ประวัติผลงาน

ชื่อ: นางศรีสมบัติ พุฒิกมลกุล

ตำแหน่ง: อาจารย์

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ประวัติการศึกษา:

2550-2555	Ph.D., Immunology and Infectious Diseases, Montana State University, Bozeman, MT, USA
2541-2544	วท.ม. (เทคโนโลยีชีวภาพ) คณะวิทยาศาสตร์ มหาวิทยาลัยมหิดล
2537-2540	วท.บ. (จุลชีววิทยา) คณะวิทยาศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

ประวัติการทำงาน:

2555-ปัจจุบัน	อาจารย์ประจำภาควิชาจุลชีววิทยา คณะแพทยศาสตร์ มหาวิทยาศรีนครินทรวิโรฒ ประสานมิตร
2544-2550	นักวิจัยตำแหน่ง Biomedical research technician ประจำหน่วยภูมิคุ้มกันวิทยา สถาบันวิทยาศาสตร์การแพทย์ทหาร (AFRIMS)

ทุนการศึกษา/อบรม/ดูงาน/วิจัย:

2550-2555	ทุน กพ. ของกระทรวงวิทยาศาสตร์ เพื่อศึกษาปริญญาเอกที่ประเทศสหรัฐอเมริกา

ความชำนาญ/เชี่ยวชาญพิเศษ: Molecular biology และ fungal pathogenesis mechanisms

งานวิจัยที่ตีพิมพ์แล้ว:

1. Jiang S, Zeng Q, Gettayacamin M, Tungtaeng A, **Wannaying S**, Lim A, et al. Antimalarial Activities and Therapeutic Properties of Febrifugine Analogs. Antimicrob Agents and Chemother 2005;49:1169-1176.
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.**, S. D. Willger, N. Grahl, J. R. Perfect, N. Movahed, 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 J. D., 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 2010;doi:10.1128/EC.00288-10.
7. Grahl N., **Puttikamonkul S.**, Macdonald J. M., Gamcsik M. P., Ngo L. Y., 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 S.D., Cornish E.J., Chung D., Fleming B.A., Lehmann M.M., **Puttikamonkul S.**, Cramer R.A. 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.

การนำเสนอผลงานแบบโปสเตอร์:

1. 6th International Aspergillus Meeting "Asperfest" (March 15-17, 2009) at Asilomar Conference Center in Pacific Grove, CA USA
   The Trehalose Pathway is critical for *Aspergillus fumigatus* virulence. Srisombat Puttikamonkul, Sven D. Willger, and Robert A. Cramer Jr. Department of Veterinary Molecular Biology, Montana State University, Bozeman, MT, USA.
2. 25th Fungal Genetics Conference (March 17-22, 2009) at Asilomar in Pacific Grove, CA USA
   The Trehalose Pathway is critical for *Aspergillus fumigatus* virulence. Srisombat Puttikamonkul, Sven D. Willger, and Robert A. Cramer Jr. Department of Veterinary Molecular Biology, Montana State University, Bozeman, MT, USA.
3. COBRE conference 2009, Bigsky, Montana
   The Trehalose Pathway is critical for *Aspergillus fumigatus* virulence. Srisombat Puttikamonkul, Sven D. Willger, and Robert A. Cramer Jr.
4. 4th Advances against aspergillosis, Feb 4-6, 2010 at Rome, Italy.
   The Trehalose Pathway is critical for *Aspergillus fumigatus* virulence. Srisombat Puttikamonkul, Sven D. Willger, Navid Movahed, Brian Bothner, Robert A. Cramer Jr.
5. The Montana State University Graduate Recruitment Weekend Poster Session (Feb 26, 2010)
   The Trehalose Pathway is critical for *Aspergillus fumigatus* virulence. S. Puttikamonkul, S. D. Willger, N. Grahl, J. R. Perfect, N. Movahed, B. Bothner, S. Park, P. Paderu, D. S. Perlin, and R. A. Cramer Jr.
6. The Gordon Research Conference on Cellular and Molecular Fungal Biology (June13-18, 2010) at Holderness, New Hampshire. The trehalose pathway is critical for *Aspergillus fumigatus* glycolytic flux and virulence. Srisombat Puttikamonkul, S. D. Willger, N. Grahl, J. R. Perfect, N. Movahed, B. Bothner, Steven Park, Padmaja Paderu, David S. Perlin, and Robert A. Cramer Jr.
7. The Montana State University Graduate Recruitment Weekend Poster Session (Mar 4, 2011)
   The trehalose pathway is critical for *Aspergillus fumigatus* glycolytic flux and virulence. Srisombat Puttikamonkul, S. D. Willger, N. Grahl, J. R. Perfect, N. Movahed, B. Bothner, Steven Park, Padmaja Paderu, David S. Perlin, and Robert A. Cramer Jr.

8. 8th International Aspergillus Meeting “Asperfest” (March 14-15, 2011) at Asilomar Conference Center in Pacific Grove, CA USA

   The Trehalose Pathway contributes to key virulence attribute production in *Aspergillus fumigatus*. Srisombat Puttikamonkul, S. D. Willger, N. Grahl, J. R. Perfect, N. Movahed, B. Bothner, and Robert A. Cramer Jr.

9. 26th Fungal Genetics Conference (March 15-20, 2011) at Asilomar in Pacific Grove, CA USA

   The Trehalose Pathway contributes to key virulence attribute production in *Aspergillus fumigatus*. Srisombat Puttikamonkul, S. D. Willger, N. Grahl, J. R. Perfect, N. Movahed, B. Bothner, and Robert A. Cramer Jr.

การนำเสนอผลงานแบบ Oral:

1. Talks selected from abstracts on March 16, 2009: 6th International Aspergillus Meeting “Asperfest”

   "The Trehalose Pathway is critical for *Aspergillus fumigatus* virulence."

รางวัล:

1. Eukaryotic Cell Outstanding Young Investigator award 2009; at the 25th Fungal Genetics Conference (March 17-22, 2009) at Asilomar in Pacific Grove, CA, USA
2. Young Investigator Presentations (Selected by the Scientific Committee) on Feb 6, 2010: *presented by Nora Grahl* (Srisombat was unable to participate the conference at Italy due to Visa issue)
3. The article: *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 Jun 9), has been selected and evaluated by Paula Sundstrom, a Member of the Faculty of 1000 (F1000) on Nov 30, 2010.
4. Poster Award: 26th Fungal Genetics Conference (March 15-20, 2011) at Asilomar in Pacific Grove, CA, USA.
5. Poster Award: 112th ASM 2012 (June 16-19, 2012) at San Francisco, CA, USA.
6. Milton Huppert Graduate Student Award 2012 at the Medical Mycology Society of America meeting, San Francisco, CA, USA.

โครงการวิจัยที่กำลังดำเนินการ: The role of Trehalose-6-Phosphate Phosphatase enzyme, OrlA, and trehalose biosynthesis pathway in the regulation of cell wall homeostasis and pathogenesis of *Penicillium marneffei*.

งานเขียนตำรา: -