CURRICULUM VITAE

NAME Mr. Thaned Pongjanyakul

PRESENT POSITION Professor

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ACADEMIC RECORD

B.Sc.Pharm.	Chulalongkorn University	1991
M.Sc.Pharm. (Pharmaceutics)	Mahidol University	1997
Ph.D. (Pharmaceutics)	Mahidol University	2000
Postdoctoral fellow	University of Otago Dunedin, New Zealand	2001

FIELD OF INTERESTS

Pharmaceutics
Polymer-clay application for pharmaceutics
Controlled release drug delivery
Transdermal drug delivery

RESEARCH AWARDS

1. **Student Thesis Award 2000** donated by Faculty of Graduate Studies, Mahidol University, Bangkok, Thailand.
2. **National Research Council Award: PhD Thesis Award 2001** donated by National Research Council of Thailand, Bangkok, Thailand.
3. **Outstanding New Researcher Award 2005** donated by Commission on Higher Education, Ministry of Education, Bangkok, Thailand and The Thailand Research Fund, Bangkok, Thailand.
4. **Nagai Award Thailand for Research 2005** donated by The Nagai Foundation Tokyo, Japan.
5. **National Research Council Award: Research Award 2006** donated by National Research Council of Thailand, Bangkok, Thailand.

6. **Top Reviewer in 2006 of International Journal of Pharmaceutics** awarded by Elsevier, Amsterdam, The Netherlands.
7. **Outstanding Research Award 2007** donated by Faculty of Pharmaceutical Sciences, Khon Kaen University, Khon Kaen, Thailand.
8. **Outstanding Research Award 2009** donated by Faculty of Pharmaceutical Sciences, Khon Kaen University, Khon Kaen, Thailand.
9. **Outstanding Master Thesis Award 2009 (Advisor)** donated by Graduate School, Khon Kaen University, Khon Kaen, Thailand.
10. **Researcher Award 2009 (Health Science)** donated by Khon Kaen University, Khon Kaen, Thailand.
11. **TRF-CHE-SCOPUS Researcher Award 2010 (Health Science)** donated by The Thailand Research Fund, Commission on Higher Education and Elsevier.
12. **Distinguished Alumni 2010 for Academic/Research Category** donated by Graduate Studies Mahidol University Alumni Association, Bangkok, Thailand.
13. **Researcher Award 2010 (Health Science)** donated by Khon Kaen University, Khon Kaen, Thailand.
14. **Silver Medal Researcher Award 2010** donated by Khon Kaen University, Khon Kaen, Thailand.
15. **Outstanding PhD Thesis Award 2012 (Advisor)** donated by Graduate School, Khon Kaen University, Khon Kaen, Thailand.
16. **Good Master Thesis Award 2012 (Advisor)** donated by Graduate School, Khon Kaen University, Khon Kaen, Thailand.
17. **Good PhD Thesis Award 2017 (Advisor)** donated by Graduate School, Khon Kaen University, Khon Kaen, Thailand.
18. **Gold Medal Researcher Award 2018** donated by Khon Kaen University, Khon Kaen, Thailand.

RESEARCH GRANT

1. TRF-CHE Research Grant for New Scholar 2003.
2. TRF-CHE Research Grant for Mid-Career University Faculty 2006.
3. Research Career Development Grant 2009.
4. Royal Golden Jubilee Ph.D. Grant 9, 2006.
5. Royal Golden Jubilee Ph.D. Grant 10, 2007.
6. Research grant 2007 from The National Nanotechnology Center (NANOTEC)

7. Royal Golden Jubilee Ph.D. Grant 11, 2008.
8. KKU Graduate School Grant, 2009.
9. TRF Research Scholar, 2009
10. Royal Golden Jubilee Ph.D. Grant 13, 2010.
11. KKU Graduate School Grant, 2012.
12. TRF Advanced Research Scholar, 2012
13. Royal Golden Jubilee Ph.D. Grant 17, 2014.
14. TRF Advanced Research Scholar, 2017
15. Royal Golden Jubilee Ph.D. Grant 21, 2019.

INTERNATIONAL PUBLICATIONS

1. **Pongjanyakul T***, Prakongpan S, Priprem A. Permeation studies comparing cobra skin with human skin using nicotine transdermal patches. Drug Dev Ind Pharm 2000; 26(6): 635-642.
2. **Pongjanyakul T***, Prakongpan S, Panomsuk S, Puttipipatkhachorn, Priprem A. Shed king cobra and cobra skins as model membranes for in-vitro nicotine permeation studies. J Pharm Pharmacol 2002; 54: 1345-1350.
3. **Pongjanyakul T***, Prakongpan S, Priprem A. Acrylic matrix type nicotine transdermal patches: in vitro evaluations and batch-to-batch uniformity. Drug Dev Ind Pharm 2003; 29(8): 843-853.
4. **Pongjanyakul T**, Medlicott NJ, Tucker IG. Melted glyceryl palmitostearate (GPS) pellets for protein delivery. Int J Pharm 2004; 271: 53-62.
5. Puttipipatkhachorn S, **Pongjanyakul T***, Priprem A. Molecular interaction in alginate beads reinforced with sodium starch glycolate or magnesium aluminum silicate, and their physical characteristics. Int J Pharm 2005; 293:51-62.
6. **Pongjanyakul T***, Priprem A, Puttipipatkhachorn S. Influence of magnesium aluminium silicate on rheological, release and permeation characteristics of diclofenac sodium aqueous gels in-vitro. J Pharm Pharmacol 2005; 57(4): 429-434.
7. **Pongjanyakul T***, Prakongpan S, Rungsardthong U, Chancham P, Priprem A. Characteristics and in vitro release of dextromethorphan resinates. Powder Technol 2005; 152: 100-106.

8. Preechagoon D, Sumyai V, Tontisirin K, Aumpon S, **Pongjanyakul T**. Formulation development and stability testing of oral morphine solution utilizing preformulation approach. J Pharm Pharmaceut Sci 2005; 8(2): 362-369.
9. **Pongjanyakul T***, Priprem A, Puttipipatkhachorn S. Investigation of novel alginate-magnesium aluminum silicate microcomposite films for modified-release tablets. J. Control Release 2005; 107(2): 343-356.
10. **Pongjanyakul T***, Priprem A, Chitropas P, Puttipipatkhachorn S. Effect of polysulfonate resins and direct compression fillers on multiple-unit sustained-release dextromethorphan resinate tablets. AAPS PharmSciTech 2005; 6(2): E190-E197.
11. **Pongjanyakul T***, Sungthongjeen S, Puttipipatkhachorn S. Modulation of drug release from glyceryl palmitostearate-alginate beads via heat treatment. Int J Pharm 2006; 319: 20-28.
12. **Pongjanyakul T***, Puttipipatkhachorn S. Xanthan-alginate composite gel beads: molecular interaction and in vitro characterization. Int J Pharm 2007; 331: 61-71.
13. **Pongjanyakul T***, Puttipipatkhachorn S. Alginate-magnesium aluminum silicate films: effect of plasticizers on film properties, drug permeation, and drug release from coated tablets. Int J Pharm 2007; 333: 34-44.
14. **Pongjanyakul T***, Puttipipatkhachorn S. Modulating drug release and matrix erosion of alginate matrix capsules by microenvironmental interaction with calcium ion. Eur J Pharm Biopharm 2007; 67(1): 187-195.
15. **Pongjanyakul T***. Characterization of microcrystalline cellulose loaded diclofenac calcium alginate gel beads in vitro. Pharmazie 2007; 62: 493-498.
16. **Pongjanyakul T***, Puttipipatkhachorn S. Alginate-magnesium aluminum silicate composite gels: Characterization of flow behavior, microviscosity and drug diffusivity. AAPS PharmSciTech 2007; 8(3): Article 72.
17. **Pongjanyakul T*.** Effect of sampling procedures of release testing on drug release and scale-up production feasibility of multiple-unit dextromethorphan resinate tablets: A technical note**.** AAPS PharmSciTech 2007; 8(3) Article 117.
18. Priprem A, **Pongjanyakul T**, Khamlert C, Chitropas P, Kanla P, Sripanidkulchai K. Shed skin of *Ophiophagus hannah*: structural topography and in vitro permeation of nicotine and phenol. Am. J. Animal Vet. Sci. 2007; 2(4): 84-88.

19. Priprem A, Khamlert C, **Pongjanyakul T**, Radapong S, Rittirod T, Chitropas P. Comparative permeation studies between scale region of shed snake skin and human skin in vitro. Am. J. Agril. Biol. Sci. 2008; 3(2): 444-450.
20. **Pongjanyakul T***, Puttipipatkhachorn S. Alginate-magnesium aluminum silicate composite films: Effect of film thickness on physical characteristics and permeability. Int J Pharm 2008; 346 (1-2): 1-9.
21. Khunawattanakul W, Puttipipatkhachorn S, Rades T, **Pongjanyakul T***. Chitosan-magnesium aluminum silicate composite dispersions: Characterization of rheology, flocculate size and zeta potential. Int J Pharm 2008; 351 (1-2): 227-235.
22. Suksri H, **Pongjanyakul T***. Interaction of nicotine with magnesium aluminum silicate at different pHs: Characterization of flocculate size, zeta potential and nicotine adsorption behavior. Colloids Surf., B 2008; 65(1): 54-60.
23. **Pongjanyakul T***. Alginate-magnesium aluminum silicate films: Importance of alginate block structures. Int J Pharm 2009; 365: 100-108.
24. **Pongjanyakul T***, Khunawattanakul W, Puttipipatkhachorn S. Physicochemical characterizations and release studies of nicotine-magnesium aluminum silicate complexes. Appl Clay Sci 2009; 44: 242-250.
25. **Pongjanyakul T***, Puttipipatkhachorn S. Polymer-magnesium aluminum silicate composite dispersions for improved physical stability of acetaminophen suspensions. AAPS PharmSciTech 2009; 10(2): 346-354.
26. Chantasart D, **Pongjanyakul T**, Higuchi WI, Li SK. Effects of oxygen-containing terpenes as skin permeation enhancers on the lipoidal pathways of human epidermal membrane. J Pharm Sci 2009; 98(10): 3617-3632.
27. **Pongjanyakul T***, Suksri H. Alginate-magnesium aluminum silicate films for buccal delivery of nicotine. Colloids Surf. B 2009; 74: 103-113.
28. Rojtanatanya S, **Pongjanyakul T***. Propranolol-magnesium aluminum silicate complex dispersions and particles: Characterization and factors influencing drug release. Int J Pharm 2010; 383: 106-115.
29. **Pongjanyakul T***, Suksri H. Nicotine-loaded alginate-magnesium aluminum silicate (SA-MAS) films: Importance of SA-MAS ratio. Carbohydr Polym 2010; 80: 1018-1027.
30. **Pongjanyakul T***, Rongthong T. Enhanced entrapment efficiency and modulated drug release of alginate beads loaded with drug-clay intercalated complexes as microreservoirs. Carbohydr Polym 2010; 81: 409-419.

31. Khunawattanakul W, Puttipipatkhachorn S, Rades T, **Pongjanyakul T***. Chitosan-magnesium aluminum silicate nanocomposite films: Physicochemical characterization and drug permeability. Int J Pharm 2010; 393: 219-229.
32. Preechagoon D, Sumyai V, Chulavatnatol S, Kulvanich P, Tessiri T, Tontisirin K, **Pongjanyakul T**, Uchaipichat V, Aumpon S, Wongvipaporn C. Formulation. Development of Morphine Sulfate Sustained-Release Tablets and Its Bioequivalence Study in Healthy Thai Volunteers. AAPS PharmSciTech 2010;10(3): 1449-1455.
33. Khunawattanakul W, Puttipipatkhachorn S, Rades T, **Pongjanyakul T***. Novel chitosan-magnesium aluminum silicate nanocomposite film coatings for modified-release tablets. Int J Pharm 2011; 407 (1-2): 132-141.
34. Kanjanabat S, **Pongjanyakul T***. Preparation and characterization of nicotine-magnesium aluminum silicate complex-loaded sodium alginate matrix tablets for buccal delivery. AAPS PharmSciTech 2011; 12(2): 683-692.
35. **Pongjanyakul T***, Kanjanabat S. Influence of pH modifiers and HPMC viscosity grades on nicotine-magnesium aluminum silicate complex-loaded buccal matrix tablets. AAPS PharmSciTech 2012; 13(2): 674-685.
36. **Pongjanyakul T***, Rojtanatanya S. Use of propranolol-magnesium aluminium silicate intercalated complexes as drug reservoirs in polymeric matrix tablets. Indian J Pharm Sci 2012; 74 (4): 292-301.
37. **Pongjanyakul T***, Khunawattanakul W, Strachan CJ, Gordon KC, Puttipipatkhachorn, S, Rades T. Characterization of chitosan-magnesium aluminum silicate nanocomposite films for buccal delivery of nicotine. Int J Biol Macromol 2013; 55: 24-31.
38. Kanjanakawinkul W, Rades T, Puttipipatkhachorn S, **Pongjanyakul T***. Nicotine-magnesium aluminum silicate microparticle surface modified with chitosan for mucosal delivery. Mater Sci Eng C 2013; 33 (3): 1727-1736.
39. Rongthong T, Sungthongjeen S, Siepmann J, **Pongjanyakul T***. Quaternary polymethacrylate-magnesium aluminum silicate films: Molecular interactions, mechanical properties and tackiness. Int J Pharm 2013; 458 (1): 57-64.
40. Khuathan N, **Pongjanyakul T***. Modification of quaternary polymethacrylate films using sodium alginate: Film characterization and drug permeability. Int J Pharm 2014; 460 (1-2): 63-72.

41. Kriangkrai W, Puttipipatkhachorn S, Sriamornsak P, **Pongjanyakul T**, Sungthongjeen S. Impact of anti-tacking agents on properties of gas-entrapped membrane and effervescent floating tablets. AAPS PharmSciTech. 2014 Dec;15(6):1357-69.
42. Rongthong T, Sungthongjeen S, Siepmann F, Siepmann J, **Pongjanyakul T***. Quaternary polymethacrylate–magnesium aluminum silicate films: Water uptake kinetics and film permeability. Int J Pharm 2015; 490(1–2): 165–172.
43. Kanjanakawinkul W, Medlicott NJ, Rades T, Puttipipatkhachorn S, **Pongjanyakul T***. Lysozyme-magnesium aluminum silicate microparticles: Molecular interaction, bioactivity and release studies. Int J Biol Macromol. 2015; 80: 651-658.
44. Limpongsa E, Jaipakdee N, **Pongjanyakul T**. Skin deposition and permeation of finasteride in vitro: effects of propylene glycol, ethanol and sodium lauryl sulfate. Pharm Dev Technol. 2015; 20(8): 984-991.
45. Khlibsuwan R, **Pongjanyakul T***. Spray-dried chitosan-magnesium aluminum silicate microparticles as matrix formers in controlled release tablets. J Drug Deliv Sci Technol 2015; 30: 114-122.
46. Jaipakdee N, Limpongsa E, **Pongjanyakul T**. Optimization of minoxidil microemulsions using fractional factorial design approach. Pharm Dev Technol. 2016; 21(1): 86-97.
47. **Pongjanyakul T***, Khuathan N. Quaternary polymethacrylate-sodium alginate films: effect of alginate block structure and use for sustained release tablets. Pharm Dev Technol. 2016; 21(4): 487-498.
48. Sakloetsakun D, Preechagoon D, Bernkop-Schnürch A, **Pongjanyakul T**. Chitosan–gum arabic polyelectrolyte complex films: physicochemical, mechanical and mucoadhesive properties. Pharm Dev Technol. 2016; 21(5): 590-599.
49. Khlibsuwan R, **Pongjanyakul T***. Chitosan-clay matrix tablets for sustained-release drug delivery: Effect of chitosan molecular weight and lubricant. J Drug Deliv Sci Technol 2016; 35: 303-313.
50. Sakloetsakun D, **Pongjanyakul T**. Modification of gellan gum films by halloysite: Physicochemical evaluation and drug permeation properties. Drug Dev Ind Pharm 2017; 43: 492-501.

51. Khlibsuwan R, Siepmann F, Siepmann J, **Pongjanyakul T***. Chitosan-clay nanocomposite microparticles for controlled drug delivery: Effects of the MAS content and TPP crosslinking. J Drug Deliv Sci Technol 2017; 40:1-10.
52. Khlibsuwan R, **Pongjanyakul T***. Particle agglomeration of chitosan-magnesium aluminum silicate nanocomposites for direct compression tablets. Int J Pharm 2018; 535: 410-419.
53. Jaipakdee N, **Pongjanyakul T**, Limpongsa E**.** Preparation and characterization of poly(vinyl alcohol)-poly(vinyl pyrrolidone) mucoadhesive buccal patches for delivery of lidocaine HCl**.** Int J Appl Pharm 2018; 10(1):115-123.
54. Khlibsuwan R, Khunkitti W, **Pongjanyakul T***. Alginate-caseinate composites: Molecular interactions and characterization of cross-linked beads for the delivery of anticandidals. Int J Biol Macromol 2018; 115: 483-493.
55. Khlibsuwan R, Tansena W, **Pongjanyakul T***. Modification of alginate beads using gelatinized and ungelatinized arrowroot (*Tacca leontopetaloides* L. Kuntze) starch for drug delivery. Int J Biol Macromol 2018; 118: 683-692.
56. Kajthunyakarn W, Sakloetsakun D, **Pongjanyakul T***. Sodium caseinate-magnesium aluminum silicate nanocomposite films for modified-release tablets. Mater Sci Eng C 2018; 92: 827-839.
57. Tunpanich P, Limpongsa E, **Pongjanyakul T**, Sripanidkulchai B, Jaipakdee N. Mucoadhesive sustained-release tablets for vaginal delivery of Curcuma comosa extracts: Preparation and characterization. J Drug Deliv Sci Technol 2019; 51: 559-568.
58. Kajthunyakarn W, Khlibsuwan R, Sakloetsakun D, **Pongjanyakul T***. Sodium caseinate films modified using hallosite: Physicochemical characterization and drug permeability studies. J Drug Deliv Sci Technol 2019; 54: Article 101235.
59. Soe MT, Chitropas P, **Pongjanyakul T**, Limpongsa E, Jaipakdee N. Thai glutinous rice starch modified by ball milling and its application as a mucoadhesive polymer. Carbohydr Polym 2020; 232: Article 115812.
60. Rongthong T, Sungthongjeen S, Siepmann F, Siepmann J, **Pongjanyakul T***. Eudragit RL-based film coatings: How to minimize sticking and adjust drug release using MAS. Eur J Pharm Biopharm 2020; 148: 126-133.

61. Khlibsuwan R, Khunkitti W, **Pongjanyakul T***. Alginate-poloxamer beads for clotrimazole delivery: Molecular interactions, mechanical properties, and anticandidal activity. Int J Biol Macromol 2020; 148: 1061-1071.
62. Soe MT, **Pongjanyakul T**, Limpongsa E, Jaipakdee N. Modified glutinous rice starch-chitosan composite films for buccal delivery of hydrophilic drug. Carbohydr Polym 2020; 245: Article 116556.
63. Soe MT, **Pongjanyakul T**, Limpongsa E, Jaipakdee N. Films fabricated with native and ball□milled modified glutinous rice starch: Physicochemical and mucoadhesive properties. Starch/Staerke 2021; 73 (1-2): 2000012.
64. Rongthong T, **Pongjanyakul T***. Quaternary polymethacrylate−magnesium aluminum silicate film formers: Stability studies for tablet coatings. J Drug Deliv Sci Technol 2021; 62: 102389.
65. Siriwachirachai C, **Pongjanyakul T***. Acid and alkali modifications of tapioca starches: Physicochemical characterizations and evaluations for use in tablets. J Drug Deliv Sci Technol 2022; 68: 103068.

PRESENTATIONS

1. Rittirod T, **Pongjanyakul T**, Priprem A. Comparative dissolution of norfloxacin tablets in Thai markets. In: Proceeding of the international conference on national medicinal drug policies, Sydney, Australia, 1995.
2. **Pongjanyakul T**, Prakongpan S. Development of dextromethorphan sustained release suspension prepared by ion exchange method. The Academy of Pharmaceutical Science, The Pharmaceutical Association of Thailand under the Royal Patronage, Annual Meeting at Chiang Mai, 20-21 March 1997.
3. Prakongpan S, **Pongjanyakul T**, Priprem A, Sarisuta N. In vitro skin permeation and bioequivalence study of nicotine transdermal patches. In: Proceeding to the 30th Anniversary Symposium of the Faculty of Pharmacy, Mahidol University, Bangkok, Thailand. 23-26 November 2000, pp. 40.
4. **Pongjanyakul T**, Prakongpan S. In vitro release characteristics of dextromethorphan resinates. In: Proceeding to the 20th Anniversary Symposium of the Faculty of Pharmaceutical Sciences, Khon Kaen University, Khon Kaen, Thailand. 8-9 December 2000, pp.1.

5. Prakongpan S, **Pongjanyakul T**, Priprem A, Sarisuta N. In vitro skin permeation and bioequivalence study of nicotine transdermal patches. In: Proceeding to the 3rd National Conference on Tobacco or Health, Pataya, Chonburee, Thailand. 11-13 July 2001, pp.148.
6. **Pongjanyakul T**, Prakongpan S, Panomsuk S, Priprem A. Shed king cobra skin as a barrier membrane for in vitro nicotine permeation. The Academy of Pharmaceutical Science, The Pharmaceutical Association of Thailand under the Royal Patronage, Annual Meeting at Bangkok, 2-4 April 2001, pp.95.
7. **Pongjanyakul T**, Prakongpan S, Priprem A, Sarisuta N. Lot-to-lot uniformity of acrylic-matrix-type nicotine transdermal patches. In: Proceeding to the 2nd Indochina Conference on Pharmaceutical Sciences, Hanoi, Vietnam. 20-23 October 2001, pp.441-446.
8. **Pongjanyakul T**, Medlicott NJ, Tucker IG. Characteristics of glyceryl palmitostearate-lysozyme pellets prepared using melting and compression methods. In: Proceeding to the 4th National Seminar on Pharmaceutical Biotechnology, Chiang Mai. 10-12 September 2002, pp.296.
9. Chitropas P, Chaipakdee S, **Pongjanyakul T**, Priprem A. Vitamin E cream: evaluation in volunteers. In: Proceeding to International Exhibition and Conference on Cosmetics, Ingredients, Technology, Equipment, Supplies, Personal Care, Health and Supplements (Cipha2002), Bangkok. 5-7 September 2002: pp.45-50
10. Chitropas P, **Pongjanyakul T**, Priprem A. Evaluation of Aloe vera products for cosmetics. In: Proceeding to International Exhibition and Conference on Cosmetics, Ingredients, Technology, Equipment, Supplies, Personal Care, Health and Supplements (Cipha2002), Bangkok. 5-7 September 2002: pp.80-87
11. Medlicott NJ, **Pongjanyakul T**, Tucker IG. Melted and compressed glyceryl palmitostearate pellets for protein delivery. AAPS Annual Meeting and Exposition, Toronto, 10-14 November 2002.
12. Priprem A, Prakongpan S, **Pongjanyakul T**. Shed snake skin as a nicotine permeation barrier. Molecular biopharmaceutics: A new era in drug absorption transport and delivery, Sheraton Waikiki Resort, 22-24 January 2003, pp.108.
13. **Pongjanyakul T**, Puttipipatkhachorn S, Priprem A. Characterization of diclofenac calcium-alginate beads incorporating water-soluble polymers. In: Proceeding to

the 14th International Symposium on Microencapsulation, Singapore. 4-6 September 2003: pp. 65-66.

14**. Pongjanyakul T,** Puttipipatkhachorn S. Influence of glyceryl palmitostearate and heat treatment on characteristics of diclofenac calcium-alginate beads. In: Proceeding to the International Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical technology, Nuremberg. 15-18 March 2004.

15. **Pongjanyakul T**, Puttipipatkhachorn S, Priprem A. Rheological and release characteristics of diclofenac aqueous gels incorporating magnesium aluminum silicate. In: Proceeding to 31st Annual Meeting&Exposition of the Controlled Release Society, Hawaii, 12-16 June 2004, Poster no. 633.

16. Priprem A, Marnsiri S, **Pongjanyakul T**, Rungsardthong U, Nuansing W, Anornkibamrung V. Drug-PEO nanoparticles by electrospinning. In: Proceeding to 12nd International Pharmaceutical Technology Symposium, Istanbul, 12-15 September 2004, pp. 87-88.

17. **Pongjanyakul T**, Priprem A, Prakongpan S, Puttipipatkhachorn S. Development and batch-to-batch uniformity of multiunit dextromethorphan resinate tablets. In: Proceeding to 20th FAPA Congress, Bangkok, 30 November-3 December 2004, pp.116.

18. **Pongjanyakul T**, Puttipipatkhachorn S, Priprem A. Effect of magnesium aluminum silicate on release and permeation of diclofenac sodium from aqueous gels. The TRF meeting, Khanjanaburi, 14-16 October 2005, pp. 188.

19. Priprem A, **Pongjanyakul T**. Permeation barrier from shed snake skin of king cobra. NSTDA Annual Conference 2005, S&T in Thailand: Towards the Molecular Economy. 28-30 March 2005, Bangkok, 12.

20. **Pongjanyakul T**, Priprem A, Puttipipatkhachorn S. Alginate-magnesium aluminum silicate composite films for modifying release of propranolol tablets. In: Proceeding to 32nd Annual Meeting & Exposition of the Controlled Release Society. Miami, Florida, 18-22 June 2005, Poster No. 766.

21. Priprem A, Pratontep S, Rungsardthong U, **Pongjanyakul T**, Chitropas P, Khamlert C. Nanostructures of shed king cobra skin and permeation of parabens. In: Proceeding to 3rd International nanomedicine and drug delivery symposium. Baltimore, Maryland, 26-27 September 2005, pp.97.

22. **Pongjanyakul T**, Priprem A, Puttipipatkhachorn S. Novel alginate-magnesium aluminum silicate composite films: physical properties and potential use as a

coating material for mofifying drug release. The TRF meeting, Petchaburi, 13-15 October 2005, pp. 134.

23. Priprem A, **Pongjanyakul T**, Chitropas P, Khamlert C. Scale region of shed king cobra skin for in-vitro permeation study. In: Proceeding to BioThailand2005. Bangkok, 2-5 November 2005, pp.27.
24. Priprem A, Khamlert C, **Pongjanyakul T**, Rungsardthong U. Keratin extracted from shed snake skin. In: Proceeding to Asian Workshop on Polymer Processing 2006, Bangkok, 6-8 December 2006, pp.208-210.
25. **Pongjanyakul T**, Puttipipatkhachorn S. Effect of hydrophilic plasticizers on physicochemical properties of alginate-magnesium aluminum silicate microcomposite films. Thai J Pharm Sci 2006; 30 (Suppl.), pp.121.
26. **Pongjanyakul T**, Puttipipatkhachorn S. Linear and branched polymers loaded calcium-alginate beads: molecular interaction and in vitro evaluation. Thai J Pharm Sci 2006; 30 (Suppl.), pp.122.
27. Khunawattanakul W, Puttipipatkhachorn S. **Pongjanyakul T**. Characterization of chitosan-magnesium aluminium silicate composite dispersions. Thai J Pharm Sci 2006; 30 (Suppl.), pp. 147.
28. Vachirateerat P, Peerapattana J, **Pongjanyakul T**. Physicochemical properties of hydroxypropyl methylcellulose phthalate (HPMCP) and polymethacrylate copolymer composite films. Thai J Pharm Sci 2006; 30 (Suppl.), pp.146.
29. Khamlert C, Priprem A, **Pongjanyakul T**, Ruktanonchai U. Shed skin of king cobra as a barrier membrane of an in vitro permeation of 12 compounds. In: Proceeding to TRF-MAG Congress I, Chonburi, 20-22 April 2007, pp.42.
30. **Pongjanyakul T**, Puttipipatkhachorn S. Influence of film thickness on mechanical property and permeability of alginate-magnesium aluminum silicate microcomposite films. The TRF meeting, Chonburi, 11-13 October 2007, pp. 51.
31. **Pongjanyakul T**, Khunawattanakul W. Investigation of zeta potential of chitosan-magnesium aluminium silicate composite dispersions. In: Proceeding to the 5th Indochina Conference on Pharmaceutical Sciences, Bangkok, 21-24 November 2007, 200.
32. Khunawattanakul W, Puttipipatkhachorn S, **Pongjanyakul T**. Chitosan-magnesium aluminium silicate nanocomposite films: water vapor and drug permeability studies. In: Proceeding to the 5th Indochina Conference on Pharmaceutical Sciences, Bangkok, 21-24 November 2007, pp. 206.

33. Rojanakarin P, **Pongjanyakul T**. Drug permeation across alginate-magnesium aluminium silicate composite films. Thai J Pharm Sci 2007; 31 (Suppl.), pp.61.
34. **Pongjanyakul T**, Pojanakarin P, Puttipipatkhachorn S. Alginate-magnesium aluminum silicate microcomposite films: permeability study using parabens. In: Proceeding to the 6th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical technology, Barcelona. 7-10 April 2008.
35. **Pongjanyakul T**, Puttipipatkhachorn S. Alginate-magnesium aluminum silicate composite dispersions for improving physical stability of suspensions. In: Proceeding to the 6th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical technology, Barcelona. 7-10 April 2008.
36. Chantasart D, **Pongjanyakul T**, Higuchi WI, Li SK. Effects of oxygen-containing terpenes as skin permeation enhacers. The TRF meeting, Petchaburi, 16-18 October 2008, pp. 479.
37. **Pongjanyakul T**, Suksri H. Characterization of nicotine-magnesium aluminum silicate dispersions: flocculate size, zeta potential and nicotine adsorption isotherm. The TRF meeting, Petchaburi, 16-18 October 2008, pp. 157.
38. Suksri H, **Pongjanyakul T**. Characterization of nicotine films prepared using alginate-magnesium aluminium silicate composite matrices. In: Proceeding to the 12th National Graduate Research Conference, Khon Kaen, 12-13 February 2009.
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