

CURRICULUM VITAE

Personal Information :

Full name: **Wasu PATHOM-AREE**

Title: **Assistant Professor Dr.** Sex: **Male**

Date of Birth: **31/1/1973** Nationality: **Thai**

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Current Contact Information :

Microbiology Section, Department of Biology, Faculty of Science, Chiang Mai University
Chiang Mai 50200, Thailand

Education :

Ph.D. (Microbiology), University of Newcastle, Newcastle upon Tyne, UK, 2005

Thesis : Biosystematics of Actinomycetes from Marine Sediments

M.Sc. (Microbiology), Kasetsart University, Bangkok, Thailand, 1999

Thesis : Analysis of Genetic Variations in Thermotolerant Acetic Acid Bacteria by
Random Amplified Polymorphic DNA.

B.Sc. (Biology), Chiang Mai University, Chiangmai, Thailand, 1994

Graduate Project : Acidification of Soybean in Tempeh Production.

Scholarships and Awards

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|-----------|---|
| 2017 | Erasmus Mundus Leader Program (University of Crete, Greece) |
| 2017 | Chiang Mai University fellowship (Newcastle University, UK) |
| 2017 | JSPS fellowship (Shizuoka University, Japan) |
| 2016 | The 3 rd TCI-Scopus-TRF International Journal Award as an editor-in-chief of Chiang Mai Journal of Science |
| 2016/2017 | Newton Fund Professional Development Programme for Mid-career Researchers (Declined offer) |
| 2016 | Erasmus Mundus Alfabet Program (Warsaw University of Life Sciences, Poland) |
| 2016 | Eramus Mundus SmartLink Program (University of Lyon2, France) |
| 2016 | JSPS fellowship (Shizuoka University, Japan) |
| 2015 | Brain Korea 21 fellowship (Chung-Ang University, Korea) |
| 2015 | JSPS fellowship (Shizuoka University, Japan) |
| 2014 | Brain Korea 21 fellowship (Chung-Ang University, Korea) |

- 2014 Erasmus Mundus Panacea Program (University of Grenada, Spain)
- 2013 Award from Faculty of Science, Chiang Mai University for Scientific Adviser of Gold medal scientific project of high school student (อาจารย์ที่ปรึกษาโครงการวิทยาศาสตร์ระดับมัธยมศึกษาตอนปลาย สาขากายภาพ รางวัลเหรียญทอง เรื่อง แบบจำลองทางคณิตศาสตร์สำหรับศึกษาการเจริญเติบโตของโคโลนีของเชื้อรา *Penicillium* sp., *Mucor* sp. และ *Aspergillus* sp. ในงานสัปดาห์วิทยาศาสตร์แห่งชาติส่วนภูมิภาค ประจำปี 2556 ณ คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่)
- 2013 Hitachi Fellowship (Kitasato University, Japan)
- 2013 Award from Chiang Mai University for Outstanding MSc Thesis in Science and Technology (Isolation and Screening of Polylactide Degrading Actinomycetes by Miss Maytiya Konkit)
- 2012 Research visit funding from Thailand International Development Cooperation Agency (Wuhan University, China)
- 2012 2nd Place Poster Presentation Award in the 1st ISC International Student Conference on Innovation for Harmonious Living in a Borderless Society, January 23-25, 2012, Khon Kaen University
- 2011 Award from Faculty of Science, Chiang Mai University for 2nd Highest Citations in Scopus during 2006-2010
- 2011 JSPS-ACP fellowship (Ritsumeikan University, Japan)
- 2011 Research visit funding from Thailand International Development Cooperation Agency (Institute of Tropical Bioscience and Biotechnology, Haikou, PR China)
- 2010 UMAP Research Exchange fellowship from Commission on Higher Education (Kitasato University, Japan)
- 2009 President Fund from Society for Applied Microbiology, UK
- 2009 Research Exchange fellowship from Commission on Higher Education (Institute of Tropical Bioscience and Biotechnology, Haikou, PR China)
- 2008 3 PhD scholarships from Thailand Commission on Higher Education
- 2008 The Association of Thai Professionals in America and Canada (ATPAC) for fiscal year 2008 (โครงการให้นักวิชาชีพไทยที่อยู่ต่างประเทศกลับมาช่วยพัฒนาการอุดมศึกษาไทย ประจำปีงบประมาณ 2551)
- 2007 Watanabe Book Fund from Society for General Microbiology, UK
- 2007 President Fund from Society for Applied Microbiology, UK
- 2005 IUMS Grant from Society for General Microbiology, UK
- 2003 President Fund from Society for General Microbiology, UK

- 2000-2005 Full Scholarship - Thai Department of Promotion in Science and Technology Talents Project (DPST) for PhD study in UK at University of Newcastle
- 1999 Workshop Scholarship from Society for General Microbiology, UK
- 1998 Teaching Assistant in Microbial Strain Manipulation course
- 1996 Awards for Outstanding Performance in Food Microbiology course
- 1994 - 1999 Full Scholarship - Thai Department of Promotion in Science and Technology Talents Project (DPST)
- 1993 - 1994 Certificates and medals for Outstanding Academic Records, Faculty of Science, Chiang Mai University

Work Experience

Lecturer in Microbiology Department of Biology, Faculty of Science, Chiang Mai University, Thailand since 1999

Research Fellowships

- 2017 University of Crete, Greece
- 2017 Warsaw University of Life Sciences, Poland
- 2016-2017 Newcastle University, UK
- 2016 University of Lyon2, France
- 2016 Shizuoka University, Japan
- 2015 Chuang-Ang University, Seoul, Korea
- 2015 Shizuoka University, Japan
- 2014 Chuang-Ang University, Seoul, Korea
- 2014 Institute for Water Research, University of Granada, Spain
- 2013 Kitasato Institute for Life Sciences, Kitasato University, Tokyo, Japan
- 2012 School of Pharmaceutical Science, Wuhan University, PR China
- 2011 Institute of Tropical Biosciences and Biotechnology, Chinese Academy of Tropical Agriculture Sciences, Hainan, P.R. China
- 2010 Kitasato Institute for Life Sciences, Kitasato University, Tokyo, Japan
- 2009 Institute of Tropical Biosciences and Biotechnology, Chinese Academy of Tropical Agriculture Sciences, Hainan, P.R. China

Research Interests

Diversity of actinomycetes and their biotechnological applications, Prokaryotic culturability and selective isolation techniques, Microbial diversity in marine and freshwater habitats, Thermotolerant acetic acid bacteria, Microbiology of biogas production

Grants Funded

2015-2018	Plant growth promoting actinomycetes phase II funded by Thailand Research Fund-RTA5880006 (co-PI)
2015-2016	Application of plant growth promoting bacteria to enhance phytoremediation of heavy metals from electronics wastes by some cut flower plants
2015-2016	Screening of plant growth promoting microbes for application in microalgal cultivation for bio-fuel and bio-active compounds production (co-PI)
2015-2016	Plant growth promoting actinomycetes funded by Thailand Research Fund (co-PI)
2014-2015	Potential of bio-plastic production from <i>Spirulina platensis</i> cultivated with simple medium CMU1 and degradation funded by NRCT
2013-2014	Actinomycetes from Thai coastal marine and mangrove sediments and their bioactive compounds year 2 funded by NRCT-NSFC Cooperative Project
2013	Concrete Quality Improvement Using Urease Producing Bacteria funded by Faculty of Science, Chiang Mai University
2012-2013	Actinomycetes from solar saltern and biological activities against cancer cell funded by KURDI (co-PI)
2011-2012	The development of science digital textbook prototypes to promote science concepts for Thai high school students funded by NRCT (co-PI)
2011-2012	Actinomycetes from Thai coastal marine and mangrove sediments and their bioactive compounds funded by NRCT-NSFC Cooperative Project
2011	Isolation and screening of urease producing bacteria for concrete quality improvement funded by Faculty of Science, Chiang Mai University
2011	Microbial Air Contamination in Faculty of Science Library funded by Faculty of Science, Chiang Mai University
2010-2012	Investigation of actinomycetes resources in tropical marine and terrestrial environment by culture dependent and culture independent approach funded by SINO-THAI JOINT RESEARCH AND DEVELOPMENT PROJECT
2010-2012	Diversity and siderophore production of actinomycetes from coastal sediments of eastern Thailand funded by Thailand Research Fund
2010	Isolation and screening of actinomycetes from cave soil and their anti-MRSA activity funded by Faculty of Science, Chiang Mai University
2009-2010	Development of antibacterial floor coating epoxy material funded by ITAP
2009-2010	โครงการพัฒนาผลิตภัณฑ์สีอีพ็อกซีเคลือบพื้นคอนกรีตชนิดผสมสารป้องกันเชื้อแบคทีเรีย สนับสนุน โดยสวทช.ภาคเหนือ

2009-2010	Study on effective microorganisms and optimum conditions for cassava and corn plant degradation for biogas production funded by Energy Research and Development Institute, Chiang Mai University
2009-2010	Microbiological study and development of suitable transportation for sulfur oxidizing bacteria funded by Energy Research and Development Institute, Chiang Mai University
2009	Isolation and Screening of Sulfur Oxidizing Bacteria for Hydrogen Sulfide Removal from Biogas funded by Faculty of Science, Chiang Mai University
2008-2009	Biogas Purification funded by Energy Policy and Planning Office, Ministry of Energy
2008-2009	Pretreatment of organic wastes for biogas production by selected microorganisms funded by Industrial Projects for Undergraduate Students (IRPUS)
2007-2008	Taxonomic characterization of actinomycetes isolated from cave and their antimicrobial activity funded by Chiang Mai University
2006-2007	Phylogenetic analysis of rare actinomycetes from caves in northern Thailand based on 16S rRNA gene funded by Nanoscience and Nanotechnology Center Chiang Mai University

Editorial and Review activities

2014-present	Consultant Editor	Chiang Mai University Journal of Natural Sciences
2011-present	Editor-in-Chief	Chiang Mai Journal of Science
2010-present	Associate Editor	Chiang Mai Journal of Science
2006-present	Member, Editorial Board	Chiang Mai Journal of Science
2007-2010	Technical Editor	Research Journal of Microbiology
2007-2010	Technical Editor	Biotechnology
2007-2010	Technical Editor	Current Research in Bacteriology
2007-2010	Technical Editor	Journal of Biological Science
2007-2010	Technical Editor	Pakistan Journal of Biological Science
2008-present	Reviewer	Applied Microbiology and Biotechnology
2009-present	Reviewer	International Journal of Systematic and Evolutionary Microbiology
2009-present	Reviewer	Marine Drugs
2009-present	Reviewer	Maejo International Journal of Science and Technology
2011-present	Reviewer	Antonie van Leeuwenhoek

2011-present	Reviewer	International Journal of Food Sciences and Nutrition
2011-present	Reviewer	Biosciences, Biotechnology, Biochemistry
2013-present	Reviewer	Preparative Biochemistry and Biotechnology
2013-present	Reviewer	International Journal of Speleology
2015-present	Reviewer	FEMS Microbiology Letters
2015-present	Reviewer	International Journal of Biological Sciences
2015-present	Reviewer	Bergey's Manual of Systematics of Archaea and Bacteria

Invited Lecturer

2000	Maejo University, Chiang Mai
2006-2009	Rajabhat Chiang Mai University
2015	Phayao University

External Examiner

2016-present	Mae Fah Luang University
2015- present	Khon Kaen University
2013-present	Prince of Songkla University
2012-present	Mahidol University
2010-present	Maejo University
2009-present	University of Malaya, Malaysia

Academic activities

International Foundation for Science, Sweden	Scientific Advisor since 2012
Thai Society for Biotechnology	Life membership since 1999
The Science Society of Thailand	Life membership since 2006
Society for General Microbiology, UK	Member 2001-present
Society for Applied Microbiology, UK	Member 2003-present
American Society for Microbiology, USA	Member 2001, 2004-2005

International Collaborations

1. Microbial Resources Laboratory, Newcastle University, UK
2. Institute of Tropical Biosciences and Biotechnology, Hainan, PR China
3. Kitasato Institute for Life Sciences, Kitasato University, Tokyo, Japan
4. Ritsumeikan University, Shiga, Japan

5. School of Pharmaceutical Science, Wuhan University, PR China
6. Research Faculty of Agriculture, Hokkaido University, Japan
7. Department of Applied Biological Chemistry, Faculty of Agriculture, Shizuoka University, Japan
8. Institute for Water Research, University of Granada, Spain
9. College of Medicine, Chung Ang University, South Korea

Intellectual Properties

1. Patent “Lactic acid production medium and direct lactic acid production from starch” (Thai Patent Application no. 1301000234)
2. Petty patent “Cultivation process of *Streptomyces* using starchy wastewater” (Thai Patent Application no. 12030011376)
3. Patent “System and cultivation technique for co-culture of actinomycetes and algae” (Thai Patent Application no. 1601000706)
4. Petty patent “Actinomycete powder for bioplastic degradation” (filing)
5. Petty patent “Production process of powdered probiotic streptomycete for aquaculture” (filing)

Book

ปทานุกรมจุลชีววิทยา (2558) สำนักพิมพ์แห่งจุฬาลงกรณ์มหาวิทยาลัย

Publications [h-index = 10 (Web of Science); 10 (Scopus)]

Research articles in peer reviewed journals (impact factor):

1. Jaiinphon, J., K. Thonglem and **W. Pathom-aree**. 2002. Selective isolation of sorbitol utilizing acetic acid bacteria. Chiang Mai Journal of Science. 29(3): 189-192.
2. Maldonado, L.A., J.E.M. Stach, **W. Pathom-aree**, A.C. Ward, A.T. Bull and M. Goodfellow. 2005. Diversity of cultivable actinobacteria in geographically widespread marine sediments. Antonie van Leeuwenhoek 87: 11-18. (2.915)
3. Bruntner, C., Binder, T., **Pathom-aree, W.**, Goodfellow, M., Bull, A.T., Potterat, O., Puder, C., Hörer, S., Schmid, A., Bolek, W., Wagner, K., Mihm, G. and Fiedler, H.P. 2005. Frigocyclinone, a novel angucyclinone antibiotic produced by a *Streptomyces griseus* strain from Antarctica. Journal of Antibiotics (Tokyo)58: 346-349. (1.394)
4. **Pathom-aree W.**, A.C. Ward, K. Horikoshi, A.T. Bull and M. Goodfellow. 2006. Diversity of actinomycetes isolated from the Challenger Deep sediment (10898 m) from the Mariana Trench. Extremophiles 10:181-189. (2.125)
5. **Pathom-aree, W.**, Y. Nogi, I.C. Sutcliffe, A.C. Ward, K. Horikoshi, A.T. Bull and M. Goodfellow. 2006. *Williamsia marianaensis* sp. nov., a novel actinomycete isolated from the

- Mariana Trench. *International Journal of Systematic and Evolutionary Microbiology* 56:1123-1126. (2.744)
6. **Pathom-aree, W.**, Y. Nogi, I.C. Sutcliffe, A.C. Ward, K. Horikoshi, A.T. Bull and M. Goodfellow. 2006. *Dermaococcus abyssi* sp. nov., a novel piezotolerant actinomycete isolated from the Mariana Trench. *International Journal of Systematic and Evolutionary Microbiology* 56:1233-1237. (2.744)
 7. **Pathom-aree, W.**, Y. Nogi, I.C. Sutcliffe, A.C. Ward, K. Horikoshi, A.T. Bull and M. Goodfellow. 2006. *Dermaococcus barathri* sp. nov. and *Dermaococcus profundi* sp. nov., novel actinomycetes isolated from the deepest sea mud of Mariana Trench. *International Journal of Systematic and Evolutionary Microbiology* 56: 2303-2307. (2.744)
 8. Hanmoungjai, W., E. Chukeatirote, **W. Pathom-aree**, Y. Yamada and S. Lumyong. 2007. Identification of acidotolerant acetic acid bacteria isolated from Thailand sources. *Research Journal of Microbiology* 2(2): 194-197.
 9. Sudsakda, S., W. Srichareon, and **W. Pathom-aree**. 2007. Comparison of three enrichment broths for the isolation of thermotolerant acetic acid bacteria from flowers and fruits. *Research Journal of Microbiology* 2(10): 792-795.
 10. Duthatai, F. and **W. Pathom-aree**. 2007. Application of chemical dyes as colour indicator for selective isolation of acetic acid bacteria. *Research Journal of Microbiology* 2(11): 885-888.
 11. Thonglem, K., A. Plikomol and **W. Pathom-aree**. 2007. Growth inhibition of *Penicillium digitatum* by antagonistic microorganisms isolated from various parts of orange tree. *Maejo International Journal of Science and Technology* 1(2): 208-215.
 12. Moryadee, A. and **W. Pathom-aree**. 2008. Isolation of thermotolerant acetic acid bacteria from fruits for vinegar production. *Research Journal of Microbiology* 3(3): 209-212.
 13. Fiedler, H.P., C. Bruntner, J. Riedlinger, A.T. Bull, G. Knutsen, M. Goodfellow, A. Jones, L. Maldonado, **W. Pathom-aree**, W. Biel, K. Schneider, S. Keller and R.D. Sussmuth. 2008. Proximicin A, B and C, novel aminofuran antibiotic and anticancer compounds isolated from marine strains of the actinomycete *Verrucosispora*. *Journal of Antibiotics (Tokyo)* 61: 158-163. (1.262)
 14. Thampayak, I., N. Cheeptham, **W. Pathom-aree**, P. Leelapornpisid and S. Lumyong. 2008. Isolation and identification of biosurfactant producing actinomycetes from soil. *Research Journal of Microbiology* 3(7): 499-507.
 15. Kappeng, K. and **W. Pathom-aree**. 2009. Isolation of acetic acid bacteria from honey. *Maejo International Journal of Science and Technology* 3(1): 71-76. (0.222)
 16. Nakaew, N., **W. Pathom-aree** and S. Lumyong. 2009. First record of the isolation, identification and biological activity of a new strain of *Spirillospora albida* from Thai cave soil. *Actinomycetologica* 23: 1-7.

17. Wangsiricharoen, S. and **W. Pathom-aree**. 2009. Hydrogen sulfide removal from biogas by microorganisms. *KKU Science Journal* 37(2): 130-136. (in Thai)
18. **Pathom-aree, W.** 2009. Characterisation of actinomycetes from Helmcken Falls volcanic cave and their antimicrobial activity against the honey bee pathogen *Paenibacillus larvae*. *Microbiologist* 10(3): 48-49.
19. Nakaew, N., **W. Pathom-aree** and S. Lumyong. 2009. Generic diversity of rare actinomycetes from Thai cave soils and their possible use as new bioactive compounds. *Actinomycetologica* 23(2): 21-26.
20. Duangmal, K. and **W. Pathom-aree**. 2010. Marine actinomycetes: source of novel natural products. *KKU Science Journal* 38(1): 36-49. (in Thai)
21. Srivibool, R., K. Jaidee, M. Sukchotiratana, S. Tokuyama and **W. Pathom-aree**. 2010. Taxonomic characterization of *Streptomyces* strain CH54-4 isolated from mangrove sediment. *Annals of Microbiology* 60: 299-305. (0.35)
22. Abdel-Mageed, W.M., B.F. Milne, M. Wagner, M. Schumacher, P. Sandor, **W. Pathom-aree**, M. Goodfellow, A.T. Bull, K. Horikoshi, R. Ebel, M. Diederich, H.-P. Fiedler and M. Jaspars. 2010. Dermacozines, a new phenazine family from deep-sea dermacocci isolated from a Mariana Trench sediment. *Organic and Biomolecular Chemistry* 8: 2352-2362. (3.762)
23. Wangsiricharoen, S. and **W. Pathom-aree**. 2010. Microorganisms associated with biogas production. *Science* 64: 70-74 (in Thai)
24. Ratanaroutai, T. and **W. Pathom-aree**. 2010. A case study on teaching and learning DNA. *US-China Education Review* 7(8): 37-42.
25. Chomchoei, A., **W. Pathom-aree**, A. Yokota, C. Kanongnuch and S. Lumyong. 2011. *Amycolatopsis thailandensis* sp. nov., a poly(L-lactic acid)-degrading actinomycete, isolated from soil. *International Journal of Systematic and Evolutionary Microbiology* 61: 839-843. (1.93)
26. Duangmal, K., R. Mingma, **W. Pathom-aree**, A. Thamchaipenet, Y. Inahashi, A. Matsumoto and Y. Takahashi. 2011. *Amycolatopsis samanae* sp. nov., isolated from roots of *Samanea saman* (Jacq.) Merr. *International Journal of Systematic and Evolutionary Microbiology* 61: 951-955. (1.93)
27. Duangmal, K., R. Mingma, **W. Pathom-aree**, Y. Inahashi, A. Matsumoto, A. Thamchaipenet, and Y. Takahashi. 2011. *Sphaerisporangium siamense* sp. nov., an actinomycete isolated from rubber tree rhizospheric soil. *Journal of Antibiotics* 64(4): 293-296. (1.628)
28. Praparattanapan, J., Tragoolpoor, Y., **W. Pathom-aree**, Kotarathitithum, W., Chaiwarith, R., Nuntachit, N., Sirisanthana, T. and Supparatpinyo, K. 2011. Current molecular epidemiology and recombination of HIV-1 subtypes in northern Thailand. *AIDS Research and Human Retroviruses* 27(11): 1201-1206. (2.082)

29. Yodbunruang, T. and **W. Pathom-aree**. 2011. Isolation and selection of antimicrobial producing actinomycetes from Mae-Mor coal mine soils. *Science* 65: 84-90 (in Thai)
30. Singka, D. and **W. Pathom-aree**. 2011. Denaturing gradient gel electrophoresis: Principle and application in environmental microbiology. *KKU Science Journal* 39(3): 321-333. (in Thai)
31. Singka, D., L. Kumdhithahutsawakul, P. Rekkriangkrai and **W. Pathom-aree**. 2012. A simple method for DNA extraction from activated sludge. *Chiang Mai Journal of Science* 39(1): 111-118. (0.473)
32. Konkitt, M., A. Jarerat, C. Kanongnuch, S. Lumyong and **W. Pathom-aree**. 2012. Poly(lactide) degradation by *Pseudonocardia alni* AS4.1531^T. *Chiang Mai Journal of Science* 39(1): 128-132. (0.473)
33. Niyomvong, N. **W. Pathom-aree**, A. Thamchaipenet and K. Duangmal. 2012. Actinomycetes from tropical limestone caves. *Chiang Mai Journal of Science* 39(3): 373-388. (0.473)
34. Duangmal, K., R. Mingma, **W. Pathom-aree**, N. Niyomvong, Y. Inahashi, A. Matsumoto, A. Thamchaipenet, and Y. Takahashi. 2012. *Microbispora thailandensis* sp. nov., an actinomycete isolated from cave soil. *Journal of Antibiotics* 65: 491-494. (2.191).
35. Suksawat, S. and **W. Pathom-aree**. 2012. The role of bacteria on bioplastic. *Srinakharinwirot Science Journal* 28(2): 285-304. (in Thai).
36. Kay, S., **W. Pathom-aree** and Cheeptham, N. 2013. Screening of volcanic cave actinomycetes for antimicrobial activity against *Paenibacillus larvae*, a honey bee pathogen. *Chiang Mai Journal of Science* 40(1): 26-33. (0.516)
37. Lang, W., W. Buranaboripan, J. Wongchawalit, P. Parakulsuksatid, W. Vanichsiratana, N. Sakairi, **W. Pathom-aree** and S. Sirisansaneeyakul. 2013. Biosorption of lead from acid solution using chitosan as a supporting material for spore forming fungal biomass encapsulation. *International Journal of Environmental Science and Technology* 10(3): 579-590. (3.051)
38. Srisamai, S., P. Srikhampa and **W. Pathom-aree**. 2013. Production of probiotic *Streptomyces* biomass from starchy wastewater. *Chiang Mai Journal of Science* 40(2): 294-298. (0.516).
39. Goodfellow, M., R. Brown, L. Ahmed, **W. Pathom-aree**, A.T. Bull, A.L. Jones, J.E.M. Stach, T.D. Zucchi, L. Zhang and J. Wang. 2013. *Verrucosipora fiedleri* sp. nov., an actinomycete isolated from fjord sediment which synthesizes proximicins. *Antonie van Leeuwenhoek* 103: 493-502. (2.072).

40. Shutsrirung, A., Y. Chromkaew, **W. Pathom-aree**, S. Choonluchanon and N. Boonkerd. 2013. Diversity of endophytic actinomycetes in mandarin grown in northern Thailand, their phytohormone production potential and plant growth promoting activity. *Soil Science and Plant Nutrition* 59: 322-330. (0.889).
41. Mingma, R., **W. Pathom-aree**, S. Trakulnaleamsai, A. Thamchaipenet and K. Duangmal. 2014. Isolation of rhizospheric and roots endophytic actinomycetes from Leguminosae plant and their activities to inhibit soybean pathogen, *Xanthomonas campestris* pv. *glycine*. *World Journal of Microbiology and Biotechnology* 30: 271-280. (1.262).
42. Lang, W., S. Sirisansaneeyakul, L.O. Martins, L. Ngiwsara, N. Sakairi, **W. Pathom-aree**, M. Okuyama, H. Mori and A. Kimura. 2014. Biodecolourisation of food azo dye by the deep sea *Dermaococcus abyssi* MT1.1^T strain from the Mariana Trench. *Journal of Environmental Management* 132: 155-164. (3.057)
43. Kanpiengjai, A., S. Lumyong, **W. Pathom-aree** and C. Khanongnuch. 2014. Starchy effluent from rice noodle manufacturing process as feasible substrate for direct lactic acid production by *Lactobacillus plantarum* S21. *Journal of The Korean Society of Applied Biological Chemistry* 57(2): 217-220. (0.433)
44. Kamjam, M. and **W. Pathom-aree**. 2014. Siderophores from microorganisms. *Srinakharinwirot Science Journal* 30(1): 229-247. (in Thai).
45. Kanpiengjai, A., W. Rieantrakoonchai, R. Pratanaphon, **W. Pathom-aree**, S. Lumyong and C. Khanongnuch. 2014. High efficiency bioconversion of starch to lactic acid using an amyolytic lactic acid bacterium isolated from Thai indigenous fermented rice noodles. *Food Science and Biotechnology* 23(5): 1541-1550. DOI 10.1007/s10068-014-0 (0.656)
46. Duangmal, K., N. Poomthongdee, **W. Pathom-aree**, A. Take, A. Thamchaipenet, A. Matsumoto, and Y. Takahashi. 2014. *Allokutzneria oryzae* sp. nov., isolated from rhizospheric soil of *Oryza sativa* L. *International Journal of Systematic and Evolutionary Microbiology* 64: 3559-3564. (2.798).
47. Prasertsin, T., J. Pekkoh, **W. Pathom-aree** and Y. Peerapornpisal. 2014. Diversity, new and rare taxa of *Pediastrum* spp. in some freshwater resources in Thailand. *Chiang Mai Journal of Science* 41(5.1): 1065-1076. (0.418)
48. Ruan, C.-Y. L. Zhang, W.-W., Ye, X.-C., Xie, R. Srivibool, R., K. Duangmal, **W. Pathom-aree**, Z.-X., Deng and K. Hong. 2015. *Streptomyces ferrugineus* sp. nov., isolated from mangrove soil in Thailand. *Antonie van Leeuwenhoek* 107: 39-45. DOI:10.1007/s10482-014-0301-6 (2.07)
49. Ruttanasutja, P. and **W. Pathom-aree**. 2015. Selective isolation of cultivable actinomycetes from Thai coastal marine sediment. *Chiang Mai Journal of Science* 42(1): 88-103. (0.418)
50. Muangham, S., **W. Pathom-aree** and K. Duangmal. 2015. Antagonistic activities to *Xanthomonas oryzae* and screening of plant growth-promoting traits in melanogenic actinomycetes

- from rhizosphere soil. *Canadian Journal of Microbiology* 61: 164-170. DOI:10.1139/cjm-2014-0645 (1.182).
51. Poomthongdee, N., K. Duangmal and **W. Pathom-aree**. 2015. Acidophilic actinomycetes from rhizosphere soil: diversity and properties beneficial to plants. *Journal of Antibiotics* 68: 106-114. doi:10.1038/ja.2014.117 (2.041).
52. Inthasotti, T. and **W. Pathom-aree**. 2015. Diversity of actinobacteria associated with *Nostoc commune* Vaucher ex Bornet & Flahault macrocolonies. *Annals of Microbiology* 65(4): 2229-2240. DOI 10.1007/s13213-015-1063-8 (1.039).
53. Yoosathaporn, S., P. Tiangburanatham and **W. Pathom-aree**. 2015. The influence of biocalcification on soil-cement interlocking block compressive strength. *Biotechnology, Agronomy, Society and Environment* 19(3): 262-269. (0.509)
54. Jiamkitwattana, K. and **W. Pathom-aree**. 2015. Application of plant growth promoting bacteria with phytoextraction technology for remediation of contaminated heavy metals in soil. *Srinakharinwirot Science Journal* 31(1): 219-234. (in Thai).
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52. Matsumiya, Y., S. Sanpa, S. Yano, N. Rattanakit-Chandet, **W. Pathom-aree**, T. Matsuno, H. Tuda, K. Kubota, A. Plikomol, T. Tachiki, M. Wakayama and M. Kubo. 2010. Evaluation of nitrogen circulation activity in soil for an organic agricultural system. The 2nd Asian Core Program Joint Seminar on Capacity Building and Development of Microbial Potential and Fermentation Technology Towards New Era. 20-21 November 2010, Khon Kaen, Thailand.
53. Konkitt, M., A. Jarerat, C. Khanongnuch, S. Lumyong and **W. Pathom-aree**. 2011. Biodegradation of polylactide by selected *Pseudonocardia* spp. Inaugural Meeting of Bergey's International Society for Microbial Systematics (BISMIS), 19-23 May, 2011, Beijing, China.
54. Khongratanapaisarn, C., N. Rattanakit-chandet, S. Sanpa, **W. Pathom-aree**, S. Yano, Y. Matsumiya, M. Wakayama, M. Kubo, T. Tachiki and A. Plikomol. 2011. Solid-state cultivation of *Monascus purpureus* NK1 for the pigment production using crispy rice residue as a substrate. The 4th International Conference on Fermentation Technology for Value Added Agricultural Products. 29-31 August 2011, Khon Kaen, Thailand.

55. **Pathom-aree, W.**, K. Duangmal, Y. Inahashi, A. Matsumoto, Y. Takahashi, S. Lumyong and M. Goodfellow. 2011. Cultivable actinomycete diversity in coastal marine sediments of Thailand. The 13th Congress of Bacteriology and Applied Microbiology 6-11 September, Hokkaido, Japan.
56. Noisuwan, P., G. Takata, C. Khanongnuch, W. Pathom-aree and S. Lumyong. 2011. Production and degradation of nigeran. The 13th Congress of Bacteriology and Applied Microbiology 6-11 September, Hokkaido, Japan.
57. Ruttanasutja, P., S. Bovonsombut, K. Hong and W. Pathom-aree. 2011. Actinomycetes diversity from Thai coastal marine sediment by culture independent study. The 13th Congress of Bacteriology and Applied Microbiology 6-11 September, Hokkaido, Japan.
58. Inthasotti, T. and W. Pathom-aree. 2011. Diversity of actinomycetes associated with *Nostoc commune* Voucher ex Borneo&Flahault from north-eastern Thailand. The 13th Congress of Bacteriology and Applied Microbiology 6-11 September, Hokkaido, Japan.
59. Singka, D., S. Bovonsombut, P. Pholchan and **W. Pathom-aree**. 2011. Archaeal population structure in anaerobic co-digestion system of mixed waste in lab-scale bioreactor. The 13th Congress of Bacteriology and Applied Microbiology 6-11 September, Hokkaido, Japan.
60. Suwansath, S. and **W. Pathom-aree**. 2011. Microbial air quality in Faculty of Science's library, Chiang Mai University. The 37th Congress on Science and Technology of Thailand. 10-12 October 2011, Bangkok, Thailand.
61. Konkit, M., A. Jarerat, C. Khanongnuch, S. Lumyong and **W. Pathom-aree**. 2012. Isolation and characterization of poly (L-Lactide) degrading actinomycetes. The 1st International Student Conference "Innovations for Harmonious Living in Borderless Society", 23-25 January 2012, Khon Kaen University, Thailand.
62. Srisamai, S. and **W. Pathom-aree**. 2012. Isolation and screening of actinomycetes for probiotic bacteria development in fish. The 1st International Student Conference "Innovations for Harmonious Living in Borderless Society", 23-25 January 2012, Khon Kaen University, Thailand. (2nd Prize Poster Presentation Award)
63. Kanpiengjai, A., **W. Pathom-aree**, S. Lumyong and C. Khanongnuch. 2012. Feasibility on direct lactic acid fermentation from starchy wastewater by *Lactobacillus* sp. S21. Proceeding of International Conference on Food and Applied Bioscience, 6-7 February 2012, Chiang Mai University, Thailand.
64. Srivibool, R., K. Duangmal, K. Hong and **W. Pathom-aree**. 2012. Isolation of actinomycetes from marine and estuary sediments for antimicrobial metabolites. Burapha University International Conference 2012, 9-11 July 2012, Burapha University, Thailand.
65. Kamjam, M. and **W. Pathom-aree**. 2012. Isolation and screening of antimicrobial and siderophore producing actinomycetes from Thai mangrove sediments. International Conference

on Microbial Taxonomy Basic and Applied Microbiology, 4-6 October 2012, Khon Kaen, Thailand.

66. Suksawat, S., A. Jarerat, C. Khanongnuch, S. Lumyong and **W. Pathom-aree**. 2012. Degradation of microwave heated polylactide bioplastic by actinomycetes. International Conference on Microbial Taxonomy Basic and Applied Microbiology, 4-6 October 2012, Khon Kaen, Thailand.

67. Siangwan, W., Srithiowat, N., Deemoon, S. and **W. Pathom-aree**. 2012. Biological examination of holy water from temples in Chiang Mai. The 38th Congress on Science and Technology of Thailand. 17-19 October 2012, Chiang Mai, Thailand.

68. **Pathom-aree, W.**, M. Konkitt, A. Jarerat, N. Chandet, S. Sanpa, S. Yano, Y. Matsumiya, M. Wakayama, M. Kubo, T. Tachiki and A. Plikomol. 2012. Polylactide degradation by actinomycetes. The 3rd Asian Core Program Joint Seminar on Capacity Building and Development of Microbial Potential and Fermentation Technology Towards New Era. 18-21 November 2012, Shimonoseki, Japan.

69. Sanpa, S., T. Sirinart, Y. Matsumiya, M. Kubo, S. Yano, M. Wakayama, T. Tachiki, N. Chandet, **W. Pathom-aree** and A. Plikomol. 2012. Diversity and abundance of free-living nitrogen fixing bacteria isolated from various soil. The 3rd Asian Core Program Joint Seminar on Capacity Building and Development of Microbial Potential and Fermentation Technology Towards New Era. 18-21 November 2012, Shimonoseki, Japan.

70. Suksawat, S., M. Konkitt, A. Jarerat, C. Khanongnuch, S. Lumyong and **W. Pathom-aree**. 2013. Degradation of used polylactide bioplastic by actinomycetes. InnoBioPlast 2013: Advances in Bioplastics Industry and Opportunities in Asia. 24-26 January 2013, Bangkok, Thailand.

71. Penkhru, W., **W. Pathom-aree**, C. Khanongnuch and S. Lumyong. 2013. Screening of poly(L-lactic acid) degrading microorganisms from soil samples. InnoBioPlast 2013: Advances in Bioplastics Industry and Opportunities in Asia. 24-26 January 2013, Bangkok, Thailand.

72. Suksawat, S., A. Jarerat, C. Khanongnuch, S. Lumyong and **W. Pathom-aree**. 2013. Effect of hot water on degradation of polylactide bioplastic by actinomycetes. The 5th Science Research Conference. 4-5 March 2013, University of Phayao, Phayao, Thailand.

73. Kamjam, M. and **W. Pathom-aree**. 2013. Isolation and screening of actinomycetes capable of siderophore production from some Thai mangrove sediments. The 5th Science Research Conference. 4-5 March 2013, University of Phayao, Phayao, Thailand.

74. Nuantum, W., T. Kongsri and **W. Pathom-aree**. 2013. Degradation of hot water treated polylactide bioplastic by mixed actinomycetes. The 5th Science Research Conference. 4-5 March 2013, University of Phayao, Phayao, Thailand.

75. Yoosathaporn, S., P. Tiangburanatham and **W. Pathom-aree**. 2013. Application of biocalcification on inter-locking block strength improvement. International Conference on

Interdisciplinary Research and Development in ASEAN Universities. 8-10 August 2013, Chiang Mai, Thailand.

76. Sujarit, K. and **W. Pathom-aree**. 2013. Degradation of polylactide bioplastic by *Pseudonocardia alni* AS4.1531^T. The 39th Congress on Science and Technology of Thailand. 21-23 October 2013, Bangkok, Thailand.

77. **Pathom-aree, W.**, S. Keawsa and S. Tokuyama. 2014. Isolation and screening of plant growth promoting actinomycetes for green agriculture. The 1st Joint Seminar New Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 10-11 August 2014, Bangkok, Thailand.

78. Suyota, W., M. Wakayama, S. Yano, M. Kubo, K. Araki, M. Umekawa, M. Mukai, A. Dinesh, S. Bovonsombat, **W. Pathom-aree**, S. Sanpa, N. Chandet, Ir. Sukoso, S. Djati, A. Sartimbul and A. Kurniawan. 2014. Characterization of α -1,3-glucanase isozyme from *Paenibacillus glycanilyticus* FH11, first characterized enzyme in new subgroup of family 87 α -1,3 glucanase. The 1st Joint Seminar New Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 10-11 August 2014, Bangkok, Thailand.

79. Adhikari, D., K.S. Araki, A. Umekawa, N. Yano, M. Mukai, W. Suyotha, S. Bovonsombat, **W. Pathom-aree**, S. Sanpa, N. Chandet, Ir. Sukoso, S. Djati, A. Sartimbul, A. Kurniawan, M. Wakayama and M. Kubo. 2014. Comparison of soil fertility between paddy and upland soils, and the suitable conditions for microbial activities. The 1st Joint Seminar New Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 10-11 August 2014, Bangkok, Thailand.

80. Wakayama, M., S. Yano, W. Suyotha, M. Kubo, K. Araki, M. Umekawa, M. Mukai, A. Dinesh, S. Bovonsombat, **W. Pathom-aree**, S. Sanpa, N. Chandet, Ir. Sukoso, S. Djati, A. Sartimbul and A. Kurniawan. 2014. Exploration of microbial resources useful for controlling plant pathogen. The 1st Joint Seminar New Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 10-11 August 2014, Bangkok, Thailand.

81. Kubo, M., K.S. Araki, A. Umekawa, N. Yano, M. Mukai, D. Adhikari, W. Suyotha, S. Bovonsombat, **W. Pathom-aree**, S. Sanpa, N. Chandet, Ir. Sukoso, S. Djati, A. Sartimbul, A. Kurniawan and M. Wakayama. 2014. A new organic agricultural system based on soil fertile index (SOFIX). The 1st Joint Seminar New Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields

with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 10-11 August 2014, Bangkok, Thailand.

82. Kreawsa, S. and **W. Pathom-aree**. 2015. Screening of phosphate solubilizing and siderophores producing actinomycetes from rice rhizosphere soil. The 34th National Graduate Research Conference. 27 March 2015, Khon Kaen, Thailand.

83. Lasudee, K. and **W. Pathom-aree**. 2015. Cultivable actinomycetes associated with *Glomus mosseae* spores and their plant growth promoting activity. The 6th FEMS Microbiology Congress, 7-11 June 2015, Maastricht, The Netherlands.

84. Suksaard, P., R. Srivibool, K. Duangmal and **W. Pathom-aree**. 2015. Taxonomic diversity of actinomycetes from Thai mangrove sediments. The 6th FEMS Microbiology Congress, 7-11 June 2015, Maastricht, The Netherlands.

85. Kaweewan, I. and **W. Pathom-aree**. 2015. Screening of siderophore biosynthesis genes from siderophore producing actinomycetes. The 6th FEMS Microbiology Congress, 7-11 June 2015, Maastricht, The Netherlands.

86. Himaman, W., K. Duangmal, A. Thamchaipenet, K. Pongpanich and **W. Pathom-aree**. 2015. Actinomycetes from Eucalyptus and their activity to inhibit Eucalyptus leaf and shoot blight disease. The 6th FEMS Microbiology Congress, 7-11 June 2015, Maastricht, The Netherlands.

87. Moonsawat K. and **W. Pathom-aree**. 2015. Degradation of polylactic acid bioplastic by actinomycete under soil burial condition. The 36th National Graduate Research Conference. 29-30 October 2015, Chiang Mai Thailand.

88. Naotsuka Y., K. Ishigami, **W. Pathom-aree**, V. Kitpreechavanich and S. Tokuyama. 2016. Screening for actinomycetes to control tomato root-knot nematode. The 2nd Joint Seminar Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 14-15 November 2016, Chonburi Thailand.

89. Kubo M., K. Araki, S. Yano, D. Adhikari, W. Suyotha, S. Bovonsombut, Y. Tragoolpua, **W. Pathom-aree**, S. Sanpa, N. Chandet, Ir.Sukoso, S.Djati, A. Sartimbul, A. Kurniawan, A.A. Prihanto and M. Wakayama. 2016. Stimulation of soil microorganisms in agrochemical-contaminated soil using organic materials. The 2nd Joint Seminar Core to Core Program A. Advanced Research Networks on Establishment of an International Research Core for New Bio-Research Fields with Microbes from Tropical Areas (World-Class Research Hub of Tropical Microbial Resources and Their Utilization). 14-15 November 2016, Chonburi Thailand.

Invited Speakers:

I've been invited to give presentations at numbers of Thai universities including Chulalongkorn University, Chiang Mai University, Maejo University, Chiang Mai Rajabhat University, Rajamangala University of Technology Thanyaburi, Nakhon Sawan Rajabhat University and Phayao University on topics relating to journal publication, manuscript preparation and how to run a scientific journal. I was also an invited speaker for seminar organized by Thomson Reuters and Thai Citation Index (TCI).

Speaker Events:

1. เรื่อง “ความสมบูรณ์ของบทความวิจัยทางวิทยาศาสตร์เพื่อการตีพิมพ์” โครงการส่งเสริมการเขียนบทความวิจัยสำหรับเยาวชนด้านวิทยาศาสตร์และเทคโนโลยี โดยชมรมนักเขียนและผู้จัดทำหนังสือวิทยาศาสตร์ (นจวท.) สมาคมวิทยาศาสตร์แห่งประเทศไทยในพระบรมราชูปถัมภ์ ศูนย์ประชุมนานาชาติไบเทค 4 พฤษภาคม 2555
2. เรื่อง “เขียนอย่างไรไม่ให้โดนรีเจ็คต์” มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี 5 พฤษภาคม 2555
3. เรื่อง “เทคนิคการเขียนงานวิจัยทางวิทยาศาสตร์เพื่อการตีพิมพ์” โครงการพัฒนาคุณภาพนักศึกษา 2556 สาขาวิชาวิทยาศาสตร์สิ่งแวดล้อม คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่ 24 สิงหาคม 2556
4. ผู้บรรยายรับเชิญ Topic “Overcoming Publishing Challenges: Yesterday, Today and Tomorrow” in Seminar on How To Publish Effectively With More Impact organized by Thomson Reuters at Faculty of Commerce and Accountancy, Chulalongkorn University, 30 September 2013
5. เรื่อง “เทคนิคการเขียนงานวิจัยทางวิทยาศาสตร์เพื่อการตีพิมพ์” โครงการอบรมเชิงปฏิบัติการ “เทคนิคการเขียนบทความทางวิชาการเพื่อเผยแพร่ในระดับนานาชาติ” สาขาเทคโนโลยีสิ่งแวดล้อม คณะวิทยาศาสตร์ มหาวิทยาลัยแม่โจ้ 16 พฤศจิกายน 2556
6. เรื่อง “การเขียนบทความวิจัยเพื่อเผยแพร่ในระดับชาติและนานาชาติ” โครงการอบรม “การเขียนรายงานวิจัยและบทความวิชาการเพื่อเผยแพร่ในระดับชาติและนานาชาติ” มหาวิทยาลัยราชภัฏเชียงใหม่ 6 มิถุนายน 2557
7. เรื่อง “เหตุผลที่บทความโดนรีเจ็ค” โครงการสัมมนา “เขียนตำราอย่างไร...ให้โดน” มหาวิทยาลัยเชียงใหม่ 8 กรกฎาคม 2557
8. เรื่อง “เทคนิคการเขียนบทความวิจัยเพื่อตีพิมพ์ในวารสารระดับนานาชาติ” โครงการ “ที่ปรึกษานักวิจัยในการเขียนบทความวิจัยเพื่อตีพิมพ์ในวารสารระดับนานาชาติ (คลินิกวิจัย)” มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี 4-6 สิงหาคม 2557
9. เรื่อง “การเตรียมต้นฉบับบทความวิจัยสำหรับตีพิมพ์ในวารสารวิชาการ” โครงการ “การพัฒนาศักยภาพนักวิจัยสู่นักวิจัยมืออาชีพ” มหาวิทยาลัยราชภัฏนครสวรรค์ 16 ธันวาคม 2557
10. เรื่อง “ความสำคัญและความหมายของบทความวิชาการ” โครงการอบรม “เทคนิคการเขียนบทความทางวิชาการเพื่อเผยแพร่ในระดับนานาชาติ” หลักสูตรวิทยาศาสตรมหาบัณฑิต สาขาวิชาเทคโนโลยีสิ่งแวดล้อม คณะวิทยาศาสตร์ มหาวิทยาลัยแม่โจ้ 7 กุมภาพันธ์ 2558
11. เรื่อง “การเขียนบทความวิจัยเพื่อเผยแพร่ในระดับชาติและนานาชาติ” หลักสูตรวิทยาศาสตรมหาบัณฑิต สาขาวิชาเทคโนโลยีชีวภาพ คณะเกษตรศาสตร์และทรัพยากรธรรมชาติ มหาวิทยาลัยพะเยา 21 เมษายน 2558
12. เรื่อง “เทคนิคการเขียนงานวิจัยทางวิทยาศาสตร์เพื่อการตีพิมพ์” หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาเทคโนโลยีชีวภาพ คณะเกษตรศาสตร์และทรัพยากรธรรมชาติ มหาวิทยาลัยพะเยา 27 เมษายน 2558

13. เรื่อง “Voices from Editors-Way ahead for Thai Journals” การประชุมเพื่อสร้างเครือข่ายการพัฒนาคุณภาพวารสารวิชาการไทย ครั้งที่ 9 โรงแรมวินเซอร์ สวีท กรุงเทพฯ 11 กันยายน 2558
14. เรื่อง “การตีพิมพ์และแหล่งเผยแพร่บทความวิจัยทางวิทยาศาสตร์” นักศึกษาปริญญาโทหลักสูตรการสอนชีววิทยาภาควิชาชีววิทยา คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่ 20 กันยายน 2558
15. เรื่อง “เล่าสู่กันฟังจากมุมมองของบรรณาธิการวารสาร Chiang Mai Journal of Science” คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่ 9 ธันวาคม 2558
16. เรื่อง “ความสำคัญและความหมายของบทความวิชาการและประเภทและโครงสร้างการเขียนบทความวิจัย” โครงการฝึกอบรมเทคนิคการเขียนบทความทางวิชาการเพื่อเผยแพร่ในระดับนานาชาติ หลักสูตรวิทยาศาสตร์ มหาวิทยาลัยเทคโนโลยีสิ่งแวดล้อม คณะวิทยาศาสตร์ มหาวิทยาลัยแม่โจ้ 7 เมษายน 2559
17. เรื่อง “เทคนิคการเขียนบทความวิชาการและวิจัย และข้อเสนอแนะในการเขียนบทความวิชาการและวิจัย” โครงการฝึกอบรมเทคนิคการเขียนบทความทางวิชาการเพื่อเผยแพร่ในระดับนานาชาติ หลักสูตรวิทยาศาสตร์ มหาวิทยาลัยแม่โจ้ 7 เมษายน 2559
18. คณะสัตวแพทย์ มหาวิทยาลัยเชียงใหม่ 25 พฤษภาคม 2559
19. มหาวิทยาลัยราชภัฏเชียงใหม่ 14 กรกฎาคม 2559
20. ภาควิชาชีววิทยา คณะวิทยาศาสตร์ มหาวิทยาลัยเชียงใหม่ 23 กรกฎาคม 2559
21. มหาวิทยาลัยมหาจุฬาลงกรณราชวิทยาลัย 1 สิงหาคม 2559
22. Kantary Hill 9-10 มกราคม 2560

Trainings and Workshops

- June 1999 Cybertools for Research (with certificate) organized by Thailand Graduate Institute of Science and Technology (TGIST) and National Science and Technology Development Agency (NSTDA)
- September 1999 Food Safety : Pathogen Detection and Identification (with certificate) organized by Chulalongkorn University and Institute of Food, Nutrition and Human Health, Massey University
- October 1999 Hypercourse on Bioinformatics (with certificate) organized by Thailand Graduate Institute of Science and Technology (TGIST) and National Science and Technology Development Agency (NSTDA)
- November 1999 The Use of Molecular and Chemical Techniques in Microbial Diversity and Environmental Biotechnology organized by Mahidol University and Society for General Microbiology (UK)
- January 2000 Writing Scientific Research Articles organized by Chiang Mai University and Thailand-Australia Science and Engineering Assistance Project (TASEAP)
- January 2000 Advanced Health Risk Assessment organized by Chiang Mai University
- February 2000 Introductory and Advanced courses in DNA Sequencing organized by Silpakorn University Thailand-Australia Science and Engineering Assistance Project (TASEAP)

September 2000 Biodiversity in Thailand organized by Thailand Graduate Institute of Science and Technology (TGIST) and National Science and Technology Development Agency (NSTDA)

September 2001 Scientific Writing Workshop organized by University of Newcastle upon Tyne

September 2002 Nucleic Acid Purification

September 2002 Introduction to DNA Microarrays Technology

October 2002 Effective Presentations by University organized of Northumbria

March 2003 Effective Presentation of Information Using Excel organized by University of Northumbria

November 2005 Balance Score Card

January 2006 Unculturable Microbes : Molecular Techniques and Biotechnology Application

January 2006 Hazard Analysis and Critical Control Point

February 2006 Knowledge Management

July 2006 GMP

November 2007 Workshop on Chemistry, Biological Activities and Biodiversity of Marine Organisms

December 2007 HACCP

May 2008 Gene Discovery of Uncultured Microbes Using Metagenomic Approach

May 2008 Biotechnology Business and Regulations

June 2008 Microbes in caves and alkali ponds and intellectual property right and Management

July 2008 Writing Scientific Articles for Publication

June 2009 เทคนิคการเขียนผลงานวิจัยเพื่อตีพิมพ์ในวารสารระดับนานาชาติ

April 2012 เทคนิคการเรียนรู้แบบผสมผสาน (Blended Learning)

November 2015 Workshop: Effective Science Communication organized by EURAXESS Links ASEAN and NSTDA

Postgraduate Students

MSc students = 5

1. Plant growth promoting actinobacteria for biocontrol of *Fusarium moniliforme*
2. Plant growth promoting actinobacteria for drought tolerance in rice
3. Biodegradation of PLA bioplastic by actinomycetes under field trial condition
4. **Bioremediation of heavy metals by mycorrhiza and mycorrhiza associated actinobacteria**
5. Application of plant growth promoting actinobacteria for phytoremediation of heavy metals

PhD students = 0