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Research focus

Molecular microbiology and pathology in emerging, re-emerging, and infectious diseases in veterinary science

Education and Certifications

- Since 2016 Diplomate, Thai Board of Veterinary Pathology (DTBVP).
2012 Visiting Scholar, Prof.Dr.Kyoung-Jin Yoon's Lab, Veterinary Medical Research
 Institute, College of Veterinary Medicine, Iowa State University, USA
2008 - 2013 Doctor of Philosophy (PhD) in Veterinary Pathobiology program,
 Chulalongkorn University, Bangkok, Thailand.
1998 - 2004 Doctor of Veterinary Medicine (DVM) with second class honor,
 Khon Kaen University, Khon Kaen, Thailand.

Professional experience

- 2021 - present Assistant Professor, Division of Pathobiology, Faculty of Veterinary Medicine,
 Khon Kaen University, Thailand
2009 - 2020 Lecturer, Division of Pathobiology, Faculty of Veterinary Medicine,
 Khon Kaen University, Thailand
2004 - 2008 Clinician, Sirirat small animal hospital, Nakhon Ratchasima, Thailand.

Supervision of graduate students

- 2016 - present Supervision of 1 Master student, Co- supervision 1 Master and 3 PhD students

Grants/ fellowships

- 2023-2024. Health Security Partners. (2,310,350฿). Kedkovid, R., Bunpapong, N., Sreta, D.,
 Jittimanee, S., Arunorat, J., Suwanruengsri, M. Preparedness and monitoring of swine
 influenza virus in Thailand. *Co-applicant*.
2023-2024. The National Research Council of Thailand. (1,700,000฿). Charoensri N, Phuektes P,
 Jittimanee S, et al. Development of a diagnostic test kit for cricket iridovirus and cricket
 paralysis virus infections. *Co-applicant*.

- 2022 - 2025. The National Research Council of Thailand (NRCT), R. Thanawongnuwech NRCT Senior scholar 2022#N42A650553 (7,500,000฿). Major infectious diseases in animals. ***Co-applicant.***
- 2022 - 2023. Faculty of Veterinary Medicine, Khon Kaen University (150,000฿). Chanlun A, Jittimane S, Phuektes P. Prevalence of Lumpy Skin Disease Virus (LSDV) detection and serological response in cattle farms, Khon Kaen province. ***Co-applicant.***
- 2022 - 2023 Faculty of Veterinary Medicine, Khon Kaen University. (150,000฿). Junnu S. Detection of Fowl Adenovirus and development of multiplex PCR assays for Inclusion body hepatitis virus (IBH) diagnosis in chicken. ***Co-applicant.***
- 2020 - 2022 Faculty of Veterinary Medicine, Khon Kaen University. Research group for emerging and re-emerging infectious diseases in animals and zoonotic Diseases (KKU Vet. Res. VM008/2564, (500,000฿). ***Co-applicant.***
- 2018 - 2019 Joint-Grant from Chiang Mai University and Khon Kaen University for Young researchers (150,000฿). Survey of arboviruses infection in mosquitoes circulating in the urban park areas of Chiangmai and Khon Kaen, Thailand, and identify the associated mosquito vectors. ***Project Co-Leader.***
- 2016 - 2018 Faculty of Veterinary Medicine, Khon Kaen University (150,000฿). Surveillance of class 1 integron, Multidrug-resistance and mobile colistin resistance (*mcr*) genes of Salmonella isolates from pork in Thailand during 2014-2017. ***Project Leader.***

Selected Peer-Review Activities:

BMC Veterinary Research (2024, 2020)
 Tropical Animal Health and Production (2023, 2022, 2019)
 Veterinary Integrative Sciences (2021)
 Journal of Veterinary Science (2020)
 Canadian Veterinary Journal (2016)

Publications

1. Putriningsih, P. A. S., Phuektes, P., **Jittimane, S.**, & Kampa, J. (2023). Methicillin-resistant Staphylococci in canine pyoderma in Thailand. Veterinary world, 16(11), 2340–2348. <https://doi.org/10.14202/vetworld.2023.2340-2348>.
2. Suwannachot, N., Ketphan, W., **Jittimane, S.**, & Phuektes, P. (2023). Occurrence of ciprofloxacin resistance, plasmid-mediated quinolone resistance genes and virulence factors in Salmonella enterica serovar Enteritidis isolated from broilers in Thailand isolated from broilers in Thailand. Veterinary Integrative Sciences, 21(2), 587 – 605. <https://doi.org/10.12982/VIS.2023.042>.

3. Suwannachot, N., Ketphan, W., **Jittimane, S.**, & Phuektes, P. (2023). Antimicrobial susceptibility profiles of Salmonella Enteritidis isolated from broiler chicken farms in the Northeast of Thailand. *KKU Veterinary Journal*, 33(1): 11-22. <https://he01.tci-thaijo.org/index.php/kkuvetj/article/view/261189/179581>.
4. Sirisereewan, C., Nguyen, T. C., Piewbang, C., **Jittimane, S.**, Kedkovid, R., Thanawongnuwech, R. 2023. Molecular detection and genetic characterization of porcine circovirus 4 (PCV4) in Thailand during 2019-2020. *Scientific reports*, 13(1), 5168. <https://doi.org/10.1038/s41598-023-32382-1>.
5. Pohuang, T., **Jittimane, S.**, Junnu, S. 2021. Pathology and molecular characterization of Leucocytozoon caulleryi from backyard chickens in Khon Kaen Province, Thailand. *Veterinary world*, 14(10), 2634–2639. <https://doi.org/10.14202/vetworld.2021.2634-2639>.
6. **Jittimane, S.**, Wongratanacheewin, S., Kaewraemruaen, C., Jittimane, J. 2021. Opisthorchis viverrini antigens up-regulates the expression of CD80 and MHC class II in JAWSII mouse dendritic cells and promotes IL-10 and TGF- β secretions. *Parasitology international*, 84, 102401. <https://doi.org/10.1016/j.parint.2021.102401>.
7. Wongsrichai S, Phuektes P, & **Jittimane S.** 2021. Multidrug-resistance and mobile colistin resistance (mcr) genes of Salmonella isolates from pork in Thailand during 2014-2017: comparison between two different types of slaughterhouses and retails. *Veterinary Integrative Sciences*, 19(3), 333-348. <https://doi.org/10.12982/VIS.2021.029>.
8. Phongsarmsuan P, Angkititrakul S, **Jittimane S.**, & Phuektes, P. 2021. OXA-48-positive carbapenem-resistant Enterobacteriaceae in a farrow-to-finish pig farm: First report in Thailand. *Veterinary Integrative Sciences*, 19(3), 317-332. <https://doi.org/10.12982/VIS.2021.028>.
9. Rattanachan, S. T., Srakaew, N. L., Thaitalay, P., Thongsri, O., Dangviriyakul, R., Srisuwan, S., Suksaweang, S., WidELITZ, R. B., Chuong, C. M., Srithunyarat, T., Kampa, N., Kaenkangploo, D., Hoisang, S., **Jittimane, S.**, Wipoosak, P., Kamlangchai, P., Yongvanit, K., & Tuchpramuk, P. 2020. Development of injectable chitosan/biphasic calcium phosphate bone cement and in vitro and in vivo evaluation. *Biomedical materials (Bristol, England)*, 15(5), 055038. <https://doi.org/10.1088/1748-605X/ab8441>.
10. Kedkovid, R., Woonwong, Y., Arunorat, J., Sirisereewan, C., Sangpratum, N., Kedsangakonwut, S., Tummaruk, P., Teankum, K., Assavacheep, P., **Jittimane, S.** & Thanawongnuwech, R. 2018. Porcine circovirus type 3 (PCV3) shedding in sow colostrum. *Veterinary microbiology*, 220, 12–17. <https://doi.org/10.1016/j.vetmic.2018.04.032>.
11. Kedkovid, R., Woonwong, Y., Arunorat, J., Sirisereewan, C., Sangpratum, N., Lumyai, M., Kedsangakonwut, S., Teankum, K., **Jittimane, S.** & Thanawongnuwech, R. 2018. Porcine circovirus type 3 (PCV3) infection in grower pigs from a Thai farm suffering from

- porcine respiratory disease complex (PRDC). *Veterinary microbiology*, 215, 71–76.
<https://doi.org/10.1016/j.vetmic.2018.01.004>.
12. Arunorat, J., Charoenvisal, N., Woonwong, Y., Kedkovid, R., **Jittimaneer, S.**, Sitthichareonchai, P., Kedsangsakonwut, S., Poolperm, P., Thanawongnuwech, R. 2017. Protection of human influenza vaccines against a reassortant swine influenza virus of pandemic H1N1 origin using a pig model. *Research in veterinary science*, 114, 6–11.
<https://doi.org/10.1016/j.rvsc.2017.02.022>
 13. Charoenchankran, P., Kedkovid, R., Sirisereewan, C., Woonwong, Y., Arunorat, J., Sitthichareonchai, P., Sopipan, N., **Jittimaneer, S.**, Kedsangsakonwut, S., & Thanawongnuwech, R. 2016. Efficacy of Foster® PRRS modified live virus (MLV) vaccination strategy against a Thai highly pathogenic porcine reproductive and respiratory syndrome virus (HP-PRRSV) infection. *Tropical animal health and production*, 48(7), 1351–1359. <https://doi.org/10.1007/s11250-016-1099-1>.
 14. Poonsuk K, Arunorat J, Woonwong Y, Sitthichareonchai P, **Jittimaneer S**, Choojai P and Thanawongnuwech R. 2014. Antiviral Activity of Four Commercial Tilmicosin Preparations against Porcine Reproductive and Respiratory Syndrome Virus (PRRSV): An In Vitro Study. *Thai J Vet Med.*, 44(2), 217-222.
 15. **Jittimaneer S**, Nuntawan Na Ayudhya S, Kedkovid R, Teankum K, Suradhat S and Thanawongnuwech R. 2013. Enhancing specific antibodies using a developed sub-unit PCV2b vaccination in a PCV2-affected herd. *Thai J Vet Med.*, 43(4): 573-579.
 16. Charoenvisal N, Keawcharoen J, Sreta D, Chaiyawong S, Nonthabenjawan N, Tantawet S, **Jittimaneer S**, Arunorat J, Amonsin A, Thanawongnuwech R. 2013. Genetic characterization of Thai swine influenza viruses after the introduction of pandemic H1N1 2009. *Virus Genes* 47:75-85.
 17. Charoenvisal N, Keawcharoen J, Sreta D, Tantawet S, **Jittimaneer S**, Arunorat J, Amonsin A, Thanawongnuwech R. 2013. Experimental infection with a Thai reassortant swine influenza virus of pandemic H1N1 origin induced disease. *Virol J.*, 10:88.
 18. Sreta D, **Jittimaneer S**, Charoenvisal N, Amonsin A, Kitikoon P, Thanawongnuwech R. 2013. Retrospective swine influenza serological surveillance in the four highest pig density provinces of Thailand before the introduction of the 2009 pandemic Influenza A virus subtype H1N1 using various antibody detection assays. *J Vet Diagn Invest.*, 25(1):45-53.
 19. **Jittimaneer S**, Nuntawan Na Ayudhya S, Kedkovid R, Teankum K, Suradhat S and Thanawongnuwech R. 2012. An indirect enzyme-linked immunosorbent assay using a recombinant truncated capsid protein of Porcine circovirus-2. *J Vet Diagn Invest.*, 24(6) 1129 – 1132.
 20. **Jittimaneer S**, Nuntawan Na Ayudhya S, Kedkovid R, Teankum K and Thanawongnuwech R. 2011. Genetic characterization and phylogenetic analysis of porcine circovirus type 2 in

Thai pigs with porcine circovirus associated diseases (PCVAD) during 2007–2010. *Thai J Vet Med.*, 41(2): 163-169

Proceeding

1. Lertitthikul N, Tanwarach K, Jitjak J, Chotsangsri T, Chaimongkol S, Phuektes P and **Jittimane S**. Prevalence of *Mycoplasma felis* isolates from cat with and without ocular and upper respiratory tract infection in Khon Kaen Province. Proceeding of the 22nd Khon Kaen Veterinary Annual International Conference: Transboundary Animal Diseases, 22-23 July 2021. Khon Kaen, Thailand. 127-128pp.
2. **S. Jittimane**, N. Lertitthikul, N. Nopwinyoowong, K. Manopinives, S. Manitnark, P. Jitasombuti and P. Phuektes. Quantitative PCR-based Investigation of the Presence of Feline Herpesvirus 1 in Cats with and without Ocular and Upper Respiratory Tract Diseases in Khon Kaen, Thailand. Proceeding of the 19th International Symposium of the World Association of Veterinary Laboratory Diagnosticians (ISWAVLD) 2019 & OIE seminar. June 19-22, 2019, Chiang Mai, Thailand.
3. **Jittimane S**, Sroithongkham P, Suwanaklom P, Ishida M and Lertitthikul N. Prevalence of Feline Coronavirus isolate from clinical samples submitted to Animal Hospital, Faculty of Veterinary Medicine, Khon Kaen University. Proceeding of the 20th KKV Veterinary Annual International conference (KVAC 2019), Khon Kaen, Thailand.
4. Sopipan N, Kedkovid R, **Jittimane S** and Teankum K. Identification of porcine circovirus type 2 (PCV2) antigens in culled boar testes. Proceeding of Emerging Infectious Disease in Animal Conference. August 20, 2015. Bangkok, Thailand.
5. Sopipan N, Kedkovid R, **Jittimane S** and Teankum K. 2015. Identification of PCV2 antigen in boar prepuces. Proceeding of the 7th International Symposium on Emerging and Re-emerging Pig Diseases (ISERPD). June 21-24, 2015. Kyoto, Japan.
6. Sopipan N, Kedkovid R, Pearodwong P, **Jittimane S**, Racharoje S, Kedsangakonwut S, Srisuwattanasagul S, Tummaruk P, Thanawongnuwech R and Teankum K. Distribution of porcine circovirus type 2 (PCV2) antigen and pathological changes in testes, seminal vesicles, and prepuces of culled boars. Proceeding of the 21st Chulalongkorn University Veterinary Conference (CUVC). April 20-22, 2015. Bangkok, Thailand.
7. Sitthicharoenchai P, **Jittimane S**, Woonwong Y, Poonsuk K, Arunorat J, Kanyook U, Kaewkawin K, Watcharathai M, Buthasane W, Lumyai M, Makhanon M, Thanawongnuwech R. Field evaluation on the effect of antibiotics and *Mycoplasma* vaccination for the control of respiratory diseases in a Thai PRRSV positive herd. Proceedings of the 23rd International Pig Veterinary Society (IPVS) Congress, June 8-11, 2014. Cancun, Mexico.
8. **Jittimane S**, Nuntawan Na Ayudhya S, Teankum K, Wongyanin P, Suradhat S and

- Thanawongnuwech R. A developed sub-unit vaccine using a recombinant truncated capsid protein of Thai PCV2 induced immunological responses in a PCV2-affected herd. Proceedings of the 6th Asian Pig Veterinary Society (APVS) Congress. September, 23-25, 2013, Ho Chi Minh City, Vietnam.
9. Charoenvisal N, Nuntawan Na Ayudhya S, **Jittimane S**, Sreta D, Keawcharoen J, Amonsin A and Thanawongnuwech R. Surveillance of a swine influenza virus (SIV) in Thai commercial swine farms during year 2010-2011. Proceedings of the 22nd International Pig Veterinary Society (IPVS) Congress. June 10-13, 2012. Jeju, Korea.
 10. Mulaseewa N, Detintaranarak T, Noonron N, Suephatthana P, **Jittimane S**, Nuntawan Na Ayudhya S, Thanawongnuwech R and Teankum K. Highly pathogenic porcine reproductive and respiratory syndrome virus (HP-PRRSV): an experimental inoculation in piglets with Thai isolate. Proceedings of the 22nd International Pig Veterinary Society (IPVS) Congress. June 10-13, 2012. Jeju, Korea.
 11. **Jittimane S**, Nuntawan Na Ayudhya S, Teankum K and Thanawongnuwech R. Genetic characterization of porcine circovirus 2 (PCV2) strains isolated from porcine circovirus associated diseases (PCVAD) pigs in Thailand. Proceedings of the 6th International Symposium on Emerging and Re-emerging Pig Diseases. June 12-15, 2011. Barcelona, Spain.
 12. **Jittimane S**, Kedkovid R, Teankum K, Suradhat S and Thanawongnuwech R. Heterologous expression of nuclear localization signal (NLS) truncated capsid protein of porcine circovirus type 2 (PCV2) in Escherichia coli and its potential of the specific antibodies induction. Proceedings of the 21st International Pig Veterinary Society (IPVS) Congress. July 18-21, 2010. Vancouver, Canada.
 13. Sreta D, Kedkovid R, **Jittimane S**, Musiksilp N, Tuanudom R, Thanawongnuwech R and Kitikoon P. Serological study of H1 and H3 swine influenza viruses from pigs in the high pig population provinces in Thailand. Proceedings of the 21st International Pig Veterinary Society (IPVS) Congress. July 18-21, 2010. Vancouver, Canada.