CURRICULUM VITAE

Name:	Mohammad Alrosan
Address:	Faculty of Agriculture, Department of Food Science and Nutrition, Jerash, Jordan.
Phone:	+97433555676, +60124801383, +962781735535
Email:	mohammad.alrosan@hotmail.com, m.alrosan@qu.edu.qa, m.alrosan@jpu.edu.jo

EDUCATION

2019- 2022: **PhD degree in Food Technology:** Department of Food Technology, School of Industrial Technology, University Sains Malaysia, Penang, Malaysia.

2013- 2016: **Master's degree in Nutrition and Food Technology (Food Technology):** Department of Nutrition and Food Technology, Faculty of Agriculture, Jordan University of Science and Technology, Irbid, Jordan.

2010-2013: **Bachelor's degree in Nutrition and Food Technology:** Department of Nutrition and Food Technology, Faculty of Agriculture, Jordan University of Science and Technology, Irbid, Jordan.

Academic position

Assistant Professor in Food Sciences, Faculty of Agriculture, Department of Food Science and Nutrition, Jerash, Jordan.

FUNDING SUCCESSS

Principal Investigator

- Title of Project: Developing novel complex plant-based proteins and polysaccharides to meet the needs of diabetics and hypertensives.
  Award number: 2025-010-29111
  CRIS number: 197
  Funding amount: $71000

Principal Investigator

- Title of Project: Developing novel complex plant-based proteins to meet the needs of diabetics and hypertensives.
  Award number: 2024-31831-66671
  CRIS number: 13412
  Funding amount: $89,000

Principal Investigator

- Title of Project: Developing novel protein bars with plant-based protein to meet the needs of bodybuilders.
  Award number: 2023-47821-27732
  CRIS number: 335008
  Funding amount: $121,000

RESEARCH & TEACHING INTEREST

- Developing non-thermal techniques for enhancing the functional properties of plant proteins and pharmaceutical applications.
- Protein-protein interaction.
- Technology Validation and Reactor Optimization.
- Protein structures
- Medical application in medicine.
- By-product utilization and extractions
- Impact of food and its components on health and wellness

REVIEWER ACTIVITIES

- Reviewer for the Journal, Food chemistry, (Elsevier)
- Reviewer for the Journal, Food and Bioprocess Technology, (Springer)
- Reviewer for the Journal, food chemistry x, (Elsevier)
- Reviewer for the Journal, Food Science & Nutrition, (Wiley)
- Reviewer for the Journal, food bioprocess, (Elsevier)
- Reviewer for the Journal, Foods (MDPI)

COMPUTER SKILLS

Operating systems:	Macintosh
Office applications:	Microsoft PowerPoint, Access, Excel, Word
Citation softwares:	Endnote
Scientific/Statistical:	SPSS
Drawing programs:	Adobe illustrator

RESEARCH PRODUCTIVITY

Total Number of Citations: ≈ 420
H-Index: 12

MEMBERSHIPS OF PROFESSIONAL BODIES

- Institute of Food Technologist, USA (Premier membership, 01258275)

COLLABORATING RESEARCH INSTITUES & UNIVERSITIES

- School of Dietetics and Human Nutrition, McGill University, Montreal, QC, Canada.
- Nocelle Foods, 2-16 market Lane, Pooraka, SA, **Australia.**
- School of Agriculture and Food, Faculty of Veterinary and Agricultural Sciences, The University of Melbourne, Parkville, VIC, **Australia**.
- Department of Physiology and Pharmacology, Thomas J. Long. School of Pharmacy & Health Science, University of the Pacific, Stockton, CA, **USA.**
- School of Food Science, Nutrition and Family Studies, Faculty of Health Sciences and Community Services, Université de Moncton, Moncton, **Canada.**
- Renewable Biomass Transformation Cluster, School of Industrial Technology, Universiti Sains Malaysia, USM, Penang, **Malaysia.**
- Department of Human Nutrition and Dietetics, College of Health Sciences, Abu Dhabi University, Zayed City, Abu Dhabi P.O, **United Arab Emirates.**
- Department of Community Health Sciences, College of Applied Medical Sciences, King Saud University, Riyadh, **Saudi Arabia.**
- Department of Radiology and Molecular Imaging, College of Medicine and Health Science, Sultan Qaboos

University. Al Khod, Muscat, **Oman.**

- Nano-Optoelectronics Research and Technology Lab (NORLab), School of Physics, Universiti Sains Malaysia, Pulau Pinang, **Malaysia.**
- Department of Applied Chemistry, College of Applied Sciences-Hit, University of Anbar, Hit, Anbar, **Iraq**.
- Department of Physiology and Biochemistry, Faculty of Medicine, Jordan University of Science and Technology, Irbid, **Jordan.**
- Department of Biological Sciences, Yarmouk University, Irbid, **Jordan.**

COLLABORATING COMPANIES

- Nutrition Co (Qatar)
- Laperva company (UK)

Publications

Book chapters

43. Alu'datt, M. H., Rababah, T., Alhamad, N. M., Gammoh, S., Al-U'datt, D., Kanakri, K., **Alrosan, M**., Kubow, S., Al Khateeb, W., Pesticides Residues in Food Safety and Security, Reference Module in Food Science, Elsevier, **2023. https://doi.org/10.1016/B978-0-12-822521-9.00183-0**

42. Alu'datt, M. H., Rababah, T., Alhamad, M. N., Gammoh, S., **Alrosan, M.,** Abujelban, D., ... & Al Khateeb, W. (2024). Physiochemical properties, bioactive compounds and aroma profile of honey. In Advanced Techniques of Honey Analysis (pp. 93-127). Academic Press. . https://doi.org/10.1016/B978-0-443-13175-2.00005-2

Peer Reviewed Journals

2024

41 Zhengrui Liao, Thaigarajan Parumasivam, Xiaotong Zhu, Thuan-Chew Tan, Alrosan M, Muhammad H. Alu' datt, selected medium-chain dicarboxylic acids: Improving the shelf life and quality of salmon meat during chilled storage, food quality and safety. **Impact factor: 3.5** accepted

40 Zhengrui Liao, Thaigarajan Parumasivam, Xiaotong Zhu, Thuan-Chew Tan, Alrosan M, Muhammad H. Alu' datt, Selected medium-chain dicarboxylic acid combinations: Improving the shelf life and quality of salmon meat during chilled storage. international Journal of food science and technology. **impact factor 3.9** accepted

39 Alu'datt, M. H., Al-u'datt, D. A., Rababah, T., Gammoh, S., **Alrosan, M**., Bani-Melhem, K., ... & Abubaker, M. (2024). Date palm (Phoenix dactylifera) bioactive constituents and their applications as natural multifunctional ingredients in health-promoting foods and nutraceuticals. 10.1111/1541-4337.70084 **Impact factot: 15**

38. Alu'datt, M. H., Al-u'datt, D. A., Rababah, T., Gammoh, S., Alrosan, M., Bani-Melhem, K., ... & Abubaker, M. (2024). Recent research directions on functional royal jelly: highlights prospects in

food, nutraceutical, and pharmacological industries. Critical Reviews in Food Science and Nutrition, 1-14. https://doi.org/10.1080/10408398.2024.2418892 **Impact factor: 12.1**

37. Ali Dheyab, M., Tang, J. H., Abdul Aziz, A., Hussein Nowfal, S., Jameel, M. S., **Alrosan, M.**, ... & Ghasemlou, M. (2024). Green synthesis of gold nanoparticles and their emerging applications in cancer imaging and therapy: a review. Reviews in Inorganic Chemistry, (0). **Impact factor 4.8**

36. **Alrosan, M.,** Maghaydah, S., Al-Qaisi, A., Almajwal, A. M., Alu'datt, M. H., Qudsi, F. R. A., ... & Mahmood, A. A. R. (2024). Lentil protein and trehalose conjugates: Structural interactions and mechanisms for improving multi-level structure and functional characteristics. Journal of Food Science. Impact factor: **Impact factor 3.8** **https://doi.org/10.1111/1750-3841.17465**

35. Dheyab, M. A., Aziz, A. A., Nowfal, S. H., Al-Mafarjy, S. S., Abdullah, W., Suardi, N., ... & Khaniabadi, P. **Alrosan, M.** (2024). Turning food waste-derived ultrasmall gold nanoparticles as a photothermal agent for breast cancer cell eradication. Inorganic Chemistry Communications, 169, 113030. **Impact factor: 4.4** https://doi.org/10.1016/j.inoche.2024.113030

34. Liao, Z., Yeoh, Y. K., Parumasivam, T., Koh, W. Y., **Alrosan, M.,** Alu'datt, M. H., & Tan, T. C. (2024). Medium-chain dicarboxylic acids: chemistry, pharmacological properties, and applications in modern pharmaceutical and cosmetics industries. RSC advances, 14(24), 17008-17021. **Impact factor: 4.1** **https://doi.org/10.1039/D4RA02598A**

33. Liao, Z., **Alrosan, M.,** Alu'datt, M. H., & Tan, T. C. (2024). 10-hydroxy decanoic acid, trans-10-hydroxy-2-decanoic acid, and sebacic acid: Source, metabolism, and potential health functionalities and nutraceutical applications. Journal of Food Science. **Impact factor 3.8** **https://doi.org/10.1111/1750-3841.17143**

32. **Alrosan, M.,** Maghaydah, S., Almajwal, A. M., Al-Qaisi, A., Gammoh, S., Alu'datt, M. H., &.. Al Qudsi, F. R., (2024). Enhancing the quality of lentil proteins via combination with whey proteins based on a dual process: A novel strategy through the incorporation of complexation and fermentation. Food Science and biotechnology. **Impact factor 3.8.** **https://doi.org/10.21203/rs.3.rs-3153701/v1**

31. **Alrosan, M.,** Maghaydah, S., Almajwal, A. M., Al-Qaisi, A., Gammoh, S., Alu'datt, M. H., &.. Al Qudsi, F. R., (2024). Lentil protein and trehalose conjugates: structural interactions and mechanisms for improving multi-level structure and functional characteristics. Journal of food science. **Impact factor 3.9.** **https://doi.org/10.1080/10942912.2024.2377239**

30. **Alrosan, M**., Tan, T. C., Alu'datt, M. H., Tranchant, C. C., Almajwal, A. M., ... & Al-Qaisi, A. (2024). Whey protein-trehalose conjugates prepared by structural interaction: Mechanisms for improving the multilevel structure and their water solubility and protein digestibility. Italian Journal of Food Science (Accepted). **Impact Factor 3.388**.

29. Alu'datt, M. H., Rababah, T., Al-ali, S., Tranchant, C. C., Gammoh, S., **Alrosan, M**., ... & Ghatasheh, S. (2024). Current perspectives on fenugreek bioactive compounds and their potential impact on human health: A review of recent insights into functional foods and other high value applications. Journal of food science. **Impact factor 3.9.** **https://doi.org/10.1111/1750-3841.16970**

28. **Alrosan, M.,** Almajwal, A. M., Al-Qaisi, A., Gammoh, S., Alu'datt, M. H., Al Qudsi, F. R., ... & Al-Massad, M. (2024). Evaluation of digestibility, solubility, and surface properties of trehalose-conjugated quinoa proteins prepared via pH shifting technique. Food Chemistry: X, 101397. **Impact factor 6.67.** **https://doi.org/10.1016/j.fochx.2024.101397**

27. Alu'datt, M. H., Tranchant, C. C., Alhamad, M. N., Rababah, T., Gammoh, S., **Alrosan, M.,** & Alkandari, S. (2024). Designing novel industrial and functional foods using the bioactive compounds from Nigella sativa L. (Black Cumin): Biochemical and biological prospects towards health implications. Journal of food science. **Impact factor 3.9.** **https://doi.org/10.1111/1750-3841.16981**

26. **Alrosan, M.,** Almajwal, A. M., Al-Qaisi, A., Gammoh, S., Alu'datt, M. H., Al Qudsi, F. R., ... & Bani-Melhem, K. (2024). Trehalose-conjugated lentil-casein protein complexes prepared by structural interaction: Effects on water solubility and protein digestibility. Food Chemistry, 138882. **Impact Factor 9.231.** **https://doi.org/10.1111/1750-3841.16981**

25. **Alrosan, M.,** Almajwal, A. M., Al-Qaisi, A., Gammoh, S., Alu'datt, M. H., Al Qudsi, F. R., ... & Maghaydah, S. (2024). Molecular forces driving protein complexation of lentil and whey proteins: Structure-function relationships of trehalose-conjugated protein complexes on protein digestibility and solubility. Current Research in Structural Biology, 100135. **Impact factor 2.8.** **https://doi.org/10.1016/j.crstbi.2024.100135**

24. Al-Qaisi, A., **Alrosan, M.,** Almajwal, A. M., Gammoh, S., Alu'datt, M. H., Kubow, S., ... & Qudsi, F. R. A. (2024). Evaluation of structure, quality, physicochemical properties, and phenolics content of pea proteins: A novel strategy through the incorporation of fermentation. Journal of Food Science. **Impact Factor 3.693.** **https://doi.org/10.1111/1750-3841.16946**

23. **Alrosan, M.,** Almajwal, A. M., Al-Qaisi, A., Gammoh, S., Alu'datt, M. H., Kubow, S., ... & Razzak Mahmood, A. A. (2024). Structural interactions of complex proteins with trehalose: mechanisms for improving the multilevel structure and functional properties of lentil-quinoa protein complexes. International Journal of Food Properties, 27(1), 1033-1045. **Impact factor 3.9.** **https://doi.org/10.1080/10942912.2024.2377239**

22. **Alrosan, M**., Tan, T. C., Easa, A. M., Gammoh, S., Alu'datt, M. H., Kubow, S., ... & AlFandi, H. (2024). Characterisation of the protein quality and composition of water kefir-fermented casein. *Food Chemistry*, 138574. **Impact Factor 9.388**. https://doi.org/10.1016/j.foodchem.2024.138574

21. Yang, Y., Huang, Y., Lu, B., **Alrosan, M.,** Easa, A.M., Alu'datt, M.H. and, Tan, T.C. (2024) Flavonoids extracts from Zhenghe white tea. Food research. https://doi.org/10.26656/fr.2017.8(1).083

2023

20. **Alrosan, M.,** Tan, T. C., Koh, W. Y., Easa, A. M., Gammoh, S., & Alu'datt, M. H. (2023). Overview of fermentation process: structure-function relationship on protein quality and non-

nutritive compounds of plant-based proteins and carbohydrates. Critical Reviews in Food Science and Nutrition, 1-15. **Impact Factor 11.208. https://doi.org/10.1080/10408398.2022.2049200.**

19. **Alrosan, M.,** Tan, T. C., Easa, A. M., Gammoh, S., Alu'datt, M. H., Aleid, G. M., ... & Maghaydah, S. (2023). Evaluation of quality and protein structure of natural water kefir-fermented quinoa protein concentrates. Food Chemistry, 404, 134614. **Impact Factor 9.231. https://doi.org/10.1016/j.foodchem.2022.134614**

18. Mehrdel, B., Yehya, A. H. S., Dheyab, M. A., Jameel, M. S., Aziz, A. A., Nikbakht, A., ... & **Alrosan, M.** (2023). The antibacterial and toxicological studies of mycosynthesis silver nanoparticles by isolated phenols from agaricus bisporus. Physica Scripta, 98(12), 125007. **Impact factor 3.081**. https://iopscience.iop.org/article/10.1088/1402-4896/ad080f/meta

17. Alu'datt, M. H., Tranchant, C. C., Alhamad, M. N., Rababah, T., Gammoh, S., **Alrosan, M**., & Alkandari, S. (2023). Impact of ultrasonication on the contents, profiles and biofunctional properties of free and bound phenolics from white desert truffle (Tirmania nivea) and its protein fractions. Food Research International, 113453. **Impact factor 7.425. https://doi.org/10.1016/j.foodres.2023.113453**

16. Gammoh, S.; Alu'datt, M.H.; Alhamad, M.N.; Tranchant, C.C.; Rababah, T.; Al-U'datt, D.; Hussein, N.; **Alrosan, M.;** Tan, T.-C.; Kubow, S.; et al. Functional and Bioactive Properties of Wheat Protein Fractions: Impact of Digestive Enzymes on Antioxidant, α-Amylase, and Angiotensin-Converting Enzyme Inhibition Potential. Molecules 2023, 28, 6012 **Impact factor 5.005. https://doi.org/10.3390/molecules28166012**

15. Gammoh, S., Alu'datt, M. H., Alhamad, M. N., Tranchant, C. C., Rababah, T., Kanakri, K., **Alrosan, M**., ... & Alzoubi, H. Determination of mycotoxins in nuts, cereals, legumes, and coffee beans and effectiveness of a selenium-based decontamination treatment. Journal of Food Safety, 13087. **Impact factor 2.442. https://doi.org/10.1111/jfs.13087**

14. **Alrosan, M**., Tan, T. C., Easa, A. M., Alu'datt, M. H., Tranchant, C. C., Almajwal, A. M., ... & Al-Qaisi, A. (2023). Improving the Functionality of Lentil–Casein Protein Complexes through Structural Interactions and Water Kefir-Assisted Fermentation. Fermentation, 9(2), 194. **Impact Factor 5.123. https://doi.org/10.3390/fermentation9020194**

13. **Alrosan, M.**, Tan, T. C., Mat Easa, A., Gammoh, S., Alu'datt, M. H., Tranchant, C. C., ... & Al Qudsi, F. R. Preparation of lentil and quinoa protein complexes through protein-protein interactions and water kefir-assisted fermentation to improve protein quality and functionality. Frontiers in Sustainable Food Systems, 7, 1174597. **Impact Factor 5.005. https://doi.org/10.3389/fsufs.2023.1174597**

12. Dheyab, M. A., Aziz, A. A., Oladzadabbasabadi, N., Alsaedi, A., Braim, F. S., Jameel, M. S., **Alrosan, M.** & Almajwal, A. M. (2023). Comparative Analysis of Stable Gold Nanoparticles Synthesized Using Sonochemical and Reduction Methods for Antibacterial Activity. Molecules, 28(9), 3931. **Impact Factor 4.927. https://doi.org/10.3390/molecules28093931**

11. **Alrosan, M**., Tan, T. C., Easa, A. M., Gammoh, S., Alu'datt, M. H., Kubow, S., ... & Al-Qaisi, A.

(2023). Enhanced functionality of fermented whey protein using water kefir. International Journal of Food Properties, 26(1), 1663-1677. **Impact Factor 3.388**. https://doi.org/10.1080/10942912.2023.2225799

2022

10. Alu'datt, M. H., **Alrosan, M.,** Gammoh, S., Tranchant, C. C., Alhamad, M. N., Rababah, T., ... & Tan, T. C. (2022). Encapsulation-based technologies for bioactive compounds and their application in the food industry: A roadmap for food-derived functional and health-promoting ingredients. Food Bioscience, 50. **Impact Factor 5.318. https://doi.org/10.1016/j.fbio.2022.101971**

9. Gammoh, S., Alu'datt, M. H., Alhamad, M. N., **Alrosan, M.,** Al-husein, B., AL-U'datt, D. A. G., ... & Kubow, S. (2022). Enzymatic bioactive peptides from sonicated whey proteins of camel milk: Impacts of nanopeptides on structural properties, antioxidant activity and inhibitory activity of alpha-amylase and ACE. International Journal of Dairy Technology, 75(4), 791-802. **Impact Factor 4.286. https://doi.org/10.1111/1471-0307.12890**

8. **Alrosan, M.,** Tan, T. C., Easa, A. M., Gammoh, S., Kubow, S., & Alu'datt, M. H. (2022). Mechanisms of molecular and structural interactions between lentil and quinoa proteins in aqueous solutions induced by pH recycling. International Journal of Food Science & Technology, 57(4), 2039-2050. **Impact Factor 3.612. https://doi.org/10.1111/ijfs.15422**

7. Jameel, M. S., Aziz, A. A., Dheyab, M. A., Khaniabadi, P. M., Kareem, A. A., **Alrosan, M**., ... & Mehrdel, B. (2022). Mycosynthesis of ultrasonically-assisted uniform cubic silver nanoparticles by isolated phenols from Agaricus bisporus and its antibacterial activity. Surfaces and Interfaces, 29, 101774. **Impact Factor 6.137. https://doi.org/10.1016/j.surfin.2022.101774**

6. Alu'datt, M. H., Khamayseh, Y., Alhamad, M. N., Tranchant, C. C., Gammoh, S., Rababah, T., **Alrosan, M**., ... & Tan, T. C. (2022). Development of a nutrition management software based on selected Middle Eastern and Mediterranean dishes to support personalized diet and weight management. Food chemistry, 373, 131531. **Impact Factor 9.231. https://doi.org/10.1016/j.foodchem.2021.131531**

5. **Alrosan, M.,** Tan, T. C., Easa, A. M., Gammoh, S., & Alu'datt, M. H. (2022). Recent updates on lentil and quinoa protein-based dairy protein alternatives: Nutrition, technologies, and challenges. Food chemistry, 132386. **Impact Factor 9.231. https://doi.org/10.1016/j.foodchem.2022.132386**

4. **Alrosan, M.,** Tan, T. C., Easa, A. M., Gammoh, S., & Alu'datt, M. H. (2022). Molecular forces governing protein-protein interaction: Structure-function relationship of complexes protein in the food industry. Critical reviews in food science and nutrition, 62(15), 4036-4052. **Impact Factor 11.208. https://doi.org/10.1080/10408398.2021.1871589**

2021

3. **Alrosan, M.,** Tan, T. C., Easa, A. M., Gammoh, S., & Alu'datt, M. H. (2021). Mechanism of the structural interaction between whey and lentil proteins in the unique creation of a protein structure. Journal of food science, 86(12), 5282-5294. **Impact Factor 3.693 https://doi.org/10.1111/1750-3841.15974**

2. **Alrosan, M.,** Tan, T. C., Mat Easa, A., Gammoh, S., & Alu'datt, M. H. (2021). Effects of fermentation on the quality, structure, and nonnutritive contents of lentil (Lens culinaris) proteins. Journal of Food Quality, 2021, 1-7. **Impact Factor 3.2.** **https://doi.org/10.1155/2021/5556450**

2019

1. Gammoh, S., Alu'datt, M. H., Alhamad, M. N., Rababah, T., Ammari, Z. A., Tranchant, C. C., ... & **Alrosan, M.** (2019). Analysis of triphenylmethane dye residues and their leuco-forms in frozen fish by LC-MS/MS, fish microbial quality, and effect of immersion in whole milk on dye removal. Journal of food science, 84(2), 370-380. **Impact Factor 3.693.** **https://doi.org/10.1111/1750-3841.14434**