Aquaculture journal
- ✚ Regular reviewing for international journals
- ✚ Top 1% reviewers in Plant and Animal Science on Publons global review database in 2019
- ✚ Member of an OIE *ad hoc* group
- ✚ Keynote, invited speakers, chair of session at international conferences
- ✚ Reviewer for international funds.
- ✚ External committee of postgraduate student thesis defenses

International publications (2014-2019)

1. Lan N.G.T., Salin K.R., Longyant S., Senapin S., **Dong H.T.** (2020) 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* [under revision].
2. 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* [under revision].
3. Jhunkeaw C., Khongcharoen N., Rungrueng N., Sangpo P., Panphut W., Thapinta A., Senapin S., St-Hilaire S., **Dong H.T.** (2020) Ozone nanobubble treatment effectively reduced pathogenic Gram positive and negative bacteria in freshwater and safe for tilapia. *BioRxiv* (preprint) <https://doi.org/10.1101/2020.06.07.138297>.
4. Debnath P.P., Deboutteville J.D., Jansen M.D., Phiwsaiya, K., Dalia A., Hasan Md. 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*. DOI: 10.1111/jfd.13235 (in press).
5. Kayansamruaj P., Soontara C., **Dong H.T.**, 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*. DOI: 10.1111/jfd.13240 (in press).
6. 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*, <https://doi.org/10.1016/j.jviromet.2020.113920>.
7. Kerdee P., **Dong HT.**, Chokmangmeepisarn P., Rodkhum C., Srisapome 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* <https://doi.org/10.3354/dao03500>.
8. 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.
9. 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.
10. Hai, L. D., Chokmangmeepisan, 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.). *The Thai Journal of Veterinary Medicine*, 50, 103-108.
11. Nurliyana, M., Lukman, B., Ina-Salwany, M.Y., Zamri-Saad, M., Annas, S., **Dong HT.**, 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.
12. 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.
13. Taengphu, S., Sangsuriya, P., Phiwsaiya, K., Debnath, P.P., Delamare-Deboutteville, J., Mohan, C.V., **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.

14. Jitrakorn S., Gangnonngiw W., Bunnontae M., Manajit O., Rattanaojpong 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.
15. **Dong HT.**, Senapin, S., Gangnonngiw, W., Nguyen, V.V., Rodkhum, C., Debnath, P.P., Delamare-Deboutteville, J., Mohan, C.V. (2020) Experimental infection reveals transmission of tilapia lake virus (TiLV) from tilapia broodstock to their reproductive organs and fertilized eggs. *Aquaculture* 515,734541.
16. 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.
17. Chiamkunakorn, C., Machimbirike, V.I., Senapin, S., Khunrae, P., **Dong, H.T.**, Rattanaojpong, T. (2019) Blood and liver biopsy for the non-destructive screening of tilapia lake virus. *Journal of Fish Diseases* 42, 1629-1636.
18. Mabrok, M., Chokmangmeepisarn, P., LaFrentz, B.R., 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. DOI: 10.1016/j.aquaculture.2019.734597.
19. 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
20. Vicente, A., Taengphu, S., Hung, A.L., Mora, C.M., **Dong HT.**, Senapin, S. Detection of *Vibrio campbellii* and *V. parahaemolyticus* carrying full-length pirAB^{Vp} but only *V. campbellii* produces Pir^{Vp} toxins. *Aquaculture* 734708.
21. 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.
22. Nguyen, V.V., Rodkhum, C., Senapin, S., **Dong HT**. Retrospective diagnosis of archived marine fish experienced unexplained mortality reveals dual infections of *Nocardia seriolae* and *Streptococcus iniae*. *Aquaculture International* 27, 1503-1512.
23. 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.
24. Machimbirike VI, Jansen MD, Senapin S, Khunrae P, Rattanaojpong T, **Dong HT** (2019). Viral infections in tilapines: More than just tilapia lake virus. *Aquaculture* 503: 508-518.
25. 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.
26. **Dong HT**, Senapin S, Jeamkunakorn C , Nguyen VV, Nguyen NT, Rodkhum C, Khunrae P, Rattanaojpong (2019) Natural occurrence of visceral white spot disease caused by *Edwardsiella ictaluri* in farmed red tilapia, *Oreochromis* sp. *Aquaculture*. 499: 17-23.
27. Jansen DM, **Dong HT**, Mohan VC (2018) Tilapia lake virus: a threat to the global tilapia industry?. *Reviews in Aquaculture*. doi: 10.1111/raq.12254.
28. 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.
29. **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*. doi: 10.1016/j.micpath.2018.06.005.
30. 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.
 31. 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.
 32. 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*. doi: 10.1016/j.jgar.2018.05.014.
 33. 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.
 34. **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.
 35. **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.
 36. **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.
 37. **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.
 38. **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.
 39. 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* Δ *pirA*^{Vp} *pirB*^{Vp+} mutant kills shrimp but produces neither Pir^{Vp} toxins nor acute hepatopancreatic necrosis disease lesions. *Applied and Environmental Microbiology*. 83:e00680-17.
 40. 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.
 41. Kayansamruaj P, **Dong HT**, 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: 102–106.
 42. 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.

43. 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.
44. 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.
45. **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.
46. **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.
47. **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.
48. **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.
49. 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.
50. 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.
51. 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.
52. **Dong HT**, Nguyen VV, Le HD, Sangsuriya P, Jitrakorn S, Saksmerprom 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.
53. **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.
54. **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.