



Education

B.SC. (HONS)

PHYSIOTHERAPY, MAHIDOL UNIVERSITY, 1988

M.SC. (ANATOMY), MAHIDOL UNIVERSITY, 1992

PH.D. (ANATOMY), MAHIDOL UNIVERSITY, 2001

POST-DOCTORAL TRAINING, USA 2002-2003

POST-DOCTORAL TRAINING, AUSTRALIA, 2003-2004

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Education: B.S. Physical therapist, 1984-1988, Mahidol University, Thailand
M.S. Anatomy, 1990-1992, Mahidol University, Thailand
Ph.D. Anatomy, 1996-2001, Mahidol University, Thailand

Post doctoral training Neuroendocrinology, 2002, University of Connecticut, USA
Molecular Biology & Genetic Markers, 2003, CSIRO, Brisbane, Australia

Professional Affiliations:

1. Member: Electron Microscopy Society of Thailand
2. Member: Anatomy Association of Thailand
3. Member: Neuroscience Association of Thailand
4. Member: World Aquaculture Society

Committee Experience: Chairperson of M.Sc. Program in Anatomy and Structural Biology, Faculty of Science, Mahidol University

Research Interests:

1. Application of natural products and phytochemical substances, particularly from seaweed, in biomedical and aquaculture researches. (i.e. antioxidant, anti-aging, anti-cancer, immune enhancer, and pathogens protection)
2. Oxidative stress and cell death in infectious diseases and neurodegenerative diseases, mechanism and protection

Research Projects & Grants :

1. The study of serotonin on stimulating ovarian maturation and reproductive performance of giant tiger shrimp, *P. monodon* broodstock. Mahidol University Grant (2004-2005)
2. Expression of apoptotic and antiapoptotic genes in viral tolerated crustacean species: Thailand research fund (2005-2007)
3. Study of oxidative stress induced-cell death in retinal degeneration diseases and protective substances: Mahidol University Grant (2006-2008)
4. The effect of polychaete *Perineris nuntia* extracts on erectile dysfunction therapy: The National Research Council of Thailand (2007-2009)
5. The antimicrobial and antiviral activities of *Gracilaria* extracts and the application to increase immunity in shrimp : Thailand research fund (2008-2011)
6. Evaluation of anti-proliferation and anti-invasion activities of sulfated galactans isolated from the red seaweed *Gracilaria fisheri* on Human Cholangiocarcinoma cells. Research Leadership and Teaching Excellence Grant, Faculty of Science, Mahidol university (2011-2014)
7. Mechanism of action of sulfated galactans isolated from the red seaweed *Gracilaria fisheri* against white spot syndrome virus infection in shrimp *Penaeus monodon* and development of sulfated galactans-supplemented feed pellets. Thailand research fund (2012-2015)

Publications

1. Withyachumnarnkul B*, **Buppaniroj K** and Pongsa-Asawapaiboon A N-acetyltransferase and melatonin levels in the optic lobe of giant freshwater prawns, *Macrobrachium rosenbergii* de Man. Comp. Biochem. Physiol. 1992; 102A (4): 703-07.
2. **Wongprasert K***, Khanobdee K, Klunnukarn S, Meeratana P, and Withyachumnarnkul B Time course and the levels of apoptosis in various tissues of black tiger shrimp *Penaeus monodon* infected with white-spot syndrome virus. Dis. Aquat Org. 2003; 55: 3-10
3. Klannukarn S, **Wongprasert K***, Khanobdee K, Meeratana P, Taweepreda P, and Withyachumnarnkul B *Vibrio* bacterin and carboxymethyl β -1,3-glucans protect *Penaeus monodon* from *Vibrio harveyi* infection. J Aquat Anim Health 2004; 16: 238-45

4. Asuvapongpata S*, **Wongprasert K**, and Lamers W.H. Localization of glutamine synthetase in adult and fetal liver of the Tree Shrew (*Tupaia belangeri*). *Science Asia*. 2006; 32 (4): 355-359.
5. Meeratana P*, Withyachumnarnkul B, Damrongphol P, Wongprasert K, Suseangtham A, and Sobhon P. Serotonin induces ovarian maturation in giant freshwater prawn broodstock, *Macrobrachium rosenbergii* de Man. *Aquaculture*. 2006; 260: 315-325.
6. **Wongprasert K.***, Asuvapongpata S, Poltana P, Teinsuwan M, and Withyachumnarnkul B. Serotonin induce ovarian maturation and spawning in the black tiger shrimp *Penaeus monodon*. *Aquaculture*. 2006; 261: 1447– 1454.
7. Poltana P, Lerkitkul T, Pongtippatee-Taweepreda P, Asuvapongpatana S, **Wongprasert K**, Sriurairatana S, Chavadej J, Sobhon P, Olive P, Withyachumnarnkul B. Culture and development of the polychaete *Perinereis* cf. *nuntia*. *Invertebrate Reproduction and Development*. 2007; 50 (1): 13–20
8. Li Y*, **Wongprasert K**, Shekhar M, Ryan J, Dierens L, Meadows J, Preston N, Coman G, and Lyons RE. Development of two microsatellite multiplex systems for black tiger shrimp *Penaeus monodon* and its application in genetic diversity study for two populations. *Aquaculture*. 2007; 266: 279–288.
9. **Wongprasert K**, Sangsuriya P, Phongdara A, Senapin S. Cloning and characterization of a caspase gene from black tiger shrimp (*Penaeus monodon*)-infected with white spot syndrome virus (WSSV). *Journal of Biotechnology*. 2007; 131: 9–19.
10. Pratoomthai B, Sakaew W, Sriurairatana S, **Wongprasert K**, Withyachumnarnkul B*. Retinopathy in stunted black tiger shrimp *Penaeus monodon* and possible association with Laem-Singh virus (LSNV). *Aquaculture*. 2008; 284: 53–58
11. Thichanpiang P, Khanobdee K, Kitiyanant Y, and **Wongprasert K**. Green tea poly (-) - epigallocatechin-3- gallate (EGCG) protects against hydrogen peroxide-induced nuclear translocation of P53. *J. Neurochem*. 2009; 110, supplement 2, September
12. Buranajitpirom D, Asuvapongpatana S, Weerachatanukul W, **Wongprasert K.**, Namwong W, Poltana P, Withyachumnarnkul B. Adaptation of the black tiger shrimp, *Penaeus monodon*, to different salinities through an excretory function of the antennal gland. *Cell Tissue Res*. 2010; 340:481–489.
13. Wetchateng T, Friedman CS, Wight NA, Lee PY, Teng PH, Sriurairattana S, **Wongprasert K**, Withyachumnarnkul B. Withering syndrome in the abalone *Haliotis diversicolor supertexta*. *Dis Aquat Org*. 2010; 90: 69–76

14. Kanjana K, Radtanatip T, Asuvapongpatana S, Withyachumnarnkul B, **Wongprasert K*** Solvent extracts of the red seaweed *Gracilaria fisheri* prevent *Vibrio harveyi* infections in the black tiger shrimp *Penaeus monodon*. *J. Fish Shellfish Immun* 2011; 30: 389-96.
15. Jitsanong T, Khanobdee K, Piyachaturawat P, **Wongprasert K*** Diarylheptanoid 7- (3,4 dihydroxyphenyl)-5-hydroxy-1-phenyl-(1E)-1-heptene from *Curcuma comosa* Roxb. protects retinal pigment epithelial cells against oxidative stress-induced cell death. *Toxicol in Vitro* 2011; 25: 167–76.
16. Suttisrisung S., Senapin S., Withyachumnarnkul B., **Wongprasert K.*** Identification and characterization of a novel legume-like lectin cDNA sequence from the red marine algae *Gracilaria fisheri*. *J. Bioscience* 2011; 36 (5): 1-11.
17. Pratoomthai B, Sakaew W, Udomkit A, **Wongprasert K**, Chang ES, Withyachumnarnkul B. Decreased level of crustacean hyperglycemic hormone (CHH) in black tiger shrimp *Penaeus monodon* suffering from Monodon Slow-Growth Syndrome (MSGs). *Aquaculture* 2012; 350-353: 19–25.
18. Thichanpiang P, Khanobdee K, Kitiyanant Y, **Wongprasert K***. Green Tea epigallocatechin-3-gallate protects against oxidative stress-induced nuclear translocation of p53 and apoptosis in retinal pigment epithelial cells, ARPE-19. *Journal of Agricultural Science* 2013; 5(4): 43-55.
19. **Wongprasert K***, Rudtanatip T, Praiboon J. Immunostimulatory activity of sulfated galactans isolated from the red seaweed *Gracilaria fisheri* and development of resistance against white spot syndrome virus (WSSV) in shrimp. *Fish & Shellfish Immunology* 2013: 1-9. <http://dx.doi.org/10.1016/j.fsi.2013.10.010>
20. Rudtanatip T, Asuvapongpatana S, Withyachumnarnkul B, and **Wongprasert K*** Sulfated galactans isolated from the red seaweed *Gracilaria fisheri* targeted the envelope proteins of white spot syndrome virus and protected against viral infection in shrimp haemocytes. *J. Gen. Virol*, In press.