

Curriculum Vitae



Name: Asst. Prof. Dr. Thanasak Sae-leaw

Education

2015	Ph.D. (Food Science and Technology)	Prince of Songkla University, Thailand
2009	M.Sc. (Food Science)	Kasetsart University, Thailand
2006	B.Sc. (Food Science and Technology)	Kasetsart University, Thailand

Present employment:

International Center of Excellence in Seafood Science and Innovation

Faculty of Agro-Industry, Prince of Songkla University

Hat Yai, Songkhla 90110 Thailand

Tel: +66 74286333

E-mail: thanasak.s@psu.ac.th

Field of interest:

- Extraction, characterization and utilization of fish processing and agricultural by-products
- Technology of edible fats and oils
- Improving the quality of used frying oil

Current researches:

- Extraction and characterization of oil and protein hydrolysate from rice bran and its application in foods
- Extraction and bioactivities of hydrolyzed collagen from fish processing by-products
- Improving the quality of used frying oil using adsorbents
- Encapsulation of Asian seabass oil

Publications:

Research articles

1. Pudtikajorn, K., Sae-leaw, T., Yesilsu, A.F., Sookchoo, P. and Benjakul, S. 2023. Process development and characteristics of bio-calcium from skipjack tuna (*Katsuwonus pelamis*) eyeball scleral cartilage. Waste and Biomass Valorization. In press. DOI: <https://doi.org/10.1007/s12649-023-02075-x>.
2. Indriani, S., **Sae-leaw, T.**, Benjakul, S., Quan, T.H., Karnjanapratum, S. and Nalinanon, S. 2022. Impact of different ultrasound-assisted processes for preparation of collagen hydrolysates from Asian bullfrog skin on characteristics and antioxidative properties. Ultrasonics Sonochemistry. 89: 106163.
3. Pudtikajorn, K., **Sae-leaw, T.**, Zhang, B., Hong, H. and Benjakul, S. 2022. Impact of glucose syrup and antioxidants on properties and oxidative stability of microcapsules loaded with skipjack tuna eyeball oil. Journal of Food Processing and Preservation. 46(11): e17032.
4. Pudtikajorn, K., **Sae-leaw, T.**, Buamard, N., Zhou, A., Ma, L. and Benjakul, S. 2022. Characterisation of fish tofu fortified with skipjack tuna (*Katsuwonus pelamis*) eyeball scleral cartilage bio-calcium. International Journal of Food Science and Technology. 57(10): 6711–6721.
5. Pudtikajorn, K., **Sae-leaw, T.**, Singh, A. and Benjakul, S. 2022. Mild heating process and antioxidant incorporation increase quality and oxidation stability of oil from skipjack tuna (*Katsuwonus pelamis*) eyeball. European Journal of Lipid Science and Technology. 124(3): 2000391.
6. Raju, N., **Sae-leaw, T.**, Osako, K. and Benjakul, S. 2022. Improved cholesterol depletion with enhanced astaxanthin and polyunsaturated fatty acids of lipid from Pacific white shrimp cephalothorax using prior ethanolic separation of polar lipid and β -Cyclodextrin. Journal of Food Science and Technology. 59(6): 2255–2262.

7. Pudtikajorn, K., **Sae-leaw, T.** and Benjakul, S. 2021. Characterization of fortified pasteurized cow milk with nanoliposome loaded with skipjack tuna eyeball oil. *International Journal of Food Science and Technology*. 56(11): 5893–5903.
8. **Sae-leaw, T.**, Aluko, R.E., Chantakun, K. and Benjakul, S. 2021. Physicochemical, antioxidant and sensory properties of ready-to-drink chrysanthemum tea fortified with hydrolyzed collagen from salmon scale ossein. *Journal of Aquatic Food Product Technology*. 30(9): 1159–1172.
9. Chotphruethipong, L., Sukketsiri, W., Aluko, R.E., **Sae-leaw, T.** and Benjakul, S. 2021. Effect of hydrolyzed collagen from defatted Asian sea bass (*Lates calcarifer*) skin on fibroblast proliferation, migration and antioxidant activities. *Journal of Food Science and Technology*. 58(2): 541–551.
10. Idowu, A.T., Benjakul, S., Sinthusamran, S., **Sae-leaw, T.**, Suzuki, N., Kitani, Y., Sookchoo, P. 2020. Effect of alkaline treatment on characteristics of bio-calcium and hydroxyapatite powders derived from salmon bone. *Applied Sciences*. 10(12): 4141.
11. **Sae-leaw, T.** and Benjakul, S. 2019. Prevention of quality loss and melanosis of Pacific white shrimp by cashew leaf extract. *Food Control*. 95: 257-266.
12. **Sae-leaw, T.** and Benjakul, S. 2019. Distribution and characteristics of polyphenoloxidase from Pacific white shrimp (*Litopenaeus vannamei*). *Journal of Food Science*. 84(5): 1078-1086.
13. Shiekh, K. A., Benjaul, S. and **Sae-leaw, T.** 2019. Effect of Chamuang (*Garcinia cowa Roxb.*) leaf extract on inhibition of melanosis and quality changes of Pacific white shrimp during refrigerated storage. *Food Chemistry*. 270: 554-561.
14. Idowu, A. T., Benjakul, S., **Sae-Leaw, T.**, Sookchoo, P., Kishimura, H., Suzuki, N. and Kitani, Y. 2019. Amino acid composition, volatile compounds and bioavailability of biocalcium powders from salmon frame as affected by pretreatment. *Journal of Aquatic Food Product Technology*. 28(7): 772-780.
15. Idowu, A.T., Benjakul, S., Sinthusamran, S., Pongsetkul, J., **Sae-Leaw, T.** and Sookchoo, P. 2019. Whole wheat cracker fortified with biocalcium and protein hydrolysate powders from salmon frame: Characteristics and nutritional value. *Food Quality and Safety*. 3(3): 191-199.
16. Karnjanapratum, S., Kaewthong, P., Takeungwongtrakul, S., **Sae-Leaw, T.**, Hong, J. H. and Nalinanon, S. 2019. *Current Applied Science and Technology*. 19(3): 225-234.

17. **Sae-leaw, T.**, Benjakul, S. and Vongkamjan, K. 2018. Retardation of melanosis and quality loss of pre-cooked Pacific white shrimp using epigallocatechin gallate with the aid of ultrasound. *Food Control*. 84: 75-82.
18. **Sae-leaw, T.** and Benjakul, S. 2018. Antioxidant activities of hydrolysed collagen from salmon scale ossein prepared with the aid of ultrasound. *International Journal of Food Science and Technology*. 53(12): 2786-2795.
19. **Sae-leaw, T.**, Buamard, N., Vate, N. K. and Benjakul, S. 2018. Effect of squid melanin-free ink and pre-emulsification on properties and stability of surimi gel fortified with seabass oil during refrigerated storage. *Journal of Aquatic Food Product Technology*. 27(8): 919-933.
20. Hamzeh, A., Benjakul, S., **Sae-leaw, T.** and Sinthusamran, S. 2018. Effect of drying methods on gelatin from splendid squid (*Loligo formosana*) skins. *Food Bioscience*. 26: 96-103.
21. **Sae-leaw, T.** and Benjakul, S. 2018. Lipase from liver of seabass (*Lates calcarifer*): Characteristics and the use for defatting of fish skin. *Food Chemistry*. 240: 9-15.
22. **Sae-leaw, T.**, Karnjanapratum, S., O'Callaghan, Y. C., O'Keeffe, M. B., Fitzgerald, R. J., O'Brien, N. M. and Benjakul, S. 2017. Purification and identification of antioxidant peptides from gelatin hydrolysate of seabass skin. *Journal of Food Biochemistry*. 41(3): e12350.
23. **Sae-leaw, T.**, Benjakul, S. and Simpson, B. K. 2017. Effect of catechin and its derivatives on inhibition of polyphenoloxidase and melanosis of Pacific white shrimp. *Journal of Food Science and Technology*. 54(5): 1098-1107.
24. Chuaychan, S., Benjakul, S. and **Sae-leaw, T.** 2017. Gelatin hydrolysate powder from the scales of spotted golden goatfish: Effect of drying conditions and juice fortification. *Drying Technology*. 35(10): 1195-1203.
25. **Sae-leaw, T.** and Benjakul, S. 2017. Lipids from visceral depot fat of seabass (*Lates calcarifer*): Compositions and storage stability as affected by extraction methods. *European Journal of Lipid Science and Technology*. 119(11): 1700198.
26. Karnjanapratum, S., Sinthusamran, S., **Sae-leaw, T.**, Benjakul, S. and Hideki Kishimura. 2017. Characteristics and gel properties of gelatin from skin of Asian bullfrog (*Rana tigerina*). *Food Biophysics*. 12(3): 289-298.
27. **Sae-leaw, T.**, Benjakul, S. and O'Brien, N. M. 2016. Effects of defatting and tannic acid incorporation during extraction on properties and fishy odour of gelatin from seabass skin. *LWT - Food Science and Technology*. 65: 661-667.

28. **Sae-leaw, T.**, O'Callaghan, Y. C., Benjakul, S. and O'Brien, N. M. 2016. Antioxidant activities and selected characteristics of gelatin hydrolysates from seabass (*Lates calcarifer*) skin as affected by production processes. *Journal of Food Science and Technology*. 53(1): 197-208.
29. **Sae-leaw, T.**, Benjakul, S. and O'Brien, N. M. 2016. Effect of pretreatments and drying methods on the properties and fishy odor/flavor of gelatin from seabass (*Lates calcarifer*) skin. *Drying Technology*. 34(1): 53–65.
30. **Sae-leaw, T.**, Benjakul, S., O'Brien, N. M. and Kishimura, H. 2016. Characteristics and functional properties of gelatin from seabass skin as influenced by defatting. *International Journal of Food Science and Technology*. 51(5): 1204-1211.
31. **Sae-leaw, T.**, O'Callaghan, Y. C., Benjakul, S. and O'Brien, N. M. 2016. Antioxidant, immunomodulatory and antiproliferative effects of gelatin hydrolysates from seabass (*Lates calcarifer*) skins. *International Journal of Food Science and Technology*. 51(7): 1545-1551.
32. **Sae-leaw, T.**, Benjakul, S. and O'Brien, N. M. 2016. Effect of pretreatments and defatting of seabass skins on properties and fishy odor of gelatin. *Journal of Food Biochemistry*. 40(6): 741-753.
33. **Sae-leaw, T.** and Benjakul, S. 2015. Physico-chemical properties and fishy odour of gelatin from seabass (*Lates calcarifer*) skin stored in ice. *Food Bioscience*. 10: 59–68.
34. **Sae-leaw, T.** and Benjakul, S. 2014. Fatty acid composition, lipid oxidation, and fishy odour development in seabass (*Lates calcarifer*) skin during iced storage. *European Journal of Lipid Science and Technology*. 116(7): 885–894.
35. **Sae-leaw, T.**, Benjakul, S., Gokoglu, N. and Nalinanon, S. 2013. Changes in lipids and fishy odour development in skin from Nile tilapia (*Oreochromis niloticus*) stored in ice. *Food Chemistry*. 141(3): 2466-2472.

Review article

1. **Sae-leaw, T.** and Benjakul, S. 2019. Prevention of melanosis in crustaceans by plant polyphenols: A review. *Trends in Food Science and Technology*. 85: 1-9.
2. Quan, T.H., Benjakul, S., **Sae-leaw, T.**, Balange, A.K. and Maqsood, S. 2019. Protein–polyphenol conjugates: Antioxidant property, functionalities and their applications. *Trends in Food Science and Technology*. 91: 507-517.

Book chapter

1. Benjakul, S., Singh, A., **Sae-leaw, T.** and Balange, A. K. 2023. Endogenous Enzymes: Their Roles in Quality of Fish/Shellfish and Their Products. In: Advances in Fish Processing Technologies: Preservation, Waste Utilization, and Safety Assurance (Eds. Majumder, R. K. and Balange, A. K.). Apple Academic Press. pp. 235-269.
2. Benjakul, S., **Sae-leaw, T.** and Simpson, B. K. 2020. Byproducts from Fish Harvesting and Processing. In: Byproducts from Agriculture and Fisheries: Adding Value for Food, Feed, Pharma and Fuels (Eds. Simpson, B. K., Kwofie, E. M. and Aryee, A. N.). John Wiley & Sons, Inc. pp. 179-218.

Conferences/Proceedings

1. **Sae-leaw, T.**, Benjakul, S., Vongkamjan, K. and Visessanguan. W. 2017. Retardation of melanosis and quality loss of pre-cooked Pacific white shrimp using epigallocatechin gallate with the aid of ultrasound. The 31st EFFoST International Conference, Melia Sitges, Sitges, Spain. 14 November 2017. Poster presentation.
2. **Sae-leaw, T.**, Benjakul, S. and O'Brien, N. M. 2015. Effect of pretreatments and drying methods on properties and fishy odour/flavour of gelatin from seabass skin. International Conference on Quality Improvement and Development of Food Product (QID-Food 2015), Bukittinggi, West Sumatra, Indonesia, 18 April 2015. Oral presentation.
3. **Sae-leaw, T.** and Benjakul, S. 2014. Effect of pretreatments and defatting processes of seabass (*Lates calcarifer*) skin on properties and fishy odour of gelatin. The 8th International Congress of Food Technologists, Biotechnologists and Nutritionists. Remisens Premium Hotel Ambassador, Opatija, Croatia. 21–24 October 2014. Poster presentation.
4. **Sae-leaw, T.** and Benjakul, S. 2013. Changes of lipids, lipid oxidation and fishy odor development in Nile tilapia skin during iced storage. The 13th ASEAN Food Conference (AFC2013). The MAX Atria, Singapore Expo, Singapore. 9-11 September 2013. Poster presentation.
5. **Sae-leaw T.**, Chantanawarangoon S. and Jirapakkul W. 2008. Effect of solvent on total phenolic content and antioxidant capacity of fingerroot (*Boesenbergia pandurata*). The 46th Kasetsart University Annual Conference. Kasetsart University, Thailand. 29 January-1 February 2008. Poster presentation.