CURRICULUM VITAE

MOHAMMED S. S. ABUALQUMSSAN (QOMS), Ph.D.
Senior Lecturer
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A. Personal Details			
Full Name	**MOHAMMED S. S. ABUALQUMSSAN**		
Citizenship: Palestine	Race: Arab	Gender: Male	Date of Birth: 07-12-1993
Address			**Email**
Department of Food Science Faculty of Food Science and Technology Universiti Putra Malaysia 43400, Serdang Selangor			mohammed@upm.edu.my

B. Academic Qualification			
Certificate/Qualification obtained	**Name of School / Institution**	**Year obtained**	**Area of specialization**
Doctor of Philosophy (Ph.D)	Universiti Putra Malaysia	2024	Food Science
Master of Science (M.Sc)	Universiti Putra Malaysia	2019	Food Safety and Quality Assurance
Bachelor of Science (B.Sc)	Al-Azhar University Gaza	2015	Food Science and Technology

C. Language Proficiency					
Language	**Poor (1)**	**Moderate (2)**	**Good (3)**	**Very Good (4)**	**Excellent (5)**
English				/	
Arabic					/
Malay		/			

D. Working Experience

Department/Institute	Duration	Position held	Brief responsibilities
Department of Biochemistry, Faculty of Medicine, Universiti Kebangsaan Malaysia (UKM)	January 2025-January 2026	Postdoctoral Researcher	• Production and purification of anti-obesity peptides from marine fungal proteins • Monitoring and guiding postgraduate students • Preparing technical reports and manuscripts for publication. • Participating in seminars and journal club activities

E. Areas of Expertise

- Food chemistry
- Food bioprocessing
- Structure-function relationships of food components
- Chemical and molecular interactions in foods
- Gut microbiome-food interactions
- Health-related bioactive molecules
- Functional food development
- Proteomics and peptidomics
- Computational modelling

F. Honors and Awards

Name of Awards	Title	Award Authority	Award Type	Year
Academic Awards	Special Graduate Research Allowance Scheme (SGRA)	Universiti Putra Malaysia (UPM)	Scholarship	2022-2024

G. Research Projects

Project No.	Project Title	Role	Year	Source of Fund	Status
IAEA Research Contract No. 30023 (**€41,250; approximately RM193,644**)	Stable isotope-based assessment of protein quality and amino acid digestibility of selected fungal mycoproteins as alternative dietary protein sources	Principal Investigator	2026 - 2032	International Atomic Energy Agency (IAEA)	Ongoing
GP-GPB/ 2022/9711600 (**RM250,000**)	Valorisation of local plant protein sources for plant-based food applications	Co-researcher	2022 - 2025	Universiti Putra Malaysia (UPM)	Completed

H. Supervision			
Role	**Degree**	**No. of student**	**Status**
Co-supervisor	Ph.D.	2	On-going

I. List of publications – authors, title, journal, volume, page and year published

1. **Qoms, M. S.**, Arulrajah, B., Ibadullah, W. Z. W., Ramli, N. S., Chau, D. M., Sarbini, S. R., & Saari, N. (2024). Performance of *Azolla pinnata* fern protein hydrolysates as emulsifier and nutraceutical ingredient in an O/W emulsion system and their effect on human gut microbiota and mammalian cells. *Food & Function*, *15*, 6578-6596. (**SCIE Q1**)

2. **Qoms, M. S.**, Arulrajah, B., Ibadullah, W. Z. W., Ramli, N. S., Shamsudin, R., Chau, D. M., & Saari, N. (2024). Antihypertensive, Antidiabetic, and Antioxidant Properties of Novel *Azolla pinnata* Fern Protein Hydrolysates: Inhibition Mechanism, Stability, Profiling, and Molecular Docking. *Food & Bioprocess Technology*, 1-18. (**SCIE Q1**)

3. **Qoms, M. S.**, Arulrajah, B., Shamsudin, R., Ramli, N. S., Ibadullah, W. Z. W., Chau, D. M., & Saari, N. (2023). Enzymolysis of *Azolla pinnata* protein concentrate: Effect of protease types and hydrolysis extents on the physicochemical, techno-functional and biological properties. *Food Bioscience*, *53*, 102787. (**SCIE Q1**)

4. **Qoms, M. S.**, Arulrajah, B., Shamsudin, R., Ibadullah, W. Z. W., & Saari, N. (2022). Valorization of green biomass *Azolla pinnata* fern: multi-parameter evaluation of processing conditions on protein extractability and their influence on the physicochemical, structural, techno-functional properties and protein quality. *Journal of the Science of Food & Agriculture*, *102*(15), 6974-6983. (**SCIE Q2**)

5. **Qoms, M. S.**, Wong, S. K., Fauzi, N. M., Husain, K., Makpol, S., Tan, J. K., (2025). Microalgae-Derived Peptides Targeting Lifestyle-Related Diseases: Discovery, Mechanisms, Structure-Activity Relationships and Structural Modifications. *Antioxidants.* (**SCIE Q1)**

6. **Arulrajah, B.*, Qoms, M. S.***, Ibadullah, W. Z. W., & Saari, N. (2025). Innovative deep eutectic solvent approach vs. conventional alkaline for kenaf seed protein extraction: A comprehensive comparison of structural, thermal, nutritional and techno-functional properties. *Innovative Food Science & Emerging Technologies*, *102*, 103972. (**SCIE Q1; *Indicates joint first authors**)

7. **Arulrajah, B.*, Qoms, M. S.***, Barkia, I., Ibadullah, W. Z. W., Zakaria, M. H., & Saari, N. (2025). Exploring the potential of kenaf seed proteins produced via freeze, spray and vacuum oven drying: A comparison with commercial soy and whey proteins. *Applied Food Research*, 101063. (**ESCI Q1; *Indicates joint first authors**)

8. Ijod, G., Nawawi, N. I. M., **Qoms, M. S.**, Fitry, M. R. I., Abd Rahim, M. H., Charalampopoulos, D., Sulaiman, R., Adzhan, M. N., & Azman, E. M. (2025). Synergistic effects of intermolecular copigmentation and high-pressure processing on stabilizing mangosteen pericarp anthocyanins. *Food Chemistry*, *480*, 143888. (**SCIE Q1)**

9. Gholivand, S., Tan, T. B., Yusoff, M. M., **Qoms, M. S.**, Wang, Y., Liu, Y., Nyam, K. L., & Tan, C. P. (2025). Eco-friendly encapsulation: Investigating plant-based protein-alginate shells for efficient delivery and digestion of hemp seed oil encapsulated via supercritical CO_2 dispersion. *Food Chemistry*, 141515. (**SCIE Q1**)

10. Gholivand, S., Tan, T. B., Yusoff, M. M., **Qoms**, M. S., Wang, Y., Liu, Y., Nyam, K. L., & Tan, C. P. (2025). Innovative microencapsulation of hemp seed oil using plant-based biopolymers: a comparative analysis of dehydration techniques on core stability, digestibility and release pattern. *Food Hydrocolloids*, 110683. (**SCIE Q1**)

11. Arulrajah, B., **Qoms, M. S.**, Muhialdin, B. J., Hussin, A. S. M., Hasan, H., Zarei, M., Chau, D. M., Ramasamy, R., & Saari, N. (2023). Elucidating the mechanisms underlying the action of kenaf seed peptides mixture against gram-positive and gram-negative bacteria and its efficacy in whole milk preservation. *LWT*, *181*, 114757. (**SCIE Q1**)

12. Arulrajah, B., **Qoms, M. S.**, Muhialdin, B. J., Zarei, M., Hussin, A. S. M., Hasan, H., Chau, D. M., Ramasamy, R., & Saari, N. (2023). Antifungal efficacy of kenaf seed peptides mixture in cheese, safety assessment and unravelling its action mechanism against food spoilage fungi. *Food Bioscience*, *52*, 102395. (**SCIE Q1**)

13. Arulrajah, B., **Qoms, M. S.**, Muhialdin, B. J., Hasan, H., Zarei, M., Hussin, A. S. M., Chau, D. M., & Saari, N. (2022). Antibacterial and antifungal activity of kenaf seed peptides and their effect on microbiological safety and physicochemical properties of some food models. *Food Control*, *140*, 109119. (**SCIE Q1**)

14. Arulrajah, B., Muhialdin, B. J., **Qoms, M. S.**, Zarei, M., Hussin, A. S. M., Hasan, H., & Saari, N. (2021). Production of cationic antifungal peptides from kenaf seed protein as natural bio preservatives to prolong the shelf-life of tomato puree. *International Journal of Food Microbiology*, *359*, 109418. (**SCIE Q1**)

J. Research Identifiers		
	Author ID	**Name**
Scopus	57279156400	Qoms, Mohammed S.
Web of Science	KWU-3139-2024	Qoms, Mohammed S.

K. Research Profiles	
Google Scholar	Mohammed S. Qoms
ResearchGate	Mohammed S. Qoms
LinkedIn	Mohammed S. Qoms