

CV of Professor Prasat Kittakoop

Name: Prasat Kittakoop

Education: 1. B.Sc., Chemistry (1st Class Honors), Chiang Mai University, Thailand, 1989.
2. Ph.D., Biochemistry, University of Wales, College of Swansea, UK, 1992.

Research Interest: Chemistry of natural products; Green chemistry; Medicinal chemistry

Occupation: 1. April 1992–October 2005: Researcher, National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA).
2. November 2005–present: Researcher, Laboratory of Natural Products, Chulabhorn Research Institute (CRI).
3. February 2007–present: Program in Chemical Sciences, Chulabhorn Graduate Institute (CGI).
4. October 2020: Full professor at Chulabhorn Graduate Institute (CGI).

Award: 1. A student scholarship from the Development and Promotion of Science and Technology Talent Project (DPST) [B.Sc. and Ph.D.; 1985-1992].
2. Young Scientist Award 1997 from the Foundation for the Promotion of Science and Technology under the Patronage of His Majesty the King.
3. Lectureship Award from the 2nd International Conference on Cutting-Edge Organic Chemistry in Asia, September 2-5, 2007, Busan, Korea.
4. Gold Medal Award from the Chirantan Rasayan Sanstha, India, for academic achievements, April 30, 2021.
5. Lectureship Award from the 16th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-16) for Japan and Taiwan, December 1-4, 2023, Singapore.
6. NRCT Senior Research Scholar, 2024-2027

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Research Profile: In 2020-2023, Dr. Prasat Kittakoop was recognized as the World Top 2% Scientists in Medicinal & Biomolecular Chemistry, ranked by Stanford University (based on citations from Scopus database).

<https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000918>

Reference: Baas, Jeroen; Boyack, Kevin; Ioannidis, John P.A. (2021), "August 2021 data-update for "Updated science-wide author databases of standardized citation indicators"", Mendeley Data, V3, doi: 10.17632/btchxktzyw.3

He has published more than 150 research articles in peer-reviewed journals; Scopus *h*-index = 45; Citations 5,635 times (Scopus database, retrieved on 23 July 2024); 3 book chapters and 1 patent

<https://www.scopus.com/authid/detail.uri?authorId=7003465329>

Reviewer Profile: A regular reviewer of more than 60 journals (1,246 reviews, retrieved on 23 July 2024), please see at the Publons website: <https://publons.com/researcher/1301118/prasat-kittakoop/>

He was recognized as Top 1% of Reviewers in Chemistry in 2019 and 2018 (known as Global Peer Review Awards by Publons).

Role of Editorial Board and Associate Editor:

Associate Editor of *Frontiers in Chemistry*

Editorial Board of *Journal of Asian Natural Products Research*

Editorial Board of *Natural Product Communications*

Publications:

1. Pakamwong, B.; Thongdee, P.; Kamsri, B.; Phusi, N.; Taveepanich, S.; Chayajarus, K.; Kamsri, P.; Punkvang, A.; Hannongbua, S.; Sangswan, J.; Suttisintong, K.; Sureram, S.; **Kittakoop, P.**; Hongmanee, P.; Santanirand, P.; Leanpolchareanchai, J.; Spencer, J.; Mulholland, A. J.; Pungpo, P., Ligand-based virtual screening for discovery of indole derivatives as potent DNA gyrase ATPase inhibitors active against Mycobacterium tuberculosis and hit validation by biological assays. *J. Chem. Inf. Model.* **2024**, accepted for publication, in press.
2. Wang, Y.-F.; Wang, F.; Yang, D.-D.; **Kittakoop, P.**; Tan, Y.-X.; Tian, P., Enantioselective reductive cyclization of alkynyl-tethered cyclohexadienones catalyzed by Rhodium complexes. *Organic Letters* **2024**, *26* (27), 5614-5619.
3. Sureram, S.; Chutiwitoonchai, N.; Pooprasert, T.; Sangsopha, W.; Limjiasahapong, S.; Jariyasopit, N.; Sirivatanauksorn, Y.; Khoomrung, S.; Mahidol, C.; Ruchirawat, S.; **Kittakoop, P.**, Discovery of procyanidin condensed tannins of (–)-epicatechin from Kratom, *Mitragyna speciosa*, as virucidal agents against SARS-CoV-2. *International Journal of Biological Macromolecules* **2024**, *273*, 133059.
4. Booranaseensuntorn, P.; Boonsombat, J.; Thongnest, S.; Batsomboon, P.; Reuk-Ngam, N.; Khlaychan, P.; Ruchisansakun, S.; **Kittakoop, P.**; Techasakul, S.; Mahidol, C.; Ruchirawat, S., Albiflorenes A-L, polyoxygenated cyclohex(a/e)ne diterpene esters from *Kaempferia albiflora*. *Sci. Rep.* **2024**, *14* (1), 13967.
5. Yang, E.; Yao, Y.; Su, H.; Sun, Z.; Gao, S.-S.; Sureram, S.; **Kittakoop, P.**; Fan, K.; Pan, Y.; Xu, X.; Sun, Z.-H.; Ma, G.; Liu, G., Two cytochrome P450 enzymes form the tricyclic nested skeleton of meroterpenoids by sequential oxidative reactions. *J. Am. Chem. Soc.* **2024**, *146* (16), 11457-11464.
6. Thipboonchoo, N.; Fongsupa, S.; Sureram, S.; Sa-nguansak, S.; Kesornpun, C.; **Kittakoop, P.**; Soodvilai, S., Altenusin, a fungal metabolite, alleviates TGF- β 1-induced EMT in renal proximal tubular cells and renal fibrosis in unilateral ureteral obstruction. *Heliyon* **2024**, *10* (3), e24983.
7. Thipboonchoo, N.; Sureram, S.; Sa-nguansak, S.; Kesornpun, C.; **Kittakoop, P.**; Soodvilai, S., Altenusin inhibits epithelial to mesenchymal transition via suppression of TGF- β /MAPK signaling pathway in human renal proximal tubular cells and unilateral ureteral obstruction mice. *Pharm. Sci. Asia* **2023**, *50* (4), 371-380.
8. Chawengrum, P.; Luepongpatthana, N.; Thongnest, S.; Sirirak, J.; Boonsombat, J.; Lirdprapamongkol, K.; Keeratichamroen, S.; Kongwaen, P.; Montatip, P.; **Kittakoop, P.**; Svasti, J.; Ruchirawat, S., The amide derivative of anticopalic acid induces non-apoptotic cell death in triple-negative breast cancer cells by inhibiting FAK activation. *Sci. Rep.* **2023**, *13* (1), 13456
9. Thongkongkaew, T.; Jariyasopit, N.; Khoomrung, S.; Siritutsoontorn, S.; Jitrapakdee, S.; **Kittakoop, P.**; Ruchirawat, S., Anti-xanthine oxidase 5'-hydroxyhericenens A–D from the

- edible mushroom *Hericium erinaceus* and structure revision of 3-[2,3-dihydroxy-4-(hydroxymethyl)tetrahydrofuran-1-yl]-pyridine-4,5-diol. *ACS Omega* **2023**, *8*, 48, 46284-46291.
10. Darshana, D.; Chutiwitoonchai, N.; Paemane, A.; Sureram, S.; Mahidol, C.; Ruchirawat, S.; **Kittakoop, P.**, Virucidal and antiviral polyhydroxylated fatty alcohols in avocado fruit pulp (*Persea americana*) of Booth 7 cultivar. *ACS Food Sci. Technol.* **2023**, *3*, 10, 1759-1767.
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47. Chawengrum, P.; Boonsombat, J.; **Kittakoop, P.**; Mahidol, C.; Ruchirawat, S.; Thongnest, S. Cytotoxic and antimicrobial labdane and clerodane diterpenoids from *Kaempferia elegans* and *Kaempferia pulchra*, *Phytochem. Lett.* **2018**, *24*, 140-144.
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Oral Presentations as an Invited Speaker:

1. "Biologically Active Compounds from Thai Plants and Microorganisms", The First Asian Meeting of Bioinorganic Chemistry, March 7-10, 2003, Okazaki National Research Institutes, Okazaki, Japan.
2. "Diversity of Biologically Active Compounds from Thai Plants and Fungi", JSPS-NRCT Joint Seminar on Recent Advances in Natural Medicine Research, December 2-4, 2003, Chulalongkorn University, Thailand.
3. "Natural Products Chemistry of Bioactive Compounds", 1st Southeast Asia NMR User's Meeting, March 31, 2004, Prince of Songkla University, Thailand.
4. "Bioactive Metabolites from Thai Fungi Isolated from Various Habitats", 9th International Marine and Freshwater Mycology Symposium, November 14-19, 2004, Chiangmai, Thailand.
5. "Structurally Diverse Bioactive Natural Products from Thai Bioresources", 2nd International Conference on Cutting-Edge Organic Chemistry in Asia, September 2-5, 2007, Busan, Korea.
6. "Searching for Bioactive Compounds from Thai Plants and Fungi", The 35th Congress on Science and Technology of Thailand (STT35), October 15-17, 2009, The Tide Resort (Bangsean Beach), Chonburi, Thailand.
7. "Searching for Bioactive Compounds from Thai Plants and Fungi", The 18th Annual Medical Sciences Conference, August 26, 2010, Shangri-La Hotel, Bangkok, Thailand.
8. "Bioactive Compounds from Endophytic Fungi", Pure and Applied Chemistry International Conference (PACCON2011), January 5-7, 2011, Miracle Grand Hotel, Bangkok, Thailand.
9. "Bioactive Compounds from Endophytic and Marine-Derived Fungi", 7th International Conference on Cutting-Edge Organic Chemistry in Asia, December 11-14, 2012, Nanyang Technological University, Singapore.
10. "Bioactive Compounds from Endophytic Fungi and Metabolite Diversification by One Strain-Many Compounds (OSMAC) Method", Pure and Applied Chemistry International Conference (PACCON2016), February 9-11, 2016, BITEC, Bangkok, Thailand.
11. "Bioactive Natural Products from Fungi and Diversification of Fungal Metabolites by One Strain-Many Compounds (OSMAC) Approach", The International Conference on Sustainable Agriculture and Bioeconomy 2017 (AgBio2017), February 27-March 3, 2017, BITEC, Bangkok, Thailand.
12. "Perspective on Natural Products Chemistry and Green Chemistry", The 44th Congress on Science and Technology of Thailand, October 29-31, 2018, Bangkok International Trade & Exhibition Centre (BITEC), Bangkok, Thailand.
13. "Traditional Medicine: Past, Current State and Future Research in Thailand", International Conference on Globalization of Traditional Medicine, December 6-7, 2018, Mae Fah Luang University, Chiang Rai, Thailand.
14. "Antitubercular Natural Products and Synthetic Agents against Clinical Multidrug Resistant Isolates of *Mycobacterium tuberculosis*", Joint International Tropical Medicine Meeting 2018 (JITMM2018), December 12-14, 2018, Amari Watergate, Bangkok, Thailand.

15. "Challenges in Developing Qualified Cannabis Products", The 2nd ASEAN Health Wisdom Conference, 2019, Theme: Fostering Collaboration to Promote Innovative Traditional & Complementary Medicine for Sustainable ASEAN Community, 22-24 August 2019, Chao Phya Abhaibhubejhr Hospital, Prachinburi, Thailand.
16. "Natural Products Chemistry and Green Chemistry: On-going Research and Perspective", The Second Li River International Forum of Pharmaceutical Science (LRIFPS-2), September 26-28, 2019, Guangxi Normal University, Guilin, China.
17. "Bioactive Compounds from Thai Plants and Microorganisms", The Pure and Applied Chemistry International Conference 2020 - PACCON 2020 Chemistry for Catalyzing Sustainability and Prosperity, February 13-14, 2020, IMPACT Forum, Muangthong Thani, Bangkok, Thailand.
18. "Natural Products and Derivatives against SARS-CoV-2", Joint International Tropical Medicine Meeting 2020 (JITMM Virtual 2020), 15-16 December 2020, Bangkok, Thailand, Webinar.
19. "On-going Research on Natural Products Chemistry and Green Chemistry", Science Beyond Boundary: Invention, Discovery, Innovation and Society "Rasayan 8", April 30, 2021, Vidyasagar University, India, Webinar.
20. "Research in Chemistry: Research Inspiration toward High Citation with Reputed Journals", DPST Conference on Science and Technology 2021, 8 July 8, 2021, Kasetsart University, Bangkok, Thailand, Webinar.
21. "Natural Products and Derivatives against COVID-19 Virus", The 3rd Li River International Forum of Pharmaceutical Science & The 1st International Forum on Medicinal Chemistry of Natural Active Ligand Metal-based Drug, July 15-16, 2021, Guangxi Normal University, Guilin, China, Online via Zoom.
22. "Natural Products as Antiviral and Virucidal Agents against SARS-COV-2 (COVID-19) Virus", The Pure and Applied Chemistry International Conference 2022 - PACCON 2022 "Frontiers in Chemical Sciences for Health, Energy, and Sustainability", June 30-July 1, 2022, KMITL Convention Hall, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand.
23. "Bioactive natural products and green chemistry", The 4th Lijiang International Forum on Pharmaceutical Sciences, October 29-30, 2022, Guangxi Normal University, Guilin, China, Online via Zoom.
24. "Anti-infectious, anticancer, and antidiabetic natural products and derivatives", Current Trends in Organic Chemistry; Showcasing excellence in organomolecular science research, November 15, 2022, Kapisanang Kimika ng Pilipinas-Division of Organic Chemistry (KKP-DOC), Philippines, Online via Zoom.
25. "Bioactive compounds from Thai plants", 2023 Shanghai International Conference on Traditional Chinese Medicine and Natural Medicine, October 25, 2023, Shanghai, China.
26. "Water-assisted nitrile oxide cycloadditions and a simple, clean, by-product-free, site-selective deuteration", The 16th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-16), December 1-4, 2023, National University of Singapore, Singapore.
27. "Deuterated drugs, new challenging molecules as drug candidates: deuteration of natural products", The Pure and Applied Chemistry International Conference 2024 - PACCON 2024 "Chemistry for Bio-Circular-Green Economy", 26-27 January 2024, Bangkok International Trade & Exhibition Centre (BITEC), Bangkok, Thailand.