



Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)
999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon
Nakhon Pathom 73170, Thailand

Name Chalot Santivarangkna
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Current positions: Lecturer, Head, Center of Innovation and Reference on Food for Nutrition

Education:

2009 Dr.rer.nat./ Food Biotechnology, Technical University Munich, Germany

1999 MSc./Biotechnology, Kasetsart University Thailand, Thailand

1991 BSc./ Agricultural Industry, King Mongkut's Institute of Technology Ladkrabang

Research Interest and Expertise

1. Starter cultures and probiotics
2. Preservation techniques of bacterial cells
3. Food fermentation
4. Food product development

Training and Awards

- GABA-containing probiotic rice drink was selected as outstanding research to be supported by Thailand Innovation Agency for commercialization (Research for Innovation, R4i programme)
- Training scholarship: Innovative and Sustainable Competitiveness in Food and Drink, Newton Fund, 28 Feb-7 March 2015, United Kingdom
- Training scholarship: Multicountry Observational Study Mission on Regional Business Partnerships among Farmers, Food-Processing SMEs, and Research Institutes, Asian Productivity Organization, 24-28 February 2014, Japan
- Outstanding PhD dissertation from the Association for Dairy Research Promotion
- Scholarship from the Association for Dairy Research Promotion, TU-München
- Scholarship from the German Academic Exchange Service, DAAD

Publications

National Level

1. Suwapat K., Thiyajai, P., Suttisansanee, U. and **Santivarangkna**, C. Determination of GABA Content in Thai Brown Rice by an Optimized Enzyme-Based Method, Chiang Mai Journal of Science, 2016; 43(X) : 1-12.
2. Phanyotha T, Srichamnong W, **Santivarangkna** C, Tangsuphoom N and Suttisansanee U. (2014) Anti-acetylcholinesterase activities from *Gynura procumbens* leaves extracted using response surface methodology. Agricultural Sci. J. 45(2) Suppl.: 17-20.
3. Chutipanyaporn P, Kruawan K, Chupeerach C, **Santivarangkna** C and Suttisansanee U. (2014)



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The investigation on α -glucosidase inhibitory from legume extracts. *Agricultural Sci. J. Agricultural Sci. J.* 45(2)Suppl: 133-136

4. Chutipanyaporn P, Kruawan K, Chupeerach C, **Santivarangkna** C and Suttisansanee U. (2014) The effect of cooking process on antioxidant activities and total phenolic compounds of five colored beans. *Food and Applied Bioscience Journal.* 2(3): 183-191

International Level

1. Foerst, P., Kulozik, U., Schmitt, M. Bauer, S., and Santivarangkna, C. (2012) Storage Stability of Vacuum-Dried Probiotic Bacterium *Lactobacillus paracasei*, *Food Bioprod Process*, 90 (2), 295-300
2. Santivarangkna, C., Aschenbrenner, M., Kulozik, U. and Foerst, P (2011) Roles of Glassy State on Stabilities of Freeze-Dried Probiotics, *J Food Sci*, 76 (8) R152-R156
3. Santivarangkna, C., Naumann, D., Kulozik, U., K., and Foerst, P. (2010) Protective Effects of Sorbitol during the Vacuum Drying of *Lactobacillus helveticus*: an FT-IR Study, *Anal Microbiol*, 60, 235-242
4. Santivarangkna, C., Kulozik, U., Hermine K., and Foerst, P. (2009) Changes in membrane fatty acids of *Lactobacillus helveticus* during vacuum drying with sorbitol, *Lett Appl Microbiol*, 49, 516-521
5. Higl, B., Santivarangkna, C. and Foerst, P. (2008) Evaluation and optimization of freeze- and vacuum drying processes for the production of microbial starter cultures, *Chem Eng Tech* (Chemie Ingenieur Technik, in German), 80(8), 1-8
6. Santivarangkna, C., Kulozik, U. and Foerst, P. (2008) Inactivation mechanisms of lactic acid starter cultures preserved by drying processes, *J Appl Microbiol*, 105, 1-13
7. Santivarangkna, C., Higl, B. and Foerst, P. (2008) Protection mechanisms of sugars during different stages of preparation process of dried lactic acid starter cultures, *Food Microbiol* 25, 429-441
8. Santivarangkna, C., Kulozik, U. and Foerst, P. (2007) Alternative drying processes for the industrial preservation of lactic acid starter cultures, *Biotechnol Prog* 23, 302-315
9. Santivarangkna, C., Wenning, M., Foerst, P. and Kulozik, U. (2007) Damage of cell envelope of *Lactobacillus helveticus* during vacuum drying, *J Appl Microbiol* 102, 748-756
10. Santivarangkna, C., Kulozik, U. and Foerst, P. (2006) Effect of carbohydrates on the survival of *Lactobacillus helveticus* during vacuum drying, *Lett Appl Microbiol* 42, 271-276
11. Noonpakdee, W., Santivarangkna, C., Jumriangrit, P., Sonomoto, K. and Panyim, S. (2003) Isolation of nisin-producing *Lactococcus lactis* WNC 20 strain from Nham, a traditional Thai fermented sausage. *Int J Food Microbiol*, 81, 137-145

Patent

Probioactive drink from brown rice and the production thereof (patent pending, registration no.1401002321, 2012)

Books

1. Foerst, P. and Santivarangkna, C. (Book Editors) *Advances in Probiotic Technologies*, CRC Press, 2015, ISBN 9781498734530
2. Santivarangkna, C. Chapter 15: Storage of Probiotics, In P., Foerst and C. Santivarangkna (Ed.), *Advances in Probiotic Technology*, CRC Press, 2015, ISBN 9781498734530
3. Invited book chapter: Santivarangkna, C. Chapter 7: Preservation of Lactic Starters, In A. K.



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- Puniya, Fermented Milk and Dairy Products, CRC Press, book scheduled to release in 2014
4. Foerst, P. and Santivarangkna, C. Chapter 17: Advances in Starter Culture Technologies, In W. H. Holzapfel(Ed.): Advances in fermented foods and beverages, Woodhead Publishing, book scheduled to release in 2014
 5. Santivarangkna, C., Kulozik, U. and Foerst, P, (2011) Chapter 20: Storing Lactic Acid Bacteria: Current Methodologies and Physiological Implications, In K. Papadimitriou and E. Tsakalidou (Eds.): Stress Response in Lactic Acid Bacteria, Springer Publisher, ISBN-10: 0387927700

Research Experiences

1. Screening of bacteriocin producing lactic acid bacteria
2. Drying of probiotic cells
3. FTIR techniques for the determination of changes in bacterial cells
4. Study of resistant starch in Thai sweet potato and the change during cooking process and industrial application development Ongoing
5. Development of mango jelly product to improve health benefits for elderly
6. Consultation on creation of added value for processed food products
7. Development of rice drink with enhanced anthocyanin bioavailability by probiotic fermentation
8. Food safety scenario in Lao-PDR, Indonesia and Cambodia
9. Industrial utilization of by-product from corn
10. Development of high GABA probiotic drink from brown rice