

Curriculum Vitae



PERSONAL DATA:

Name: Marasri RUENGJITCHAWALYA
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PROFESSIONAL EMPLOYMENT:

1989~1996 Lecturer, School of Bioresources and Technology (SBT), KMUTT

1996~ present Assistant Professor, SBT, KMUTT

2001~ 2003 Chairperson, Division of Biotechnology, SBT, KMUTT

2003~ 2005 Assistant President for Academic Affairs, KMUTT

2003~ present Chairperson, Bioinformatics & Systems Biology program, KMUTT

2007~ 9 Jan 2009 Associate Dean for Administrative, SBT, KMUTT

EDUCATION:

1980 B. Sc., Science (Zoology), Chulalongkorn University, Thailand

1986 M. Sc., Science (Biotechnology),
King Mongkut's Institute of Technology Thonburi (KMUTT)
Currently named as KMUTT, Thailand

1995 Ph.D., Engineering (Biotechnology), Osaka University, Japan

RECENT RESEARCH & HUMAN RESOURCES DEVELOPMENT (HRD) GRANTS:

1. RESEARCH, Principal Investigator:

- 1.1 “Efficiency Platform for Value-added *Arthrospira (Spirulina)*” (2015-2016)
KMUTT-National Research University (NRU) Fund
- 1.2 “Performance Development of Computational Gene-Finding for Non coding RNA (ncRNA)” (2011-2014)
National Research University (NRU) Fund
- 1.3 “Biological Activity Study and Bioengineering of Cyclotides as Anti-Human Immunodeficiency Virus (HIV) Agent using Computational Methods” (2014)
KMUTT-Annual Research Budget
- 1.4 “Inhibition of Herpes Simplex Virus type I (HSV-1) of Calcium Spirulan (Ca-SP): Molecular interaction based on computational approach” (2013)
KMUTT-Annual Research Budget
- 1.5 “Modeling of Calcium Spirulan (Ca-SP)-envelope glycoprotein interaction which involve in inhibition of Herpes Simplex Virus type I (HSV-1)” (2012)
KMUTT-Annual Research Budget
- 1.6 “Role of lipids on the electron transport in photosynthesis of *Spirulina platensis*” (2010)
KMUTT-Annual Research Budget

2. HRD, Principal Correspondence:

1. Development of Human resources in Bioinformatics & Systems Biology Projects (2011-2016)
BIOTEC, NSTDA, THAILAND
2. Development of Human resources in Bioinformatics & Systems Biology Projects (2010-2012)
BIOTEC, NSTDA, THAILAND
3. Development of Human resources in Bioinformatics & Systems Biology Projects (2004-2009)
BIOTEC, NSTDA, THAILAND

International Publication List:

1. Sangphukieo, A., Nawae, W., Laomettachit, T., Supasitthimethee, U. and **Ruengjitchatchawalya, M.** (2015) Computational design of hypothetical new peptides based on a cyclotide scaffold as HIV gp120 inhibitor. *PLoS ONE* 10(10): e0139562. [DOI:10.1371/journal.pone.0139562]
2. Nawae, W., Hannongbua, S. and **Ruengjitchatchawalya, M.** (2014) Dynamic scenario of membrane binding process of kalata B1 (2014) *PLoS ONE* 9(12): e114473. [DOI: 10.1371/journal.pone.0114473]
3. Lertampaiporn, S., Thammarongtham, C., Nukoolkit, C., Kaewkamnerdpong, B. and **Ruengjitchatchawalya, M.** (2014) Identification of non-coding RNAs with a new composite feature in the Hybrid Random Forest Ensemble algorithm. *Nucleic Acids Res.* 42(11):e93 [DOI: 10.1093/nar/gku325]
4. Nawae, W., Hannongbua, S. and **Ruengjitchatchawalya, M.** (2014) Defining the membrane disruption mechanism of kalata B1 via coarse-grained molecular dynamics simulations. *Sci. Rep.* 4 (3933): 1-9. [DOI: 10.1038/srep03933]
5. Sombatjinda, S., Wantawin, C., Withyachumnarnkul, B., Techkarnjanaruk, S. and **Ruengjitchatchawalya, M.** (2014) Water quality control in a closed re-circulating system of Pacific white shrimp (*Penaeus vannamei*) postlarvae co-cultured with immobilized *Spirulina* mat. *Aquacult. Int.* 22(3): 1181-1195. [DOI: 10.1007/s10499-013-9738-2]
6. Lertampaiporn, S., Thammarongtham, C., Nukoolkit, C., Kaewkamnerdpong, B. and **Ruengjitchatchawalya, M.** (2013) Heterogeneous ensemble approach with discriminative features and modified-SMOTEBagging for pre-miRNA classification. *Nucleic Acids Res.* 41(1): e21 [DOI: 10.1093/nar/gks878]
7. Mapaisansup, T., Yutthanasirikul, R., Hongsthong, A., Tanticharoen, M. and **Ruengjitchatchawalya, M.** (2013) Subcellular localization-dependent regulation of the three *Spirulina* desaturase genes, *desC*, *desA* and *desD*, under different growth phase. *J. Appl. Phycol.* 25: 467-475 [DOI: 10.1007/s10811-012-9880-7]
8. Cheevadhanarak, S., Paithoonrangsarid, K., Prommeenate, P., Kaewngam, W., Musigkain, A., Tragoonrung, S., Tabata, S., Kaneko, T., Chaijaruwanich, J., Sangsrakru, D., Tangphatsornruang, S., Chanprasert, J., Thongsima, S., Kusolmano, K., Jeamton, W., Dulsawat, S., Klanchui, A., Vorapreeda, T., Chumchua, V., Khannapho, C., Thammarongtham, C., Plengvidhya, V., Subudhi, S., Hongsthong, A., **Ruengjitchatchawalya, M.**, Meechai, A., Senachak, J. and Tanticharoen, M.

- (2012) Draft genome sequence of *Arthrospira platensis* C1 (PCC9438). *Stand. Genomic Sci.* 6(1): 43-53 [DOI:10.4056/sigs.2525955]
9. Sombatjinda, S., Boonapatcharoen, N., **Ruengjitchachawalya, M.**, Wantawin, C., Withyachumnarnkul, B. and Techkarnjanaruk, S. (2011) Dynamics of microbial communities in an earthen shrimp pond during the shrimp growing period. *Environ. Nat. Resour. Res.* 1(1): 171-180.
 10. Saikatikorn, Y., Lertkiatmongkol, P., Assawamakin, A., **Ruengjitchachawalya, M.** and Tongsimas, S. (2010) Study of the structural pathology caused by CYP2C9 polymorphisms towards flurbiprofen metabolism using molecular dynamics simulation. *Communications in Computer and Information Science* 115: 26-35. [SJ_R = 0.027, SNIP = 0.247]
 11. Chaichalearm, S., Inthorn, D., **Ruengjitchachawalya, M.** and Pokethitiyook, P. (2006) Cadmium removal by immobilized *Scytonema* sp. and *Hapalosiphon hibernicus*. *Poll Res.* 25: 597-607.
 12. Kurdrid, P., Subudhi, S., Hongsthong, A., **Ruengjitchachawalya, M.** and Tanticharoen, M. (2005) Functional expression of *Spirulina-Δ⁶* desaturase gene in yeast, *Saccharomyces cerevisiae*. *Mol. Biol. Reports* 32: 215-226.
 13. **Ruengjitchachawalya, M.**, Kovács, L., Mapaisansup, T., Sallai, A., Gombos, Z., Ponglikitmongkol, M. and Tanticharoen, M. (2005) Higher plant-like fluorescence induction and thermoluminescence characteristics in cyanobacterium, *Spirulina* mutant defective in PQH₂ oxidation by cyt_{b6/f} complex. *J. Plant Physiol.* 162: 1123-1132.
 14. **Ruengjitchachawalya, M.**, Chamutpong, S., Ponglikitmongkol, M., Chaiklahan, R., and Tanticharoen, M. (2003) *Spirulina platensis* mutants defective in γ -linolenic acid production: Molecular characterization. In Murata, N. et al. (eds), *Advanced Research on Plant Lipids, The 15th International Symposium on Plant Lipids*. Kluwer Academic Publishers, Dordrecht/ Boston/ London: 105-108. [ISBN 1-4020 1105-9]
 15. **Ruengjitchachawalya, M.**, Chirasuwan, N., Chaiklahan, R., Bunnag, B., Deshniem, P. and Tanticharoen, M. (2002) Photosynthetic characteristics of a mutant of *Spirulina plantensis*. *J. Appl. Phycol.* 14: 71-76.
 16. **Ruengjitchachawalya, M.**, Nihira, T. and Yamada, Y. (1995) Purification and characterization of the IM-2 binding protein from *Streptomyces* sp. FRI-5. *J. Bacteriol.* 177: 551-557.
 17. Tanticharoen, M., **Ruengjitchachawali, M.**, Bunnag, B., Vongtaveesuk, P., Vonshak, A. and Cohen, Z. (1994) Optimization of γ -linolenic acid (GLA) production in *Spirulina platensis*. *J. Appl. Phycol.* 6: 295-300.
 18. Cohen, Z., **Ruengjitchachawali, M.**, Siangdung, W., Tanticharoen, M. and Heimer, Y. M. (1993) Herbicide resistant lines of microalgae: Growth and fatty acid composition. *Phytochem.* 34: 973-978.
 19. Cohen, Z., **Ruengjitchachawali, M.**, Siangdung, W., and Tanticharoen, M. (1993) Production and partial purification of γ -linolenic acid and some pigments from *Spirulina platensis*. *J. Appl. Phycol.* 5: 109-115.
 20. **Ruengjitchachawalya, M.**, Okamoto, S., Nihira, T. and Yamada, Y. (1993) Nucleotide sequence of the gene encoding L11 and L1 equivalent ribosomal protein from *Streptomyces* sp. FRI-5. *Nucleic Acid Res.* 21: 2524.