

ประวัติผลงาน

ผศ.ดร.ศรีสมบัติ พุฒิกมลกุล



หน่วยงาน: ภาควิชาจุลชีววิทยา คณะแพทยศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ
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ประวัติการทำงาน:

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2545-2550 นักวิจัย (Biomedical research technician) หน่วยงานคุ้มครองกันวิทยา สถาบันวิจัยวิทยาศาสตร์การแพทย์ทหาร (AFRIMS) 315/6 ถนนราชวิถี แขวงทุ่งพญาไท เขตราชเทวี กทม. 10400

ประวัติการศึกษา:

2541 วท.บ.จุลชีววิทยา จุฬาลงกรณ์มหาวิทยาลัย
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2555 Ph.D., Immunology and Infectious Diseases, Montana State University, Bozeman, MT, USA

รางวัล:

2552 Eukaryotic Cell Outstanding Young Investigator award: the 25th Fungal Genetics Conference, Asilomar, CA, USA
2554 Poster Award: 26th Fungal Genetics Conference, Asilomar, CA, USA
2555 Poster Award: 112th ASM, San Francisco, CA, USA
2555 Milton Huppert Graduate Student Award: the Medical Mycology Society of America meeting, San Francisco, CA, USA.

ความชำนาญ งานวิจัยที่สนใจ:

- Molecular fungal biology, regulation of fungal cell wall, and antifungal compounds produced by bacteria and fungi

ผลงานตีพิมพ์:

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2. Willger SD, Puttikamonkul S, Kim K-H, Burritt JB, Grahl N, et al. A Sterol-Regulatory Element Binding Protein Is Required for Cell Polarity, Hypoxia Adaptation, Azole Drug Resistance, and Virulence in *Aspergillus fumigatus*. *PLoS Pathog* 2008;4(11):e1000200. doi:10.1371/journal.ppat.1000200.
3. Kim K-H, Willger SD, Park S-W, Puttikamonkul S, Grahl N, et al. TmpL, a Transmembrane Protein Required for Intracellular Redox Homeostasis and Virulence in a Plant and an Animal Fungal Pathogen. *PLoS Pathog* 2009;5(11): e1000653. doi:10.1371/journal.ppat.1000653.
4. Puttikamonkul S, Willger SD, Grahl N, Perfect JR, Movahed N, Bothner B, et al. Trehalose 6-phosphate phosphatase is required for cell wall integrity and fungal virulence but not trehalose biosynthesis in the human fungal pathogen *Aspergillus fumigatus*. *Mol Microbiol* 2010;77: 891-911.
5. Teja-Isavadharm P, Siriyanonda D, Siripokasupkul R, Apinan R, Chanarat N, Lim A, Wannaying S, et al. A Simplified Liquid Chromatography-Mass Spectrometry Assay for Artesunate and Dihydroartemisinin, Its Metabolite, in Human Plasma. *Molecules* 2010;15(12): 8747-8768.
6. Li H, Barker B, Grahl N, Puttikamonkul S, Bell JD, et al. The Small GTPase RacA mediates intracellular reactive oxygen species production, polarized growth, and virulence in the human fungal pathogen *Aspergillus fumigatus*. *Eukaryotic cell* 2011;10(2):174-186.
7. Grahl N, Puttikamonkul S, Macdonald JM, Gamcsik MP, Ngo LY, et al. *In vivo* hypoxia and a fungal alcohol dehydrogenase influence the pathogenesis of invasive pulmonary aspergillosis. *PLoS Pathog* 2011;7(7):e1002145.
8. Willger SD, Cornish EJ, Chung D, Fleming BA, Lehmann MM, Puttikamonkul S, Cramer RA. Dsc orthologs are required for hypoxia adaptation, triazole drug responses, and fungal virulence in *Aspergillus fumigatus*. *Eukaryotic Cell* 2012;11(12):1557-67. doi: 10.1128/EC.00252-12. Epub 2012 Oct 26.

9. **Puttikamonkul S.** Trehalose biosynthesis pathway as a promising new target for antifungal drug development (in Thai). *J Med Health Sci (in Thai)* 2015;22(2):71-81. **Review.**
10. Chotelersak K, Thamacharoensuk T, Tanasupawat S, Nantavisai K, Taweechotipatr M, **Puttikamonkul S.** Preliminary Studies of Lactic Acid Bacteria Isolated from Feces of Thai Newborns. *J Med Assoc Thai* 2016;99(Suppl.8):S90-S98.
11. Kuanpradit C, Jaisin Y, Jungudomjaroen S, Akter Mitu S, **Puttikamonkul S,** Sobhon P, Cummins SF. Attenuation of UV-B exposure-induced inflammation by abalone hypobranchial gland and gill extracts. *Int J Mol Med* 2017;39(5):1083-1090. doi: 10.3892/ijmm.2017.2939. Epub 2017 Mar 29.
12. Thammahong A, **Puttikamonkul S,** Perfect JR, Brennan RG, Cramer RA. Central Role of the Trehalose Biosynthesis Pathway in the Pathogenesis of Human Fungal Infections: Opportunities and Challenges for Therapeutic Development. *Central Microbiol Mol Biol Rev.* 2017 Mar 15;81(2). pii: e00053-16. doi: 10.1128/MMBR.00053-16. Print 2017 Jun. **Review.**
13. Nantavisai K, **Puttikamonkul S,** Chotelersak K, and Taweechotipatr M. Songklanakarin. *In vitro* adhesion property and competition against enteropathogens of *Lactobacillus* strains isolated from Thai infants. *J. Sci. Technol.* 2018; 40(1):69-74.
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15. Kulpraneet M, Limtrakul A, Thanomtham P, Taemaitree N, **Puttikamonkul S,** Pongsunk S, et al. Analysis of IL-4 promoter and VNTR polymorphisms in Thai patients with pulmonary tuberculosis. *Tropical Biomedicine,* 2019; 36(4):874-882
16. **Puttikamonkul S,** Chotelersak K, Nantavisai K, Kuanpradit C, Chaiprasert A. Role of trehalose-6-phosphate phosphatase encoding gene in cell wall homeostasis of *Talaromyces marneffeii*. *Science and Technology Asia,* 2020; 25(2):133-141
17. Uasontornnop R, Junniam K, Maseechan P, Lanongkan N, Chotelersak K, Nantavisai K, Tangteerawatana P, Namsa-Aid M, and **Puttikamonkul S.** Antifungal Activity of *Streptomyces spectabilis* SP-O2 against Aflatoxin Producing Mold, *Aspergillus flavus*. *Trends in Sciences,* 2022; 19(22): 375
18. Manyaem S, Namsa-ard M, **Puttikamonkul S,** Prachya S, Namsa-ard A, Samosorn S. Chemical Constituents and their Antifungal Activity from the Branch Extracts of *Plumbago indica* L. *J Chulabhorn Royal Acad [Internet].* 2022 Oct. 15 [cited 2022 Nov. 23];4(4):189-97. Available from: <https://he02.tci-thaijo.org/index.php/jcra/article/view/258386>