

CURRICULUM VITAE

1. NAME: Bhinyo Panijpan, Ph.D
BIRTH: 19 Aug, 1942, Bangkok, Thailand

2. PRESENT POSITION:

- Senior researcher, Center of Excellence for Shrimp Molecular Biology and Biotechnology, Mahidol University (2015-)
- Senior Consultant, Institute for Innovative Learning, Mahidol University, Thailand (2010-)
- Senior Consultant, Faculty of Science, Mahidol University, Thailand (2008-2016)

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3. EDUCATION:

- B.Sc. (Hons) (Biochemistry) University of Queensland, Australia (1965)
- Ph.D. (Molecular Biophysics) King's College London (1973)
- Certificate, Risk Assessment and Prevention in Local Community Development and Planning, Gothenberg, Sweden (1994)

4. EXPERIENCE

4.1 Research

Substantial contributions (140 papers) on

- Thiamine deficiency
- Antimalarial drug action
- Iodine deficiency
- Science and Mathematics education
- Biodiversity of the Siamese fighting fish and other aquatic animals

4.2 Administrative Duty

4.2.1 Mahidol University and Science Societies

- Chairman, Department of Biochemistry, Faculty of Science, Mahidol University, Thailand (1996-1998)
- Deputy Dean for Research and Planning, Mahidol University, Thailand (1987-1991)
- Head, Center of Bioresearch for Development, Mahidol University (1987-1989)
- President, Chemical Society of Thailand (1991-1992)
- Vice President, Science Society of Thailand (1996-2001)
- Chairman, Biochemical Section, The Science Society of Thailand (1984-1985)
- Chairman, The 31st International Chemistry Olympiad, Bangkok, Thailand (1999)
- Director, Institute for Innovative Learning, Mahidol University (2002-2010)

4.2.2 Social Service

- Team leader " Campaigns about Iodine Detection Kit (I-Kit) for local communities countrywide " (1988-1992)
- Academic chair, subcommittee on " Dangerous Goods Act" of Thailand, its by laws and handbooks (1992-2004)

- Coordinator for Science Education Research Program of the Thailand Research Fund (1997-2000)
- Consultant, National Economic and Social Development Board, Committee on Transport of Dangerous Goods (1997-2005)
- Consultant, Port Authority of Thailand, on Risk Assessment and Environmental Impact (1991-2000)

4.3 Editorial Duty

- Member, Editorial Board of Bioscience Education e-Journal (2008-present)
- Member, Editorial Board of Biochemistry and Molecular Biology Education (2000-2004)
- Member, Editorial Board of Journal of the Science Society of Thailand (ScienceAsia) (1980-2004)
- Member of Biochemical Education Board, International Union of Biochemistry (1985-1989)

4.4 Books

- Co-author “Chemical and Physical Principles in Biosciences” textbook. (Chapter 1: Micromolecules and Chapter 2 :Symmetry). Published by Siriraj Press, Thailand, 1976
- Co-author “Science” textbook for high school students (Book Chapter: Photosynthesis mechanism) published by Thai Wattana Panich Press Co., Ltd., Thailand, 1977
- Co-author “Instructional Materials for Basic Sciences” (Book Chapter: Thermodynamics) published by Sukhothai Thammathirat Open University, Thailand, 1980
- Co-author “Biochemistry” Textbook. (Chapter 1: Principles of Chemistry, Physics and Biomolecules and chapter 2 :Nucleic Acid) . Published by S&S Press, Bangkok, Thailand, 1987 first edition, 1999 second edition.
- DNA structure and function in TDR malaria workshop sponsored by WHO , Mahidol University, Thailand ,1991
- Co-editor “Risks and Dangers of Chemical Products” published by National Science and Technology Development Agency, Thailand, 2002
- Co-editor "Chemical Fire and Firefighting " published by ASEAN Institute for Public Health Development, Mahidol University, 2005
- Co-author “Buddhism” (Book Chapter: A Biologist’s Reflection in The Transforming Spiritual Landscape: Buddhist-Christian Encounters) published by Dharma Cloud Publishers, USA, 2005

4.5 Learning Media

- Co-author of about 40 student-centered CDs on science and mathematics topics at secondary and tertiary levels

5. AWARDS

- Distinguished senior scientist, The Science Society of Thailand (2015)
- Distinguished Alumnus Awardee of Mahidol University (2014)
- Supervisor of An Award- Winning Ph.D. Thesis, National Research Council of Thailand and Mahidol University (2011-2012)
- Distinguished Chemical Education Award by the Federation of Asian Chemical Societies (2013)
- Distinguished Chemical Education Award by the Chemical Society of Thailand (2012)

- Ajinomoto Lecture Award for Biotechnology in the Service of Communities (2005)
- Distinguished Alumnus of the Faculty of Science, Mahidol University (2005)
- Best Practice Awardee for Innovation in Safety, Ministry of Industry (2005)
- National Research Council of Thailand Distinguished Invention Awardee (1999)
- Distinguished Teacher (tertiary level) Awardee (The Science Society of Thailand) (1999)
- Mahidol University Distinguished Invention Awardee (1998)
- National Exemplary Father of the Year (1994)
- Mahidol University Distinguished Research Awardee (1985)

6. SELECTED PUBLIC LECTURES

- Symposium Speaker on “Evolution of Betta Fish” at Communauté Internationale Pour Les Labyrinthides International Betta Club, Saint Remy, France, April 2017
- Keynote Speaker on “Innovation in Chemical Education” at 3rd International Seminar on Chemical Education, Universitas Islam Indonesia, Yogyakarta, 2017
- Keynote Speaker on “Innovation in Chemical Education” at 1st International Seminar on Chemical Education, Universitas Islam Indonesia, Yogyakarta, 2015
- Symposium Speaker on “The Siamese Fighting Fish” at The 37th Congress on Science and Technology (STT37) 10-12 October 2011, Bangkok, Thailand
- Symposium Speaker on “Wet and Dry Laboratory” at The 3rd Biochemistry and Molecular Biology (BMB) International Conference, Biology section meeting 6-8 April 2011, Chiang Mai, Thailand
- Plenary Speaker on “Simulation in Mathematics Education” at ThaiSim International Meeting 2011 24-26 March 2011, Ayudhya, Thailand
- Plenary Speaker on “Simulation and Games in Science Education” at ThaiSim International Meeting 2010 25-27 March 2011, Trang, Thailand
- Plenary Speaker on “Chemical Education” at Pure and Applied Chemistry International Conference 2010 (PACCON 2010) 21-23 January 2010, Ubon Ratchathanee, Thailand
- Plenary Speaker on “Molecular Biophysics” at The International Conference on Physics Education (ICPE) 2009 18-24 October 2009, Bangkok, Thailand
- Plenary Speaker on “Green and Microscale Chemistry: Cannizzaro Experiments” at Pure and Applied Chemistry International Conference 2009 14-16 January 2009, Pitsanulok, Thailand
- Plenary lecture on “Routine to Research: Science Education Innovation of a Science Professor” International Conference on Science and Mathematics Education, Quezon City, The Philippines, 27-29 October, 2008
- Panelist on “The Development Educational Research of Universities in Thailand” at Mahidol University Conference on “How to Start Research in Education” Mahidol University, 24 November, 2008
- Panelist on “Learner-Centred Activities, Classroom, Laboratory and Field Experience in Thailand ICASE Asian Symposium, Thailand, 2007
- Plenary lecture “Mahidol University’s experience in professional development of science/technology teachers” presented at “SciEd Asia-Pacific 2007”, Bangkok, Thailand
- Plenary lecture “An Innovation in Science and Technology Education” at ICASE Symposium Singapore, 2006
- Plenary lecture “Innovations in Processes to Enhance the Level of Science Learning for Professional Development and in the Graduate Learner: Usable Real Examples” 32th Conference on Science and Technology, Queen Sirikit Convention Center, Bangkok, 2006
- Plenary lecture “Mahidol integrated model of instruction (MIMI)” presented at the ICASE International Workshop on Promoting Scientific and Technological Literacy Through Science Toys and Out-of-School Science Activities, Chonburi, Thailand, 2005

- Plenary lecture “Thailand Country Report” 25th ASAIHL General Conference and Seminar, Bangkok, Thailand, 2002
- Speaker “Photosynthesis as a Model for Teaching Physical Chemistry, Chemistry and Mathematical Modeling” to Thai Science Teachers, Pattaya, March 2000
- Speaker “Science Education Research” 23rd, 24th, 25th Conference on Science and Technology, Thailand, 1997, 1998, 1999

7. ORGANIZER OF INTERNATIONAL EDUCATIONAL CONFERENCES

- Organizer “International Conference on Physics Education (ICPE) 2009: Development and Innovation in Physics Education” October 18-24, 2009, Bangkok, Thailand
- Track Co-Chair “International Simulation and Gaming Association” 40th Anniversary & 1st S.E.Asian Conference Theme: *Learn to game, Game to learn*, 29 June to 3 July 2009, Singapore
- Organizer “ICASE Asian Symposium 2007”, Pattaya, Thailand
- Organizer of 12th International Conference on Chemical Education, Bangkok, Thailand, 1992

8. SPECIAL ACTIVITIES RELATING TO CHEMICAL EDUCATION

- Supervisory Team Member, “Thailand Chemistry Olympiad Medal Winning Team” to Lodz, Poland, 1991
- Deputy Team Leader “Thailand Chemistry Olympiad Silver Metal Winning Team” to Montreal, Canada, 1997
- Organizing Chairman, The 31st International Chemistry Olympiad in Thailand, 1999
- Plenary Speaker on Subjects related to Education in International and National Conference, 2000-2007
- Speaker in Summer Workshops on Chemical and Biochemical Education, for high school teachers and university faculty staff, 1980-2008

9. PUBLICATIONS

1. Cortijo, M., **Panijpan, B.**, & Gratzer, W. B. (1973). Guanidine hydrochloride and circular dichroism of random coil polypeptides. *Int. J. Peptide Protein Res.*, 5, 179-186. (Chemical Biology & Drug Design 2007 Impact Factor = 2.043)
2. **Panijpan, B.**, & Gratzer, W. B. (1974). Conformational nature of monomeric glucagon. *Eur. J. Biochem*, 45, 547-553. (FEBS Journal 2006 Impact Factor = 3.033)
3. **Panijpan, B.** (1977). The buoyant density of DNA and the G + C content. *J. Chem. Educ.*, 54, 172-173. (2006 Impact Factor = 0.439)
4. Svasti, J., & **Panijpan, B.** (1977). SDS-polyacrylamide gel electrophoresis-A simple explanation of why it works. *J. Chem. Educ.*, 54, 560-562. (2006 Impact Factor = 0.439)
5. **Panijpan, B.** (1977). Chirality of the disulfide bond in biomolecules. *J. Chem. Educ.*, 54, 670-672. (2006 Impact Factor = 0.439)
6. Rungruangsak, K., Tosukhowong, P., **Panijpan, B.**, & Vimokesant, S. (1977). Chemical interactions between thiamine and tannic acid I. *Am. J. Clin. Nutr.*, 30, 1680-1685. (2006 Impact Factor = 6.562)
7. Kositawatanakul, T., Tosukhowong, P., Vimokesant, S., & **Panijpan, B.** (1977). Chemical interactions between thiamine and tannic acid II. *Am. J. Clin. Nutr.*, 30, 1686-1691. (2006 Impact Factor = 6.562)
8. **Panijpan, B.**, & Yamarat, P. (1977) Succinylated glucagon: Preparation and hormonal action. *J. Sci. Soc. Thailand*, 3, 27-33. (ScienceAsia 2010 Impact Factor = 0.176)

9. **Panijpan, B.** (1977). Effects of solvent and temperature on succinylated glucagon conformation. *J. Sci. Soc. Thailand*, 3, 34-41. (ScienceAsia 2010 Impact Factor = 0.176)
10. **Panijpan, B.**, & Vilartsakdanon, P. (1977). Different results arising from two types of thiochrome assays of thiamine-tannic acid reaction. *J. Sci. Soc. Thailand*, 3, 131-134. (ScienceAsia 2010 Impact Factor = 0.176)
11. **Panijpan, B.**, Vilartsakdanon, P., Rungruangsak, K., & Vimokesant, S. L. (1978). Resolution of the initial phase controversy in the thiamine-polyphenol reaction. *Int. J. Vit. Nutr. Res.*, 48, 262-267. (2006 Impact Factor = 0.862)
12. Rungruangsak, K., & **Panijpan, B.** (1978). Absorbance change in the visible region should be reconsidered for assay of starch cleavage by α -amylase. *Clin. Chem.*, 24, 1085. (2006 Impact Factor = 5.454)
13. Poopyruchpong, N., Rungruangsak, K., Nimmanpisut, S., **Panijpan, B.**, & Ratanabanangkoon, K. (1979). Some physico-chemical properties of 2,4,3'5'-tetrahydroxystilbene. *J. Sci. Soc. Thailand*, 4, 163-167. (ScienceAsia 2010 Impact Factor = 0.176)
14. Rungruangsak, K., & **Panijpan, B.** (1979). The mechanism of action of salivary amylase. *J. Chem. Educ.*, 56, 423-424. (2006 Impact Factor = 0.439)
15. **Panijpan, B.**, & Detkriangkraikun, P. (1979). High voltage paper electrophoresis as an alternative method for thiamine determination in the presence of substances capable of interfering with thiochrome formation. *Am. J. Clin. Nutr.*, 32, 723-725. (2006 Impact Factor = 6.562)
16. **Panijpan, B.** (1979). The pteridine ring of folic acid-lactam or lactim form. *Biochem. Educ.*, 7, 38. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
17. **Panijpan, B.** (1979). Protonation scheme in acid-induced DNA strand separation. *Trends Biochem. Sci.*, September N 210-211. (2006 Impact Factor = 13.863)
18. **Panijpan, B.** (1979). The meaning of p in sedimentation equations. *Biochem. Educ.*, 7, 90. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
19. **Panijpan, B.** (1979). The singly protonated structure of thiamine. *J. Chem. Educ.*, 56, 805-806. (2006 Impact Factor = 0.439)
20. Rantanaubolchai, K., & **Panijpan, B.** (1979). Cyanogen bromide, a good reagent for assay of thiamine in urine. *Clin. Chem.*, 25, 1670-1671. (2006 Impact Factor = 5.454)
21. Yuthavong, Y., Wilairat, P., **Panijpan, B.**, Potiwan, C., & Beale, G. H. (1979). Alteration on membrane proteins of mouse erythrocytes infected with different species and strains of malaria parasites. *Comp. Biochem. Physiol.*, 63B, 83-85. (2006 Impact Factor = 1.532)
22. **Panijpan, B.** (1980). A closer look at some biological heterocyclic bases. *Biochem. Educ.*, 8(1), 27-28. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
23. Rantanaubolchai, K., & **Panijpan, B.** (1980). Determination of thiamine modification by polyphenols using $K_3Fe(CN)_6$, $HgCl_2$ and $CNBr$. *Int. J. Nutr. Res.*, 50, 3-9. (2006 Impact Factor = 0.862)
24. **Panijpan, B.** (1980). A model building exercise. *Biochem. Educ.*, 8(4), 104-105. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
25. Rantanaubolchai, K., Pikulkarntalert, S., & **Panijpan, B.** (1980). A comparison of three reagents in converting thiamine to thiochrome in the presence of extracts and polyphenols. *Experientia*, 36, 825-826. (Cellular and Molecular Life Sciences 2006 Impact Factor = 4.655)
26. Jearnpipatkul, A., Govitrapong, P., Yuthavong, Y., Wilairat, P., & **Panijpan, B.** (1980). Binding of antimalarial drugs to hemozoin from *Plasmodium berghei*. *Experientia*, 36, 1063-1064. (Cellular and Molecular Life Sciences 2006 Impact Factor = 4.655)

27. **Panijpan, B.** (1980). Do chiral molecules necessarily show optical activity? *Biochem. Educ.*, 8(4), 101. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
28. **Panijpan, B.** (1980). Biochemistry in Thailand. The struggle of a "young" science. Trends in Biochemical Sciences, December III-IV. (2006 Impact Factor = 13.863)
29. Jearnpipatkul, A., & **Panijpan, B.** (1980). Molecular complexes of quinine antimalarials with iron-porphyrin components of protease-digested methemoglobin. *Chem-Biol. Interact.*, 33, 83-90. (2006 Impact Factor = 1.800)
30. **Panijpan, B.**, & Ratanabulchai, K. (1980). Kinetics of thiamine-polyphenol interactions and mechanism of thiamine disulphide formation. *Int. J. Vit. Nutr. Res.*, 50, 247-253. (2006 Impact Factor = 0.862)
31. Jaroensanti, J., & **Panijpan, B.** (1981). Kinetics of bisulphite cleavage of the three biological phosphorylated derivatives of thiamine. *Int. J. Vit. Nutr. Res.*, 51, 34-38. (2006 Impact Factor = 0.862)
32. Rungsitayakon, A., Wilairat, P., & **Panijpan, B.** (1981). On the pH dependence of binding of berberine to DNA. *J. Pharm. Pharmacol.*, 33, 125-127. (2006 Impact Factor = 1.533)
33. Puangkanok, P., Jaroensanti, J., & **Panijpan, B.** (1981). A kinetic study of thiamine cleavage by bisulphite using a simple visible spectrophotometer. *Biochem. Educ.*, 9(3), 94-95. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
34. Ratanabulchai, K., Jaroensanti, J., & **Panijpan, B.** (1981). Cyanogen bromide, a good reagent for assay of thiamine in biological extracts. *Clin. Chem.*, 27, 1777-1778. (2006 Impact Factor = 5.454)
35. **Panijpan, B.** (1981). Recent advances in the chemistry and biochemistry of thiamine. *J. Sci. Soc. Thailand*, 7, 61-70. (ScienceAsia 2010 Impact Factor = 0.176)
36. Jaroensanti, J., & **Panijpan, B.** (1981). Effects of hypochlorite on thiamine and its derivatives. *Experientia*, 37, 1248-1250. (Cellular and Molecular Life Sciences 2006 Impact Factor = 4.655)
37. Vimokesant, S., Kunjara, S., Rungruangsak, K., Nakornchai, S., & **Panijpan, B.** (1981). Beriberi caused by antithiamin factors in food and its prevention. *Ann. N.Y.Acad. Sci.*, 378, 123-136. (2006 Impact Factor = 1.930)
38. **Panijpan, B.**, & Chetupon, S. (1981). Reactions between phosphorylated thiamines and tannic acid as followed by difference spectroscopy. *Int. J. Vit. Nutr. Res.*, 51, 380-384. (2006 Impact Factor = 0.862)
39. Suthipark, U., Krungkrai, J., Krungkrai, A., Jearnpipatkul, Yuthavong, Y., & **Panijpan, B.** (1982). Superoxide dismutase in mouse red blood cells infected with *Plasmodium berghei*. *J. Parasitol.*, 68, 337-339. (2006 Impact Factor = 1.300)
40. Kajadphai, A., Vimokesant, S., & **Panijpan, B.** (1982). Precipitation of thiamine and tannic acid by calcium and magnesium cations. *Int. J. Vit. Nutr. Res.*, 52, 102-103. (2006 Impact Factor = 0.862)
41. Sirawaroporn, W., **Panijpan, B.**, & Yuthavong, Y. (1982). *Plasmodium berghei*: Uptake and distribution of chloroquine in infected mouse erythrocytes. *Expt. Parasit.*, 54, 260-270. (2006 Impact Factor = 1.108)
42. Kimura, M., **Panijpan, B.**, & Itokawa, Y. (1982). Separation of thiamine and its phosphate esters by reversed-phase high performance liquid chromatography. *J. Chromatog.*, 245, 141-143. (Journal of Chromatography A 2006 Impact Factor = 3.554; Journal of Chromatography 2006 Impact Factor = 2.647)
43. **Panijpan, B.**, Kimura, M., & Itokawa, Y. (1982). Separation of thiamine and its common degradation and oxidation products by high-performance liquid chromatography. *J. Chromatog.*, 245, 144-147. (Journal of Chromatography A 2006 Impact Factor = 3.554; Journal of Chromatography B 2006 Impact Factor = 2.647)

44. **Panijpan, B.**, Kimura, M., & Itokawa, Y. (1983). Separation and determination of thiamine, pyriethamine, pyridine, 2-methyl-4-amino-5-hydroxymethylpyrimidine and 4-methyl-5-(hydroxyethyl) thiazole by reversed-phase high performance liquid chromatography. *J. Chromatog.*, 258, 307-309. (Journal of Chromatography A 2006 Impact Factor = 3.554; Journal of Chromatography B 2006 Impact Factor = 2.647)
45. **Panijpan, B.**, & Kantakanit, N. (1983). Chloropromazine enhances haemolysis induced by hemin. *J. Pharm. Pharmacol.*, 35, 473-475. (2006 Impact Factor = 1.533)
46. **Panijpan, B.**, Rao, Ch. M., & Baslasubramanian, D. (1983). Interaction of antimalarial drugs with hemin. *Bioscience Rep.*, 3, 1113-1117. (2006 Impact Factor = 1.717)
47. Balasubramanian, D., Rao, Ch. M., & **Panijpan, B.** (1984). The malarial parasite monitored by photoacoustic spectroscopy. *Science*, 223, 828-830. (2006 Impact Factor = 30.028)
48. **Panijpan, B.** (1984). Biochemical Education: Feasible research regardless of resource. *Biochem. Educ.*, 12(3), 133-134. (Biochemistry and Molecular Biology Education 2006 Impact Factor = 0.368)
49. Yuthavong, Y., **Panijpan, B.**, Ruenwongsa, P., & Sirawaraporn, W. (1985). Biochemical aspects of drug action and resistance in malaria parasites. *Southeast Asian. J. Trop. Med. Pub. Hlth.*, 16, 459-472. (Impact Factor: 0.817)
50. Habe, T., Shimada, M., Okamoto, T., **Panijpan, B.**, & Higuchi, T. (1985). Incorporation of dioxygen into the hydroxylated product during the C-C single bond cleavage of 1,2 bis(p-methoxyphenyl)-propane-1,3-diol catalysed by hemin. A novel model system for the hemoprotein ligninase. *J. Chem. Soc. Chem. Commun.*, 19, 1323-1324. (Chemical Communications 2006 Impact Factor = 4.521)
51. Shimada, M., Habe, T., Higuchi, T., Okamoto, T., & **Panijpan, B.** (1987). Biomimetic approach to lignin degradation II. The mechanism of oxidative C-C bond cleavage reactions of lignin model compounds with natural iron (II) porphyrin chloride as a heme-enzyme model system. *Holzforschung*, 41, 277-285. (2006 Impact Factor = 1.014)
52. **Panijpan, B.**, Stuyt, J. C., Ruenwongsa, P., Bhumiratana, A., Attathom, S., Vongpanitlerd, S., Piyanontalee, D., & Sripaipan, C. (1992). "Case studies of RD & E performance in biotechnology" by Thailand Development and Research Institute Foundation, 141 pages.
53. **Panijpan, B.**, Stuyt, J. C., Ruenwongsa, P., Bhumiratana, A., Attathom, S., Vongpanitlerd, S., Piyanontalee, D., & Sripaipan, C. (1992). "Future potential of biotechnology in Thailand" by Thailand Development and Research Institute Foundation, 88 pages.
54. Udomvaraphunt, S., Chaksangchaichot, P., Sithisarn, P., Chosungnoen, N., Varavinit, S., Panbangred, W., **Panijpan B.**, & Meevootisom V. (1993). Penicillin acylase: Production, isolation, purification and modification. *Microb. Util. Renewable Resource*, 8, 49-53. (Impact Factor: n/a)
55. Angkatavanich, J., Suthutvoravut, U., **Panijpan B.**, & Tontisirin, K. (1993). Effects of multivitamin supplementation for improvement of thiamin, riboflavin and retinol nutrition in pediatric patients. *J. Med. Ass. Thailand 69 Suppl.*, 2, 138- 145. (Impact Factor:0.42)
56. Ruenwongsa, P., & **Panijpan, B.** (1995). Science and technology publications of state universities in Thailand. *J. Sci. Soc. Thailand*, 21, 207-214. (ScienceAsia 2010 Impact Factor = 0.176)
57. Ruenwongsa, P., & **Panijpan, B.** (1996). Citation analysis of ISI-indexed publications from Thailand. *J. Sci. Soc. Thailand*, 22, 61-70. (ScienceAsia 2010 Impact Factor = 0.176)
58. Thai Patent (No. 9559): The Thailand Research Fund by Ruenwongsa, P., & **Panijpan, B.** (1997). A field test kit for iodate in salt.

59. Kongkiattikajorn, J., & **Panijpan, B.** (2006). Increased thermostability and activity of chemically modified bromoperoxidase from the red alga *Gracilaria tenuistipitata*. *ScienceAsia 32 Supplement, 1*, 19-23. (2010 Impact Factor = 0.176)
60. Kongkiattikajorn, J., Ruenwongsa, P., & **Panijpan, B.** (2006). Chemical modification of lysine and histidine residues in *Gracilaria tenuistipitata* bromoperoxidase: Effect on stability and activity. *ScienceAsia 32 Supplement, 1*, 37-42. (2010 Impact Factor = 0.176)
61. Chanchaichaovivat, A., **Panijpan, B.**, & Ruenwongsa, P. (2007). Screening and identification of yeast strains from fruits and vegetables: Potential for biological control of postharvest chili anthracnose (*Colletotrichum capsici*). *Biol. Control, 42*, 326-335. (2007 Impact Factor = 1.572)
62. Phornphisutthimas, S., **Panijpan, B.**, Wood, E.J., & Booth, A.G. (2007). Improving Thai students' understanding of concepts in protein purification by using Thai and English versions of a simulation program. *Biochem. Mol. Biol. Educ.*, *35*, 316-321. (2007 Impact Factor = 0.504)
63. Phornphisutthimas, S., Thamchaipenet, A., & **Panijpan, B.** (2007). Conjugation in *Escherichia coli*: A laboratory exercise. *Biochem. Mol. Biol. Educ.*, *35*(6), 440-445. (2007 Impact Factor = 0.504)
64. Kaveevivitchai, C., Luptrawan, L., **Panijpan, B.**, Piaseu, N., & Sirikoon, N. (2007). Supportive-educational program: Using bioscientific multimedia to enhance clinical problem solving skill in general nurse practitioner students. *Thai J. Nurs. Res.*, *11*(4) 295-308. (Impact Factor: n/a)
65. Suthiphongchai, T., Boonsiri, P., & **Panijpan, B.** (2008). Vanadium-dependent bromoperoxidases from *Gracilaria* algae. *J. Appl. Phycol.*, *20*, 271-278. (2008 Impact Factor = 1.209)
66. Chanchaichaovivat, A., **Panijpan, B.**, & Ruenwongsa, P. (2008). Putative modes of action of *Pichia guilliermondii* strain R13 in controlling chilli anthracnose after harvest. *Biol. Control, 47*, 207-215. (2008 Impact Factor = 1.805)
67. **Panijpan, B.**, Ruenwongsa, P., & Sriwattanarothai, N. (2008). Problems encountered in teaching/learning integrated photosynthesis: A case of ineffective pedagogical practice? *Biosci. Educ. E-journal. Volume 12: December 2008* (www.bioscience.heacademy.ac.uk/journal/vol12/beej-12-1.pdf). (Impact Factor: 0.30)
68. Chanchaichaovivat, A., **Panijpan, B.**, & Ruenwongsa, P. (2008). Integrating hands-on of yeast biocontrol into secondary school class and undergraduate student. *J. Biol. Education, 43*(1), 40-43. (2008 Impact Factor = 0.400)
69. Wuttisela, K., **Panijpan, B.**, Triampo, W., & Triampo, D. (2008). Optimization of the water absorption by cross-linked agar-g-polyacrylic acid. *Polymer (Korea), 32*, 537-543. (2008 Impact Factor = 0.610)
70. Jittam, J., Ruenwongsa, P., & **Panijpan, B.** (2008). Applying symmetries of common objects to help students understand stereoselectivity for apparently symmetric substrates. *Biosci. Educ. E-journal. Volume 12: December 2008* (www.bioscience.heacademy.ac.uk/journal/vol12/beej-12-6.pdf). (Impact Factor: 0.30)
71. Kaveevivitchai, C., Chuengkriankrai, B., Luecha, Y., Thanooruk, R., **Panijpan, B.**, & Ruenwongsa, P. (2009). Enhancing nursing students' skill in vital signs assessment by using MCAI with integrated knowledge of anatomy and physiology. *Nurs. Educ. Today, 29*, 65-72. (2009 Impact Factor = 0.907)
72. Phonchaiya, S., Rajviroongit, S., Wright, T., Blanchfield, J. T., & **Panijpan, B.** (2009). A facile solvent-free Cannizzaro reaction: An instructional model for introductory organic chemistry laboratory. *J. Chem. Educ.*, *86*(1), 85-86. (2009 Impact Factor = 0.586)
73. Nopparatjamjomras, S., Chitaree, C., & **Panijpan, P.** (2009). A handheld LED coloured-light mixes for students to learn collaboratively the primary colors of light. *Physics education, 44*(2), 123-128. (Impact Factor:0.39)

74. Jittam, P., Boonsiri, P., Promptmas, C., Sriwattanarothai, N., Archavarungson N., Ruenwongsa, P., & **Panijpan, B.** (2009). Red seaweed enzyme-catalyzed bromination of bromophenol red : An inquiry-based kinetics laboratory for undergraduates. *Biochem. Mol. Biol. Educ.*, 37(2), 99-105. (2009 Impact Factor = 0.292)
75. Monvises, A., Nuangsaeng, B., Sriwattanarothai, N., & **Panijpan, B.** (2009). The Siamese fighting fish: Well-known generally but little-known scientifically. *ScienceAsia*, 35(1), 8-16. (Impact Factor = 0.176)
76. Phuapaiboon, U, **Panijpan, B.**, & Osotchan, T. (2009). Learning about modes in atomic force microscopy by hands-on activities based on a simple apparatus. *Physics Education*, 44(3), 306-309. (Impact Factor: 0.39)
77. Ketpichainarong, W., Ruenwongsa, P., & **Panijpan, B.** (2009). Enhancing student conceptualization of enzyme activity using a cellulose digesting enzyme: An Inquiry-based approach. *International Journal of Learning*, 16(2), 17-31. (Impact Factor: 0.11)
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127. Senapin, S., Phiwsaiya, K., Laosinchai, P., Kowasupat, C., Ruenwongsa, & P., **Panijpan, B.** (2014). Phylogenetic analysis of parasitic trematodes of the genus *Euclinostomum* found in trichopsis and betta fish. *Journal of Parasitology*, *100*(3), 368–371. (Impact Factor: 0.80)
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133. **Panijpan, B.**, Sriwattanothai, N., Kowasupat, C., Ruenwongsa, P., Jeenthong, T., & Phumchoosri, A. (2017). Biodiversity of bubble-nest building and mouth-brooding fighting fish species of the genus *Betta* in Southeast Asia. *Thailand Natural History Museum Journal*, *11*(1), 1-21. (Impact Factor: n/a)

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Total citations of not less than 1,100, h-index ~14.

Abbreviated CV

- 1. NAME:** Bhinyo Panijpan, Ph.D
BIRTH: 19 Aug, 1942, Bangkok, Thailand

2. POSITIONS

- Senior researcher, Center of Excellence for Shrimp Molecular Biology and Biotechnology, Mahidol University (2015-)
- Senior Consultant, Institute for Innovative Learning, Mahidol University, Thailand (2010-)
- Senior Consultant, Faculty of Science, Mahidol University, Thailand (2008-2016)

Tel: 6681-813-4322

e-mail: bhinyop@gmail.com

3. EDUCATION

- B.Sc. (Hons) (Biochemistry) University of Queensland, Australia (1965)
- Ph.D. (Molecular Biophysics) King's College London (1973)

4. RESEARCH EXPERIENCE

Substantial contribution (140 papers) on

- Thiamine deficiency
- Antimalarial drug action
- Iodine deficiency
- Science and Mathematics education
- Biodiversity of the Siamese fighting fish and other aquatic animals

5. OTHER EXPERIENCES

5.1 Administrative Duty

5.1.1 Mahidol University and Science Societies

- Senior researcher, Center of Excellent for Shrimp Molecular Biology and Biotechnology, Mahidol University (2015-)
- Senior consultant, the Institute of Innovative Learning, Mahidol University (2010-)
- Director, the Institute of Innovative Learning, Mahidol University (2002-2010)
- Chairman, The 31st International Chemistry Olympiad, Bangkok, Thailand (1999)
- Chairman, Department of Biochemistry, Faculty of Science, Mahidol University, Thailand (1996-1998)
- President, Chemical Society of Thailand (1991-1992)
- Head, Center of Bioresearch for Development, Mahidol University (1987-1989)
- Chairman, Biochemical Section, The Science Society of Thailand (1984-1985)

5.1.2 Social Service

- Team leader “Campaigns about Iodine Detection Kit (I-Kit) for local communities countrywide” (1988-1992)
- Academic chair, subcommittee on “Dangerous Goods Act” of Thailand, its by laws and handbooks (1992-2004)
- Coordinator for Science Education Research Program of the Thailand Research Fund (1997-2000)

5.2 Editorial Duty

- Member, Editorial Board of Bioscience Education e-Journal (2008-present)

- Member, Editorial Board of Biochemistry and Molecular Biology Education (2000-2004)
- Member, Editorial Board of Journal of the Science Society of Thailand (ScienceAsia) (1980-2004)
- Member of Biochemical Education Board, International Union of Biochemistry (1985-1989)

6. AWARDS

- Distinguished senior scientist , The Science Society of Thailand (2015)
- Distinguished Alumnus Awardee of Mahidol University (2014)
- Distinguished Chemical Education Award by the Federation of Asian Chemical Societies (2013)
- Distinguished Chemical Education Award by the Chemical Society of Thailand (2012)
- Supervisor of an Award-Winning Ph.D. Thesis, National Research Council and Mahidol University (2011-2012)
- Ajinomoto Lecture Award for Biotechnology in the Service of Communities (2005)
- Distinguished Alumnus of the Faculty of Science, Mahidol University (2005)
- Best Practice Awardee for Innovation in Safety, Ministry of Industry (2005)
- National Research Council of Thailand Distinguished Invention (I-Kit) Awardee (1999)
- Distinguished Teacher (tertiary level) Awardee (The Science Society of Thailand) (1999)
- Mahidol University Distinguished Invention (I-Kit) Awardee (1998)
- Mahidol University Distinguished Research Awardee (1985)

7. PUBLICATIONS

Of the total of about 140 publications, 70 are on science research mostly in Biochemistry; 50 in Biochemistry / Molecular Biology / Biochemical / Biology Education Research; 20 are in science education in other disciplines, viz., nursing, mathematics, physics. Two of the Journal of Chemical Education papers have been on the reading list in all editions of Raymond Chang 's Physical Chemistry textbook. One paper in Science (AAAS) 1983 on drug- parasite target interaction in malaria. Total citations of not less than 1,100, h-index ~14.

ประวัติ

1. ชื่อ-นามสกุล รศ. ดร. ภิญโญ พานิชพันธ์

2. ตำแหน่งงาน

- ที่ปรึกษาผู้อำนวยการสถาบันนวัตกรรมการเรียนรู้ มหาวิทยาลัยมหิดล (2545-)
- ที่ปรึกษาคณบดี คณะวิทยาศาสตร์ มหาวิทยาลัยมหิดล (2553-2559)
- นักวิจัยอาวุโส หน่วยวิจัยเพื่อความเป็นเลิศเทคโนโลยีชีวภาพกุ้ง (2558-)
โทรศัพท์ 081-8134322 email: bhinyop@gmail.com , scbpn@mahidol.ac.th

3. ประวัติการศึกษา

- ปริญญาตรีชีวเคมี (เกียรตินิยม) มหาวิทยาลัย Queensland ประเทศออสเตรเลีย (2508)
- ปริญญาเอกชีวฟิสิกส์ระดับโมเลกุล มหาวิทยาลัย King's College London ประเทศอังกฤษ (2516)

4. ประสบการณ์การวิจัย

ผลงานวิจัย ประมาณ 140 papers ทางด้าน

- Thiamine deficiency
- Antimalarial drug action
- Iodine deficiency
- Science and Mathematics education
- Biodiversity of the Siamese fighting fish and other aquatic animals

5. ประวัติการทำงาน

- ผู้อำนวยการสถาบันนวัตกรรมการเรียนรู้ มหาวิทยาลัยมหิดล (2545-2553)
- หัวหน้าภาควิชาชีวเคมี คณะวิทยาศาสตร์ มหาวิทยาลัยมหิดล (2539-2541)
- รองคณบดีฝ่ายวิชาการและวางแผน คณะวิทยาศาสตร์ มหาวิทยาลัยมหิดล (2530-2533)
- ที่ปรึกษาและผู้เชี่ยวชาญพิเศษของสถาบันส่งเสริมการสอนวิทยาศาสตร์และเทคโนโลยี (2545-2548)
- กรรมการผู้ทรงคุณวุฒิในคณะกรรมการร่าง พ.ร.บ. วัตถุอันตราย (2535) และกรรมการบริหารวัตถุอันตราย (2532-2535)
- นายกสมาคมเคมี (2534-2535), ที่ปรึกษากสมาคมเคมี (2536-ปัจจุบัน)
- อุปนายกสมาคมวิทยาศาสตร์ฯ (2539-2545)
- ประธานสาขาชีวเคมีสมาคมวิทยาศาสตร์ฯ (2527-2528)
- ประธานดำเนินงานจัดงานเคมีโอลิมปิกระดับนานาชาติ (จัดที่ประเทศไทย 2542)
- ประธานจัดงานวิทยาศาสตร์และเทคโนโลยีแห่งประเทศไทย ครั้งที่ 12, 13 (2529-2530)
- กองบรรณาธิการ Biochemistry and Molecular Biology Education (2543-2547) และ Science Asia (JSST) (2518-2548) และ BioScience E- journal (2550-ปัจจุบัน)

6. ความชำนาญพิเศษ

- การวิจัยด้านวิทยาศาสตร์และเทคโนโลยี และการพัฒนากระบวนการเรียนการสอน
- การเก็บรักษาและการขนส่งวัตถุอันตรายอย่างปลอดภัยและมาตรการพิทักษ์สิ่งแวดล้อม
- งานวิจัยด้านชุดตรวจสอบไอโอดีน (รางวัลสิ่งประดิษฐ์ สنج.คณะกรรมการวิจัยแห่งชาติ)

7.รางวัล

- รางวัลนักวิทยาศาสตร์อาวุโสดีเด่น ของสมาคมวิทยาศาสตร์ฯ (2558)
- รางวัลศิษย์เก่าดีเด่น มหาวิทยาลัยมหิดล (2557)
- รางวัลสิ่งประดิษฐ์ จากสำนักงานคณะกรรมการวิจัยแห่งชาติ (2556)
- รางวัลนักสื่อสารเคมี ดีเด่น ของสหพันธ์สมาคมเคมี แห่งทวีปเอเชีย (2555)
- รางวัลนักเคมีศึกษาดีเด่น ของสมาคมเคมีแห่งประเทศไทย (2554)
- รางวัลอาจารย์ผู้ควบคุมวิทยานิพนธ์ดีเด่น มหาวิทยาลัยมหิดล (2554)
- รางวัลศิษย์เก่าดีเด่นคณะวิทยาศาสตร์ มหาวิทยาลัยมหิดล (2548)
- รางวัลนวัตกรรมสื่ออิเล็กทรอนิกส์ดีเด่นจากกรมสวัสดิการและคุ้มครองแรงงาน (2548)
- รางวัลอะซิโนะโมะโตะทางเทคโนโลยีชีวภาพเพื่อชุมชน (2548)
- รางวัลครูวิทยาศาสตร์ดีเด่นระดับอุดมศึกษา สมาคมวิทยาศาสตร์ฯ (2543)
- รางวัลสิ่งประดิษฐ์ จากสำนักงานคณะกรรมการวิจัยแห่งชาติ (2542)
- รางวัลมหิดลสาขาการประดิษฐ์ (2541)
- รางวัลนักวิจัยดีเด่นของมหาวิทยาลัยมหิดล (2526)
- รางวัลพ่อตัวอย่างแห่งชาติ (2537)

6. ผลงานวิชาการที่สำคัญ

- ผลงานวิจัยตีพิมพ์ในวารสารวิชาการนานาชาติ 140 เรื่อง สิทธิบัตร 1 เรื่อง
- พัฒนา web-based course ประมาณ 50 เรื่องสำหรับ มัธยมศึกษา-ปลาย และอุดมศึกษา
- พัฒนาแบบจำลอง อุปกรณ์ ประมาณ 10 ชิ้น
- เขียนบทต่างๆ ในตำราเรียน 7 เล่ม หนังสือ 2 เล่ม
- เป็น plenary speaker และ symposium speaker ประมาณ 20 ครั้ง

6. สิ่งตีพิมพ์

มีสิ่งตีพิมพ์ระดับนานาชาติ จำนวน 140 บทความ เป็นทางด้านวิทยาศาสตร์ จำนวน 70 บทความ และ 50 บทความทางด้านชีวเคมี ชีววิทยาระดับโมเลกุล ชีวเคมีศึกษา ชีววิทยา ศึกษา ส่วนอีก 20 บทความ เป็นทางด้าน คณิตศาสตร์ศึกษา ฟิสิกส์ศึกษา และ พยาบาลศาสตร์ศึกษา

มีบทความ 2 เรื่อง ได้ถูกนำไปใส่ไว้ใน reading list ของตำรา Physical Chemistry ระดับโลก แต่งโดย Raymond Chang

บทความในวารสารนานาชาติเหล่านี้ ได้รับ total citation เกินกว่า 1,100 และมีค่า h-index ประมาณ 14