

FACULTY OF MEDICAL TECHNOLOGY  
CURRICULUM VITAE

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DEGREE ACHIEVEMENT	INSTITUTE	YEAR
B.Sc. Honor (Medical Technology)	Mahidol University	1976
M.Sc. (Biochemistry)	Chulalongkorn University	1980
Diploma in Applied Nutrition	University of Indonesia	1983
Research Training in Cloning of Chloroperoxidase Gene	University of Kent at Canterbury, England	1987
Graduate Diploma in Biotechnology	University of Kent at Canterbury, England	1988
Ph.D. (Biochemistry)	Mahidol University	1994
Post Doctoral Research Training in Biosensor Development	Institute of Chemical and Biosensor Research, University of Muenster, Germany	1998

## WORKING EXPERIENCES:

- 1976-1982: Medical Scientist, Department of Clinical Chemistry, Mahidol University  
1982-2007: Assistant Professor, Department of Clinical Chemistry, Mahidol University  
2007-present: University Employee, Faculty of Medical Technology, Mahidol University

## AWARDS:

- 2012: Chansiri K., Santiwattanakul S., **Promptmas C.** and Kaewphinit T. DNA Biosensor System for Detection of *Mycobacterium tuberculosis*. National Research Council Outstanding Invention Award (Medical Science), February 2, 2012.
- 2012: Chansiri K., Santiwattanakul S., **Promptmas C.** and Kaewphinit T. Piezoelectric-based DNA Sensor for Diagnostic Detection. Silver Medal Award (Food, Beverage, Cosmetics and Medical Science) 40<sup>th</sup> International Invention of Geneva. April 20, 2012.
- 2013: Chansiri K., Santiwattanakul S., **Promptmas C.** Kaewphinit T., Areekit S., Kiatpathomchai W., Arunrut N. and Rienthong S. Development of DNA Sensor for Diagnosis of *Mycobacterium tuberculosis*. Research Excellence Award (Medical Science), National Research Council of Thailand, December 3, 2013.

## PUBLICATIONS: (5 Years 2010-2014)

- Chomean S, Wangmaung N, Srithongkham P, **Promptmas C**, Ittarat W. Genotyping of  $\alpha$ -thalassemias by the colorimetric nanogold probes. *Clinica Chimica Acta* (Accepted CCA-01039-2014.R1) (IF 2013=2.850)
- Khemthongcharoen N, Wonglumsom W, Suppat A, Jaruwongrungsee K, Tuantranont A, **Promptmas C**. Piezoresistive Microcantilever-based DNA Sensor for Sensitive Detection of Pathogenic *Vibrio cholera* O1 in Food Sample. *Biosensors and Bioelectronics* (Accepted BIOS-D-14-00781.R1) (IF 2013=5.437)
- Saengdee P, Chaisiratanakul W, Bunjongpru W, Sripumkhai W, Srisuwan A, Jeamsaksiri W, Hruanun C, Poyai A, **Promptmas C**. Surface modification of silicon dioxide, silicon nitride and titanium oxynitride for lactate dehydrogenase immobilization. *Biosensors and Bioelectronics* (Accepted BIOS-D-14-00732.R1) (IF 2013=5.437)

4. Indrawattana N, **Promptmas C**, Wat-Aksorn K, Soontornchai S. Real-time monitoring of DNA hybridization for rapid detection of *Vibrio cholerae* O1. *Analytical Methods* (Accepted AY-ART-05-2014-001162.R2) (IF 2013=1.855)
5. Chunta S, Suk-Anake J, Chansiri K, **Promptmas C**. Piezoelectric-based immunosensor for high density lipoprotein particle measurement. *Analyst* 2014; DOI 10.1039/C4AN00601A (IF 2013=3.969)
6. Bunyakul N, **Promptmas C**, Bäumner A.J. Microfluidic biosensor for cholera toxin detection in fecal samples. *Analytical and Bioanalytical Chemistry* 2014; DOI 10.1007/s00216-014-7947-9 (IF 2013=3.659)
7. Wangmaung N, Chomean S, **Promptmas C**, Mas-oodi S, Tanyong D, Ittarat W. Silver quartz crystal microbalance for differential diagnosis of *Plasmodium falciparum* and *Plasmodium vivax* in single and mixed infection. *Biosensors and Bioelectronics* 2014;62:295-301. (IF 2013=5.437)
8. Chomean S, Wangmaung N, Srithongkham P, **Promptmas C**, Mas-oodi S, Tanyong D, Ittarat W. Molecular diagnosis of  $\alpha$ -thalassemias by the colorimetric nanogold. *Analyst* 2014;139:813-822. (IF 2013=3.969)
9. Wangmaung N, **Promptmas C**, Chomean S, Sanchomphu C, Ittarat W. Low cost biosensor-based molecular differential diagnosis of  $\alpha$ -thalassemia (Southeast Asia deletion). *Clinical Chemistry and Laboratory Medicine* 2013;51(6):1199-1205. (IF 2013=3.009)
10. Lailak J, Khaokhiew T, **Promptmas C**, Promdonkoy B, Pootanakit K, Angsuthanasombat C. *Bacillus thuringiensis* Cry4Ba toxin employs two receptor-binding loops for synergistic interactions with Cyt2Aa2. *Biochemical and Biophysical Research Communications* 2013;435(2):216-221. (IF 2013=2.406)
11. Ittarat W, Chomean S, Sanchomphu C, Wangmaung N, **Promptmas C**, Ngenngamlert W. Biosensor as a molecular malaria differential diagnosis. *Clinica Chimica Acta* 2013;419:47-51. (IF 2013=2.850)
12. Prakrankamanant P, Leelayuwat C, **Promptmas C**, Limpaiboon T, Wanram S, Prasongdee P, Pientong C, Daduang J, Jearanaikoon P. The development of DNA-based quartz crystal microbalance integrated with isothermal DNA amplification system for human papillomavirus type 58 detection. *Biosensors and Bioelectronics* 2013;40:252-257. (IF 2013=5.437)
13. Suk-anake J, **Promptmas C**. Analytical performance of centrifuge-based device for clinical chemistry testing. *Clinical Laboratory* 2012;58:1113-1118. (IF 2013=0.920)
14. Potipitak T, Ngenngamlert W, **Promptmas C**, Chomean S, Ittarat W. Diagnosis and genotyping of *Plasmodium falciparum* by a DNA biosensor based on quartz crystal microbalance (QCM). *Clinical Chemistry and Laboratory Medicine* 2011;49:1367-1373. (IF 2013=3.009)
15. Jeenduang N, Ruangpracha A, **Promptmas C**, Pongrapeeporn K, Pomtadavity S. Two novel D151Y and M391T LDLR mutations causing LDLR transport defects in Thai patients with familial hypercholesterolemia. *Clinica Chimica Acta* 2010;411:1656-1661. (IF 2013=2.850)
16. Sungkanak A, **Promptmas C**, Sappat A, Jaruwongrungsee K, Lomas T, Wisitsoraat A, Tuantranont A. Ultrasensitive detection of *Vibrio Cholerae* O1 using microcantilever-based biosensor with dynamic force microscopy. *Biosensors and Bioelectronics* 2010;26:784-789. (IF 2013=5.437)
17. Chomean S, Potipitak T, **Promptmas C**, Ittarat W. Quartz crystal microbalance-based biosensor for the detection of  $\alpha$ -thalassemia 1 (SEA deletion). *Clinical Chemistry and Laboratory Medicine* 2010;48:1247-1254. (IF 2013=3.009)
18. Kaewphinit T, Santiwatanakul S, **Promptmas C**, Chansiri K. Development of piezoelectric DNA-based biosensor for direct detection of *Mycobacterium tuberculosis* in clinical specimens. *Sensors and Transducers* 2010;113:115-126. (e-IF 2008=205.767)
19. Kaewphinit T, Santiwatanakul S, **Promptmas C**, Chansiri K. Detection of non-amplified *Mycobacterium tuberculosis* genomic DNA using piezoelectric DNA-based biosensors. *Sensors* 2010;10:1846-1858. (IF 2013=1.953)

#### INTERNATIONAL TEXT BOOK

1. Tran NK, **Promptmas C**, and Kost GJ. Biosensor, Miniaturization, and Noninvasive Techniques. In *Clinical Diagnostic Technology: The Total Testing Process. Volume 3: The Postanalytical Phase*. Edited by Ward-Cook, K.M., Lehmann, C.A., Schoeff, L.E. and Williams, R.H. AACC Press, Washington DC 2006;145-84.