

Uracha Rungsardthong Ruktanonchai, B.Pharm, Ph.D.

Date of Birth: 29 August 1976

Nationality: Thai

Executive Director

National Nanotechnology Center (NANOTEC)

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(NSTDA)

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H-index = 43, Total Citations = 1,935

Research Areas

Lipid and polymeric nanoparticles, Nano-encapsulation, Advance drug delivery system

Education

- | | |
|-----------|--|
| 1998-2002 | Philosophy of Doctoral (Ph.D.) in Advanced Drug Delivery, School of Pharmacy, University of Nottingham, England (Thesis title: Physicochemical evaluation of polymer-DNA complexes for DNA delivery) |
| 1994-1998 | Bachelor of Pharmacy (B.Pharm.), First class honour in Pharmaceutical Technology, Faculty of Pharmaceutical Sciences, Khon Kaen University, Thailand |

Work Experience

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|----------------|---|
| 2024 – Present | Executive Director, NANOTEC |
| 2022-2024 | Executive Vice President (Organization Management), NSTDA |
| 2013-present | Principal researcher, NANOTEC |
| 2022-present | Program Director of Natural extract Innovation for Health product, Agenda sustainable Food and ingredients, NSTDA |
| 2019-2021 | Supermanager of Cosmeceuticals Technology Development Group, NSTDA |
| 2016-2020 | Deputy Executive Director of NANOTEC (in R&D) |
| 2015- 2016 | Director of Nanotechnology for Life and Health Sciences Research Unit, NANOTEC |
| 2012-2015 | Director of Nanotechnology Research Unit, NANOTEC |

2007-2013	Senior Researcher and lab head at Nano-Delivery System laboratory (NDS), NANOTEC
2004 -2006	Researcher at National Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA), Thailand
1998 – 2004	Lecturer at Department of Pharmaceutical Technology, Faculty of Pharmaceutical Sciences, Khon Kaen University, Thailand
2003	Post-doctoral fellowship in DNA delivery at School of Pharmacy, University of Nottingham, England
2002 - 2003	Post-doctoral fellowship in Biomaterials at School of Biomedical Sciences, University of Nottingham, England

AWARDS/ACHIEVEMENTS

1. 2025 : World's Top 2% Scientists 2025 in the field of Pharmacology & Pharmacy, based on citation impact in 2024, (Stanford University & Elsevier database)
2. 2020-2024 being listed as top 2% of the most cited scientist in the field of Pharmacy & Pharmacology, Elsevier database.
3. 2018 **UK alumni Award** Professional Achievement from the British council and UK Embassy
4. 2017-present: selected to be **Fellow** of the Royal Society of Chemistry, UK (FRSC)
5. 2017-present: appointed to be **Honorary Professor** by University of Queensland, Australia
6. 2015-present: appointed to be **Adjunct Professor** of Asian Institute of Technology, Thailand
7. The 2011 **For Women in Science fellowship Award** from UNESCO-L'Oreal Foundation.
8. The **Young Scientist Award** of 2010 from the Foundation for the Promotion of Science and Technology under the Patronage of His Majesty the King, Thailand
9. Selected to be 1 of "66 Young Leaders Shaping Thailand's Future of 2012" by the Bangkok Post newspaper which celebrated its 66 years in operation
10. Selected as one of ten prestigious Top careers for 2020 "This's My Future" in 2009 organized by Thaikom foundation
11. Selected to be 1 of 10 "prestige Women of the Year 2006" by Prestige magazine, The nation, and Bangkok Business.
12. Selected to be one of Thai Young leader representatives to join STS forum, Japan 2014

Member/Social contributions

- **Editorial board** of FRONTIERS: Experimental Pharmacology and Drug Discovery (2021-present)
- **Editorial board** of RSC Advances (2018-2020)
- **Fellow** of the Royal Society of Chemistry, UK (FRSC)
- **Board member** of Faculty of Pharmacy, Thammasat University (2020-present)
- Selected to be a member of Thai Academy of Science and Technology Foundation (TAST)
- Selected to be a member of Thai Young Scientists Academy (TYSA)

Book Chapter

1. Amaraporn Wongrakpanich, Jiraphong Suksiriworapong Sean M. Geary, Phawanan Sawangchan, Janjira Intra, **Uracha Ruktanonchai**, and Aliasger K. Salem Nanotechnology, mitochondria, and cancer Mitochondria-targeting particles for biomedical applications in Mitochondria dysfunctions and nanotherapeutics. Elsevier Publishing, ISBN 978-0-323-85666-9, 2021, Chapter 11, pp 291-310.
2. Handbook of Nanotechnology Applications :Environment, Energy, Agriculture and Medicine Micro and Nano Technologies, 2021, Elsevier Publishing. 2021, Elsevier Publishing. ISBN 978-0-12-821506-7 (Editors: Woei Jye Lau, Kajornsak Faungnawakij, Kuakoon Piyachomkwan and **Uracha Rungsardthong Ruktanonchai**)

International Publications (Scopus: 147 papers with H-Index:43, Citation: 6,080)

Contributed as the First/Corresponding Author: 40 papers

1. W. Klinngam, P. Rungkamoltip, R. Wongwanakul, J. Joothamongkhon, S. Du-a-man, M. Khongkow, U. Asawapirom, T. Iempridee and **U. R. Ruktanonchai***, Skin rejuvenation efficacy and safety evaluation of Kaempferia parviflora standardized extract (BG100) in human 3D skin models and clinical trial, *Biomolecules*, 2024, 14, 776.
2. Khongkow M., Rimsueb N., Jantimaporn A., Janyaphisan T., Woraprayote W., Visessanguan W. and **U. R. Ruktanonchai***, Cationic liposome of hen egg white lysozyme for enhanced its stability, activity and accessibility in gastro-intestinal tract, *Food Biosci.*, 2023, 53, 102470.
3. S. Sakulwech, N. Lourith, M. Kanlayavattanakul, S. Phunpee, K. Suktham, S. Surassmo and **U. R. Ruktanonchai***, Nanocomplex of quaternized cyclodextrin grafted chitosan and hyaluronic acid for a skin delivery, *Colloids Surf. B Biointerfaces*, 2022, 220, 112920.
4. S. Phunpee, S. Chirachanchai and **U. R. Ruktanonchai***, Tailoring a UCST-LCST-pH multiresponsive window through a single polymer complex of chitosan-hyaluronic acid, *Biomacromolecules*, 2022, 23, 5361–5372.
5. S. Phunpee, S. Chirachanchai and **U. R. Ruktanonchai***, Brush-structured chitosan/polyHEMA with thymine and its synergistic effect on the specific interaction with ssDNA and cellular uptake, *Langmuir*, 2022, 38, 5915–5923.
6. S. Phunpee, K. Suktham, S. Surassmo, S. Jarussophon, C. Runnim, A. Soottitantawat, S. Puttipatkhachorn and **U. R. Ruktanonchai***, Controllable encapsulation of α -mangostin with quaternized β -cyclodextrin grafted chitosan using high shear mixing, *Int. J. Pharm.*, 2018, 538(1–2), 21–29.
7. N. Saengkrit, S. Saesoo, N. Woramongkolchai, W. Sajomsang, S. Phunpee, T. Dharakul and **U. R. Ruktanonchai***, Dry formulations enhanced mucoadhesive properties and reduced cold chain handling of influenza vaccines, *AAPS PharmSciTech*, 2018, 19(8), 3763–3769.
8. J. Yostawonkul, S. Surassmo, T. Iempridee, W. Pimtong, K. Suktham, W. Sajomsang, P. Gonil and **U. R. Ruktanonchai***, Surface modification of nanostructure lipid carrier (NLC) by oleoyl-quaternized-chitosan as a mucoadhesive nanocarrier, *Colloids Surf. B Biointerfaces*, 2017, 149, 301–311.
9. S. Phunpee, S. Saesoo, I. Sramala, S. Jarussophon, W. Sajomsang, S. Puttipatkhachorn, A. Soottitantawat and **U. R. Ruktanonchai***, Corrigendum to "A comparison of eugenol and menthol on encapsulation characteristics with water-soluble quaternized β -cyclodextrin grafted chitosan", *Int. J. Biol. Macromol.*, 2016, 87, 623.

10. S. Phunpee, S. Saesoo, I. Sramala, S. Jarussophon, W. Sajomsang, S. Puttipipatkhajorn, A. Soottitantawat and **U. R. Ruktanonchai***, A comparison of eugenol and menthol on encapsulation characteristics with water-soluble quaternized β -cyclodextrin grafted chitosan, *Int. J. Biol. Macromol.*, 2016, 84, 472–480.
11. K. Karn-orachai, S. M. Smith, S. Saesoo, A. Treethong, S. Puttipipatkachorn, S. Pratontep and **U. R. Ruktanonchai***, Surfactant effect on the physicochemical characteristics of γ -oryzanol-containing solid lipid nanoparticles, *Colloids Surf. A Physicochem. Eng. Asp.*, 2016, 488, 118–128.
12. P. Kittitheeranun, W. Sajomsang, S. Phanpee, A. Treetong, T. Wutikhun, K. Suktham, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Layer-by-layer engineered nanocapsules of curcumin with improved cell activity, *Int. J. Pharm.*, 2015, 492, 92–102.
13. C. Rungrim, S. Phunpee, M. Kunaseth, S. Namuangruk, K. Rungsardthong, T. Rungrotmongkol and **U. R. Ruktanonchai***, Co-solvation effect on the binding mode of the α -mangostin/ β -cyclodextrin inclusion complex, *Beilstein J. Org. Chem.*, 2015, 11, 2306–2317.
14. K. Karn-Orachai, S. M. Smith, S. Phunpee, A. Treethong, S. Puttipipatkachorn, S. Pratontep and **U. R. Ruktanonchai***, The effect of surfactant composition on the chemical and structural properties of nanostructured lipid carriers, *J. Microencapsul.*, 2014, 31, 609–618.
15. N. Saengkrit, S. Saesoo, W. Srinuanchai, S. Phunpee and **U. R. Ruktanonchai***, Influence of curcumin-loaded cationic liposome on anticancer activity for cervical cancer therapy, *Colloids Surf. B Biointerfaces*, 2014, 114, 349–356.
16. J. Chutipakdeevong, **U. R. Ruktanonchai*** and P. Supaphol, Process optimization of electrospun silk fibroin fiber mat for accelerated wound healing, *J. Appl. Polym. Sci.*, 2013, 130, 3634–3644.
17. W. Sajomsang, O. Nuchuchua, S. Saesoo, P. Gonil, S. Chaleawler-Umpon, N. Pimpha, I. Sramala, A. Soottitantawat, S. Puttipipatkachorn and **U. R. Ruktanonchai***, A comparison of spacer on water-soluble cyclodextrin grafted chitosan inclusion complex as carrier of eugenol to mucosae, *Carbohydr. Polym.*, 2013, 92, 321–327.
18. S. Phunpee, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Solid-state characterizations of the inclusion complexes between warfarin sodium and β -cyclodextrin, *Chiang Mai J. Sci.*, 2013, 40, 978–984.
19. W. Sajomsang, O. Nuchuchua, P. Gonil, S. Saesoo, I. Sramala, A. Soottitantawat, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Water-soluble β -cyclodextrin grafted with chitosan and its inclusion complex as a mucoadhesive eugenol carrier, *Carbohydr. Polym.*, 2012, 89(2), 623–631.
20. S. Phunpee, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Solid-state characterizations of the inclusion complexes between warfarin sodium and β -cyclodextrin, *Chiang Mai J. Sci.*, 2013, 40, 978–984.
21. **U. R. Ruktanonchai**, O. Nuchuchua, R. Charlermroj, T. Pattarakankul and N. Karoonuthaisiri, Signal amplification of microarray-based immunoassay by optimization of nanoliposome formulations, *Anal. Biochem.*, 2012, 429(2), 142–147.
22. **U. R. Ruktanonchai**, W. Srinuanchai, S. Saesoo, I. Sramala, S. Puttipipatkachorn and A. Soottitantawat, Encapsulation of citral isomers in extracted lemongrass oil with cyclodextrins: Molecular modeling and physicochemical characterizations, *Biosci. Biotechnol. Biochem.*, 2011, 75(12), 2340–2345.
23. M. Petchsangai, W. Sajomsang, P. Gonil, O. Nuchuchua, B. Sutapun, S. Puttipipatkachorn and **U. R. Ruktanonchai ***, A water-soluble methylated N-(4-N,N-dimethylaminocinnamyl)

chitosan chloride as novel mucoadhesive polymeric nanocomplex platform for sustained-release drug delivery, *Carbohydr. Polym.*, 2011, 83, 1263–1273.

24. P. Opanasopit, O. Paecharoenchai, T. Rojanarata, T. Ngawhirunpat and **U. R. Ruktanonchai***, Type and composition of surfactants mediating gene transfection of polyethylenimine-coated liposomes, *Int. J. Nanomed.*, 2011, 6, 975–983.
25. N. Seetapan, P. Bejrappa, W. Srinuanchai and **U. R. Ruktanonchai***, Rheological and morphological characterizations on physical stability of gamma-oryzanol-loaded solid lipid nanoparticles (SLNs), *Micron*, 2010, 41(1), 51–58.
26. S. Anantachaisilp, S. M. Smith, A. Treetong, S. Pratontep, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Chemical and structural investigation of lipid nanoparticles: drug–lipid interaction and molecular distribution, *Nanotechnology*, 2010, 21(12), 125102.
27. P. Opanasopit, S. Techaarpornkul, T. Rojanarata, T. Ngawhirunpat and **U. R. Ruktanonchai***, Nucleic acid delivery with chitosan hydroxybenzotriazole, *Oligonucleotides*, 2010, 20(3), 127–136
28. S. Asavavisithchai, A. Oonpradern and **U. R. Ruktanonchai***, The antimicrobial effect of open-cell silver foams, *J. Mater. Sci.: Mater. Med.*, 2010, 21(4), 1329–1334
29. S. Saesoo, I. Sramala, A. Soottitantawat, T. Charinpanitkul and **U. R. Ruktanonchai***, Enhanced stability and *in vitro* bioactivity of surfactant-loaded liposomes containing *Asiatic Pennywort* extract, *J. Microencapsul.*, 2010, 27(5), 436–446
30. O. Nuchuchua, W. Sajomsang, P. Gonil, N. Pimpha, S. Chaleawler-Umpon, I. Sramala, S. Saesoo, A. Soottitantawat and **U. R. Ruktanonchai***, Synthesis and characterization of β -cyclodextrin-grafted chitosan derivatives on its mucoadhesion and antibacterial activities, *Proc. 2010 10th IEEE Conf. Nanotechnol. (IEEE NANO)*, 2010, 1056–1059
31. **U. R. Ruktanonchai**, P. Bejrappa, U. Sakulkhu, P. Opanasopit, N. Bunyapraphatsara, V. Junyaprasert and S. Puttipipatkachorn, Physicochemical characteristics, cytotoxicity, and antioxidant activity of three lipid nanoparticulate formulations of alpha-lipoic acid, *AAPS PharmSciTech*, 2009, 10(1), 227–234
32. W. Kangwansupamonkon, V. Lauruengtana, S. Surassmo and **U. R. Ruktanonchai***, Antibacterial effect of apatite-coated titanium dioxide for textiles applications, *Nanomedicine*, 2009, 5(2), 240–249
33. M.-J. Choi, A. Soottitantawat, O. Nuchuchua, S.-G. Min and **U. R. Ruktanonchai***, Physical and light oxidative properties of eugenol encapsulated by molecular inclusion and emulsion-diffusion method, *Food Res. Int.*, 2009, 42(1), 148–156
34. U. Sakulku, O. Nuchuchua, N. Uawongyart, S. Puttipipatkachorn, A. Soottitantawat and **U. R. Ruktanonchai***, Characterization and mosquito repellent activity of citronella oil nanoemulsion, *Int. J. Pharm.*, 2009, 372(1–2), 105–111
35. **U. R. Ruktanonchai**, U. Sakulkhu, P. Bejrappa, P. Opanasopit, N. Bunyapraphatsara, V. Junyaprasert and S. Puttipipatkachorn, Effect of lipid types on physicochemical characteristics, stability and antioxidant activity of gamma-oryzanol-loaded lipid nanoparticles, *J. Microencapsul.*, 2009, 26(7), 614–626
36. O. Nuchuchua, U. Sakulku, N. Uawongyart, S. Puttipipatkachorn, A. Soottitantawat and **U. R. Ruktanonchai***, *In vitro* characterization and mosquito (*Aedes aegypti*) repellent activity of essential-oils-loaded nanoemulsions, *AAPS PharmSciTech*, 2009, 10(4), 1234–1242
37. **U. R. Ruktanonchai**, S. Limpakdee, S. Meejoo, U. Sakulkhu, N. Bunyapraphatsara, V. Junyaprasert and S. Puttipipatkachorn, The effect of cetyl palmitate crystallinity on physical

properties of gamma-oryzanol encapsulated in solid lipid nanoparticles, *Nanotechnology*, 2008, 19(9), 095701

38. S. Surassmo, V. Lauruengtana, W. Kangwansupamongkol and **U. R. Ruktanonchai***, Antibacterial effect of apatite coated titanium dioxide for textiles and coating applications, *Proc. 2nd IEEE Int. Conf. Nano/Micro Eng. Mol. Syst. (IEEE NEMS)*, 2007, 1012–1015
39. S. Jarupaiboon, K. Rungsardthong, I. Sramala, W. Kangwansupamonkon, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Improved anti-dust mite properties of textiles by eugenol loaded chitosan nanoparticles, *Proc. 2nd IEEE Int. Conf. Nano/Micro Eng. Mol. Syst. (IEEE NEMS)*, 2007, 1016–1019,
40. U. Sakulkhu, S. Jarupaiboon, A. Trithong, S. Prathontep, V. Janyaprasert, S. Puttipipatkachorn and **U. R. Ruktanonchai***, Production and characterization of rice bran extract encapsulated in solid lipid nanoparticles for dermal delivery, *Proc. 2nd IEEE Int. Conf. Nano/Micro Eng. Mol. Syst. (IEEE NEMS)*, 2007, 1020–1023

As co-authors (100 papers):

1. I. Ali, **U. R. Ruktanonchai**, A. Soottitantawat, B. H. Goh, G. Garnier, C.-X. Zhao and M. Kavallaris, Pickering emulsions for cancer: formulation strategies, functional enhancements, and translational considerations, *Int. J. Pharm.*, 2025, 125873.
2. N. Rimsueb, P. Tabboon, P. Bunwatcharaphansakun, **U. Ruktanonchai**, K. Namdee, U. Asawapirom, B. Sripanidkulchai, S. Tuntiyasawasdikul, S. Somintara and T. Rudtanatip, Oral delivery of Kaempferia parviflora's methoxyflavones via nanostructured lipid carriers: its effect on obesity and dyslipidemia treatment, *Int. J. Pharm.: X*, 2025, 100345.
3. N. Paiboon, S. Rujipairoj, S. Surassmo, **U. R. Ruktanonchai**, S. Phunpee, S. Ali, N. Darai, T. Rungrotmongkol and A. Soottitantawat, Inclusion complex of water-soluble arbutin with β -cyclodextrin: computer modeling and experimental studies, *Carbohydr. Polym. Technol. Appl.*, 2025, 9(39), 100662.
4. P. Joradon, V. Rungsardthong, B. Thumthanaruk, S. Vatanyoopaisarn, **U. Ruktanonchai**, K. Suttisintong and A. C. Mendes, Development of Lion's Mane mushroom extract-loaded polyvinyl alcohol/chitosan hydrogel film composites for controlled release of ergosterol, *Appl. Sci. Eng. Progress*, 2025, 18(1), 7496.
5. W. Klinngam, A. Chaiwichien, S. Osotprasit, **U. Ruktanonchai**, M. Kanlayavattanakul, N. Lourith, A. Wongrakpanich, V. Teeranachaideekul and T. Iempridee, Longevity cosmeceuticals as the next frontier in cosmetic innovation: a scientific framework for substantiating product claims, *Front. Aging*, 2025, 6, 1586999.
6. M. Umar, **U. R. Ruktanonchai**, D. Makararpong, N. Rimsueb and A. K. Anal, In vivo analysis of bovine colostrum whey-caseinate nanoparticles using rat model: bio-accessibility of immunoglobulins, *Future Foods*, 2024, 100492
7. P. Joradon, V. Rungsardthong, **U. Ruktanonchai**, B. Thumthanaruk, S. Vatanyoopaisarn, D. Uttapap, K. Suttisintong and A. C. Mendes, Hybrid carrageenan-gelatin film containing *Herichium erinaceus* extract: A bioactive functional packaging material, *Mater. Lett.*, 2024, 373, 137138.

8. M. Umar, **U. R. Ruktanonchai**, D. Makararpong, A. Panya and A. K. Anal, Fabrication of biopolymeric nanoparticles of colostrum whey-caseinate, characterization, and in vitro digestibility, *J. Food Eng.*, 2024, 363, 111933.
9. P. Nanta, P. Buachan, W. Pinket, W. Srinuanchai, P. Pongwan, I. Sramala, S. Jarussophon, W. Prathumpai, M. Taweechotipatr and **U. R. Ruktanonchai**, β -Glucan fragmentation by microfluidization and TNF- α -immunostimulating activity of fragmented β -glucans, *Heliyon*, 2024, 10, e29444.
10. P. Joradon, V. Rungsardthong, **U. R. Ruktanonchai**, K. Suttisintong, B. Thumthanaruk, S. Vatanyoopaisarn, D. Uttapap and A. C. Mendes, Extraction of bioactive compounds from Lion's Mane mushroom by-product using supercritical CO₂ extraction, *J. Supercrit. Fluids*, 2024, 206, 106162.
11. O. Nuchuchua, W. Srinuanchai, C. Chansrinियom, U. Suttisansanee, P. Temviriyankul, N. Nuengchamnon and **U. R. Ruktanonchai**, Relationship of phytochemicals and antioxidant activities in *Gymnema inodorum* leaf extracts, *Heliyon*, 2024, 10, e23175.
12. M. Umar, **U. R. Ruktanonchai**, D. Makararpong and A. K. Anal, Enhancing immunity against pathogens through glycosylated bovine colostrum proteins, *Food Rev. Int.*, 2024.
13. Umar M., **U. R. Ruktanonchai**, Makararpong D. and Anal A. K., Compositional and functional analysis of freeze-dried bovine skim colostrum powders, *J. Food Meas. Charact.*, 2023, 17, 4294–4304.
14. Anal A. K., Boonlao N. and **U. R. Ruktanonchai**, Emulsion systems stabilized with biopolymers to enhance oral bioaccessibility and bioavailability of lipophilic bioactive compounds, *Curr. Opin. Food Sci.*, 2023, 50, 101001.
15. Yang J., Boer J. C., Khongkow M., Phunpee S., Khalil Z. G., Bashiri S., Deceneux C., Goodchild G., Hussein W. M., Capon R. J., **U. R. Ruktanonchai**, Plebanski M., Toth I. and Skwarczynski M., The development of surface-modified liposomes as an intranasal delivery system for Group A *Streptococcus* vaccines, *Vaccines*, 2023, 11, 305.
16. Firdaus F. Z., Bartlett S., Hussein W. M., Lu L., Wright Q., Huang W., Nahar U. J., Yang J., Khongkow M., Veitch M., Koirala P., **U. R. Ruktanonchai**, Monteiro M. J., Gonzalez Cruz J. L., Stephenson R. J., Wells J. W., Toth I. and Skwarczynski M., Liposomal formulations of a polyleucine–antigen conjugate as therapeutic vaccines against cervical cancer, *Pharmaceutics*, 2023, 15, 602.
17. Boonlao N., **U. R. Ruktanonchai** and Anal A. K., Glycation of soy protein isolate with maltodextrin through Maillard reaction via dry and wet treatments and compare their techno-functional properties, *Polym. Bull.*, 2023, 80, 8603–8626.
18. Paiboon N., Phunpee S., **U. R. Ruktanonchai**, Surassmo S., Methaapanon R., Vacharanukrauh T., Assabumrungrat S. and Soottitantawat A., Synthesis of cyclodextrin-grafted chitosan: from laboratory scale to pilot scale, *Org. Process Res. Dev.*, 2023, 27, 2309–2316.

19. Umar M., **U. R. Ruktanonchai**, Makararpong D. and Anal A. K., Effects of pH and concentrations of colostrum whey and caseinate on fabrication of nanoparticles and evaluation of their techno-functionalities and in vitro digestibility, *J. Food Meas. Charact.*, 2023, 17, 6014–6025.
20. Bebartta R. P., Umar M., **U. R. Ruktanonchai** and Anal A. K., Development of cryo-desiccated whey and soy protein conglomerates; effect of maltodextrin on their functionality and digestibility, *J. Food Process Eng.*, 2023, 46, e14350.
21. N. Paiboon, S. Surassmo, **U. R. Ruktanonchai** and A. Soottitantawat, Hydrodynamic control of droplet formation in narrowing jet and tip streaming regime using microfluidic flow-focusing, *Int. J. Multiph. Flow*, 2022, 150, 104013.
22. M. Skwarczynski, S. Bashiri, Y. Yuan, Z. M. Ziora, O. Nabil, K. Masuda, M. Khongkow, N. Rimsueb, H. Cabral, **U. R. Ruktanonchai**, M. A. T. Blaskovich and I. Toth, Antimicrobial activity enhancers: towards smart delivery of antimicrobial agents, *Antibiotics*, 2022, 11, 412.
23. K. Pongsamart, W. Limwikrant, **U. R. Ruktanonchai**, N. Charoenthai and S. Puttipipatkachorn, Preparation, characterization and antimalarial activity of dihydroartemisinin / β -cyclodextrin spray-dried powder, *J. Drug Deliv. Sci. Technol.*, 2022, 73, 103434.
24. N. Boonlao, **U. R. Ruktanonchai** and A. K. Anal, Enhancing bioaccessibility and bioavailability of carotenoids using emulsion-based delivery systems, *Colloids Surf. B Biointerfaces*, 2022, 209, 112211.
25. W. Klinngam, P. Rungkamoltip, S. Thongin, J. Joothamongkhon, P. Khumkhong, M. Khongkow, K. Namdee, S. Tapaamordech, P. Chaikul, M. Kanlayavattanukul, N. Lourith, K. Piboonprai, **U. R. Ruktanonchai**, U. Asawapirom and T. Iempridee, Polymethoxyflavones from *Kaempferia parviflora* ameliorate skin aging in primary human dermal fibroblasts and ex vivo human skin, *Biomed. Pharmacother.*, 2022, 145, 112461.
26. P. Joradon, V. Rungsardthong, **U. R. Ruktanonchai**, K. Suttisintong, T. Iempridee, B. Thumthamaruk, S. Vatanyoopaisarn and D. Uttapap, A comparative study of conventional and supercritical carbon dioxide extraction methods for the recovery of bioactive compound from Lion's Mane mushroom (*Heridium erinaceus*), *E3S Web Conf.*, 2022, 355, 02015.
27. N. Sa-nguanmoo, K. Namdee, M. Khongkow, **U. R. Ruktanonchai**, Y. X. Zhao and X.-J. Liang, Review: Development of SARS-CoV-2 immuno-enhanced COVID-19 vaccines with nano-platform, *Nano Res.*, 2022, 15, 2196–2225.
28. S. K. Wong, J. Supramaniam, T. W. Wong, A. Soottitantawat, **U. R. Ruktanonchai**, B. T. Tey and S. Y. Tang, Synthesis of bio-inspired cellulose nanocrystals-soy protein isolate nanoconjugate for stabilization of oil-in-water Pickering emulsions, *Carbohydr. Res.*, 2021, 504, 108336.
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