

Date ..... 22/10/2024 .....



SAHAR MAJDI HENDI JAFFAL

#### PERSONAL INFORMATION

Title: Dr.

Academic Rank: Assistant professor

Date & Place of Birth: 17 April 1977, Kuwait

Nationality: Jordanian

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#### ACADEMIC QUALIFICATIONS

Degree	Major	Duration (From-To)	University	Country
PhD	Biology (Physiology)	2017-2020	University of Jordan	Jordan

دائرة الموارد البشرية  
**Human Resources Department**

Master	Biology (Physiology)	2001-2003	University of Jordan	Jordan
Bachelor	Nutrition	1995-2000	University of Jordan	Jordan

**TEACHING EXPERIENCE**

Duration	Rank	Institution	Department/Faculty	Country
1 year	Assistant professor	Philadelphia University	Biotechnology and Genetic Engineering	Jordan
2017-2019	Part time lecturer	Al-Ahliyya Amman University	Medical analysis	Jordan

**OTHER EXPERIENCE**

دائرة الموارد البشرية  
**Human Resources Department**

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1. Reviewer for European Journal of Pharmacology (August 2024).
2. Reviewer for Heliyon, Elsevier (April 2024).
3. Reviewer for Dove Medical Press (March 2024).
4. Reviewer for Informatics in Medicine Unlocked, IMU (September 2023).
5. Reviewer for the Journal of Biomedicine and Pharmacotherapy (August 2023).
6. Reviewer for Asian Journal of Complementary and Alternative Medicine (March 2023).
7. Reviewer for Behavioural Neurology, Hindawi (January 2023).
8. Reviewer for Phytotherapy Research-Wiley Online Library (October 2022).
9. Reviewer for Qeios (June 2022 and July 2023).
10. Reviewer in the 9th International Conference on Agricultural and Biological Sciences (2023).
11. Reviewer in the 10th International Conference on Biomedical Engineering and Biotechnology (ICBE&B) (2023).
12. Reviewer for Phytomedicine (June 2022).
13. Reviewer for Phytomedicine PLUS (2 reviews in 2022).
14. Reviewer for Journal of Musculoskeletal disorders and treatment (January 2022).
15. Reviewer for Current Therapeutic Research (5 reviews in 2021 and 2 reviews in 2022).
16. Peer reviewer in the 10<sup>th</sup> International Conference on Biomedical Engineering and Biotechnology (ICBE&B) (2021).
17. Reviewer for the Journal of Cosmetic Dermatology, (September 2021).
18. Reviewer for the Saudi Journal of Biological Sciences, (September 2021 and November 2021, 2 c).
19. Reviewer for Pain Research and Management Journal, (February 2020).
20. Reviewer for Human and Experimental Toxicology Journal, (January 2020).

## PUBLICATIONS

### JOURNALS

- | Author/s<br>(In Order)  | Title   | Journal  | Vol./No. | Publication    |
|---|---|--|----------|----------------|
| 1. <b>Jaffal</b> SM, Khalil, R.   | Targeting nerve growth factor for pain relief: Pros and cons.   | Accepted in Korean J   |          |                |
| 2. Samer Alqaraleh, Wael Alzereni, Nesrin Mwafi, Sahar <b>Jaffal</b> , Aiman Al-Qtaitat   | The green synthesis of ...<br>comprehensive review on methodology, characterization.  | Research Journal of Pharmacy and Technology                        |          |                |
| 3. Sahar <b>Jaffal</b> ,  | Effects of PGf2 $\alpha$ On P-Erk1/2 MAPK Activation, Proliferation and Formation of Trans-E<br>3t3 Fibroblast Cells,               | J. Pharmaceutics and Pharmacology Research,                        | 6(2).    | 2023.          |
| 4. <b>Jaffal</b> SM.  | Role of TRPV1 in health and disease.  | Journal of Exploratory Research in Pharmacology (JER)              |          |                |
| 5. Haddad, M., Alsalem, M., Saleh, T., <b>Jaffal</b> , S. M., Barakat, N. A., & El-Salem, K.  | Interaction of the synth<br>with tramadol on nociceptive thresholds and core body temperature in a chemotherapy-induced p<br>model. | Neuroreport,   | 34(8),   | 441–448. 2023. |
| 6. <b>Jaffal</b> SM.  | Medicinal Plants of Jordan Possessing Anti-Nociceptive, Anti Inflammatory and Antipyre<br>traditional and complementary medicine,   | 2(1):  | 1-14.    | 2023.          |
| 7. <b>Jaffal</b> SM, Oran SA, Alsalem M, Al-Najjar B.   | Effect of Arbutus andrachne L. Methanolic Leaf Ex<br>Experimental and Molecular Docking Studies.                                    | Journal of Applied Pharmaceutical Science,                         | 12(10):  | 69-77          |
| 8. Abazid H, Abutayeh R, Abu Farha R, <b>Jaffal</b> SM, Alkaddah D, Al Jomaa EE.  | Substance Abuse among Un<br>Prevalence, Risk and Preventive Measures.   | Jordan Journal of Pharmaceutical Science,                          | 16(2):   | 235-244. 2022. |
| 9. Haddad, M., Alsalem, M., Aldossary, S. A., Kalbouneh, H., <b>Jaffal</b> , S. M., Alshawabkeh, Q., Al<br>Barakat, N. A., & El-Salem, K. | The role of adenosine receptor ligands on inflammatory pain: Possible mo<br>function.   | Inflammopharmacology,  | 31:      | 337-347. 2023. |
| 10. Abazid H, <b>Jaffal</b> SM, Abu-Samak M.  | Imbalances of key parameters needed for energy-yielding process<br>treated male rats.   | Journal of applied pharmaceutical Science,                         | 12(4):   | 153-158. 2022. |
| 11. <b>Jaffal</b> SM, Oran SA, Alsalem M.   | Alleviation of capsaicin-induced mechanical allodynia by Arbutus ar<br>extract in male rats.  | Mutah Lil Buhuth wad-Dirasat, Natural and Applied Sciences Series, | 37(2):   | 31-49          |

12. Oran SA, Yousef If, **Jaffal SM**. Evaluation of the antiproliferative effect of selected plant extracts on colorectal cancer cell lines. *Journal of Applied Pharmaceutical Science*, 12 (11):91-96. 2022.
13. **Jaffal SM**, Tamini S. Effect of explant type and different plant growth regulators on callus induction and differentiation of *Ononis spinosa* L. *South Western Journal of Horticulture, Biology and Environment*, 13(1), 1-12. 2022.
14. **Jaffal SM**, Oran SA, Alsalem M. Anti-inflammatory and antipyretic potential of *Arbutus andrachne* L. *Asian Pacific Journal of Tropical Biomedicine*, 11(11): 491-499. 2021.
15. **Jaffal SM**, Abbas MA. TRP channels in COVID-19 disease: Potential targets for prevention and treatment. *Interactions*. 245 (109567): 1-11. 2021.
16. **Jaffal SM**, Al-Najjar BO, Abbas MA. *Ononis spinosa* Alleviated Capsaicin-Induced Mechanical Allodynia via TRPV1 Modulation. *Korean Journal of pain*. 34 (3):1-9. 2021.
17. Abbas MA, Al-Najjar BO, **Jaffal SM**. Analgesic property of *Loranthus acaciae* studied by molecular docking. *Systematic Reviews in Pharmacy*, 12(03):712-719. 2021.
18. Alsalem M, Aldossary SA, Haddad M, Altarifi A, Kalbouneh H, **Jaffal SM**, Azab B, Mustafa AG, El-Salhi M. Effect of *Ononis spinosa* L. on the transient receptor potential vanilloid 1 by nonpungent agonists and its resensitization by bradykinin. *Journal of Applied Pharmaceutical Science*. 786. 2020.
19. **Jaffal SM**, Oran SA, Alsalem M. Anti-nociceptive effect of *Arbutus andrachne* L. methanolic leaf extract on PPARs in mouse pain models. *Inflammopharmacology* 37:189-195. 2020.
20. **Jaffal SM**, Al-Najjar BO, Abbas MA, Oran SA. Antinociceptive Action of *Moringa peregrina* is Mediated via Adrenergic Receptor. *Balkan Medical Journal* 37: 189-195. 2020.
21. **Jaffal SM**, Abbas MA. Antinociceptive action of *Achillea biebersteinii* methanolic flower extract is mediated via cholinergic receptor in mouse pain models. *Inflammopharmacology* 7(5): 961-968. 2019.
22. **Jaffal SM**, Abbas MA (2019). Antinociceptive action of *Ononis spinosa* leaf extract in mouse pain models. *Pharmaceutica - Drug Research* 76(2): 299-304.
23. **Jaffal S**, Abbas M, Alsalem M, Al-Najjar B. Evidence for the involvement of opioid receptor in *Ajuga reptans* L. and thermal models of pain in BALB/c mice. *Medicinal Chemistry Research* 28: 992-999. 2019.

24. Abbas MA, Kandil YI, M. Disi AM, **Jaffal SM**. Gastroprotective activity of *Loranthus acaciae* flower ethanol-induced ulcer. *Applied Physiology Nutrition and Metabolism* 22: 1-6. 2019.
25. Abbas M, **Jaffal SM**, Al-Najjar B. Analgesic and Anxiolytic Activities of *Achillea biebersteinii*: Evidence on GABAergic Systems. *Oriental Journal of Chemistry* 35(4): 1433-1442. 2019.
26. Alsalem M, Haddad M, Aldossary SA, Kalbouneh H, Altarifi A, **Jaffal SM**, Abbas MA, Aldaoud N, El-Saied M. The Role of Cannabinoid Receptor 1 and the Peroxisome Proliferator-Activated Receptor  $\alpha$  in Mediating Anti-nociceptive Effects of a Cannabinoid-like Compound. *Inflammopharmacology* 2019: 1-2. 2019.
27. El-Hashim AZ, **Jaffal SM**. Cough reflex hypersensitivity: A role for neurotrophins. *Experimental Lung Research* 43(1): 1-10. 2017.
28. El-Hashim AZ, **Jaffal SM**, Al-Rashidi F, Luqmani YA, Akhtar S. Nerve growth factor enhances cough reflex action. *Pharmacological Research* 74: 68-77. 2013.
29. Goupil E, Wisheart V, Khoury E, Zimmerman B, **Jaffal S**, Hébert TE, Laporte SA. Biasing the prostaglandin synthase toward EGFR-dependent transactivation of MAPK. *Molecular Endocrinology* 26(7): 1189-1202. 2012.
30. El-Hashim AZ, Edafiogho IO, **Jaffal SM**, Yousif MH, Ezeamuzie CI, Kombian SB. Anti-tussive and bronchodilator action of the enaminone E121. *Life Science* 89 (11-12): 378-387. 2011.
31. El-Hashim AZ, Renno WM, Abduo HT, **Jaffal SM**, Akhtar S, Benter IF. Effect of inhibition of the ubiquitin-proteasome pathway and I $\kappa$ B kinase on airway inflammation and hyperresponsiveness in a murine model of asthma. *Immunopathology and Pharmacology* 24 (1): 33-42. 2011.
32. El-Hashim AZ, **Jaffal SM**. Nerve growth factor enhances cough and airway obstruction via TrkA and TRPA1 mechanisms, *Thorax* 64 (9): 791-797. 2009.
33. **Jaffal SM**, Salhab A, Disi AM, Al-Qaadani F. Effects of Meloxicam on Implantation and Parturition of Rats. *Journal of Applied Pharmaceutical Science* 40 (2): 88-95. 2006.
34. Al-Khalaf M, **Jaffal S**. Potent antiproliferative effects of Resveratrol on human osteosarcoma cells: Molecular mechanisms involving ERKs/p53 cascade. *Free Radical Biology of Medicine* 41: 318-325. 2006.

35. El-Mowafy AM, Al-Khalaf M, **Jaffal SM**. Nongenomic activation of the GC-A enzyme by resveratrol from membrane estrogen receptors in human coronary arterial cells. *Nutrition, Metabolism and cardiovascular disease*. 508-516. 2007.

## CONFERENCES

1. Participated as a patent presenter in the fifth virtual conference to support the innovation, artificial intelligence and entrepreneurship ecosystem 2024, Kuwait.
2. Participated in the International invention fair in the Middle East, Kuwait, February 2024 and presented an invention entitled: the mini-incubator carrier box.
3. Submitted an abstract to 48<sup>th</sup> Annual meeting of the Society for Neuroscience (SFN), November 11-15, 2023, California, USA.
4. Submitted an abstract to 47<sup>th</sup> Annual meeting of the Society for Neuroscience (SFN), November 11-15, 2022, USA.
5. Participated in the 46<sup>th</sup> Annual meeting of the Society for Neuroscience (SFN), November 12-16<sup>th</sup>, 2021, USA.
6. Participated in the 45<sup>th</sup> Annual meeting of the Society for Neuroscience (SFN), October 17<sup>th</sup>-21<sup>st</sup>, 2020, USA.
7. Participated in the 44<sup>th</sup> Annual meeting of the Society for Neuroscience (SFN), November 15-19<sup>th</sup>, 2019, USA.
8. Participated in the 43<sup>rd</sup> Annual meeting of the Society for Neuroscience (SFN), November 9-13<sup>th</sup>, 2018, USA.
9. Attended the Annual QNJPI meeting (Quebec Network of Junior Pain Investigators), September 2012, Residence, Du Parc, Montreal, Quebec, Canada.
10. Participated in the Graduate Symposium in Neuroscience, Montreal Neurological Institute, A McConnell Brain Imaging Centre, Montreal, Quebec, Canada.
11. Participated at McGill Réseau Universitaire Intégré de Santé (RUIS) pain day, April 19<sup>th</sup>, 2012, Quebec, Canada.
12. Attending the 17<sup>th</sup> Annual McGill Pain Day, January 24<sup>th</sup>, 2013, Sherbrooke, Montreal, Quebec.
13. Attended the GPCR retreat, October 17- 19<sup>th</sup>, 2012, London, Ontario, Canada.
14. Attended the 3<sup>rd</sup> Annual McGill Inter-disciplinary Biotechnology Symposium, McGill New Research Building, 2012, Montreal, Quebec, Canada
15. Participated in a poster in the 18<sup>th</sup> Annual Pharmacology Research Day, September 28<sup>th</sup>, 2011, Montreal, Quebec, Canada.
16. Presented a poster in Research Symposium of Anatomy and Cell Biology, June 18-19<sup>th</sup>, 2012, Montreal, Quebec.
17. Attended the Annual McGill University Endocrine Retreat, May 29<sup>th</sup>, 2012, Montreal, Quebec.
18. Participated in a poster in American Thoracic Society 2009 San Diego international conference, March 2009, California.
19. Participated in a poster in the 2<sup>nd</sup> Kuwait International Pharmaceutical Conference (KIPC), March 2008, Medicine, Kuwait University.

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20. Participated in a poster in the Health Sciences Poster Day, April 24<sup>th</sup>, 2006, Faculty of Medicine

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## BOOKS

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1. **Jaffal**, Sahar. Chapter 17: TRP channels in COVID-19 and its complications in TRP channels as therapeutic targets: From basic science to clinical use by Arpad Szallasi, second edition, Elsevier, 2024.
2. **Jaffal**, Sahar. Laboratory Manual for Physiology. 2023, ISBN: 978-9923-0-0775-4.
3. **Jaffal**, Sahar. Pain in COVID-19. Eliva press, August 2021, ISBN: 978-16364-315-3.
4. **Jaffal S, Abazid H.** Medicinal Plants and Addiction Treatment: An Overview. **In the Handbook of Substance Misuse and Addictions: From Biology to Public Health**, editors **Vinood B. Patel and Victor R. Preedy**, Springer International Publishing, 2022.



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## MEMBERSHIPS OF SCIENTIFIC AND PROFESSIONAL SOCIETIES

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1. Asian Council of Science Editors (ACSE).
2. Committee member in the 9th International Conference on Agricultural and Biological Sciences (ABS 2023) <http://www.absconf.org/TPC>.
3. Honor Society.
4. Golden Key International Honour Society.
5. Society for Neuroscience (SFN).
6. Society for Arab Neuroscientists.
7. Previous membership in Canadian Association for Neuroscience.
8. Agricultural Engineers' Association (AEA) in Jordan.

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## UNIVERSITY COMMITTEES

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Local community committee

Scientific committee (member)

Quality Control Committee (Chief)

Library committee (Chief)

Community service committee (Chief).

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## WORKSHOPS ATTENDED

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1. Certificate in Quality Control, Adobe Photoshop and Premier, ABE Academy, Irbid, Jordan, 2023.
2. Certificate in International Computer Driving License (ICDL), ABE Academy, Irbid, Jordan, 2022.
3. Certificate in Teaching Methods, ABE Academy, Irbid, Jordan, 2022.
4. Diploma in Anatomy and Physiology, Inspire International Academy, United States in collaboration with Professional Arab Trainer (PAT) Company, Jordan, 2022.

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5. Training of Trainer (ToT) Advanced Diploma from Inspire International Academy, United States in collaboration with Professional Arab Trainer (PAT) Company, Jordan, 2022.
6. National Test of English as a Foreign Language (TOEFL) exam in Jordan.
7. General GRE (Graduate Record Examination) certificate, total score 1194 (quantitative 780, verbal 470, analytical writing 4).
8. TOEFL iBT certificate 95 (Reading 24, Listening 26, Speaking 20, Writing 25).
9. Certificate for International English Language Testing System (IELTS) exam, total score 6.5 (Reading 6.0, Listening 7.5, Speaking 6.5, Writing 6.0).
10. Certificates of hazardous waste management disposal training for laboratory personnel, workplace hazardous materials information system (W.H.M.I.S), introduction to biosafety, use of biological safety cabinet, principles of laboratory radiation safety, laser safety, theoretical training course on animal use for research and teaching, and handling laboratory animals (3 practical modules) from McGill University, Montreal, Canada.
11. Computer training certificates (level 2 and 3) from the Immigrant Women Services Ottawa, Canada.
12. Computer and Internet training certificate from the Ministry of Youth and Sport, Zarqa, Jordan.
13. Canadian Language Benchmarks Placement Test.
14. Certificate form Al-Hemma Ambassador Association, affiliated to the International Accreditation Organization (IAO).
15. Certificate from Professional Arab Trainer for Training and Qualifying, *Neuro-linguistic programming (NLP)* workshop.

## WORKSHOPS OFFERED

## RESEARCH INTERESTS

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Search for novel analgesics, anti-inflammatory and antipyretic compounds that have no side effects.

## LANGUAGES

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**Arabic:** Listening, speaking, writing (Excellent).

**English:** Listening, speaking, writing (Excellent).

## OTHER COMMUNITY ACTIVITIES

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Local community committee (distributing shoes and jackets) to poor people in villages in Jordan.

## AWARDS RECEIVED

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1. Winning the top medal (the gold medal with congratulations of the Jury in recognition of excellence for the invention) at the International invention fair in the Middle East, Kuwait, February 2024 for my invention entitled: the mini-incubator carrier box.
2. Winning the prize of the International Exhibition of inventions Geneve (5000 USD), February 2024 for my invention entitled: the mini-incubator carrier box.
3. University of Jordan President's and Dean's Honour List with Distinction in 2020/2021 (GPA 4 out of 4, PhD).
4. Research Reward for the top ranked researches in Pharmacology and Pharmacy Category at Kuwait University, Office of Vice President for Research (August 2014).
5. Travel Grant Award for the International Summit for Golden Key (April 2014).
6. Graduate Excellence Award in Medicine, McGill University (January 2014).
7. Canadian Post Graduate Scholarship Award from Golden Key (August 2013).
8. Graduate Excellence Award in Neurology & Neurosurgery, McGill University (January 2013).
9. McGill University Health Centre (MUHC) Scholarship (September 2012).

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10. McGill International Doctorate Students Award (MIDAS Scholarship), McGill University (October 2010).
11. Provost Scholarship, McGill University (October 2010).

## GRADUATE STUDENTS SUPERVISION

Student Name

Thesis Title

## REFERENCES

**1. Prof. Ahmad Disi**

Retired professor, Faculty of Science, University of Jordan, Amman, Jordan  
Tel: +962-777424331, E-mail: [ahmadmdisi@yahoo.com](mailto:ahmadmdisi@yahoo.com)

**2. Dr. Samer Alqaraleh**

Assistant Dean for Quality and E-Learning Affairs, Faculty Allied Medical Sciences, Mutah University  
Tel: +962-79551861, E-mail: [garalleh75@mutah.edu.jo](mailto:garalleh75@mutah.edu.jo)

**3. Mohammad Al-Zibdeh**

Professor, Faculty of Marine Science, University of Jordan, Aqaba, Jordan  
Tel: +962-797179088, E-mail: [zibdeh@ju.edu.jo](mailto:zibdeh@ju.edu.jo)

**4. Prof. Hamza Al-Qaderi**

Professor, Faculty of Agriculture, University of Jordan, Amman, Jordan  
Tel: +962-795658787, E-mail: [h.qadiri@ju.edu.jo](mailto:h.qadiri@ju.edu.jo)

