



Curriculum Vitae
Alisa Vangnai, Ph.D.

PERSONAL

Name: **Alisa S. Vangnai**
 Date of birth: December 31, 1970 Place of birth Oregon, USA
 Sex: Female
 Office: Department of Biochemistry Telephone: +66-2-218-5430, 218-5416
 Faculty of Science Fax: +66-2-218-5418
 Chulalongkorn University E-mail: alisa.v@chula.ac.th, avangnai@yahoo.com
 Bangkok 10330 Thailand Cellphone: +66-1-822-3102

EDUCATION

2002 Ph.D. (Biochemistry & Molecular biology)
 Oregon State University, USA

1995 M.Sc. (Biotechnology)
 Chulalongkorn University, Thailand

1992 B.Sc. (Biotechnology)
 Chulalongkorn University, Thailand

ACADEMIC ACHIEVEMENTS

2009 Awarded “Best Oral Presentation in Environmental Biotechnology session” Asian Pacific Biochemical Engineering Conference 2009, Port Island, Kobe, Japan.

2007 Awarded “Outstanding Young Researcher --Biological Science--”, Faculty of Science, Chulalongkorn University

1996 Awarded scholarship from Chulalongkorn University for Doctoral degree

1995 Awarded Excellent Graduate student from Faculty of Science, Chulalongkorn University (“Tab” Foundation)

1993 Awarded Excellent Research Poster Presentation in The 11th Symposium of Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB), Bangkok, Thailand

ACADEMIC POSITION

1995-present	Lecturer Department of Biochemistry, Faculty of Science, Chulalongkorn University
1997-2002	Sabbatical leave to pursue PhD degree (Oregon State University, USA)
2002-2004	Lecturer, Department of Biochemistry, Faculty of Science, Chulalongkorn University
2005-2007	Assistant Professor Department of Biochemistry, Faculty of Science, Chulalongkorn University
2008-present	Associate Professor Department of Biochemistry, Faculty of Science, Chulalongkorn University

WORK EXPERIENCES

Apr-May 1991	Internship in the Alcohol fermentation plant (Sura Maharach –Thai Alcohol Beverage Company), Thailand
May-June 1991	Internship in the Department of Research and Quality control, Food product development and pilot plant, Institute of Food research and Product development, Kasetsart University, Bangkok, Thailand.
1995-present	Faculty member, Department of Biochemistry, Faculty of Science, Chulalongkorn University
1995-1996	Associate Secretariat of Interdepartmental Graduate program in Biotechnology, Faculty of Science, Chulalongkorn University
2000-2002	Research assistant, Laboratory for Nitrogen Fixation Research, Oregon State University, Oregon, USA
2001-2002	Teaching assistant, Departmental of Biochemistry and Biophysics, Oregon State University, Oregon, USA
2003-2005	Committee in Interdepartmental Graduate program in Biotechnology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand.
2003-2005	Co-instructor (Site remediation) International Postgraduate Programs in Environmental Management; National Research Center for Environmental and Hazardous Waste Management (NRC-EHWM), Chulalongkorn University, Bangkok, Thailand.
2005-present	Co-instructor (Environmental Microbiology) International Postgraduate Programs in Environmental Management; National Research Center for Environmental and Hazardous Waste Management (NRC-EHWM), Chulalongkorn University, Bangkok, Thailand.
March-May 2003	Visiting Scientist (JSPS) Laboratory of Applied Microbiology, Department of Biological Chemistry, Yamaguchi

University, Yamaguchi, Japan.

(Supported by The Scientific Cooperation Program from the Japan Society for the Promotion of Science (JSPS) and the National Research Council of Thailand (NRCT)).

- March-May 2004 Visiting Scientist (JSPS)
Laboratory of Applied Microbiology, Department of Biological Chemistry, Yamaguchi University, Yamaguchi, Japan.
(Supported by The Scientific Cooperation Program from the Japan Society for the Promotion of Science (JSPS) and the National Research Council of Thailand (NRCT)).
- August-Oct 2005 Visiting Scientist (JSPS)
Laboratory of Applied Microbiology, Department of Biological Chemistry, Yamaguchi University, Yamaguchi, Japan.
(Supported by The Scientific Cooperation Program from the Japan Society for the Promotion of Science (JSPS) and the National Research Council of Thailand (NRCT)).
- 2006-2008 Associate department head of the department of Biochemistry,
Faculty of Science, Chulalongkorn University
- 2006-2008 Committee and Secretariat in Interdepartmental Graduate program in
Biological Sciences, Faculty of Science, Chulalongkorn University
- 2007-present Preparative committee members for Asian Society of Environmental Biotechnology (ASEB)
- March 2007 Visiting Scientist (JST)
Department of Biotechnology, Graduate School of Engineering, Osaka University, Japan
(Supported by Japan Science and Technology Agency (JST)-NRCT-BIOTEC)
- January 2009 Visiting Scientist (JST)
Department of Biotechnology, Graduate School of Engineering, Osaka University, Japan
(Supported by Japan Science and Technology Agency (JST)-NRCT-BIOTEC)
- Jan-Feb 2010 Visiting Scientist (JSPS)
Department of Molecular Biotechnology, Graduate school of Advanced Sciences of Matter,
Hiroshima University (Supported by Asian Core Program Project, JSPS-NRCT)
- April 2010 Visiting Scientist (JSPS)
Department of Molecular Biotechnology, Graduate school of Advanced Sciences of Matter,
Hiroshima University (Supported by Bilateral Research Project, JSPS-NRCT)
- Sep-Oct 2010 Visiting Scientist (JSPS)
Department of Molecular Biotechnology, Graduate school of Advanced Sciences of Matter,
Hiroshima University (Supported by Bilateral Research Project, JSPS-NRCT)
- Feb-April 2011 Visiting Scientist (JSPS)
Department of Molecular Biotechnology, Graduate school of Advanced Sciences of Matter,
Hiroshima University (Supported by Bilateral Research Project, JSPS-NRCT)

ACTIVE RESEARCH THEMES AND RESEARCH INTERESTS

Environmental & Industrial Biotechnology

- Bioconversion aromatic/substituted aromatic compounds using thermo-tolerant, organic solvent- tolerant biocatalysts (enzymes and whole cell biocatalysts) for the bioproduction of value-added products.
- Bioremediation / Biodegradation of toxic chemicals and hazardous chemicals and hazardous waste (presently focus on aromatic/substituted aromatic compounds such as organic solvents and pesticides as well as their intermediates); Investigation of enzyme(s) and gene(s) involving biodegradation pathway of the toxic organic chemicals.

PROFESSIONAL SOCIETY

1994-present	Thai Society of Biotechnology (TSB), member
1995-present	The Science society of Thailand (SCISOC), member
1998-2003	American Society of Microbiology (ASM)
2007-present	Asian Society of Environmental Biotechnology (ASEB), board committee
2008-present	Asian Federation of Biotechnology (AFOB), member

CERTIFICATED SCIENTIFIC TRAINING

January 2003	Cleaning Technology, Chulalongkorn University, Bangkok, Thailand
December 2004	Bioremediation Technology: Practical approach, Silprakorn University, Bangkok, Thailand
April 2005	Biosensor training course: Fundamentals and Applications, Cranfield University, Silsoe, England
September 2006	Biodiesel production by biocatalysis: New generation of biofuel, Faculty of Science, Chulalongkorn University, Bangkok, Thailand
June 2009	Workshop on “Agricultural Chemical Residue Analysis in Foods According to Japanese Regulation” Food Research and Testing Laboratory, Faculty of Science, Chulalongkorn University.

BOOK (in Thai)

อลิสสา วังไน. 2550. การบำบัดสารมลพิษทางชีวภาพ **BIOREMEDIATION**. โรงพิมพ์จุฬาลงกรณ์มหาวิทยาลัย. 350 หน้า.

PUBLICATIONS & PRESENTATIONS

PUBLICATIONS

1. Areeya Navachareon and Alisa S. Vangnai (2011) Biodegradation of diethyl phthalate by an organic-solvent tolerant *Bacillus subtilis* strain 3C3 and effect of phthalate ester coexistence. *International Biodeterioration & Biodegradation*. *in press*. Impact factor 2.252.
2. Naoya Kataoka, Takahisa Tajima, Junichi Kato, Wanitcha Rachadech, and **Alisa S Vangnai** (2011) Development of butanol-tolerant *Bacillus subtilis* strain GRSW2-B1 as a potential bioproduction host. *Applied Microbiology and Biotechnology Express*. *in press*.
3. Panuch Hongsawat and **Alisa S. Vangnai** (2011) Biodegradation pathways of chloroanilines by *Acinetobacter baylyi* strain GFJ2. *Journal of Hazardous Materials* 186, 1300-1307. Impact factor 4.144.
4. Sawitree Saiyood, **Alisa S. Vangnai**, Paitip Thiravetyan, Duangrat Inthorn. (2010) Bisphenol A removal by *Dracaena* plant and role of the plant-associating bacteria. *Journal of Hazardous Materials*, 178, 777-785. Impact factor 4.144.
5. Wanitcha Rachadech,., Areeya Navachareon, Watcharaporn Ruangsit, Thusyarat Pongtharangkul and **Alisa S. Vangnai** (2010) An organic solvent-, detergent-, and thermo-stable alkaline protease from the mesophilic, organic-solvent-tolerant *Bacillus licheniformis* 3C5. *Microbiology (Moscow)*, 79(5), 620-629. Impact factor 0.638.
6. Jaraslak Pechwang, Prakitsin Sihanonth, Surachai Pornpakakul, Nongnuj Muangsin, Jittra Piapukiew, **Alisa S. Vangnai**, Narongsak Chaichit, Siriporn Chuchawankul, Amorn Petsom. (2010) Biotransformation of ent-kaur-16-en-19-oic acid by *Psilocybe cubensis*. *Natural Product Research* 24(10), 905-914. Impact factor 0.810.
7. **Alisa S. Vangnai**, Worrawat Promden, Wanchai De-Eknamkul, Kazunobu Matsushita, and Hirohide Toyama (2010) Molecular Characterization and Heterologous Expression of Quinate Dehydrogenase Gene from *Gluconobacter oxydans* IFO3244. *Biochemistry (Moscow)* 75(4), 452-459. Impact factor 1.476.
8. Ajiraporn Kongpol, Thunyarat Pongtharangkul, Junichi Kato, Kohsuke Honda, Hisao Ohtake & **Alisa S. Vangnai**. (2009) Characterization of an organic-solvent tolerant *Brevibacillus agri* strain 13 able to stabilize solvent/water emulsion. *FEMS Microbiol Lett* 297, 225-233. Impact factor 2.274.
9. Worrawat Promden, **Alisa S. Vangnai**, Hirohide Toyama, Kazunobu Matsushita and Piamsook Pongsawasdi. (2009) Analysis of the promoter activities of the genes encoding three quinoprotein alcohol dehydrogenases in *Pseudomonas putida* HK5. *Microbiology-SGM* 155, 594-603. Impact factor = 3.110.
10. Ajiraporn Kongpol, Junichi Kato, and **Alisa S. Vangnai** (2008) Isolation and characterization of *Deinococcus geothermalis* T27, a slightly thermophilic and organic solvent-tolerant bacterium able to survive in the presence of high concentrations of ethyl acetate. *FEMS Microbiol Lett*. 286, 277-235. Impact factor = 2.247.
11. Worrawat Promden, **Alisa S. Vangnai**, Piamsook Pongsawasdi, Osao Adachi, Kazunobu Matsushita, and Hirohide Toyama. (2008) Molecular cloning and gene disruption of quinoprotein ethanol dehydrogenase and adjacent genes in *Pseudomonas putida* HK5. *FEMS Microbiol Lett*. 280(2), 203-209. Impact factor = 2.057.
12. Hathairath T. Wattanaphon, Anusak Kerdsin, Chuchaat Thammacharoen, Polkit Sangvanich and **Alisa S. Vangnai** (2008) A Biosurfactant from *Burkholderia cenocepacia* BSP3 and its enhancement of pesticide solubilization. *Journal of Applied Microbiology* Aug;105(2):416-23. Impact factor = 2.205.

13. Roongnapa Tongarun, Ekawan Luepromchai, **Alisa S. Vangnai** (2008) Natural attenuation, biostimulation and bioaugmentation in 4-Chloroaniline contaminated soil. *Current Microbiology* 56, 182-188. Impact factor = 1.059.
14. **Alisa S. Vangnai** and Wansiri Petchkroh (2007) Biodegradation of 4-chloroaniline by bacteria enriched from soil. *FEMS Microbiol Lett.* 268, 209-216. Impact factor = 2.057
15. Suphang Chulalaksananukul, Polkit Sangvanich, , Pakitsin Sehanuntra, Geoffrey M. Gadd, Jitra Peapukeaw and **Alisa S. Vangnai.** (2006) Isolation and characterization of benzo(a)pyrene-degrading *Fusarium* sp. *FEMS Microbiol Lett.* 262, p.99-106. Impact factor = 2.057
16. Jitlada Klongdee, Wansiri Petchkroh, Kosin Phuempoonsathaporn, Piyasarn Prasertdam, **Alisa S. Vangnai** and Varong Pavarajarn (2005) Activity of nanosized titania synthesized from thermal decomposition of titanium (IV) *n*-butoxide for the photocatalytic degradation of diuron. *Science and Technology of Advanced Materials.* 6(3-4), 290-295. Impact factor = 1.124
17. **Vangnai A.S.**, Toyama H, De-Eknamkul W, Yoshihara N, Adachi O, Matsushita K. (2004) Quinate oxidation in *Gluconobacter oxydans* IFO3244: purification and characterization of quinoprotein quinate dehydrogenase. *FEMS Microbiol Lett.* Dec 15;241(2), p.157-62. Impact factor = 1.932
18. **Alisa S. Vangnai.** Daniel J. Arp, and Luis A. Sayavedra-Soto (2002) Two distinct Alcohol dehydrogenases participate in Butane Metabolism by *Pseudomonas butanovora*. *J. Bacteriology* 184, p. 1916-1924. Impact factor 3.984
19. **Alisa S. Vangnai.** Luis A. Sayavedra-Soto, and Daniel J. Arp (2002) Role for the two 1-butanol dehydrogenases of *Pseudomonas butanovora* in Butane and 1-Butanol metabolism. *J. Bacteriology* 184, p. 4343-4350. Impact factor 3.984
20. **Alisa S. Vangnai** and Daniel J.Arp (2001) An inducible 1-butanol dehydrogenase, a quinohemoprotein, is involved in the oxidation of butane by *Pseudomonas butanovora*, *Microbiology*, 147, p. 745-756. Impact factor 2.897

PRESENTATIONS IN INTERNATIONAL CONFERENCES

1. **Alisa S. Vangnai** and Areeya Navachareon (2011) Biodegradation of endocrine-disrupting phthalate esters by organic-solvent tolerant *Bacillus subtilis* strain 3C3. Asian Congress on Biotechnology. Asian Federation of Biotechnology. May 11-15. Shanghai Everbright Convention & Exhibition Center. Shanghai, China (Oral presentation H0845, p. 93).
2. Ajiraporn Kongpol, Junichi Kato and **Alisa S. Vangnai** (2011) Isolation and characterization of salt-tolerant, alkaliphilic and Acetonitrile-tolerant *Exiguobacterium* sp. SBH81. Asian Congress on Biotechnology. Asian Federation of Biotechnology. May 11-15. Shanghai Everbright Convention & Exhibition Center. Shanghai, China (Oral presentation H0607, p. 89).
3. Naoya Kataoka, Miho Shikaze, Ajiraporn Kongpol, **Alisa S. Vangnai.** Takahisa Tajima, Yutaka Nakashimada, And Junichi Kato (2011) Development of basic technology for butanol bioproduction using organic-solvent tolerant bacterium. Asian Congress on Biotechnology. Asian Federation of Biotechnology. May 11-15. Shanghai Everbright Convention & Exhibition Center. Shanghai, China (Poster presentation E1171, p. 185).
4. T. Pongtharangkul, **A.S. Vangnai.** P. Inprakhon, J. Wongkongkatep, J. Kato, K. Honda and H.Ohtake (2011) Bioproduction of vanillin using an organic/aqueous biphasic system. The 33rd Symposium on Biotechnology for Fuels and Chemicals (SBFC). Society for Industrial Microbiology. May 2-5. Sheraton, Seattle, Washington, USA. (Poster presentation 4-14, p 96).

5. Naoya Kataoka, Junichi Kato, Miho Shikaze, Ajiraporn Kongpol, Wanitcha Rachadech, and **Alisa S. Vangnai** (2010) Development of organic-solvent tolerant *Bacillus* sp. as a host for bio-based production process. The 2 Joint Seminar Asian Core Program on capacity building and development of microbial potential and fermentation technology towards new era, November 20-21. Pullman hotel, Khon Kaen, Thailand (Oral presentation, O 3-1).
6. **Alisa S. Vangnai**, Mattana Tunchai, and Naruemon Chumjai (2010) Bioremediation of chloroanilines. The 1st Joint Symposium Chulalongkorn University-Nagaoka University of Technology (CU-NUT), Faculty of Science, Chulalongkorn University, Thailand. December 23-24 (Poster presentation, P-02)
7. Mattana Tunchai, Junichi Kato, **Alisa S. Vangnai** and Thunyarat Pongtharangkul (2010) Cloning and characterization of catechol 1,2-dioxygenase gene from chloroaniline-degrading bacteria, *Acinetobacter baylyi* strain GFJ2. The 22nd Annual meeting of the Thai Society for Biotechnology “International Conference on Biotechnology for Healthy Living” Prince of Songkla University, Trang campus, Thailand. October 20-22. (Oral presentation, EB-O-06)
8. Akasit Siriphongphaew, Jirarut Wongkongkatap, Pranee Inprokhon, **Alisa S. Vangnai**, Kohsuke Honda, Hisao Ohtake, Sakayu Shimizu, Jun Ogawa, Rolf D. Schmid, and Thunyarat Pongtharangkul (2010) Development of a whole-cell biocatalyst for epoxide production. The 22nd Annual meeting of the Thai Society for Biotechnology “International Conference on Biotechnology for Healthy Living” Prince of Songkla University, Trang campus, Thailand. October 20-22. (Poster presentation, EB-P-48)
9. Naruemon Chumjai and **Alisa S. Vangnai** (2010) Biodegradation of 4-chloroaniline and 3,4-dichloroaniline of *Acinetobacter baylyi* strain GFJ2 under co-contamination condition with copper fungicides. The 22nd Annual meeting of the Thai Society for Biotechnology “International Conference on Biotechnology for Healthy Living” Prince of Songkla University, Trang campus, Thailand. October 20-22. (Poster presentation, EB-P-21)
10. **Alisa S. Vangnai** and Parnuch Hongsawat (2009) Broad-range biodegradation ability of *Acinetobacter baylyi* strain GFJ2 towards monochloroaniline and dichloroaniline. Asian Pacific Biochemical Engineering Conference 2009 (APBioCheC’09) –Biotechnology for Sustainable Development. November 24-28. Kobe Conference Center, Port island, Kobe, Japan (Oral presentation)
11. Panida Prarat and **Alisa S. Vangnai** (2009) Characterization of *Bacillus smithii* strain 3CHH1 able to degrade meta-chloroaniline. The 21st Annual meeting and International Conference of the Thai Society for Biotechnology (TSB 2009): Biotechnology – A Solution to the Global Economic Crisis. September 24-25. Queen Sirikit National Convention Center, Bangkok, Thailand. (Poster presentation, P-EV12)
12. Areeya Navacharoen and **Alisa S. Vangnai** (2009) Biotransformation of di-ethyl phthalate by a mesophilic *Bacillus* sp strain 3C3. The 21st Annual meeting and International Conference of the Thai Society for Biotechnology (TSB 2009): Biotechnology – A Solution to the Global Economic Crisis. September 24-25. Queen Sirikit National Convention Center, Bangkok, Thailand. (Poster presentation, P-EV15)
13. Nanthorn Paorach, **Alisa S. Vangnai**, and Ekawan Luepromchai. (2009) Effects of nutrients on bisphenol A biodegradation. The 21st Annual meeting and International Conference of the Thai Society for Biotechnology (TSB 2009): Biotechnology – A Solution to the Global Economic Crisis. September 24-25. Queen Sirikit National Convention Center, Bangkok, Thailand. (Poster presentation, P-EV13)
14. Montri Chaisawang, Cornel Verduyn, Somchai Chauvatcharin, Thunyarat Pongtharangkul, and **Alisa Vangnai** (2009) A comparative study of utilizing exogenous lipid and glucose of the fatty acid flux in oleaginous marine protist *Aurantiochytrium mangrovei*. The 21st Annual

- meeting and International Conference of the Thai Society for Biotechnology (TSB 2009): Biotechnology – A Solution to the Global Economic Crisis. September 24-25. Queen Sirikit National Convention Center, Bangkok, Thailand. (Oral presentation, O-MF01)
15. Junichi Kato, Ajiraporn Kongpol, and **Alisa S. Vangnai** (2009) Heterologous expression of the genes involved in 3-hydroxypropionaldehyde production in a solvent-tolerant bacterium. Japan Society for Bioscience, Biotechnology and Agrochemistry. Kyushu University, Fukuoka, Japan. March 27-29. (Poster presentation)
 16. Ajiraporn Kongpol, Junichi Kato, and **Alisa S. Vangnai** (2009) Isolation and characterization of a thermo-tolerant, organic solvent-tolerant *Brevibacillus agri* strain 13. The 1st Asian Core Program Joint Seminar on “Capacity building and development of microbial potential and fermentation technology towards new era”. Kasetsart University in association with Khon Kaen University and Japan Society for the Promotion of Science (JSPS) and National Research Council of Thailand (NRCT). Kasetsart University, Bangkok, Thailand. March 20-21. (Oral presentation).
 17. Panida Prarat, Thunyarat Pongtharangkul, Junichi Kato, and **Alisa S. Vangnai** (2009) A whole-cell biotransformation of a 1-propenylbenzene using a thermo-tolerant, organic solvent-tolerant *Brevibacillus agri* strain 13. The 1st Asian Core Program Joint Seminar on “Capacity building and development of microbial potential and fermentation technology towards new era”. Kasetsart University in association with Khon Kaen University and Japan Society for the Promotion of Science (JSPS) and National Research Council of Thailand (NRCT). Kasetsart University, Bangkok, Thailand. March 20-21. (Poster presentation).
 18. Thunyarat Pongtharangkul, Akasit Siriphongphaew, **Alisa S. Vangnai**, Junichi Kato, Kohsuke Honda, and Hisao Ohtake. (2009) Optimization of an electro-transformation system for organic solvent-tolerant *Brevibacillus agri* strain 13. The 1st Asian Core Program Joint Seminar on “Capacity building and development of microbial potential and fermentation technology towards new era”. Kasetsart University in association with Khon Kaen University and Japan Society for the Promotion of Science (JSPS) and National Research Council of Thailand (NRCT). Kasetsart University, Bangkok, Thailand. March 20-21. (Poster presentation).
 19. **Alisa S. Vangnai**, Ekawan Luepromchai, and Roongnapa Tongarun (2009) Bioremediation of 4-Chloroaniline contaminated in agricultural soil. The International Symposium on “Frontiers of Environmental Biological Chemistry and Biotechnology” The Global Education and Research Center for Bio-Environmental Chemistry, Global COE, Osaka, Japan. January 21-22. (Invited speaker)
 20. Thunyarat Pongtharangkul, **Alisa S. Vangnai**, Kohsuke Honda, and Hisao Ohtake (2008) Development of a transformation system for organic solvent-tolerant *Brevibacillus agri* strain 13. The 20th Annual Meeting and International Conference of the Thai Society for Biotechnology. Maha Sarakham, Thailand. October 14-17 (Oral presentation).
 21. Ajiraporn Kongpol, Junichi Kato, and **Alisa S. Vangnai**. (2008) Isolation and characterization of solvent-tolerant bacterium, *Brevibacillus agri* 13. The 13th Biological Science Graduate Congress “The Big Bang of Biological Science”. National University of Singapore, Singapore. December 15-17 (Oral presentation).
 22. Suporn Angsanam, Waraporn Malilas, **Alisa S. Vangnai**, Warawut Chulalaksanakul and Jittra Piapukiew. (2008) Screening and optimization for lipase production from *Fusarium solani* CU103. The 20th Annual Meeting and International Conference of the Thai Society for Biotechnology. Maha Sarakham, Thailand. October 14-17 (Poster presentation).
 23. **Alisa S. Vangnai** and Junichi Kato (2008) Organic solvent tolerant bacteria and its potential use in environmental biotechnology. 1st Asian Society of Environmental Biotechnology

- Symposium. Tsukuba Center for Institutes, Tsukuba, Ibaraki, Japan. June 24-27 (Invited speaker).
24. Parnuch Hongsawas, Junichi Kato, and **Alisa S. Vangnai** (2008) Isolation and characterization of bacteria able to degrade chloroanilines. 1st Asian Society of Environmental Biotechnology Symposium. Tsukuba Center for Institutes, Tsukuba, Ibaraki, Japan. June 24-27 (Poster presentation).
 25. Apichatsanee K., **Vangnai A.S.** and Pavarajarn V. (2008) "Photocatalytic degradation of diuron on nanosized ZnO powder: an investigation of kinetics and generated intermediates", the Fifth Thailand Materials Science and Technology Conference (MSAT-5), Bangkok, Thailand. September 16-19. (Oral presentation)
 26. **Alisa S. Vangnai**, Ajiraporn Kongpol, Thitikamon Sitthisorn and Junichi Kato (2007) Biotransformation of indole using thermo-tolerant, organic solvent-tolerant bacteria. Asia Pacific Biochemical Engineering Conference, Taipei, Taiwan, November 4-7. (Poster presentation).
 27. Parnuch Hongsawat, Warawut Chulalaksananukul, and **Alisa S. Vangnai**. (2007) Detection of Naphthalene in Used frying Palm oil and Its Effect on Biodiesel Production Catalyzed by Immobilized Lipases. Asia Pacific Biochemical Engineering Conference, Taiwan, November 4-7 (Poster presentation)
 28. Worrawat Promden, Hirohide Toyama, Piamsook Pongsawasdi, and **Alisa S. Vangnai** (2007) ExaE and AgmR, DNA-binding response regulators of *Pseudomonas putida* HK5 involve in expression of three kinds of quinoprotein alcohol dehydrogenases. The 12th Biological Sciences Graduate Congress. University of Malaya, Kuala Lumpur, Malaysia, December 17-19. (Oral presentation)
 29. Chayathip Insomphun, Hirohide Toyama, and **Alisa S. Vangnai** (2007) Cloning of dehydroquininate dehydratase and shikimate dehydrogenase genes from *Gluconobacter oxydans* 621H and co-transformation in *Gluconobacter oxydans* IFO3244. The 12th Biological Sciences Graduate Congress. University of Malaya, Kuala Lumpur, Malaysia, December 17-19. (Poster presentation)
 30. **Alisa S. Vangnai**, Chayathip Insomphun, Somboon Tanasupawat, Kazonubu Matsushita, Hirohide Toyama, Osao Adachi (2007) Development of Shikimate production from Quinate using Enzymes and a Metabolic-engineered Pathway in Thermotolerant Microorganism. JSPS-NRCT Concluding Joint Seminar on Development of Thermotolerant Microbial Resources and their Applications. The 33rd Congress on Science & Technology, Thailand (STT33) Science and Technology for Global Sustainability. Walailak University, Nakhon Si Thammarat, Thailand. October, 18-20. (Poster presentation)
 31. Ajiraporn Kongpol, Junichi Kato and **Alisa S. Vangnai**, (2007) Characterization of thermo-tolerant, organic solvent-tolerant bacteria for industrial biotechnology application. JSPS-NRCT Concluding Joint Seminar on Development of Thermotolerant Microbial Resources and their Applications. The 33rd Congress on Science & Technology, Thailand (STT33) Science and Technology for Global Sustainability. Walailak University, Nakhon Si Thammarat, Thailand. October, 18-20. (Poster presentation)
 32. Ajiraporn Kongpol, **Alisa S. Vangnai**, and Junichi Kato. (2007) Isolation and characterization of thermo-tolerant, solvent-tolerant bacteria which survive in the presence of high concentrations of ethyl acetate. The 2007 General meeting of Japan Society for Bioscience, Biotechnology and Agrochemistry, Tokyo, Japan. March 25-27.
 33. Niramol Juntawieng, **Alisa S. Vangnai** and Warawut Chulalaksananukul (2007) Hydrolysis and transesterification reaction catalyzed by lipase from *Stenotrophomonas maltophilia*. The

- 33rd Congress on Science & Technology, Thailand (STT33) Science and Technology for Global Sustainability. Walailak University, Nakhon Si Thammarat, Thailand. October, 18-20.
34. Niramol Juntawieng, **Alisa S. Vangnai** and Warawut Chulalaksananukul (2007) Enhancement of lipase activity from *Strenotrophomonas maltophilia* by random mutagenesis. The 12th Biological Sciences Graduate Congress. University of Malaya, Kuala Lumpur, Malaysia, December 17-19. (Poster presentation)
 35. Pamornrat Chantam, **Alisa S. Vangnai** and Varong Pavarajarn (2006) Removal of phenyl urea herbicide from water by adsolubilization on surfactant modified Titania. The 13th Regional Symposium on Chemical Engineering. December 3-5. Singapore. (Poster presentation).
 36. Ajiraporn Kongpol, Junichi Kato and **Alisa S. Vangnai**. (2006) Characterization of thermo-tolerant bacteria, organic solvent-tolerant *Deinococcus geothermalis* T27 for bioproduction application. The 5th Joint Seminar of Development of Thermotolerant Microbial Resources and Their Application, Pataya, Chonburi, Thailand. November 7-11. (Oral presentation).
 37. Thanida Vuthikulvanich, Fusako Kawai and **Alisa S. Vangnai** (2006) Purification and Characterization of polyethylene glycol and polypropylene glycol dehydrogenases. Biotechnology: Benefits & Bioethics. The 18th annual meeting of the Thai Society for Biotechnolgy. November 2-3. The Montien Riverside Hotel, Bangkok, Thailand (Poster presentation).
 38. Hathairat T. Watanapol and **Alisa S. Vangnai**. (2006) Isolation of biosurfactant-producing bacteria and characterization of the biosurfactant. Biotechnology: Benefits & Bioethics. The 18th annual meeting of the Thai Society for Biotechnolgy. November 2-3. The Montien Riverside Hotel, Bangkok, Thailand (Oral presentation).
 39. **Alisa S. Vangnai**, Ajiraporn Kongpol and Junichi Kato. (2006) Isolation and characterization of organic solvent-tolerant, thermo-tolerant bacteria. International Symposium on Environmental Biotechnology (ISEB). July 9-13, Leipzig, Germany. (Poster presentation)
 40. Chantam P., **Vangnai A.S.** and Pavarajarn V. (2006) Removal of Phenyl Urea Herbicide from Water by Adsolubilization on Surfactant Modified Titania. The 13th Regional Symposium on Chemical Engineering 2006 - Advances in Chemical and Biomolecular Engineering (RSCE2006). December 3-5, 2006. Singapore. (Oral presentation)
 41. Suphang Chulalaksananukul, Polkit Sangvanich, , Pakitsin Sehanuntra, Geoffrey M. Gadd, Jittra Peapukeaw and **Alisa S. Vangnai** (2006) Biodegradation of benzo(a)pyrene by newly isolated *Fusarium* sp. The 50th anniversary meeting of the mycological society of Japan. June 3-4, Chiba, Japan. (panel 92-B, page 86) (Poster presentation)
 42. Juthamas Kijjanuluck, Takashi Someya, Geoffrey M. Gadd, Pakitsin Sehanuntra, **Alisa S. Vangnai** and Jittra Peapukeaw (2006) Isolation of white-rot fungus capable of biodegradation of endosulfan. The 50th anniversary meeting of the mycological society of Japan. June 3-4, Chiba, Japan. (panel 97-D, page 89) (Poster presentation)
 43. Suphang Chulalaksananukul, Polkit Sangvanich, Jittra Peapukeaw, Pakitsin Sehanuntra and **Alisa S. Vangnai**. (2006) Isolation and characterization of benzo(a)pyrene-degrading fungi. International conference: Hazardous waste management for a sustainable future. Bangkok, Thailand. January 10-12 (Oral presentation)
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 45. Roongnapa Tongarun, Ekewan Leupromchai, and **Alisa S. Vangnai** (2006) Comparison of natural attenuation, biostimulation and bioaugmentation on 4-chloroaniline degradation in soil. International conference: Hazardous waste management for a sustainable future. Bangkok, Thailand. January 10-12 (Poster presentation)

46. Wansiri Petchkroh and **Alisa S.Vangnai**. (2006) Isolation and characterization of 4-chloroaniline-degrading bacteria. International conference: Hazardous waste management for a sustainable future. Bangkok, Thailand. January 10-12 (Poster presentation)
47. **Alisa S.Vangnai**, Hirohide Toyama, Chayatip Insomphun, Osao Adachi, and Kazunobu Matsushita (2005). Quinate oxidation by thermotolerant *Gluconobacter* for shikimate production. BioThailand 2005. Queen Sirikit National Convention Center , Bangkok. November 2-5 (Oral presentation).
48. Jitlada Klongdee, Wansiri Petchkroh, Kosin Phuempoonsathaporn, Piyasarn Prasertdam, **Alisa S.Vangnai**, and Varong Pavarajarn. (2005) Activity of Nanosized Titania Synthesized from Thermal Decomposition of Titanium (IV) *n*-Butoxide for the Photocatalytic Degradation of a phenylurea herbicide”, The International Symposium on Nanotechnology in Environmental Protection and Pollution (ISNEPP 2005), January 12-14, 2005, Bangkok, Thailand. (Oral presentation).
49. Jitlada Klongdee, Wansiri Petchkroh, Kosin Phuempoonsathaporn, Piyasarn Prasertdam, **Alisa S.Vangnai**, and Varong Pavarajarn. (2004) Photocatalytic Activity of Titania Nanoparticles Prepared from Thermal Decomposition of Titanium (IV) *n*-Butoxide for the Degradation of Diuron, The International Conference of Smart materials: Smart/Intelligent materials and nanotechnology (SmartMat 04). Chaingmai, Thailand. December 1-3. (Oral presentation).
50. **Alisa S. Vangnai**, Nozomi Yoshihara, Osao Adachi, Kazunobu Matsushita, and Hirohide Toyama (2004) Quinate oxidation in *Gluconobacter*. The 4th Joint Seminar of Development of Thermotolerant Microbial Resources and Their Application, Kyushu University, Fukuoka, Japan. November 7-10. (Oral presentation).
51. Wanchai Yenpetch, **Alisa Vangnai** and Piamsook Pongsawasdi (2004) Desorption of carbaryl from contaminated soil by cyclodextrins, Proceeding of the 12th International Cyclodextrin Symposium. Le Corum, Montpellier, France. May 16-19. (Poster presentation)
52. **Alisa S. Vangnai**, Nozomi Yoshihara, Osao Adachi, Kazunobu Matsushita, and Hirohide Toyama (2004) Quinate oxidation in *Gluconobacter*: Purification and Characterization of quinate dehydrogenase from *Gluconobacter oxydans* IFO3244. Gordon Research Conference (Protein derived cofactor and quinone), Ventura, CA, USA. January 11-17. (Poster presentation)
53. **Alisa S. Vangnai**, Luis A. Sayavedra-Soto, and Daniel J. Arp (2002) Biochemical, Molecular and Physiological Characterization of 1-Butanol Dehydrogenases of *Pseudomonas butanovora* in Butane and 1-Butanol Metabolism. The 3rd Joint Seminar of Development of Thermotolerant Microbial Resources and Their Application. November 7-11, Chaingmai, Thailand (Oral presentation).
54. Luis A. Sayavedra-Soto, **Alisa S. Vangnai**, Daniel J. Arp, and (2001) Two distinct Alcohol dehydrogenases participate in Butane Metabolism by *Pseudomonas butanovora*. 101th General Meeting of the American Society for Microbiology, Orlando, Florida, USA, May 20-24. (Poster presentation)
55. **Alisa S. Vangnai** and Daniel J.Arp (2000) The purification and characterization of 1-butanol dehydrogenase, a quinohemoprotein involving in the oxidation of butane by *Pseudomonas butanovora*. Gordon Research Conference on the Molecular Basis of Microbial One-Carbon Metabolism, July 8-13. New London, Connecticut, USA. (Poster presentation)
56. **Vangnai, AS**, Khamviwathana, V. and Jariya Boonjawat, (1995) Immobilization of papain on chitin for rubber latex deproteinization. Biopolymers and Bioproducts: Structure and Function and Applications, ed. J. Svasti *et al.*, 22nd FAOBMB Symposium, Bangkok, pp.602-607.

PRESENTATIONS IN DOMESTIC CONFERENCES

1. Sawitree Saiyood, Daungrat Inthorn, Paitip Thiravetyan, and Alisa S. Vangnai (2009) Optimum conditions for bisphenol A removal by ribbon plant. Proceedings of the 8th National Environmental Conference. Suranaree University of Technology, Nakorn Rachaseema, Thailand. March 25-27. (Oral presentation)
2. Wachiraporn Kumyoung, Daungrat Inthorn, Alisa S. Vangnai, and Paitip Thiravetyan (2009) Removal of bisphenol A by *Hapalosiphon hibernicus*. Proceedings of the 8th National Environmental Conference. Suranaree University of Technology, Nakorn Rachaseema, Thailand. March 25-27. (Oral presentation)
3. Akasit Siriphongphaew, Thunyarat Pongtharangkul and Alisa S. Vangnai (2008) Development of a whole-cell biocatalyst platform from organic solvent-tolerant *Bacillus*. The 12th PTTEP technical Forum: Sustainable growth through technical excellence, Sofitel, Centara Grand, Bangkok. August 21-22 (Poster presentation)
4. Apichatsanee K., Vangnai A.S. and Pavarajarn V. (2008) "Photocatalytic degradation of diuron on nanosized ZnO powder: an investigation of kinetics and generated intermediates", the Fifth Thailand Materials Science and Technology Conference (MSAT-5), Bangkok, Thailand. September 16-19. (Oral presentation).

PROJECTS AND FUNDING ORGANIZATIONS

	ปีที่รับทุน	หน้าที่	แหล่งทุนและโครงการวิจัย
1	2553-2554	หัวหน้าโครงการวิจัย	ASAHI GLASS FOUNDATION "Characterization of phthalate ester-degrading bacteria for further bioremediation application as bacterial seeding"
2	2552-2555	หัวหน้าโครงการวิจัย (ฝ่ายไทย)	ทุนอุดหนุนการวิจัยร่วม (Joint Research Program) ตามโครงการความร่วมมือทางวิชาการระหว่างไทย – ญี่ปุ่น (NRCT – JSPS) ประจำปี 2552 (JFY 2009) สำนักงานคณะกรรมการวิจัยแห่งชาติ เรื่อง The development and applications of solvent-tolerant biocatalysts for industrial chemical bioproduction
3	2552-2554	หัวหน้าโครงการวิจัย	International Foundation for Science (IFS), Sweden เรื่อง Characterization of mesophilic-thermophilic organic-solvent tolerant bacteria for biotechnological and environmental applications
4	2552-2554	หัวหน้าโครงการวิจัย	ทุนงบประมาณแผ่นดิน สำนักงานคณะกรรมการวิจัยแห่งชาติ เรื่อง การพัฒนาแบคทีเรียรูปทรงที่สามารทย่อยสลายสาร 4-คลอโรแอนนิลีนและการพัฒนาระบบแพ็คเบดเพื่อการบำบัดสารพิษในพื้นที่การเกษตร
5	2552	หัวหน้าโครงการวิจัย	ทุนสนับสนุนการแลกเปลี่ยนนักวิจัย Japan Society for the Promotion of Science (JSPS)
6	2553-2555	หัวหน้าโครงการวิจัย	ทุนโครงการปริญญาเอกกาญจนาภิเษก รุ่น 11 สำนักงานกองทุนสนับสนุนการวิจัย
7	2552-2554	หัวหน้าโครงการวิจัย	ทุนโครงการปริญญาเอกกาญจนาภิเษก (ฝ่ายอุตสาหกรรม) รุ่น 10 สำนักงานกองทุนสนับสนุนการวิจัย
8	2550-2555	หัวหน้าโครงการวิจัย	โครงการการวิจัยร่วม-แลกเปลี่ยนนักวิจัย Asian Core Program ระหว่างไทย – ญี่ปุ่น (NRCT – JSPS) เรื่อง Applications of organic-solvent tolerant bacteria for environmental biotechnology
9	2550-2552	ผู้ร่วมโครงการวิจัย	โครงการการวิจัยร่วม-แลกเปลี่ยนนักวิจัยระหว่างไทย – ญี่ปุ่น (JST-NRCT-BIOTEC) เรื่อง Development of organic-solvent tolerant bacteria for biotechnological process
10	2550-2552	หัวหน้าโครงการวิจัย	ทุน 90 ปี จุฬาลงกรณ์มหาวิทยาลัย เรื่อง Organic-solvent tolerant bacteria and the characterization for

			bioproduction and environmental applications
11	2549-2551	หัวหน้าโครงการวิจัย	สำนักงานกองทุนสนับสนุนการวิจัย (สกว) ศูนย์วิจัยรุ่นใหม่
12	2549-2550	หัวหน้าโครงการวิจัย	ทุนสนับสนุนโครงการงานวิจัยนิตระดับปริญญาโท ศูนย์ความเป็นเลิศแห่งชาติด้านการจัดการสิ่งแวดล้อมและของเสียอันตราย จุฬาลงกรณ์มหาวิทยาลัย เรื่อง Bioremediation of 4-chloroaniline contaminated soil using natural attenuation, biostimulation and bioaugmentation techniques
13	2548-2549	หัวหน้าโครงการวิจัย	ทุนสนับสนุนโครงการงานวิจัยนิตระดับปริญญาโท ศูนย์ความเป็นเลิศแห่งชาติด้านการจัดการสิ่งแวดล้อมและของเสียอันตราย จุฬาลงกรณ์มหาวิทยาลัย เรื่อง Isolation and characterization of 4-chloroaniline-degrading bacteria
14	2548-2549	หัวหน้าโครงการวิจัย	ศูนย์ความเป็นเลิศแห่งชาติด้านการจัดการสิ่งแวดล้อมและของเสียอันตราย จุฬาลงกรณ์มหาวิทยาลัย เรื่อง Facilitation of bioremediation of an herbicide, diuron, contaminated in soil using organic solvent and surfactant
15	2547-2548	หัวหน้าโครงการวิจัย	กองทุนรัชดาภิเษกสมโภช จุฬาลงกรณ์มหาวิทยาลัย
16	2546-2548	หัวหน้าโครงการวิจัย	สำนักงานกองทุนสนับสนุนการวิจัย (สกว) ศูนย์วิจัยรุ่นใหม่
17	2546-2549	ผู้ร่วมโครงการวิจัย	โครงการการวิจัยร่วม-แลกเปลี่ยนนักวิจัย Core University Program ระหว่างไทย – ญี่ปุ่น (NRCT – JSPS)