



Che Puteh Osman, Associate Professor ChM Dr.

Contact

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- Atta-ur-Rahman Institute for Natural Product Discovery, UiTM

Expertise

Natural Product Chemistry, Herbal Analysis, Spectroscopy

Research Profiles

- Scopus*** H-index: 7
Citations: 216
- H-index: 6
Citations: 173
- H-index: 9
Citations: 520

Professional Memberships

- Institut Kimia Malaysia**
Member
- Malaysian Natural Product Society**
Lifetime member
Assistant Secretary 2024-2026

Awards

- Anugerah Akademik Universiti**
(Penulis Prolifik) 2019
- Anugerah Pekerja Cemerlang**
2018 & 2022

Innovation

- 2 Copyrights**
- 3 Silver Medals**

Editorial Board



Education

Doctor of Philosophy	BSc. (Hons) Applied Chemistry
Universiti Teknologi MARA Research Excellent Award 2013	Universiti Teknologi MARA Vice Chancellor's Award 2007

Employment Details

Lecturer Faculty of Applied Sciences UiTM	2010-2013
Senior Lecturer Faculty of Applied Sciences UiTM	2013-2025
Associate Professor Faculty of Applied Sciences UiTM	2025-current
Research Fellow Atta-ur-Rahman Institute for Natural Product Discovery, UiTM	2019-current

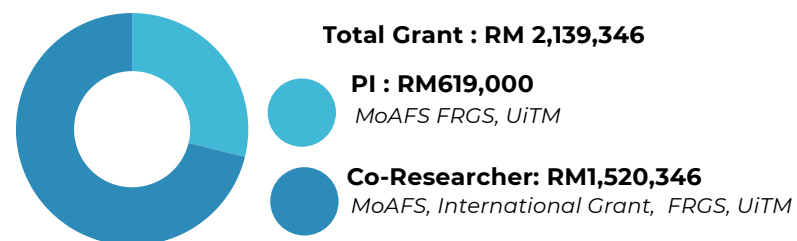
Administrative Experience

Deputy Director Atta-ur-Rahman Institute for Natural Product Discovery	2024-2025
Penyelaras Strategik Transformasi Universiti Atta-ur-Rahman Institute for Natural Product Discovery	2022-2024

Publications

- 40 indexed publications
- 17 journals as Corresponding authors
- 14 Flagship journals including Q1/Q2

Grants



Supervision

Graduated	Ongoing
3 PhD : 1 Main, 2 Co SV 4 MSc : 2 Main, 2 Co SV	2 PhD : 1 Main, 1 Co SV 2 MSc : 1 Main, 1 Co SV

National Contributions

- Penyediaan dokumen Standard Operating Procedures untuk 9 herba berprestasi tinggi, Kementerian Pertanian dan Keterjaminan Makanan 2023-2025
- Penyediaan Pelan Komunikasi Kesihatan Berkaitan Vaksin Dan Imunisasi 2019

NMR Trainer

- Income generation of more than RM20,000
- Creating new collaborations from NMR consultation

Guest/Invited Lectures



Networking and Collaborations



- More than 10 inbound students
- Joint Publications
- Joint Seminar and Conferences



- Two inbound PhD students
- Joint Publications

Curriculum Development

- Curricular review committee 2018-2020 (Secretary)
- Deemed accreditation committee 2018-2019 (Secretary)
- Developing natural product courses for BSc. (Hons.) Applied Chemistry

Other Committees

- AuRIns Visibility Coordinator (Ebook, websites, social media)(2024-present)
- AuRIns Strategic Planning 2025-2030
- Committee member Tabung Amanah AuRIns (2023- present)
- Committee member Hospital Research Advisory Committee (2024-2025)

Science Communication and Community Outreach



Persatuan Sahabat Sains Malaysia
(NGO Registration: PPM-008-14-08122020)

Exco (2018-current)



Ini Sains Beb!

Content Creator (2018-current)

Articles, podcasts, newspaper articles, interviews including Majalah Tiga, features in Italian Science Magazine

Teaching Experience

- CMT596 Natural Products 2025-current
- CMT625 LCMS and NMR For Natural Product Analysis 2019-2025
- CMT595 Natural Product Chemistry and Technology 2019-2025
- CMT574 Chemical Technology 2014-2019
- CMT669 Oleochemistry 2013-2018
- CHM573 Industrial Chemistry 2013-2019

Conference Committee

- International Conference on Natural Products 2024 (*Secretariat*)
- International Conference on Natural Products 2023 (*Head of Conference Secretary*)
- Asian Symposium on Medicinal Plants and Spices (ASOMPS XVII) 2021 (*Secretariat*)

Student Activities

- Global Health Talk Persatuan Pascasiswazah Perubatan 13 Oktober 2025
- Program Chemistry in Life by Applied Chemistry Society 2023
- Science and Technology Carnival (CASTECH) 2019
- Advisor Postgraduate NMR Workshops 2019
- Sambutan Hari Kemerdekaan 2017
- Festival Sains dan Teknologi (FESTASI) 2015

Selected Publications

Corresponding author

Abd Karim, H. A., Ilmi, H., Widyawaruyanti, A., Ismail, N. H., Zohdi, R. M., & **Osman, C. P.** (2025). Phytochemical analysis and evaluation of antiplasmodial and cytotoxic activities of *Wrightia dubia* and *Wrightia pubescens* traditionally used for malaria treatment in Southeast Asia. *Fitoterapia*, 186.

Abd Karim, H. A., Usman, N. A. H., Ishak, I. S., Rahman, N. A., Ideris, S., & **Osman, C. P.** (2025). Exploring the Metabolites of *Boesenbergia plicata* from Pulau Tuba: A Dereplication Approach. *Malaysian Journal of Chemistry*, 27(1), 74-83.

Ideris, S., Imran, S., Abd Latip, N. & **Osman, C.P.** (2024) Molecular Docking, Drug-likeness, and ADMET Predictions for Goniiothalamine and its Analogues as Plasmeprin II Inhibitors. *Malaysian Journal of Chemistry*, 26 (2), 33-45.

Ideris, S., Imran, S., Abd Latip, N. & **Osman, C.P.** (2024) Goniiothalamine and Its Analogues as Potential Inhibitors of Plasmodium falciparum Lactate Dehydrogenase Enzyme: Molecular Docking, Molecular Dynamics Simulation Studies, and Pharmacokinetics Analysis. *Malaysian Journal of Chemistry*, 26 (1), 27-39.

Osman, C. P., Kasim, N., Mohamed Salim, N. S. A., & Abdul Aziz, N. (2022). Discrimination of 11 Malaysian Durian Cultivars Based on Sulfur-Containing Volatiles and Esters Using Multivariate Data Analysis. *Natural Product Communications*, 17(1), 1- 8

Abdul Karim, H.A., Ismail, N.H. and **Osman, C.P.** (2022) Steroidal Alkaloids from the Apocynaceae Family, *Natural Products Communications*, 17 (11), 1-14.

Abd Karim, H. A., Rasol, N. E., Ismail, N. H., Wiart, C., & **Osman, C. P.** (2022). Metabolites Annotation of Dichloromethane Extract of *Kibatalia maingayi* Woods using Orbitrap High-Resolution Mass Spectrometry. *Malaysian Journal of Chemistry*, 24(4), 161-172.

Osman C.P., Abdul Somat, N., Zahari, Z., Imran, S., Adenan, M.I.(2021). Isolation, peroxisome proliferator-activated receptor-gamma transcription, glucose uptake, and molecular docking of tetramethoxyflavonoids from the leaves of *Rourea mimosoides* (Vahl) Planch, *J Appl Pharm Sci*, 11(08),010–016.

Abdul Somat, N., Yusuff, Z., & **Osman, C.P.** (2020). Chemical Constituents from *Diospyros discolor* Willd. and their Acetylcholinesterase Inhibitory Activity. *Pharmacognosy Journal*, 12(6s)

Osman, C.P., Zahari, Z., Adenan, M.I., Mohd Zuhdi, R. (2019) A review on traditional uses, phytochemistry, and pharmacology of the genus *Rourea*, *Journal of Applied Pharmaceutical Sciences*, 9, 125-131

Osman, C. P., Ismail, N. H., Widyawaruyanti, A., Imran, S., Tumewu, L., Choo, C. Y., & Ideris, S. (2018). Evaluation of a Series of 9,10-Anthraquinones as Antiplasmodial Agents. *Letters in Drug Design & Discovery*, 15, 1-11.

Osman, C.P. & Ismail, N.H. (2018) Antiplasmodial Anthraquinones from Medicinal Plants: The Chemistry and Possible Mode of Actions, *Natural Product Communications*, 13 (12), 1591-1597.

Osman, C. P., Ismail, N. H., Wibowo, A., & Ahmad, R. (2016). Two new pyranoanthraquinones from the root of *Rennellia elliptica* Korth. (Rubiaceae). *Phytochemistry Letters*, 16, 225-229.

Selected Publications

Co Authors

Dewi, I. P., Aldi, Y., Ismail, N. H., **Osman, C. P.**, Putra, P. P., & Wahyuni, F. S. (2025). A new xanthone from *Garcinia cowa* Roxb. and its anti-inflammatory activity. *Journal of Ethnopharmacology*, 343.

Corry, M. N., Ilmi, H., Tumewu, L., Nisa, H. K., Wicaksana, F., Pamungkas, I. R., Salam, S., Kuncoro, H., **Osman, C. P.**, Hafid, A. F., & Widyawaruyanti, A. (2025). Antimalarial and Cytotoxic Activities of *Cratoxylum sumatranum* (Jack) Bl. Twigs Dichloromethane Extract and Its Phytochemical Profiling by LC-MS/MS. *Trends in Sciences*, 22(10).

Mohd Zainal Abidin Shukri, Y., Abd Rahim, I. N., Abdul Nasir, N. A., **Osman, C. P.**, & Mohd Kasim, N. A. (2025). Saffron's protective role against atherosclerosis-induced cataract progression in New Zealand white rabbits with phytochemical analysis of saffron's extract. *PLoS ONE*, 20(1).

Tumewu, L., Ilmi, H., Kartika Sari, D., Permanasari, A. A., Khairun Nisa, H., Saputri, R. D., Tjahjandarie, T. S., Tanjung, M., **Osman, C. P.**, Ismail, N. H., Widyawaruyanti, A., & Hafid, A. F. (2025). Three new dihydrochalcones from the leaves of *Artocarpus sericarpus* Jarrett and their activity against *Plasmodium falciparum*. *Natural Product Research*, 39(13), 3721-3729.

Suryanto, S., Tumewu, L., Ilmi, H., Nisa, H. K., Suciati, S., **Osman, C. P.**, Ismail, N. H., Hafid, A. F., & Widyawaruyanti, A. (2025). New xanthone from *Cratoxylum glaucum* Korth. leaves exhibited in vitro antiplasmodial activity against *Plasmodium falciparum*. *Natural Product Research*.

Afzan, A., Marcourt, L., Karim, H. A. A., Kasim, N., Queiroz, E. F., **Osman, C. P.**, Ismail, N. H., & Wolfender, J.-L. (2024). Chemical characterizations dataset of flavonoid glycoside isomers and other constituents from *Ficus deltoidea* Jack. *Data in Brief*, 110414.

Tumewu, L., Ilmi, H., Saputri, R. D., Sari, D. K., Permanasari, A. A., Nisa, H. K., Maulana, S., Tjahjandarie, T. S., Tanjung, M., **Osman, C. P.**, Ismail, N.H., Hafid, A. F. (2023). Antimalarial dihydrochalcone isolated from *Artocarpus sericarpus* Jarret leaves and in silico investigation against falcipain-2 protein. *Journal of Pharmacy and Pharmacognosy Research*, 11(5), 797-809.

Anouar, E., **Osman, C.P.**, Weber, J.-F., & Ismail, N. (2014). UV/Visible spectra of a series of natural and synthesised anthraquinones: experimental and quantum chemical approaches. *SpringerPlus*, 3(1), 233-245.

Publications

Scopus-Indexed Book

Manshoor, N., Salim, F., **Osman, C. P.**, Ahmat, N., Kamarozaman, A. S., Mohd Sarmin, N., & Syed Mohamad, S. A. (2025). Biologically Active Compounds of Malaysian Medicinal and Aromatic Plants. *Progress in the chemistry of organic natural products*, 127, 1-202.

Innovation

Osman, C.P., Mohamed Salimi, N.S.A., and Abdul Aziz, N. Rapid identification of durian clones. Invention, Innovation and Design Exposition 2016 (iidex 2017), 27 September 2017 at Dewan Agung Tuanku Canselor, Universiti Teknologi MARA.

Osman, C.P., Ismail, N.H., and Ahmad, R. Optimization of hydroxyanthraquinones as potential lead candidate for treatment of malaria. Invention, Innovation and Design Exposition 2016 (iidex 2016), 20-23 September 2016 at Dewan Agung Tuanku Canselor, Universiti Teknologi MARA.

Osman, C.P., Ismail, N.H., Ahmad, R., and Choo, C.Y. and Mohd Jaafar, F. Potentiation of Root Extract of *Rennellia elliptica* Korth. as Antimalarial Herbal Remedy. Invention, Innovation and Design Exposition 2015 (iidex2015), 27-30 April 2015 at Dewan Agung Tuanku Canselor, Universiti Teknologi MARA.

Copyrights

Rapid Identification Of Durian Clones (2017) CRLY00008447

Potentiation of Root Extract Of *Rennellia elliptica* Korth. As Antimalarial Herbal Remedy (2015) CRLY00002414

Grants

Principal Investigator

Malaysian Priority Herbs: LCMS Profile and Establishment of Validated HPLC Methods of Chemical Markers, 2023-2025, **Ministry of Agriculture and Food Security**, RM410,000

Dereplication of *Boesenbergia Plicata* Using Orbitrap LC-MS/MS, 2023-2024, **Geran Inisiatif Penyeliaan**, RM24,000

New Dihydrofolate Reductase Inhibitors From *Wrightia dubia*, *Wrightia pubescens* and *Heterostemma piperrifolium* Using Integrated Molecular Docking and Dereplication Approach, 2021-2023, **MyRA (Road to Hi-COE)**, RM60,000

Dereplication Approach of Identification of Antimalarial Compounds from *Kibatalia maingayi* using LC-ESI-MS, 2019-2023, **Lestari**, RM25,000

Chemical fingerprinting of *Rourea mimosoides*, 2018-2020, **Bestari Perdana**, RM30,000

Standardization of *Rennellia elliptica* Root Extract based on Antiplasmodial Activity, 2013-2015, **Fundamental Research Grant Scheme (FRGS)**, RM70,000.

Grants

Co-Researcher

Investigation of Alkaloid Containing Plants of the Unique Limestone Forest of Tuba Island Langkawi Malaysia, 2022-2024, **International Grant**, RM17,312

The Development of Chromatographic Profile of Saffron Extract and the Evaluation of The Use of Different Solvents For Phytochemical Extraction of Saffron, 2022-2024, **Strategic Partnership Project**, RM20,000

The PBREM-UGT1A1 Recombinant Cell As a Novel Tool to Assess Toxicity of Xenobiotics, Per- and Polyfluoroalkyl Substances (PFASS), 2022-2024, **Fundamental Research Grant Scheme (FRGS)**, RM122,500

Probing The Antiplasmodial Mechanistic Pathway Of *Goniothalamus lanceolatus* By Targeting The Hemozoin Biosynthesis, 2016-2018, **Fundamental Research Grant Scheme (FRGS)**, RM 103,200.00

Neuroprotective effects of *Centella asiatica* on methamphetamine-induced neurotoxicity and micro-RNA analysis, 2015-2017, **NRGS**, RM212,000

Study on acetylcholinesterase (AChE) inhibition from the methanol extracts of different plant parts of *Morinda citrifolia*, 2014-2016, **RAGS**, RM80,000

Production of Chemical Marker Compounds from *Morinda citrifolia* (Scopeletin & Anthraquinones and *Centella asiatica* (Asiatic acid, madecassic acid, asiaticoside and madecassoside), 2013-2016, **NGRS**, RM890,000

Postgraduate Supervision

Graduated

Hidayatul Atiqah Abd Karim (Main Supervision)

2025

Doctor of Philosophy

Isolation and Characterisation of Antiplasmodial Compounds from *Kibatalia maingayi*, *Wrightia dubia* and *Wrightia pubescens*

Asri Widyasanti (External Co Supervision)

2023

Doctor of Philosophy Universitas Padjadjaran

Design Of A Fractional Distillation Process Of Patchouli Oil For Optimization Of a-Guaiene Isolation And Its Application As A Raw Material For The Fragrance Industry

Wan Zuraida Wan Mohd Zain (Co supervision)

2019

Doctor of Philosophy

Chemical Constituents Of *Dipterocarpus verrucosus*, *D. cornutus* And *D. crinitus* of Malaysian Dipterocarpus And Their Biological Activities

Nor Hafizah Abdul Somat (Main Supervision)

2021

Master of Science

Chemical Constituents from *Diospyros discolor* Willd. and their Acetyl Cholinesterase Activity

Hidayatul Atiqah Abd Karim (Main Supervision)

2019

Master of Science

Isolation and characterisation of of Apigenin 6,8-diglycosides from *Ficus deltoidea* var. *trengganuensis*

'Alim Alsukor Aznirulhisham (Co-Supervision)

2025

Master of Science

Synthesis, Biological Studies, Structure Activity Relationship and Molecular Docking of Coumarin Derivatives Bearing Thiourea and Sulfonamide Moieties

Bazli Abu Bakar (Co-Supervision)

2023

Master of Science

Antimicrobial Activity Of Selected Aromatic Plants On Foodborn Pathogens And Determination Of Its Chemical Composition

Postgraduate Supervision

Ongoing

Sharinah Ideris (Main Supervision)

Doctor of Philosophy

Antiplasmodial Compounds from *Goniothalamus lanceolatus*

Najwa Nabilah A. Rahman (Main Supervision)

Master of Science

Xanthones from *Garcinia mangostana* and their anti-SARS-CoV-2 activity

Aisyah Syakirah Shahari (Co Supervision)

Doctor of Philosophy

Characterization, Mechanism Of Action And Effect of Active Compounds Extracted from Antarctic Lichens against Multidrug Resistant (MDR) *Acinetobacter baumannii*

Yasmin Mohd Zainal Abidin Shukri (Co-Supervision)

Master of Science

The Phytochemical Analysis of Saffron Aqueous Extract and the Evaluation of Its Acute and Subchronic Toxicity Study