

## ประวัติส่วนตัว

1. ชื่อ นายไพบูลย์ ขาวสัก
2. ตำแหน่ง นักวิทยาศาสตร์ชำนาญการ  
สังกัดภาควิชาชีวเคมี คณะแพทยศาสตร์  
มหาวิทยาลัยศรีนครินทรวิโรฒ
3. สถานที่ทำงาน ภาควิชาชีวเคมี คณะแพทยศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ  
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6. สถานะ โสด
7. สมาคม : สมาคมวิทยาศาสตร์และเทคโนโลยีแห่งประเทศไทย (ตช.2920)
8. ประวัติการศึกษา

คุณวุฒิ	สาขา	ปี พ.ศ.ที่ได้รับ	สถานศึกษา
อนุปริญญา วิทยาศาสตร์ (อวท.)	เคมีปฏิบัติ	2537	สถาบันราชภัฏเชียงใหม่
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## 9. ประสบการณ์ในงานวิจัย ทางด้านชีวเคมี และอนุชีววิทยา

- diagnosis of infectious microorganisms in human and animals using PCR based method.
- Surveillance and epidemiology of dengue virus serotypes in Thailand using PCR based method.
- Molecular studies of gene encoding for lipases from thermotolerant *Bacillus* sp.
- Use of bioactive substances extracted from medicinal plant as the anti-material drugs.

## 10. ประสบการณ์ในการทำงาน หรือ ความสามารถพิเศษ

### การเสนอผลงาน :

1. Pakpitchareon, A., Ketutat, P., **Khawsak, P.** and Chansiri, K. Molecular phylogenetic studies of lung flukes using internal transcribed spacer 2 sequence. 26<sup>th</sup> Congress on Science and Technology of Thailand, 18-20 October 2000, P. 446.
2. Arda Pakpitchareon, **Paisarn Khawsak**, Achariya Rangsiruji, Punsin Ketudat and Kosum Chansiri. Molecular study of *Paragonimus heterotremus* based on 18s small subunit of nuclear rDNA (Oral presentation). 27<sup>th</sup> Congress on Science and Technology of Thailand, Lee Gardens Plaza Hotel, Song Khla, Thailand, 16 –18 October 2001, P.435.
3. Sirichai Phantana, **Paisarn Kwoasak** and Kosum Chansiri. Rapid subtyping of dengue virus serotype 1 by RT-PCR. (Poster presentation) Annual Symposium on Communicable Disease Control. Chaing Mai Phoo Khum Hotel, Chaing Mai, Thailand, 2-4 September 2002.
4. Sirichai Plantana, **Paisarn Khawsak** and Kosum Chansiri. Serotyping of dengue virus using RT- multiplex PCR (Oral Presentation). Annual Symposium on Communicable Disease Control. Chaing Mai Phoo Khum Hotel, Chaing Mai, Thailand, 2-4 September 2002.
5. Arda Pakpitchareon, Achariya Rangsiruji, Punsin Ketudat, **Paisarn Khawsak**, Pornpimon Kanjanavas, Sintawee Khuchareontaworn and Kosum Chansiri. Molecular phylogenetic studies of *Paragonimus heterogemus* using the internal transcribed spacer region of nuclear rDNA. 13<sup>th</sup> Congress on Genetics and sustainable Development, Genetics Association of Thailand, Naresuan University Pitsanulok, Thailand, 4-6 June 2003, P.308.
6. **Paisarn Khawsak**, Arda Pakpitchareon, Pornpimon Kanjanavas, Sintawee Khuchareontaworn, Sirichai Phantana and Kosum Chansiri. RT-PCR and single tube multiplex nested PCR for differentiation of dengue virus serotypes. 13<sup>th</sup> Congress on Genetics and sustainable Development, Genetics Association of Thailand, Naresuan University Pitsanulok, Thailand, 4-6 June 2003, P.342.
7. Pornpimon Kanjanavas, Arda Pakpitchareon, **Paisarn Khawsak**, Peerapan Tanariya and Kosum Chansiri. Detection of *Wuchereria bancrofti* in patient's blood sample using

semi-nested PCR. 29<sup>th</sup> Congress on Science and Technology of Thailand, Khon kean University, 20-22 October 2003, SG-46P, P 243.

8. Arda Pakpitchareon, **Paisarn Khawsak**, Pornpimon Kanjanavas, Sintawee Khuchareontaworn, Somchai santiwatanakul, Kosum Chansiri and Wasana Sukhumsirichart. Differentiation of Mycobacterium strains using RAPD-PCR techniques. 29<sup>th</sup> Congress on Science and Technology of Thailand, Khonkean University, 20-22 October 2003, SG-47P, P 243.
9. **Paisarn Khawsak**, Arda Pakpitchareon, Pornpimon Kanjanavas, Sintawee Khuchareontaworn, Sirichai Phantana and Kosum Chansiri. RT-PCR and single tube multiplex nested PCR for differentiation of dengue virus serotypes. 29<sup>th</sup> Congress on Science and Technology of Thailand, Khonkean University, 20-22 October 2003, SG-48P, P 243.
10. Arda Pakpitchareon, Karuna Manoban, Montri Yasawong, **Pisarn Khawsak**, Pornpimon Kanjanavas and Kosum Chansiri. Studies of a bacterial diversity in the hot spring of Thailand based on hypervariable region of 16S rDNA gene. The 17<sup>th</sup> FAOBMB Symposium / 2<sup>nd</sup> IUBMB Special Meeting / 7<sup>th</sup> A-IMBN Conference on “Genomics and Health in the 21<sup>st</sup> Century” 22-26 November 2004, Bangkok, Thailand, p.233.
11. Piyapa Kiatsomchai, Pornpimon Kanjanavas, Arda Pakpitchareon, **Phaisan Khawsak** and Kosum Chansiri. Cloning and characterization of the gene encoding for Copper/Zinc superoxide dismutase from lymphatic filaria. 20<sup>th</sup> IUBMB International Congress of Biochemistry and Molecular Biology and 11<sup>th</sup> FAOBMB Congress, June 18-23, 2006. Kyoto, Japan.
12. Pornpimon Kanjanavas, **Paisarn Khawsak**, Tadahiko Kajiwara, Kenji Matsui and Kosum Chansiri. Cloning and expression of mannanase gene from thermotolerant *Bacillus* sp. THCM 3.1 2006 the 5<sup>th</sup> JSPS-NRCT Joint Seminar on Development of thermotolerant Microbial Resource and Their Application, 7-10 November 2006, Pattaya, Thailand.
13. Pornpimon Kanjanavas, Sintawee Khuchareontaworn, **Paisarn Khawsak**, Arda Pakpitchareon, Khajeenart Pothivejkul, Somchai Santiwatankul, Kenji Matsui, Tadahiko Kajiwara and Kosum Chansiri. Organic solvent and detergent tolerant properties of thermotolerant *Bacillus* sp. RN2 lipase 2006.the 5<sup>th</sup> JSPS-NRCT Joint Seminar on

Development of thermotolerant Microbial Resource and Their Application, 7-10 November 2006, Pattaya, Thailand.

14. Arda Pakpitcharoen, Montri Yasawong, Phirom Singhaphan, Paisarn Khawsak, Pornpimon Kanjanavas, Sunsanee Phasook and Kosum chansiri. Biodiversity studies of thermotolerant *Bacillus* spp. in the hot spring resources from the south of Thailand based on hypervariable region of 16S rDNA 2006. การประชุมวิทยาศาสตร์และเทคโนโลยีแห่งประเทศไทย ครั้งที่ 32 10-12 ตุลาคม 2549 ณ ศูนย์ประชุมแห่งชาติสิริกิติ์
15. พนอ อัศวราจานนท์ ใจนาฎ โพธิเวชกุล อารช์ดาม ภาคพิษเจริญ ไฟศาล ขาวสัก เกษร จันทร์ศิริ และโกสุม จันทร์ศิริ. การสำรวจสารลดแรงตึงผิวที่ได้จากจุลินทรีย์หนึ่ง. Proceedings of the 32<sup>nd</sup> Congress on Science and Technology of Thailand. Queen Sirikit National Convention Center, Bangkok, Thailand. 10-12 October 2006. p1-3
16. Arda Pakpitcharoen, Supatra Areekit, Phaisarn Khawsak, Pornpimon Kanjanavas, and Kosum chansiri. Biodiversity studies of thermotolerant *Bacillus* spp. in the hot spring resources from the Central of Thailand based on hypervariable region of 16S rDNA 2007. การประชุมวิทยาศาสตร์และเทคโนโลยีแห่งประเทศไทย ครั้งที่ 33 18-20 ตุลาคม 2550 ณ มหาวิทยาลัยวลัยลักษณ์ จ. นครศรีธรรมราช หน้า 121
17. Supatra Areekit, Arda Pakpitcharoen, Sunsanee Phasook, Phaisarn Khawsak, Sintawee khuchareontaworn and Kosum chansiri. Genetic diversity of *Brugia* spp. in cat reservoirs inferring from internal transcribed spacer region 1. 2007. การประชุมวิทยาศาสตร์และเทคโนโลยีแห่งประเทศไทย ครั้งที่ 33 18-20 ตุลาคม 2550 ณ มหาวิทยาลัยวลัยลักษณ์ จ. นครศรีธรรมราช หน้า 121-122.
18. Supatra Areekit, Pornpimon Kanjanavas, Arda Pakpitcharoen, Phaisarn Khawsak, Sintawee Khuchareontaworn, Thayat Sriyapai and Kosum Chansiri. Rapid detection of *Brugia malayi* and *Brugia pahangi* in cat reservoirs using high resolution melting. 34<sup>th</sup> Congress on Science and Technology of Thailand (STT.34), Queen Sirikit National Convention Center, Bangkok, Thailand, 31 October-November 2, 2008, B5\_B0144, p110.
19. Pornpimon Kanjanavas, Supatra Areekit, Arda Pakpitcharoen, Phaisarn Khawsak, Somchai Santiwatanakul and Kosum Chansiri. Detection of mutation katg *Mycobacterium tuberculosis*. 34<sup>th</sup> Congress on Science and Technology of Thailand

(STT.34), Queen Sirikit National Convention Center, Bangkok, Thailand, 31 October-November 2, 2008, B5\_B0038, p104.

20. Arda Pakpitcharoen, Khajeenart Pothivejkul, Pornpimon Kanjanavas, **Phaisarn Khawsak**, Supatra Areekit and Kosum Chansiri. Biodiversity of thermotolerant bacteria producing biosurfactants and biocatalysts in northern Thailand. 34<sup>th</sup> Congress on Science and Technology of Thailand (STT.34), Queen Sirikit National Convention Center, Bangkok, Thailand, 31 October-November 2, 2008, B2\_B0039, p72.
21. Pornpimon Kanjanavas, **Phaisarn Khawsak**, Arda Pakpitcharoen, Supatra Areekit, Thayat Sriyapai, Khajeenart Pothivejkul, Somchai Santiwatanakul, Kenji Matsui, Tadahiko Kajiwara and Kosum Chansiri. Purification and characterization of the alkalophilic and organic solvent tolerant endo-1,4- $\beta$ -mannanase from thermotolerant *Bacillus licheniformis* THCM 3.1. The International Enzyme Engineering Symposium, Kusadasi, Turkey, 1-5 October 2008, ESP08, p50.
22. Pornpimon Kanjanavas, **Phaisarn Khawsak**, Thayat Sriyapai, Supatra Areekit, Arda Pakpitcharoen, Khajeenart Pothivejkul, Somchai Santiwatanakul, Kenji Matsui, Tadahiko Kajiwara and Kosum Chansiri. Purification and characterization of organic solvent and detergent tolerant lipase from thermotolerant *Bacillus licheniformis* RN2. The International Enzyme Engineering Symposium, Kusadasi, Turkey, 1-5 October 2008, OP08, p28.
23. Supatra Areekit, Arda Pakpitchareon, Pornpimon Kanjanavas, **Paisarn Khawsak**, and Kosum Chansiri. Bacterial diversity in soil specimen from the Tao Dam hot spring in Thailand. 2<sup>nd</sup> Biochemistry and Molecular Biology Conference: Biochemistry and Molecular Biology for regional sustainable development, May 7-8, 2009. Faculty of Science, Khon Kaen University, Khon Kaen, Thailand, poster 070, p82.
24. Arda Pakpitchareon, Supatra Areekit, Pornpimon Kanjanavas, **Paisarn Khawsak**, and Kosum Chansiri. Diversity of *Archaea* in soil specimen from the Mae Wong hot spring in Thailand. 2<sup>nd</sup> Biochemistry and Molecular Biology Conference: Biochemistry and Molecular Biology for regional sustainable development, May 7-8, 2009. Faculty of Science, Khon Kaen University, Khon Kaen, Thailand, poster 004, p7.
25. **Paisarn Khawsak**, Piyapa Kiatsomchai, Pornpimon Kanjanavas, Supatra Areekit, Arda Pakpitchareon, Gasorn Chansiri, and Kosum Chansiri. Expression and characterization

- Cu/Zn superoxide dismutase from *Wuchereria Bancrofti*. 2<sup>nd</sup> Biochemistry and Molecular Biology Conference: Biochemistry and Molecular Biology for regional sustainable development, May 7-8, 2009. Faculty of Science, Khon Kaen University, Khon Kaen, Thailand, poster 041, p49.
26. Supatra Areekit, Arda Pakpitchareon, Sintawee Khuchareontaworn, Pornpimon Kanjanavas, **Paisarn Khawsak** and Kosum Chansiri. Diversity of Bacteria and Archaea in soil specimen from the Tao Dam Hot Spring, Thailand. 21<sup>st</sup> IUBMB and 12<sup>th</sup> FAOBMB International Congress of Biochemistry and Molecular Biology August 2-7, 2009, Shanghai, China, p 198.
27. Sintawee Khuchareontaworn, Arda Pakpitchareon, Supatra Areekit, Pornpimon Kanjanavas, **Paisarn Khawsak**, Somchai Santiwatanakul, Kenji Matsui and Kosum Chansiri. Microbial analysis of bacteria and archaea from the Mae Wong hot spring in Thailand. 21<sup>st</sup> IUBMB and 12<sup>th</sup> FAOBMB International Congress of Biochemistry and Molecular Biology August 2-7, 2009, Shanghai, China, p 198.
28. Supatra Areekit, Arda Pakpitchareon, Pornpimon Kanjanavas, **Paisarn Khawsak** Sintawee Khuchareontaworn and Kosum Chansiri. Diversity of Bacteria in soil specimen from the Fang Hot Spring in Thailand. 35<sup>th</sup> Congress on Science and Technology of Thailand (STT.35), Burapha University, Chonburi, Thailand, 15-17 October 2009, B5\_B0133, p108.
29. Supatra Areekit, Pornpimon Kanjanavas, **Paisarn Khawsak**, Arda Pakpitchareon, Sintawee Khuchareontaworn, Gaysorn Chansiri, Kosum Chansiri. Clonning, expression and characterization of thermotolerant manganese superoxide dismutase from *Bacillus cereus* isolate 47. 11<sup>th</sup> International Symposium on the Genetics of Industrial Microorganisms (GIM 2010), Melbourne Convention & Exhibition Centre, Melbourne, Australia, June 28 - July 01, 2010, P80.
30. Supatra Areekit, Arda Pakpitchareon, **Paisarn Khawsak**, Sirirat Wachiralurpan, Hathaitip Suksodsai, Kosum Chansiri. Clonning, and expression of a lipase gene (*LIP12*) from *Staphylococcus pasteuri*. 38<sup>th</sup> Congress on Science and Technology of Thailand (STT.38), Empress Convention Centre, Chiang Mai, Thailand, 17-19 October 2012, H\_H0053, p243.

31. Arda Pakpitchareon, Supatra Areekit, **Paisarn Khawsak**, Hathaitip Suksodsai, Kosum Chansiri. Phylogenetic diversity of metagenomic libraries of novel uncultured archaea from the Mae Wong hot spring in Thailand. 38<sup>th</sup> Congress on Science and Technology of Thailand (STT.38), Empress Convention Centre, Chiang Mai, Thailand, 17-19 October 2012, I\_I0045, p278.

### ผลงานที่ตีพิมพ์ :

1. Chansiri, K., Kwoasak, P., Tananyutthawongese, C., Sukhumsirichart, W., Sarataphan, N., and Phantana, S. 2001. Detection of *Plasmodium falciparum* and *Wuchereria bancrofti* infected blood samples using multiplex PCR. **Molecular and Cellular Probes** 15: 201-207.
2. Chansiri, K., Tejangkura, T., Kwoasak, P., Sarataphan, N., and Sukhumsirichart, W. 2002. PCR based method for identification of zoonotic *Brugia malayi* microfilariae in domestic cats. **Molecular and Cellular Probes** 16: 129-135.
3. Khawsak, P., Phantana, S. and Chansiri, K. 2003. Determination of dengue virus serotypes in Thailand using PCR based method. **Southeast Asian Journal of Tropical and Medical Hygiene**. 34(4): 781-785.
4. Kanjanavas, P., Tan-ariya, P., Khawsak, P., Khuchareontaworn, S., Phantana, S., and Chansiri, K. 2003. Detection of *Wuchereria bancrofti*. **Encyclopedia of Diagnostic genomic & Proteomics**.
5. Kanjanavas, P., Tan-ariya, P., Khawsak, P., Pakpitchareon, A., Phantana, S., and Chansiri, K. 2004. Detection of lymphatic *Wuchereria bancrofti* in carriers and long-term storage blood samples using semi-nested PCR. **Molecular and Cellular Probes**. 19:169-172.
6. Chansiri, G., Khawsak, P., Phantana, S., Sarataphan, N., and Chansiri, K. 2005. The efficacy of a single-oral-dose administration of ivermectin and diethylcarbamazine on treatment of feline *Brugia malayi*. **Southeast Asian Journal of Tropical and Medical Hygiene**. 36(5):1105-1109.
7. Wanlaya Uthaisang and Paisarn Khawsak. 2005. การตรวจสืบความเป็นพิษต่อเซลล์มะเร็งของสารสกัดหยาบจากต้นบานปูรีเหลือง แก้วเจ้าจอม และการเก็บ. **Journal of Medicine and Health Sciences**. 12 (2): 59-69.
8. Arda Pakpitcharoen, Sunsanee Phasook, Paisarn Khawsak, Sintawee Khucharoentaworn and Kosum Chansiri. (2006) Genetic diversity of filarial in cat reservoirs.. **Journal of Medicine and Health Sciences**. 13 (1): 146-155.
9. Paisarn Khawsak, Warin Deesukon, Parin Chaivisuthangkura and Wasana Sukhumsirichart. 2008. Multiplex RT-PCR assay for simultaneous detection of six viruses of penaeid shrimp. **Molecular and Cellular Probes**. 22: 177-183.

10. Supatra Areekit, Sintawee Khuchareontaworn, Pornpimon Kanjanavas, Thayat Sriyaphai, Arda Pakpitchareon, **Paisarn Khawsak**, and Kosum Chansiri. 2008. Molecular genetics analysis for co-infection of *Brugia malayi* and *Brugia pahangi* in cat reservoirs based on internal transcribed spacer region 1. **Southeast Asian Journal of Tropical and Medical Hygiene.** 40(1): 30-34.
11. Pornpimon Kanjanavas, **Paisarn Khawsak**, Arda Pakpitcharoen, Supatra Areekit, Thayat Sriyaphai, Khajeenart Pothivejkul, Somchai Santiwatanakul, Kenji Matsui, Tadahiko Kajiwara. and Chansiri K. 2009. Over-expression and characterization of the alkalophilic, organic solvent-tolerant, thermotolerant endo-1,4- $\beta$ - mannanase from *Bacillus licheniformis* THCM 3.1. **Science Asia.** 35 (2009): 17-23.
12. Pornpimon Kanjanavas , Sintawee Khuchareontaworn , **Paisarn Khawsak** , Arda Pakpitcharoen , Khajeenart Pothivejkul , Somchai Santiwatanakul , Kenji Matsui , Tadahiko Kajiwara and Kosum Chansiri. 2010. Purification and Characterization of Organic Solvent and Detergent Tolerant Lipase from Thermotolerant *Bacillus* sp. RN2. **Int. J. Mol. Sci.** 2010, 11(10), 3783-3792
13. Supatra Areekit , Pornpimon Kanjanavas , **Paisarn Khawsak** , Arda Pakpitchareon , Kajeenart Potivejkul , Gaysorn Chansiri and Kosum Chansiri. 2011. Cloning, Expression, and Characterization of Thermotolerant Manganese Superoxide Dismutase from *Bacillus* sp. MHS47. **Int. J. Mol. Sci.,** 12(1), 844-856.
14. Benjaporn Panichareon, **Paisarn Khawsak**, Warin Deesukon and Wasana Sukhumsirichart. Multiplex real-time PCR and high-resolution melting analysis for detection of white spot syndrome virus, yellow-head virus, and Penaeus monodon densovirus in penaeid shrimp. **Journal of Virological Methods.** (December 2011), 178 (1-2), pg. 16-21.
15. **Paisarn Khawsak**, Pornpimon Kanjanavas, Piyapa Kiatsomchai, Kosum Chansiri Expression and characterization of Cu/Zn superoxide dismutase from *Wuchereria bancrofti*. **Parasitol Res.** 2012 Feb;110(2):629-36.

