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Education

Degree: Ph.D. (Biotechnology), Ritsumeikan University, Japan

M.Eng. (Applied chemistry and Biotechnology) Ritsumeikan University, Japan

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Field of interest: Molecular Biotechnology and Enzyme Technology

Current researches:

1. Isolation, screening, and production of chitosanase producing microorganism and application in the production of chitooligosaccharides.
2. Production and application of α-1,3-glucanase.
3. Production and application of lignocellolytic enzymes.

Publication:

Review:

Suyotha, W., Yano, S., and Wakayama, M. α-1,3-glucanase : present situation and prospect of research. 2016. World J Microbiol Biotechnol. 32(2). doi: 10.1007/s11274-015-1977-0.

Article:

Polsa, N., **Suyotha, W**., Suebsan, S., Anuntalabhochai, S., Sangwijit, K. 2019. Increasing xylanase activity of *Bacillus subtilis* by atmospheric pressure plasma jet for biomass hydrolysis. 3 Biotech. 10: 22. https://doi.org/10.1007/s13205-019-2004-1.

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Yano, S., **Suyotha, W**., Oguro, N., Matsui, T., Shiga, S., Itoh, T., Hibi, T., Tanaka, Y., Wakayama, W., Makabe, K. 2019. Crystal structure of the catalytic unit of GH 87-type α-1,3-glucanase Agl-KA from *Bacillus circulans*. 2019. Sci. Rep. 9:15295.

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Yano, S., Hori, Y., Kijima, T., Konno, K., **Suyotha, W**., Takagi, K., Wakayama,W. 2019. Construction of Cellulose Binding Domain Fusion FMN-Dependent NADH Azoreductase and Glucose 1-Dehydrogenase for the Development of Flow Injection Analysis with Fusion Enzymes Immobilized on Cellulose. J. Appl. Glycosci., 66: 65–72.

Intuy, R, Itoh, T., **Suyotha, W**., Hayashi, J., Yano, S., Makabe, K., Wakayama, M, Hibi, T. 2018. X-ray crystallographic analysis of the catalytic domain of α-1,3-glucanase FH1 from *Paenibacillus glycanilyticus* overexpressed in *Brevibacillus choshinensis*. Acta Crystallogr. F. Struct. Biol. Commun. 74 (Pt12) : 770-773. doi: 10.1107/S2053230X18013109.

Cherdvorapong, V., Fujiki, H., **Suyotha, W**., Takeda, Y., Yano, S., Takagi, K., Wakayama M. 2018. Enzymatic and molecular characterization of α-1,3-glucanase (AglST2) from

Streptomyces thermodiastaticus HF3-3 and its relation with α-1,3-glucanase HF65 (AglST1). J. Gen. Appl. Microbiol. 8;65(1):18-25. doi: 10.2323/jgam.2018.04.001.

Yano, S., **Suyotha, W**., Zanma, S., Konno, H., Cherdvorapomg, V., Wakayama, M. (2018) Deletion of uncharacterized domain from α-1,3-glucanase of *Bacillus circulans* KA-304 enhances heterologous enzyme production in Escherichia coli. J. Gen. Appl. 64(5): 212-220. Microbiol. doi; 10.2323/jgam.2017.12.005.

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Suyotha, W., Tanikawa, M., Yano, S., and Wakayama M. Characterization of D-alanine-D-alanine ligase from *Lactobacillus fermentum* NBRC 3959. International Chemical Congress of Pacific Basin Societies. 15-20 December 2010, Honolulu, Hawii, USA. (International poster presentation)

Suyotha, W., Yano, S., Tachiki, T., and Wakayama, M. Structure domain of α-1,3-glucanase from *Bacillus circulans* KA-304. The Annual Meeting of Japan Society for Bioscience, Biotechnology and Agrochemistry. 22-26 March 2012. Kyoto, Japan.

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Suyotha, W., Yano, S., Tachiki, T., and Wakayama, M. N-terminal region of α-1,3-glucanase from *Bacillus circulans* KA-304. 15th International Biotechnology Symposium and Exhibition. 16-21 September 2012, Daegu, Korea. (International poster presentation)

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Huynh Ngoc, T., H-Kittikun A., Wakayama M., and **Suyotha W***. Isolation and screening of a novel microorganism for chitosanase production. The 2nd Joint Seminar of New Core to Core Program A. Advanced Research Networks. 14th – 15th November 2016 at Saensuk Room1-2, Bangsaen Heritage Hotel, Chonburi, Thailand. (International poster presentation)

Huynh, N.T. and **Suyotha, W**.* Optimization of chitosanase production by a newly isolated Lentzea sp. OUR-I1 in submerged fermentation. The 13th Asian Congress on Biotechnology 2017 (ACB2017) "Bioinnovation and Bioeconomy". 23rd – 27th July 2017 at Pullman Khon Kaen Raja Orchid Hotel, Khon Kaen, Thailand. (International poster presentation) Abstract book p. 239.

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