

Dr. Tawin Inpankaew

Academic staff

Name Last name: Dr. Tawin Inpankaew

Academic title: Head of the department

2002 D.V.M. (Faculty of Veterinary Medicine, Kasetsart University, Thailand)

2004 M.Sc. (Trop. Med) (Faculty of Tropical Medicine, Mahidol University, Thailand)

2008 Diploma in zoonosis for food safety (National Research Center for Protozoa Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido, Japan)

2014 PhD (Department of Disease Biology, Faculty of Health and Medical Science, University of Copenhagen, Denmark)



Field of Research: Medical and Veterinary Parasitology, Molecular Parasitology and Zoonoses

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Research

- Medical and Veterinary Parasitology
- Zoonoses
- Molecular Parasitology

Research topics

- Soil transmitted parasites in humans, domestic and wild animals in Thailand.
- Vector-borne diseases in domestic and wild animals in Thailand.
- Toxoplasmosis and neosporosis in domestic and wild animals in Thailand.

Research grant

2017 Pathogenicity evaluation and Efficacy of anthelmint against *Echinostoma revolutum* in free-grazing duck, Thailand, Kasetsart University Research and Development Institute (KURDI) (Project leader).

2016 Molecular detection of *Rickettsia felis* infection in stray dogs and flea infesting dogs resided in monasteries of Bangkok, Thailand, The Coordinating Center for Thai Government Science and Technology Scholarship Students (CSTS), National Science and Technology Development Agency (NSTDA) (Project leader).

2016 The Comparative study of prevalence of Canine vector-borne pathogens (*Babesia* spp., *Rickettsia* spp., *Anaplasma* spp. and *Ehrlichia* spp.) between pet and stray dogs in Bangkok area, Kasetsart University Research and Development Institute (KURDI) (Project leader).

2013 The seroprevalence and risk factor associated with *Toxoplasma gondii* infection in horses from Thailand, Kasetsart University Research and Development Institute (KURDI) (Project leader).

2009 Prevalence study and risk factor of cryptosporidiosis and giardiasis from Dairy cow faces in Northern of Thailand, Kasetsart University Research and Development Institute (KURDI) (Project leader).

2006 The study of prevalence, Risk factor and genotyping of *Cryptosporidium* spp. from dairy cow fecal sample by DMSO-Modified Acid-fast stain and Polymerase Chain Reaction-Restriction Fragment Length Polymorphism (PCR-RFLP) method in Saraburi, Kanchanaburi and Nakornpathom provinces, Intervet research fund (Project leader).

Publications

1. Yimming B, Pattanatanang K, Sanyathitiseree P, Inpankaew T, Kamyinkird K, Pinyopanuwat N, Chimnoi W, Phasuk J. 2016. Molecular Identification of *Cryptosporidium* Species from Pet Snakes in Thailand. **Korean J Parasitol.** 54(4):423-9. doi: 10.3347/kjp.2016.54.4.423.
2. **Inpankaew T**, Hii SF, Chimnoi W, Traub RJ. 2016. Canine vector borne pathogens in semi-domesticated dogs residing in northern Cambodia. **Parasit Vectors.** 9:253. doi: 10.1186/s13071-016-1552-z.
3. Liu M, Ruttayaporn N, Saechan V, Jirapattharasate C, Vudriko P, Moumouni PF, Cao S, **Inpankaew T**, Ybañez AP, Suzuki H, Xuan X. 2016. Molecular survey of canine vector-borne diseases in stray dogs in Thailand. **Parasitol Int.**65(4):357-61. doi: 10.1016/j.parint.2016.04.011.
4. Srucharern W, **Inpankaew T**, Keawmongkol S, Supanam J, Stich RW, Jittapalapong S. 2016. Molecular detection and prevalence of *Giardia*

duodenalis and *Cryptosporidium* among long-tailed macaques (*Macacafascicularis*) in Thailand. **Infect Genet Evol.** 40:310–4. doi: 10.1016/j.meegid.2016.02.004.

5. Llewellyn S, **Inpankaew T**, Nery SV, Gray DJ, Verweij JJ, Clements AC, Gomes SJ, Traub R, McCarthy JS. 2016. Application of a multiplex quantitative PCR to assess prevalence and intensity of intestinal parasite infections in a controlled clinical trial. **PLoS Negl Trop Dis.** 10(1):e0004380. doi: 10.1371/journal.pntd.0004380.
6. **Inpankaew T**, Murrell KD, Pinyopanuwat N, Chhoun C, Khov K, Sem T, Sorn S, Muth S, Dalsgaard A. A survey for potentially zoonotic gastrointestinal parasites of dogs and pigs in Cambodia. **Acta Parasitol.** 60(4):601–604.
7. **Inpankaew T**, Jiyipong T, Thadtapong N, Kengradomkij C, Pinyopanuwat N, Chimnoi W, Jittapalapong S. 2015. Prevalence and genotype of *Giardia duodenalis* in dairy cattle from Northern and Northeastern part of Thailand. **Acta Parasitol.** 60(3):459–61.
8. Saetiew N, Simking P, **Inpankaew T**, Wongpanit K, Kamyinkird K, Wongnakphet S, Stich RW, Jittapalapong S. 2015. Prevalence and genetic diversity of *Anaplasma marginale* infections in water buffaloes in Northeast Thailand. **J Trop Med Parasitol.** 38:9–16.
9. Traub RJ, Irwin P, Dantas-Torres F, Tort GP, Labarthe NV, **Inpankaew T**, Gatne M, Linh BK, Schwan V, Watanabe M, Siebert S, Mencke N, Schaper R. 2015. Toward the formation of a Companion Animal Parasite Council for the Tropics (CAPCT). **Parasit Vectors.** 8:271. doi: 10.1186/s13071-015-0884-4.
10. **Inpankaew T**, Schär F, Khieu V, Muth S, Dalsgaard A, Marti H, Traub RJ, Odermatt P. 2014. Simple fecal flotation is a superior alternative to quadruple katokatz smear examination for the detection of hookworm eggs in human stool. **PLoS Negl Trop Dis.** 8(12):e3313. doi: 10.1371/journal.pntd.0003313.
11. Kengradomkij C, **Inpankaew T**, Kamyinkird K, Wongpanit K, Wongnakphet S, Mitchell TJ, Xuan X, Igarashi I, Jittapalapong S, Stich RW. 2014. Seroprevalence and risk factors associated with exposure of water buffalo (*Bubalus bubalis*) to *Neosporacanthium* in northeast Thailand. **Vet Parasitol.** 207(1–2):156–60. doi: 10.1016/j.vetpar.2014.10.034.
12. **Inpankaew T**, Schär F, Odermatt P, Dalsgaard A, Chimnoi W, Khieu V, Muth S, Traub RJ. 2014. Low risk for transmission of zoonotic *Giardia duodenalis* from dogs to humans in rural Cambodia. **Parasit Vectors.** 7(1):412. doi:10.1186/1756-3305-7-412.
13. **Inpankaew T**, Schär F, Dalsgaard A, Khieu V, Chimnoi W, Chhoun C, Sok D, Marti H, Muth S, Odermatt P, Traub RJ. 2014. High prevalence of *Ancylostomaceylanicum* hookworm infections in humans, Cambodia, 2012. **Emerg Infect Dis.** 20(6):976–982.

14. Wang W, Owen H, Traub RJ, Cuttall L, **Inpankaew T**, Bielefeldt-Ohmann H. 2014. Molecular epidemiology of *Blastocystis* in pigs and their in-contact humans in Southeast Queensland, Australia, and Cambodia. **Vet Parasitol**.203(3-4):264-269.
15. **Inpankaew T**, Jittapalapong S, Mitchell TJ, Sununta C, Igarashi I, Xuan X. 2014. Seroprevalence of *Neosporacanium* infection in dairy cows in Northern provinces, Thailand. **ActaParasitol**. 9(2):305-309.
16. Schär F, **Inpankaew T**, Traub RJ, Khieu V, Dalsgaard A, Chimnoi W, Chamnan C, Sok D, Marti H, Muth S, Odermatt P. 2014. The prevalence and diversity of intestinal parasitic infections in humans and domestic animals in a rural Cambodian village. **Parasitol Int**.63(4):597-603. doi: 10.1016/j.parint.2014.03.007.
17. **Inpankaew T**, Jiyipong T, Wongpanit K, Pinyopanuwat N, Chimnoi W, Kengradomkij C, Xuan X, Igarashi I, Xiao L, Jittapalapong S.2014. Molecular detection of *Cryptosporidium* infections in water buffaloes from northeast Thailand. **Trop Anim Health Prod**. Feb; 46(2):487-490.
18. Wiriya B, Clausen JH, **Inpankaew T**, Thaenkham U, Jittapalapong S, Satapornvanit K, Dalsgaard A. 2013. Fish-borne trematodes in cultured Nile tilapia (*Oreochromis niloticus*) and wild-caught fish from Thailand. **Vet Parasitol**. Nov 15; 198(1-2):230-234.
19. Wang, W., Cuttall, L., Bielefeldt-Ohmann, H., **Inpankaew, T.**, Owen, H., Traub, R.J. 2013.Diversity of *Blastocystis* subtypes in dogs in different geographical settings.**Parasit Vectors**. Jul 24; 6:215.
20. Nagano, D., Sivakumar, T., de DEMacedo, A.C., **Inpankaew, T.**, Alhassan, A., Igarashi, I., Yokoyama, N. 2013. The Genetic Diversity of Merozoite Surface Antigen 1 (MSA-1) among *Babesiabovis* detected from Cattle Populations in Thailand, Brazil and Ghana.**J Vet Med Sci**. 75(11):1463-70.
21. Yoshinari, T., Sivakumar, T., Asada, M., Battsetseg, B., Huang, X., Lan, D.T., **Inpankaew, T.**, Ybañez, A.P., Alhassan, A., Thekiso, O.M., Macedo, A.C., Inokuma, H., Igarashi, I.,Yokoyama, N., 2013. A PCR Based Survey of *Babesia ovata* in Cattle from Various Asian, African, and South American Countries. **Vet. Med. Sci**.75(2): 211-214.
22. Cao, S., Aboge, G.O., Terkawi, M.A., Yu, L., Kamyngkird, K., Luo, Y., Li, Y., Goo, Y.K., Yamagishi, J., Nishikawa, Y., Yokoyama, N., Suzuki, H., Igarashi, I., Maeda, R., **Inpankaew, T.**, Jittapalapong, S., Xuan, X., 2012. Molecular detection and identification of *Babesiabovis* and *Babesiabigemina* in cattle in northern Thailand.**Parasitol Res**, 111(3):1259-1266.

23. Arunvipas, P., **Inpankaew, T.**, Jittapalapong, S. 2012. Risk factors of *Neosporacanium* infection in dogs and cats in dairy farms in Western Thailand. **Anim. Health. Prod.**,44(5):1117–1121.
24. Altangerel, K., Sivakumar, T., **Inpankaew, T.**, Jittapalapong, S., Terkawi, M.A., Ueno, A., Xuan, X., Igarashi, I., Yokoyama, N. 2011. Molecular prevalence of different genotypes of *Theileriaorientalis* detected from cattle and water buffaloes in Thailand. **Parasitol**, 97 (6): 1075–1079.
25. Terkawi, M.A., Huyen, N.X., Shinuo, C., **Inpankaew, T.**, Maklon, K., Aboulaila, M., Ueno, A., Goo, Y.K., Yokoyama, N., Jittapalapong, S., Igarashi, I. 2011. Molecular and serological prevalence of *Babesiabovis* and *Babesiabigemina* in water buffaloes in the northeast region of Thailand. **Vet Parasitol**, 178 (3–4): 201–207.
26. Jittapalapong, S., Sangwaranond, A., Nimsuphan, B., **Inpankaew, T.**, Phasuk, C., Pinyopanuwat, N., Chimnoi, W., Kengradomkij, C., Arunwipat, P., Anakewith, T. 2011. Prevalence of gastro-intestinal parasites of dairy cows in thailand. **The Kasetsart J. (Nat. Sci.)**, 45 (1): 40–45.
27. **Inpankaew, T.**, Jiyipong, T., Pinyopanuwat, N., Chimnoi, W., Thompson, R.A., Jittapalapong, S. 2010. Prevalence and genotyping of *Cryptosporidium*spp from dairy cow fecal samples in western Thailand. **Southeast Asian J Trop Med Public Health**, 41 (4): 770–775.
28. **Inpankaew, N.** Pinyopanuwat, W. Chimnoi, C. Kengradomkit, C. Sununta, G. Zhang, Y. Nishikawa, I. Igarashi, X. Xuan and S. Jittapalapong. 2010. Serodiagnosis of *Toxoplasma gondii* infection in dairy cows in Thailand. **Transboundary and Emerging Diseases**. 57: 42–45.
29. H, Zhou. L, Kim. C, **Inpankaew. T**, Sununta. C, Yokoyama. N, Xuan. X, Jittapalapong. S, Igarashi. I. 2010. Seroprevalence of *Babesia* infections of dairy cows in northern Thailand. **Vet Parasitol**, 170 (3–4): 193–196.
30. Jittapalapong, **T. Inpankaew**, N. Pinyopanuwat, W. Chimnoi, C. Kengradomkij, S. Wongnarkpet, S. Maruyama, A. Lekkla, Y. Sukthana. 2010. Epidemiology of *Toxoplasma gondii*infection of stray cats in Bangkok, Thailand. **Southeast Asian J Trop Med Public Health**, 41 (1): 13–18.
31. **Inpankaew**, S. Jittapalapong, J. Phasuk, N. Pinyopanuwat, W. Chimnoi, C. Kengradomkit, C. Sunanta, G. Zhang, G.O. Aboge, Y. Nishikawa, I. Igarashi and X. Xuan. 2009. Seroprevalence of *Cryptosporidium parvum* infection of dairy cows in three northern provinces of Thailand determined by enzyme-linked immunosorbent assay using recombinant antigen CpP23. **Onderstepoort Journal of Veterinary Research**. 76:161–165.

32. Traub RJ, **Inpankaew T**, Reid SA, Sutthikornchai C, Sukthana Y, Robertson ID, Thompson RC. 2009. Transmission cycles of *Giardia duodenalis* in dogs and humans in Temple communities in Bangkok--a critical evaluation of its prevalence using three diagnostic tests in the field in the absence of a gold standard. **Acta Trop.** Aug;111(2):125-32.
33. SathapornJittapalapong, PatsimaSittisan, ThavajchaiSakpuaram, HidenoriKabeya, Soichi Maruyama and **TawinInpankaew**. 2009. Coinfection of *Leptospiraspp* and *Toxoplasma gondii* infections among stray dogs in bangkok, **Southeast Asian J Trop Med Public Health**, 40 (2): 247-252.
34. Rebecca Traub, **TawinInpankaew**, ChantiraSuttikornchai, YaowalurkSukthana and R.C.A. Thompson. 2008. PCR-based coprodiagnostic tools reveal dogs as reservoirs of zoonotic ancylostomiasis caused by *Ancylostomaceylanicum* in temple communities in Bangkok. **Veterinary Parasitology**, 155(1-2): 67-73.
35. Jittapalapong, A. Sangwaranond, **T. Inpankaew**, C. Phasuk, N. Pinyopanuwat, W. Chimnoi, C. Kengradomkij, P. Arunwipat and S. Maruyama. 2008. Seroprevalence of *Toxoplasma gondii* infection in dairy cows in northeastern Thailand. **Southeast Asian J Trop Med Public Health**, 39 (suppl 1): 1-5.
36. SathapornJittapalapong, ArkomSangvaranond, **TawinInpankaew**, ChamnonjitPhasuk, NongnuchPinyopanuwat, WissanuwatChimnoi, ChanyaKengradomkij, SinsamutSaengow, PornparnPumhom, PipatArunwipat, TanitAnakewit and Ian D. Robertson. 2008. Seroprevalence of *Neosporacanicum* infections of dairy cows in the North-east of Thailand. **The Kasetsart J. (Nat. Sci.)**, 42: 61-66.
37. SathapornJittapalapong, **TawinInpankaew**, ArkomSangvaranond, ChamnonjitPhasuk, NongnuchPinyopanuwat, WissanuwatChimnoi, ChanyaKengradomkij, ChainirundSununta and PipatArunwipat. 2008. Current status of brucellosis in dairy cows of Chiang Rai province, Thailand. **The Kasetsart J. (Nat. Sci.)**, 42: 67-70.
38. SathapornJittapalapong, ArkomSangvaranond, **TawinInpankaew**, NongnuchPinyopanuwat, WissanuwatChimnoi, ChanyaKengradomkij and SirichaiWongnakphet. 2008. Ectoparasites of stray cats in Bangkok metropolitan areas, Thailand. **The Kasetsart J. (Nat. Sci.)**, 42: 71-75.
39. Jittapalapong, **T. Inpankaew**, N. Sarataphan, V. Herbreteau, J. P. Hugot, S. Morand and R. W. Stich. 2008. Molecular detection of divergent trypanosomes among rodents of Thailand. **Infection, Genetic and Evolution**, 8 (4): 445-449.
40. **TawinInpankaew**, Rebecca Traub, RC Andrew Thompson and YaowalarkSukthana., 2007. Canine Parasitic Zoonoses in Bangkok Temples. **Southeast Asian J Trop Med Public Health**, 38 (2): 247-255.

41. **Tawin Inprankaew**, Burin Nimsuphan, Kiattchai Rojanamongkol, Chanya Kengradomkij and Sathaporn Jittapalapong., 2007. Diagnosis of Heartworm (*Dirofilaria immitis*) Infection in Dogs and Cats by Using Western Blot Technique. **The Kasetsart J. (Nat. Sci.)**, 40:284-289.

Honors, Awards and Service

- 2016 Young Parasitologist Award. Parasitology and Tropical Medicine Association of Thailand
- 2015 - present Head of Department of Parasitology, Faculty of Veterinary Medicine, Kasetsart University, Thailand
- 2012 Best Presentation Award in the session "food safety", The 1st Regional the Society for Tropical Veterinary Medicine (STVM) conference, June 18-21, 2012
- 2010-2014 Full scholarship to pursue Ph.D. in Denmark from Thai Government (Ministry of Science and Technology), Thailand
- 2007 Third place, Presentation Award, The 44th Kasetsart University Annual Conferences, Jan 30, 2007

Professional Memberships

- 2003-present Thai Veterinary Medicine Association
- 2003-present Veterinary Practitioner Association of Thailand
- 2005-present Tropical Medicine Alumni Association
- 2005-present Parasitology and Tropical Medicine Association of Thailand

Professional Experiences

1 Sept 2015 – 29 Feb 2016 Foreign Visiting Researcher at National Research Center for Protozoa Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido, Japan. Sponser by NRCPD. on the title "Epidemiological surveys on vector borne diseases in elephants, horses and dogs from Thailand"

1 Feb 2010 – 30 Sept 2014 PhD candidate at Department of Veterinary Disease Biology, Faculty of Health and Medical Science, University of Copenhagen, Denmark. Scholarship from Danish government and Thai government. on the title " Domestic animals as reservoirs of zoonotic hookworm and *Giardia duodenalis* in a rural village, Cambodia"

5 Aug – 4 Nov 2006 Exchange scholar at the State Agricultural Biotechnology Centre and Department of Parasitology, Murdoch University, Western Australia

Description: Trained in Cell cultivation of blood and intestinal protozoa and molecular techniques for characterizing *Giardia Blastocystis*, *Cryptosporidium Toxoplasma* and *Neospora* from faecal and blood samples.

Nov 2004 – Apr 2005 Part-time Research Assistant for ARC Linkage Project "The epidemiology of GI canine parasitic zoonoses in various community settings in Thailand" on behalf of the Department of Parasitology, School of veterinary studies, Murdoch University, Western Australia.

5 Sep–1 Nov 2004 Visiting student at the State Agricultural Biotechnology Centre and Department of Parasitology, Murdoch University, Western Australia

Description: Trained in molecular techniques for characterizing *Giardia* and *Cryptosporidium* from faecal samples.

Professional Trainings

18 Jan – 14 Mar 2010 Training scholar on the course of the new strategies for controlling infectious diseases at National Research Center for Protozoa Diseases, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido, Japan. Sponser by NRCPD.

31 Aug – 11 Sep 2009 Training scholar on the course of Agricultural Biotechnology Training Workshop in Partnership with Southeast Asian Countries at National Taiwan University, Taipei, Taiwan. Sponsor by SEAMEO- SEARCA

Intelligence Properties None

Patents None