

CURRICULUM VITAE



NAME Associate Professor PITAK SANTANIRAND, Ph.D.

CURRENT APPOINTMENT (Mahidol University)

- 2004 Head of Microbiology Laboratory, Department of Pathology, Faculty of Medicine Ramathibodi Hospital, Mahidol University
- 2018 Board of Curriculum Committee of Undergraduate Programs, Mahidol University
- 2020 Assistant Dean for Finance and Procurement, Faculty of Medicine Ramathibodi Hospital, Mahidol University

CURRENT APPOINTMENT (National Organization or Committee)

- 2021 President of the Association of Medical Technologists of Thailand (AMTT) under the patronage of H.R.H. Soamsawali
- 2020 President of the Royal College of Medical Technology (RCMT)
- 2017 Board of the Medical Technology Council Committee
- 2017 Advisory board of “Enhanced Incorporation of Global and National Antimicrobial Resistance Organism Surveillance (EIGNA)”, The Ministry of Public Health
- 2016 Board of the Co-ordination and Integration of Antimicrobial Resistant Committee, the Ministry of Public Health

ADDRESS

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EDUCATION

- 1999 **DLSHTM**
London School of Hygiene and Tropical Medicine, London, UK.

- 1995-1999 **Ph.D. (Infectious and Tropical Diseases)**
London School of Hygiene and Tropical Medicine, London, UK.
- 1994-1995 **M.Sc. (Medical Microbiology)**
London School of Hygiene and Tropical Medicine, London, UK.
- 1986-1990 **B.Sc. (Medical Technology)**
Faculty of Medical Technology, Mahidol University, Thailand.

PREVIOUS APPOINTMENT (Mahidol University)

- 2018-2022 Director of M.Sc. and Ph.D. program in Clinical Pathology
- 2014-2022 Board of Curriculum Committee of Post-graduate Programs,
Mahidol University
- 2011-2018 Assistant Dean for Graduate Education
- 2007-2015 Director of M.Sc. and Ph.D. program in Clinical Pathology
- 2003-2015 Assistant Professor
- 2002-2004 Deputy Director of Ramathibodi Hospital
- 2000-2002 Lecturer
- 1990-1999 Medical technologist

PREVIOUS APPOINTMENT (National Organization or Committee)

- 2016-2022 Expert Committee (Bacteriology) of the Pathogens and Animal
Toxins Committee, the Ministry of Public Health, Thailand
- 2017-2019 Board of Clinical Laboratory Accreditation Committee, the Ministry
of Public Health, Thailand
- 2015-2018 Executive Board (Scientific Chairman) of the Medical Technologist
Association of Thailand
- 2000-2005 Executive Board of the Medical Technologist Association of
Thailand

EDITORIAL BOARD

- 2002-present Editorial Board of the Medical Technologist Association of
Thailand Journal

NATIONAL AND INTERNATIONAL ORGANIZATION MEMBERSHIPS

- 2002-present Membership of the European Society of Clinical Microbiology and
Infectious Diseases (ESCMID)
- 2001-present Membership of the International Leptospirosis Society
- 1991-present Membership of the Medical Technologist Association of Thailand

AWARD

- 2000 Young Investigator Award from the oral presentation title, “Cytokine production from human peripheral blood monocyte derived macrophages in *Burkholderia pseudomallei* infection”, at the 7th Western Pacific Conference of Chemotherapy and Infectious Diseases, 10-14 December 2000, Hong Kong

TRAINING

- 2014 ESCMID Postgraduate Technical Workshop: 3rd Workshop on Antimicrobial Susceptibility Testing and Surveillance, Linz, Austria. 16-19 September 2014.
- 2001 “Laboratory Methods for Diagnosis of Leptospirosis” at the Royal Institute of Tropical Diseases (KIT), Amsterdam, the Netherlands. 19-23 February 2001.

CURRENT RESEARCH

1. Study on epidemiology, susceptibility testing and resistant mechanisms of Antimicrobial resistant (AMR) organisms including Extended spectrum beta-lactamases (ESBLs), Carbapenem-resistant *Enterobacterales* (CRE), Vancomycin-resistant enterococci (VRE) and Colistin-resistant organisms (CoR)
2. Epidemiological study of Group B Streptococcus (GBS)
3. Application of MALDI-TOF in epidemiological study
4. Diagnostic mycological study

PATENT

Development of a novel combined assimilation-fermentation (ComAF) media for identification of medically important yeast. (Patent no. 1844, issued date 10 June 2005)

PUBLICATION

1. Khamnoi P, Jumroon N, Khamphakul J, Chaihongsa N, **Santanirand P**. *In vitro* activity of cefiderocol, cefepime-zidebactam, and β -lactam combinations versus other antibiotic classes against various sequence types of clinically isolated carbapenemase-producing *Klebsiella pneumoniae*. *Microb Drug Resist*. 2023 Jul 3. doi: 10.1089/mdr.2023.0070. Online ahead of print.

2. Pongchaikul P, Romero R, Mongkolsuk P, Vivithanaporn P, Wongsurawat T, Jenjaroenpun P, Nitayanon P, Thaipisuttikul I, Kamlungkuea T, Singaneh A, **Santanirand P**, Chaemsaitong P. Genomic analysis of *Enterococcus faecium* strain RAOG174 associated with acute chorioamnionitis carried antibiotic resistance gene: is it time for precise microbiological identification for appropriate antibiotic use? BMC Genomics. 2023 Jul 19; 24 (1): 405. doi: 10.1186/s12864-023-09511-1.
3. Sakamoto N, Laolerd W, Akeda Y, Sugawara Y, Motooka D, Yamamoto N, Takeuchi D, Shanmugakani RK, Nishi I, Suzuki M, Shibayama K, Iida T, **Santanirand P**, Tomono K, Hamada S.J. Temporal shifts in the predominant carbapenemase gene types among carbapenemase-producing *Klebsiella pneumoniae* isolated in Bangkok, Thailand, during 2013-2016. Med Microbiol. 2023 Jun; 72 (6). doi: 10.1099/jmm.0.001711.
4. Kamsri B, Pakamwong B, Thongdee P, Phusi N, Kamsri P, Punkvang A, Kettrat S, Saparpakorn P, Hannongbua S, Sangswan J, Suttisintong K, Sureram S, Kittakoop P, Hongmanee P, **Santanirand P**, Leanpolchareanchai J, Goudar KE, Spencer J, Mulholland AJ, Pungpo P. Bioisosteric design identifies inhibitors of *Mycobacterium tuberculosis* DNA gyrase ATPase activity. J Chem Inf Model. 2023 May 8; 63 (9): 2707-18. doi: 10.1021/acs.jcim.2c01376.
5. Yamket W, Sathianpitayakul P, **Santanirand P**, Ratthawongjirakul P. Implementation of helicase-dependent amplification with SYBR Green I for prompt naked-eye detection of bacterial contaminants in platelet products. Sci Reports. 2023; 13: 3238. <https://doi.org/10.1038/s41598-023-30410-8>.
6. Thongdee P, Hanwarinroj C, Pakamwong B, Kamsri P, Punkvang A, Leanpolchareanchai J, Kettrat S, Saparpakorn P, Hannongbua S, Ariyachaokun K, Suttisintong K, Sureram S, Kittakoop P, Hongmanee P, **Santanirand P**, Mukamolova GV, Blood RA, Takebayashi Y, Spencer J, Mulholland AJ, Pungpo P. Virtual screening identifies novel and potent inhibitors of *Mycobacterium tuberculosis* PknB with antibacterial activity. J Chem Inf Model. 2022 Dec 26; 62 (24): 6508-18. Doi: 10.1021/acs/jcim.2c00531.
7. Eamsakulrat P, **Santanirand P**, Phuphuakrat A. Diagnostic yield and impact on antimicrobial management of 16S rRNA testing of clinical specimens. Microbiol Spectr. 2022 Dec 21; 10 (6): e0209422. Doi: 10.1128/spectrum.02094-22.

8. Abe R, Akeda Y, Sakamoto N, Takeuchi D, Sugawara Y, Yamamoto N, Kerdsin A, Matsumoto Y, Motooka D, Laolerd W, **Santanirand P**, Suzuki M, Shibayama K, Tomono K, Iida T, Hamada S. A nationwide plasmidome surveillance in Thailand reveals a limited variety of New Delhi metallo- β -lactamase-producing carbapenem-resistant *Enterobacteriaceae* clones and spreading plasmids. *J Clin Microbiol*. 2022 Dec 21; 60 (12): e0108022. doi: 10.1128/jcm.01080-22.
9. Abe R, Akeda Y, Takeuchi D, Sakamoto N, Sugawara Y, Yamamoto N, Kerdsin A, Matsumoto Y, Motooka D, Leolerd W, **Santanirand P**, Suzuki M, Shibayama K, Tomono K, Iida T, Hamada S. Clonal dissemination of carbapenem-resistant *Klebsiella pneumoniae* ST16 co-producing NDM-1 and OXA-232 in Thailand. *JAC Antimicrob Resist*. 2022 Aug 16; 4 (4): dlac084. Doi: 10.1093/jacamr/dlac084.
10. Chaemsaitong P, Lertrut W, Kamlungkuea T, **Santanirand P**, Singaneh A, Jaovisidha A, Pakdeeto S, Mongkolsuk P, Pongchaikul P. Maternal septicemia caused by *Streptococcus mitis*: a possible link between intra-amniotic infection and periodontitis. Case report and literature review. *BMC Infect Dis*. 2022 Jun 20; 22 (1): 562. Doi: 10.1186/s12879-022-07530-z.
11. Apisarnthanarak A, Kim HB, Moore LSP, Xiao Y, Singh S, Doi Y, Kwa AL, Ponnampalavanar SSS, Cao Q, Kim SW, Lee H, **Santanirand P**. Utility and applicability of rapid diagnostic testing in antimicrobial stewardship in Asia Pacific: A Delphi consensus. *Clin Infect Dis*. 2022 Jun 10; 74 (11): 2067-76. doi: 10.1093/cid/ciab910.
12. Pakamwong B, Thongdee P, Kamsri B, Phusi N, Kamsri P, Punkvang A, Kettrat S, Saparpakorn P, Hannongbua S, Ariyachaokun K, Suttisintong K, Sureram S, Kittakoop P, Hongmanee P, **Santanirand P**, Spencer J, Mulholland AJ, Pungpo P. Identification of potent DNA gyrase inhibitors active against *Mycobacterium tuberculosis*. *J Chem Inf Model*. 2022 Apr 11; 62 (7): 1680-90. Doi: 10.1021/acs.jcim.1c01390.
13. Takeuchi D, Kerdsin A, Akeda Y, Sugawara Y, Sakamoto N, Matsumoto Y, Motooka D, Ishihara T, Nishi I, Laolerd W, **Santanirand P**, Yamamoto N, Tomono K, Hamada S. Nationwide surveillance in Thailand revealed genotype dependent dissemination of carbapenem-resistant. *Microb Genom*. 2022 Apr; 8 (4): 000979. Doi: 10.1099/mgen.0.000797.
14. Chotiprasitsakul D, Kijnithikul A, Uamkhayan A, **Santanirand P**. Predictive value of urinalysis and recent antibiotic exposure to distinguish between bacteriuria,

- candiuria, and no-growth urine. *Infect Drug Resist.* 2021 Dec 30; 14: 5699-709. Doi: 10.2147/IDR.S343021.
15. Chotiprasitsakul D, Perloungsawat P, Setthaudom C, **Santanirand P**, Pornsuriyasak P. Performance of real-time PCR and immunofluorescence assay for diagnosis of *Pneumocystis pneumonia* in real-world clinical practice. *PLoS ONE.* 2020 Dec 21; 15 (12): e0244023. Doi: 10.1371/journal.pone.0244023.
 16. Pisitpayat P, Sirikul T, Hongmanee P, **Santanirand P**, Lekhanont K. *Mycobacterium haemophilum* scleritis: two case reports and review of literature. *BMC Ophthalmol.* 2020 Sep 23; 20 (1): 378. doi: 10.1186/s12886-020-01649-w.
 17. Pattanakitsakul P, Itsaradisaikul S, Boonsathorn S, **Santanirand P**, Apiwattanakul N. *Salmonella* spinal epidural abscess in a child presenting with prolonged fever: Case report. *Southeast Asian J Trop Med Pub Health.* 2021; 52 (5): 635-43.
 18. Singpanomchai N, Akeda Y, Tomono K, Tamaru A, **Santanirand P**, Ratthawongjirakul P. Rapid detection of multidrug-resistant tuberculosis based on allele-specific recombinase polymerase amplification and colorimetric detection. *PLoS ONE.* 2021 Jun 11; 16 (6): e0253235. Doi: 10.1371/journal.pone.0253235.
 19. Apisarnthanarak A, Kim HB, Moore L, Xiao Y, Singh S, Doi Y, Kwa ALH, Ponnampalavanar SSL, Cao Q, Kim SW, Lee H, **Santanirand P**. Rapid diagnostic testing for antimicrobial stewardship: Utility in Asia Pacific. *Infect Control Hosp Epidemiol.* 2021; 42 (7): 864-8. (Review)
 20. Kong B, Noothong F, Pankhong P, **Santanirand P**, Jumroon N. Detection and differentiation of carbapenemase production in carbapenem-resistant *Enterobacteriaceae* by the novel modified Carba NP test. *Pharm Sci Asia.* 2021; 48 (6): 576-83.
 21. Surapat B, Montakantikul P, Malathum K, Kiertiburanakul S, **Santanirand P**, Chindavijak B. Microbial epidemiology and risk factors for relapse in gram-negative bacteria catheter-related bloodstream infection with a pilot prospective study in patients with catheter removal receiving short-duration of antibiotic therapy. *BMC Infect Dis.* 2020 Aug 17; 20 (1): 604. doi: 10.1186/s12879-020-05312-z.
 22. Pongchaikul P, **Santanirand P**, Antonyuk S, Winstanley C, Darby A.C. AcGI1, a novel genomic island carrying antibiotic resistance integron In687 in multidrug

- resistant *Achromobacter xylosoxidans* in a teaching hospital in Thailand. FEMS Microbiol Lett. 2020 July 1; 364 (14). doi: 10.1093/femsle/fnaa109
23. Cazares A, Moore MP, Hall JPJ, Wright LL, Grimes M, Emond-Rhéault JG, Pongchaikul P, **Santanirand P**, Levesque RC, Fothergill JL, Winstanley C. A megaplasmid family driving dissemination of multidrug resistance in *Pseudomonas*. Nat Commun. 2020 Mar 13; 11 (1): 1370. doi: 10.1038/s41467-020-15081-7.
24. Kamsri P, Hanwarinroj C, Phusi N, Pornprom T, Chayajarus K, Punkvang A, Suttipanta N, Srimanote P, Suttisintong K, Songsiritthigul C, Saparpakorn P, Hannongbua S, Rattanabunyong S, Seetaha S, Choowongkamon K, Sureram S, Kittakoop P, Hongmanee P, **Santanirand P**, Chen Z, Zhu W, Blood RA, Takebayashi Y, Hinchliffe P, Mulholland AJ, Spencer J, Pungpo P. Discovery of new and potent InhA inhibitors as antituberculosis agents: structure-based virtual screening validated by biological assays and X-ray crystallography. J Chem Inf Model. 2020 Jan 27; 60 (1): 226-34. doi: 10.1021/acs.jcim.9b00918.
25. Kantamalee W, **Santanirand P**, Saisawat P, Boonsathorn S, Techasaensiri C, Apiwattanakul N. Outcomes of empirical antimicrobial therapy for pediatric community-onset febrile urinary tract infection in the era of increasing antimicrobial resistance. Pediatr Infect Dis J. 2020 Feb; 39 (2): 121-6. doi: 10.1097/INF.0000000000002515.
26. Yamamoto N, Hamaguchi S, Akeda Y, **Santanirand P**, Chaihongsa N, Sirichot S, Chiaranaicharoen S, Hagiya H, Yamamoto K, Kerdsin A, Okada K, Yoshida H, Hamada S, Oishi K, Malathum K, Tomono K. Rapid screening and early precautions for carbapenem-resistant *Acinetobacter baumannii* carriers decreased nosocomial transmission in hospital settings: a quasi-experimental study. Antimicrob Resist Infect Control. 2019 Jun 27; 8: 110. doi: 10.1186/s13756-019-0564-9.
27. Chotiprasitsakul D, Srichatrapimuk S, Kirdlarp S, Pyden AD, **Santanirand P**. Epidemiology of carbapenem-resistant *Enterobacteriaceae*: a 5-year experience at a tertiary care hospital. Infect Drug Resist. 2019 Feb 20; 12: 461-8. doi: 10.2147/IDR.S192540.
28. Shanmugakani RK, Akeda Y, Sugawara Y, Laolerd W, Chaihongsa N, Sirichot S, Yamamoto N, Hagiya H, Morii D, Fujiya Y, Nishi I, Yoshida H, Takeuchi D, Sakamoto N, Malathum K, **Santanirand P**, Tomono K and Hamada S. PCR-

- dipstick-oriented surveillance and characterization of *mcr-1*- and carbapenemase-carrying *Enterobacteriaceae* in a Thai hospital. *Front. Microbiol.* 2019 Jan 21. doi: 10.3389/fmicb.2019.00149
29. Prakobsrikul N, Malathum K, **Santanirand P**, Chumnumwat S, Piebpien P, Montakantikul P. Correlation between antimicrobial consumption and the prevalence of carbapenem-resistant *Escherichia coli* and carbapenem-resistant *Klebsiella pneumoniae* at a university hospital in Thailand. *J Clin Pharm Ther.* 2019 Apr; 44 (2): 292-9. doi: 10.1111/jcpt.12791. Epub 2018 Dec 21
 30. Singpanomchai N, Akeda Y, Tomono K, Tamaru A, **Santanirand P**, Rattawongjirakul P. Naked eye detection of the *Mycobacterium tuberculosis* complex by recombinase polymerase amplification-SYBR green I assays. *J Clin Lab Anal.* 2019 Feb; 33 (2): e22655. doi: 10.1002/jcla.22655. Epub 2018 Aug 20.
 31. Bubpamala J, Khuntayaporn P, Thirapanmethee K, Montakantikul P, **Santanirand P**, Chomnawang MT. Phenotypic and genotypic characterizations of extended-spectrum beta-lactamase-producing *Escherichia coli* in Thailand. *Infect Drug Resist.* 2018 Nov 5; 11: 2151-7. doi: 10.2147/IDR.S174506. eCollection 2018.
 32. Sakamoto N, Akeda Y, Sugawara Y, Takeuchi D, Motooka D, Yamamoto N, Laolerd W, **Santanirand P**, Hamada S. Genomic characterization of carbapenemase-producing *Klebsiella pneumoniae* with chromosomally carried bla_{NDM-1}. *Antimicrob Agents Chemother.* 2018 Nov 26; 62 (12). pii: e01520-18. doi: 10.1128/AAC.01520-18.
 33. **Santanirand P**, Kojima S, Yamaguchi T, Wongnak K, Thokaew S, Chiaranaicharoen S. Antimicrobial activity of flomoxef against *Enterobacteriaceae* including extended spectrum beta-lactamases-producing strains isolated at Ramathibodi Hospital: a 1000-bed tertiary care hospital in Bangkok, Thailand. *Infect Dis Ther* 2018; 6 (5). DOI: 10.4172/2332-0877.1000378.
 34. Krajaejun T, Rujirawat T, Kanpanleuk T, **Santanirand P**, Lohnoo T, Yingyong W, Kumsang Y, Sae-Chew P, Kittichotirat W, Patumcharoenpol P. Biochemical and genetic analyses of the oomycete *Pythium insidiosum* provide new insights into clinical identification and urease-based evolution of metabolism-related traits. *Peer J.* 2018 Jun 5; 6: e4821. doi: 10.7717/peerj.4821.
 35. Laolerd W, Akeda Y, Preeyanon L, Rattawongjirakul P, **Santanirand P**. Carbapenemase-producing carbapenem-resistant *Enterobacteriaceae* from Bangkok, Thailand, and their detection by the Carba NP and modified

- carbapenem inactivation method tests. *Microb Drug Resist.* 2018 Sep; 24 (7): 1006-11. doi: 10.1089/mdr.2018.0080. Epub 2018 May 21.
36. Boonsarngsuk V, Mangkang K, **Santanirand P**. Prevalence and risk factors of drug-resistant extrapulmonary tuberculosis. *Clin Respir J.* 2018 Jun; 12 (6): 2101-9. doi: 10.1111/crj.12779. Epub 2018 Mar 6.
37. Chavalertsakul K, Boonsarngsuk V, Saengsri S, **Santanirand P**. TB-PCR and drug resistance pattern in BALF in smear-negative active pulmonary TB. *Int J Tuberc Lung Dis.* 2017 Dec 1; 21 (12): 1294-9. doi: 10.5588/ijtld.17.0326.
38. Teeraputon S, **Santanirand P**, Wongchai T, Songjang W, Lapsomthob N, Jaikrasun D, Toonkaew S, Tophon P. Prevalence of methicillin resistance and macrolide-lincosamide-streptogramin B resistance in *Staphylococcus haemolyticus* among clinical strains at a tertiary-care hospital in Thailand. *New Microbes New Infect.* 2017 May 24; 19: 28-33. doi: 10.1016/j.nmni.2017.05.007.
39. Malaisri C, Phuphuakrat A, Wibulpolprasert A, **Santanirand P**, Kiertiburanakul S. A randomized controlled trial of sitafloxacin vs. ertapenem as a switch therapy after treatment for acute pyelonephritis caused by extended-spectrum β -lactamase-producing *Escherichia coli*: A pilot study. *J Infect Chemother.* 2017 Aug; 23 (8): 556-62. doi: 10.1016/j.jiac.2017.05.005
40. Shanmugakani RK, Akeda Y, Yamamoto N, Sakamoto N, Hagiya H, Yoshida H, Takeuchi D, Sugawara Y, Kodera T, Kawase M, Laolerd W, Chaihongsa N, **Santanirand P**, Ishii Y, Hamada S, Tomono K. PCR-dipstick chromatography for differential detection of carbapenemase genes directly in stool specimens. *Antimicrob Agents Chemother.* 2017 May 24; 61 (6). pii: e00067-17. doi: 10.1128/AAC.00067-17.
41. Boonsarngsuk V, Saengsri S and **Santanirand P**. Endobronchial ultrasound-guided transbronchial needle aspiration rinse fluid polymerase chain reaction in the diagnosis of intrathoracic tuberculous lymphadenitis. *Infect. Dis.* 2017; 49 (3): 193-9.
42. Kongubol P, **Santanirand P**, Sirisreetreerux P, Viseshsindh W, Sangkum P. Incidence of fluoroquinolone resistant aerobic organisms and efficacy of rectal cleaning in men undergoing transrectal ultrasound guided prostate biopsy. *J Med Assoc Thai.* 2016; 99 (6): 691-6.
43. Chotiprasitsakul D, **Santanirand P**, Thitichai P, Rotjanapan P, Watcharananan S, Siriarayapon P, Chaihongsa N, Sirichot S, Chitasombat M, Chantharit P,

- Malathum K. Epidemiology and control of the first reported vancomycin-resistant enterococcus outbreak at a tertiary-care hospital in Bangkok, Thailand. *Southeast Asian J Trop Med Public Health*. 2016 May; 47 (3): 494-502.
44. Nawattanapaiboon K, Prombun P, **Santanirand P**, Vongsakulyanon A, Srikehrin T, Sutapun B, Kiatpathomchai W. Hemoculture and direct sputum detection of mecA-mediated methicillin-resistant *Staphylococcus aureus* by loop-mediated isothermal amplification in combination with a lateral-flow dipstick. *J Clin Lab Anal*. 2016 Sep; 30 (5): 760-7. doi: 10.1002/jcla.21935. Epub 2016 Mar 17.
45. Tantavutt N, Lamjaiaktase P, **Santanirand P**. Development of multiplex PCR for detection of *Staphylococcus aureus* plus methicillin resistant and MLSB resistant genes. *J Med Tech Assoc Thai*. 2016; 44: 5553-66.
46. Inkomlue R, Larbcharoensub N, Karnsombut P, Lerksuthirat T, Aroonroch R, Lohnoo T, Yingyong W, **Santanirand P**, Sansopha L, Krajaejun T. Development of an anti-elicitin antibody-based immunohistochemical assay for diagnosis of pythiosis. *J Clin Microbiol*. 2016; 54 (1): 43-8. doi: 10.1128/JCM.02113-15.
47. Sethaphanich N, **Santanirand P**, Rattanasiri S, Techasaensiri C, Chaisavaneeyakorn S, Apiwattanakul N. Pediatric ESBL infection: Community acquired infection and treatment options. *Pediatr Int*. 2016; 58: 338-46. doi: 10.1111/ped.12845.
48. Nawattanapaiboon K, Kiatpathomchai W, **Santanirand P**, Vongsakulyanon A, Amarit R, Somboonkaew A, Sutapun B, Srikehrin T. SPR-DNA array for detection of methicillin-resistant *Staphylococcus aureus* (MRSA) in combination with loop-mediated isothermal amplification. *Biosens Bioelectron*. 2015 Dec 15; 74:335-40. doi: 10.1016/j.bios.2015.06.038.
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50. Lekhanont K, Nonpassopon M, Nimvorapun N, **Santanirand P**. Treatment with intrastromal and intracameral voriconazole in 2 eyes with *Lasiodiplodia theobromae* keratitis: Case reports. *Medicine (Baltimore)*. 2015 Feb; 94 (6): e541.
51. Jumroon N., **Santanirand P**. Multiple combination patterns of OXA-type carbapenemhydrolyzing and metallo- β -lactamases encoding genes among

- clinically isolated *Acinetobacter baumannii*. Int J Pharm Bio Sci. 2013; 4 (2): B908-17.
52. Khuntayaporn P, Montakantikul P, **Santanirand P**, Kiratisin P, Chomnawang MT. Molecular investigation of carbapenem resistance among multidrug-resistant *Pseudomonas aeruginosa* isolated clinically in Thailand. Microbiol Immunol. 2013 Mar; 57 (3): 170-8. doi: 10.1111/1348-0421.12021.
53. Simaroj P, Kompreyarat S, **Santanirand P**, Lekhanont K. Anterior chamber contamination during phacoemulsification after povidone-iodine application. J Med Assoc Thai. 2012 May; 95 (5): 689-92.
54. Kiertiburanakul S, Watcharatipagorn S, Chongtrakool P, **Santanirand P**. Epidemiology of bloodstream infections and predictive factors of mortality among HIV-infected adult patients in Thailand in the era of highly active antiretroviral therapy. Jpn J Infect Dis. 2012 Jan; 65 (1): 28-32.
55. Pakakasama S, Surayuthpreecha K, Pandee U, Anurathapan U, Maleewan V, Udomsubpayakul U, Butthep P, **Santanirand P**, Sirachainan N, Hongeng S. Clinical Practice Guideline for Children with Cancer Presenting with Fever at Emergency Room. Pediatr Int. 2011 Dec; 53 (6): 902-5. doi: 10.1111/j.1442-200X.2011.03363.x.
56. Vanavanan S, **Santanirand P**, Chaichanajareernkul U, Chittamma A, Dubois JA, Shirey T, Heinz M. Performance of a new interference-resistant glucose meter. Clin Biochem. 2010 Jan; 43 (1-2): 186-92. Epub 2009 Sep 19.
57. Kanjanawongdeengam P, Viseshsindh W, **Santanirand P**, Prathombutr P, Nilkulwattana S. Reduction in bacteremia rates after rectum sterilization before transrectal, ultrasound-guided prostate biopsy: a randomized controlled trial. J Med Assoc Thai. 2009 Dec; 92 (12): 1621-6.
58. Sornsuvit C, Komindr S, Chuncharunee S, Wanikiat P, Archararit N, **Santanirand P**. Pilot Study: effects of parenteral glutamine dipeptide supplementation on neutrophil functions and prevention of chemotherapy-induced side-effects in acute myeloid leukaemia patients. J Int Med Res. 2008 Nov-Dec; 36 (6): 1383-91.
59. Larbcharoensub N, Srisuma S, Ngernprasertsri T, Aroonroch R, Chongtrakool P, **Santanirand P**, Chirachariyavej T, Sirikulchayanonta V. Invasive fungal infection in Ramathibodi hospital: a ten-year autopsy review. J Med Assoc Thai. 2007; 90: 2630-7.

60. Tangkosakul T, Hongmanee P, **Santanirand P**, Wongnak K, Sungkanuparph S. Tenosynovitis caused by *Mycobacterium kansasii*: a case report and literature review. J Infect Dis Antimicrob Agents. 2007; 24: 143-8.
61. Kiratisin P, **Santanirand P**, Chantratita N, Kaewdaeng S. Accuracy of commercial systems for identification of *Burkholderia pseudomallei* versus *Burkholderia cepacia*. Diagn Microbiol Infect Dis. 2007; 59: 277-81.
62. **Santanirand P**, Pattiyatani P, Angkananukul K and Nakeesuwan S. Detection of esterase in *Cryptococcus neoformans* by Tweens media. J Med Tech Assoc Thai. 2007; 35: 1926-32.
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