Mohammad S. Qneibi, Ph.D.

Department of Biomedical Sciences
An-Najah National University, Faculty of Medicine and Health Sciences
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ORCID: https://orcid.org/0000-0002-0702-7834
Specialty: Neurochemistry/Biochemistry
Google Scholar: https://scholar.google.com/citations?hl=en&user=v1CmYZgAAAAJ&view_op=list_works&sortby=pubdate

Education

2013 – 2014 ***Yale University, School of Medicine***, New Haven, CT, USA
Postdoctoral Training in the Department of Cellular and Molecular Physiology

2009 – 2013 Ph.D. ***University at Albany, State University of New York,*** Albany, NY, USA
Doctoral Program in Chemistry, ***Advisor:*** Professor Li Niu
Thesis Title: Structure-Activity Relationship of 2,3-Benzodiazepin-4-ones as Non-competitive AMPA Receptor Antagonists

2002 – 2006 B.S. ***Bar Ilan University***, Ramat Gan
Chemical Engineering & Biotechnology

Research/Work Experience

2021 – present **An-Najah National University, School of Medicine, Department of Biomedical Sciences,** Nablus
Associate Professor

- Investigating the inhibitory effect of chemical compounds (i.e.,2,3-benzodiazepine & curcumin derivatives) in vitro and in vivo on the heteromeric AMPA-type glutamate receptors
- Understanding how these membrane proteins mediate signal transmission and transduction
- Investigating how AMPA receptor number and function are regulated at the synapse and, most importantly, defining the molecular mechanism of AMPAR regulation by its accessory subunits

2021 – present **An-Najah National University**

- ***Deputy Editor-in-Chief*** *for the Palestinian Medical and Pharmaceutical Journal (PMPJ)*
- ***PMPJ*** is indexed in Scopus (https://www.scopus.com/sourceid/21101087775)

2016 – 2021 **An-Najah National University, School of Medicine, Department of Biomedical Sciences,** Nablus
Assistant Professor

2014 – 2018 **The Hebrew University-Hadassah, School of Medicine, Department of Biochemistry & Molecular Biology,** Jerusalem
Postdoctoral Research Fellow

- Studying the structure of AMPA receptors requirements for functional interaction with single interactors or combinations thereof
- Investigating the molecular and cellular mechanisms of AMPA receptor synaptic underlying synapse development and function
- Characterizing dynamic interactions and defining the sequence of AMPA receptors associated with the interactors during the biosynthetic pathway.

2013 – 2014 **Yale University, School of Medicine, Department of Cellular and Molecular Physiology**, New Haven, CT, USA
Postdoctoral Associate

- Studying the molecular basis of mechanosensitivity in ion channels, using the mechano-gates K_{2P} channels as a model
- Using two state-of-the-art approaches to study mechanical responses: high-speed pressure clamp and piezo-driven actuator
- Characterizing novel membrane receptors that perceive environmental inputs and convert them into electrical signals in the somatosensory neurons
- Electrical stimulation of primary mice neuronal cultures

2009 – 2013 **University at Albany, Chemistry Department,** Albany, NY
Research Assistant

- Working on glutamate ion channel receptors
- Rapid kinetic investigation of the mechanism of inhibition for a group of 2,3-benzodiazepine compounds, also known as GYKI compounds
- Investigating the mechanism of channel action, inhibition, and regulation within the μs-to-ms time domain
- Using a patch-clamp, coupled with a laser-pulse photolysis technique as my primary technical expertise in electrophysiology

2008 – 2009 **Western Kentucky University, Department of Chemistry**, Bowling Green, KY
Research Assistant

- Preparation of multi-substituted derivations of aromatic compounds, including synthesis and characterization
- Metalation of aryl substrates using a strong base (n-BuLi)
- The reaction of organolithium compounds, including Metallation, ortho-metallation, Nucleophilic addition and substitution, halogen-metal exchange, and transmetallation
- Using analytical techniques, including gas chromatography (GC), mass spectrometry (MS)

2005 – 2006 ***Bar Ilan University***, Ramat Gan, Israel
Department of Chemical Engineering & Biotechnology

- Design a soft drink production plant
- Covering every aspect of design, namely the literature search, engineering design, and the presentation of the result

2005 – 2006 ***Department of Biological Chemistry***

- Research project of novel materials for photodynamic cancer therapy and their organic synthesis, including a fully equipped electronic, analytical, and glassware organic chemistry laboratory

Teaching Experience & Courses

2016 –*Present* Tenure Associate Professor, School of Medicine & Health Sciences, An-Najah National University (ANNU)

- General Chemistry I & II
- Organic Chemistry I & II
- Organic Chemistry I & II Lab
- Biochemistry
- General Biology
- Research tools and skills in biomedical sciences
- Cell Science
- Principles of Biochemistry and Metabolic Biochemistry Laboratory

2015 – 2016 Visiting Assistant Professor, Chemistry Head Department, Al-Quds Bard College

- Organic Chemistry I & II
- General Chemistry I & II
- Biochemistry

2014 – 2015	Visiting Assistant Professor, Chemistry Department, Birzeit University • Medicinal Chemistry- Drug Design _*Graduate Course* • General Chemistry I • Fundamental Organic Chemistry
2009 – 2013	Teaching Assistant, *Organic Chemistry*, Chemistry Department, University at Albany (SUNY)
2011 – 2012	Teaching Assistant, *Biophysical Chemistry*, Chemistry Department University at Albany (SUNY)
2009 – 2012	Tutor, *Organic Chemistry & General Chemistry*, Center for Achievement, Retention and Student Success, University at Albany (SUNY)

Awards & Honors

2022	Won the Arab American University Award for Excellence in Scientific Research
2019-2022	Won An-Najah National University Awards for Excellence in Scientific Research
2019	Excellence in E-Learning in General Biology Course for Health Sciences, ANNU
2013	Excellence in Teaching, President's Excellence Award, University at Albany
2012	Graduate Travel Award, Department of Chemistry, University at Albany
2011	Author O. Lang Teaching Award, Department of Chemistry, University at Albany

Memberships in Professional Societies

2012 – present	SIGMA The Scientific Research Society
2012 – present	The Biophysical Society

Articles Published (*corresponding author)

1. Hawash, M., Jaradat, N., **Qneibi, M.**, Faraj, H. S., Rabi, B. M., Shalabi, D. Z., Bdir, S., Bdair, M., Idais, T., Issa, L., & Sobuh, S. (2025). Antioxidant activity and neuromodulatory synergies in fixed oils from Nigella sativa, Cucurbita pepo, and Sinapis alba Seeds***. Industrial Crops and Products***, 228, 120868. https://doi.org/10.1016/j.indcrop.2025.120868
2. **Qneibi, M.*** (2025), Isoxazole-Carboxamide Modulators of GluA2-Containing α-Amino-3-hydroxy-5-methyl-4-isoxazole-propionic Acid Receptors in Parkinson's Disease. ***Chemistry & Biodiversity,*** 0:e202500392. https://doi.org/10.1002/cbdv.202500392
3. **Qneibi, M.*,** Hawash, M., Bdir, S., Bdair, M., Idais, T., Sarhan, I., & Touqan, J. (2025). Regulating AMPA Receptors with Isoxazole-4-Carboxamide Derivatives: An Electrophysiological Study. ***Journal of Xenobiotics***, 15(2), 40. https://doi.org/10.3390/jox15020040
4. Natsheh, H., **Qneibi, M.**, Kittana, N., Jaradat, N., Assali, M., Shaqour, B., Abualhasan, M., Mayyala, A., Dawoud, Y., Melhem, T., Alhadi, S. A., Hammoudi, O., Samaro, A., Mousa, A., Bdir, S., & Bdair, M. (2025). Transethosomal system for enhanced transdermal delivery and therapeutic effect of caryophyllene oxide. ***International Journal of Pharmaceutics***, 670, 125111. https://doi.org/10.1016/j.ijpharm.2024.125111
5. **Qneibi, M.***, Bdir, S., Bdair, M., Aldwaik, S. A., Heeh, M., Sandouka, D., & Idais, T. Exploring the role of AMPA receptor auxiliary proteins in synaptic functions and diseases. ***The FEBS Journal***. https://doi.org/10.1111/febs.17287
6. Hawash, M., Jaradat, N., Abualhasan, M. et al. Integrative bioinformatic and experimental analysis of benzoylbenzodioxol derivatives: hypoglycemic potential in diabetic mice. ***3 Biotech*** 14, 255 (2024). https://doi.org/10.1007/s13205-024-04103-6.
7. Jaradat, N., **Qneibi, M.***, Hawash, M. et al. Exploring the Iris haynei essential oil: analysis of phytochemical composition, evaluation of cytotoxicity, antimicrobial properties, and AMPA receptor modulation. ***Chem. Biol. Technol. Agric***. 11, 117 (2024). https://doi.org/10.1186/s40538-024-00636-3.
8. **Qneibi, M.***, Hawash, M., Bdir, S., Bdair, M., & Aldwaik, S. A. (2023). Assessing the Effects of Thiazole-Carboxamide Derivatives on the Biophysical Properties of AMPA Receptor Complexes as a Potential Neuroprotective Agent. ***Molecules***, 29(13), 3232. https://doi.org/10.3390/molecules29133232.
9. Mohammed Hawash, **Mohammad Qneibi***, Hiba Natsheh, Noor Haj Mohammed, Lubaba Abu Hamda, Anil Kumar, Barbara Olech, Paulina Maria Dominiak, Sosana Bdir, and Mohammad Bdair.

Evaluating the Neuroprotective Potential of Novel Benzodioxole Derivatives in Parkinson's Disease via AMPA Receptor Modulation. ***ACS Chemical Neuroscience*** 2024 15 (11), 2334-2349. https://doi.org/10.1021/acschemneuro.4c00163.

10. **Qneibi, M.,*** Bdir, S., Bdair, M., Aldwaik, S. A., Sandouka, D., Heeh, M., & Idais, T. I. (2024). AMPA receptor neurotransmission and therapeutic applications: A comprehensive review of their multifaceted modulation. ***European Journal of Medicinal Chemistry***, 116151. https://doi.org/10.1016/j.ejmech.2024.116151.
11. Rahhal, B., **Qneibi***, M., Jaradat, N. et al. Multi-biological activity assessment and phytochemical characterization of an aqueous extract of the Cymbopogon citratus grown in Palestine. ***BMC Complement Med Ther*** 24, 27 (2024). https://doi.org/10.1186/s12906-024-04338-z.
12. **Qneibi, M.***, Hawash, M., Gümüş, M. et al. Deciphering the Biophysical Properties of Ion Channel Gating Pores by Coumarin–Benzodiazepine Hybrid Derivatives: Selective AMPA Receptor Antagonists. ***Molecular Neurobiology*** (2023). https://doi.org/10.1007/s12035-023-03871-1.
13. Mohammed Hawash, Derar Al-Smadi, Anil Kumar, Barbara Olech, Paulina Maria Dominiak, Nidal Jaradat, Sarah Antari, Sarah Mohammed, Ala'a Nasasrh, Murad Abualhasan, Ahmed Musa, Shorooq Suboh, İrfan Çapan, **Mohammad Qneibi** and Hiba Natsheh. Characterization and Investigation of Novel Benzodioxol Derivatives as Antidiabetic Agents: An In Vitro and In Vivo Study in an Animal Model. ***Biomolecules*** (2023), 13, 1486. https://doi.org/10.3390/biom13101486.
14. **Qneibi, M.***, Bdir, S., Maayeh, C. et al. A Comprehensive Review of Essential Oils and Their Pharmacological Activities in Neurological Disorders: Exploring Neuroprotective Potential. ***Neurochemical Research*** (2023). https://doi.org/10.1007/s11064-023-04032-5.
15. **Qneibi, M**.*; Jumaa, H.; Bdir, S.; Al-Maharik, N. Electrophysiological Assessment of Newly Synthesized 2,3-Benzodiazepine Derivatives for Inhibiting the AMPA Receptor Channel. ***Molecules*** 2023, 28, 6067. https://doi.org/10.3390/molecules28166067.
16. **Qneibi, M.***, Jaradat, N., Al-Maharik, N. et al. The effect of Lavandula Coronopifolia essential oil on the biophysical properties of desensitization and deactivation gating currents in ionotropic receptors. ***Scientific Reports*** 13, 8417 (2023). https://doi.org/10.1038/s41598-023-35698-0.
17. **Mohammad Qneibi***, Safa' Nassar, Sosana Bdir, and Adel Hidmi. 2022. "α-Lipoic Acid Derivatives as Allosteric Modulators for Targeting AMPA-Type Glutamate Receptors' Gating Modules." ***Cells*** 11, no. 22: 3608. https://doi.org/10.3390/cells11223608.
18. **Mohammad Qneibi***, Mohammad Hawash, Sosana Bdir, Sultan Nacak Baytas. Targeting the kinetics mechanism of AMPA receptor inhibition by 2-oxo-3H-benzoxazole derivatives, ***Bioorganic Chemistry***,129, 106163 (2022). https://doi.org/10.1016/j.bioorg.2022.106163.
19. **Qneibi, M.***, Hawash, M., Jaradat, N., Bdir, S. Affecting AMPA Receptor Biophysical Gating Properties with Negative Allosteric Modulators. ***Molecular Neurobiology*** 59, 5264–5275 (2022). https://doi.org/10.1007/s12035-022-02913-4.
20. Nidal Jaradat, Mohammed Hawash, **Mohammad Qneibi*** et al. The Effect of Novel Negative Allosteric 2,3-Benzodiazepine on Glutamate AMPA Receptor and their cytotoxicity, ***Journal of Molecular Structure***, 28 March 2022, 132936. https://doi.org/10.1016/j.molstruc.2022.132936.
21. Jaradat, N., Khasati, A., Hawi, M., Mohammed Hawash, Suhaib Shekfeh, **Mohammad Qneibi,** et al. Antidiabetic, antioxidant, and anti-obesity effects of phenylthio-ethyl benzoate derivatives, and molecular docking study regarding α-amylase enzyme. ***Scientific Reports*** 12**,** 3108 (2022). https://doi.org/10.1038/s41598-022-07188-2.
22. Jaradat, N., Abdallah, S., Al-Maharik, N., Altamimi, M., Hawash, M., **Qneibi, M.**, Khair, A. A., Zetawi, A., & Jabarin, L. (2022). Constituents, Antibacterial Adhesion, Cytotoxic and in Vitro Metastasis Blocking Properties of Salvia fruticosa Essential Oils from Three Palestinian Localities. Chemistry & Biodiversity, 19(4), e202100872. https://doi.org/10.1002/cbdv.202100872.
23. Nidal Jaradat, **Mohammad Qneibi**, Mohammed Hawash, et al. (2022). Assessing Artemisia arborescens essential oil compositions, antimicrobial, cytotoxic, anti-inflammatory, and neuroprotective effects gathered from two geographic locations in Palestine. ***Industrial Crops and Products***, vol 176, 114360, https://doi.org/10.1016/j.indcrop.2021.114360.
24. **Mohammad Qneibi***, Othman Hamed, Nidal Jaradat, Mohammed Hawash, Rana Al-Kerm, Rola Al-Kerm, Shorooq Sobuh, Sama Tarazi, (2021). The AMPA receptor biophysical gating properties and binding site: Focus on novel curcumin-based diazepines as non-competitive antagonists. ***Bioorganic Chemistry***, vol. 116, 2021, p. 105406, https://doi.org/10.1016/j.bioorg.2021.105406.

25. Mohammed Hawash**, Mohammad Qneibi**, Nidal Jaradat, Murad Abualhasan, Johnny Amer, EL-Hamouz Amer, Tasneem Ibraheem, Siham Hindieh, Sama Tarazi & Shorooq Sobuh (2021). The impact of filtered water-pipe smoke on healthy versus cancer cells and their neurodegenerative role on AMPA receptor, ***Drug and Chemical Toxicology***. https://doi.org/10.1080/01480545.2021.1935397
26. Nidal Jaradat, Majdi Dwikat, Johnny Amer, Mohammed Hawash, Fatima Hussein, **Mohammad Qneibi**, Linda Issa, Jalal Abu Asab, Haya Hallak, Diana Nael Arar, Hala Zidan Masri, Khalil Obeid, Mohammad Sharabati, Rawan Kittaneh, "Anticancer, Free Radicals, and Digestive Enzyme Inhibitory Activities of Rubus Sanctus Schreb Root Four Solvent Fractions," ***Evidence-Based Complementary and Alternative Medicine***, vol. (2021), Article ID 6690646, 10 pages, 2021. https://doi.org/10.1155/2021/6690646.
27. **Mohammad Qneibi***, Michel Hanania, Nidal Jaradat, Nour Emwas, Sireen Radwan, Inula viscosa (L.) Greuter, phytochemical composition, antioxidant, total phenolic content, total flavonoids content, and neuroprotective effects, ***European Journal of Integrative Medicine***, Volume 42, (2021). https://doi.org/10.1016/j.eujim.2021.101291.
28. Nawaf Al-Maharik, Nidal Jaradat, **Mohammad Qneibi**, Murad N. Abualhasan, Nour Emwas, Glechoma curviflora Volatile Oil from Palestine: Chemical Composition and Neuroprotective, Antimicrobial, and Cyclooxygenase Inhibitory Activities," ***Evidence-Based Complementary and Alternative Medicine***, vol. 2020, Article ID 4195272, 10 pages, 2020. https://doi.org/10.1155/2020/4195272.
29. FuadAl-Rimawi, Nidal Jaradat, **Mohammad Qneibi**, Mohammed Hawash, Nour Emwas. Free radicals and enzymes inhibitory potentials of the traditional medicinal plant *Echium angustifolium*, ***European Journal of Integrative Medicine***, Volume 38, 2020, 101196. https://doi.org/10.1016/j.eujim.2020.101196.
30. Jaradat, N., **Qneibi, M**., Hawash, M. et al. Chemical Composition, Antioxidant, Antiobesity, and Antidiabetic Effects of Helichrysum sanguineum (L.) Kostel. from Palestine. ***Arab J Sci Eng*** (2020). https://doi.org/10.1007/s13369-020-04707-z.
31. **Mohammad Qneibi***, Nidal Jaradat, Mohammed Hawash, Abdurrahman Olgac, Nour Emwas. (2020) Ortho versus Meta Chlorophenyl-2,3-Benzodiazepine Analogues; Synthesis, Molecular Modeling, and Biological Activity as AMPAR Antagonists. ***ACS Omega*** 5 (7), 3588−3595. doi.org/10.1021/acsomega.9b04000.
32. **Qneibi, M.***; Jaradat, N.; Emwas, N. Effect of Geraniol and Citronellol Essential Oils on the Biophysical Gating Properties of AMPA Receptors. ***Appl. Sci***. 2019, 9, 4693.
33. **Qneibi M***, Hamed O, Natsheh A-R, Fares O, Jaradat N, Emwas N, et al. (2019) Inhibition and assessment of the biophysical gating properties of GluA2 and GluA2/A3 AMPA receptors using curcumin derivatives**. *PLoS ONE*** 14(8): e0221132. https://doi.org/10.1371/journal.pone.0221132.
34. **Qneibi, M.***, Hamed, O., Natsheh, R., Fares, O., Jaradat, N., Emwas, N., AbuHasan, Q., Al-Kerm, R., & Al-Kerm, R. (2019). Inhibition and assessment of the biophysical gating properties of GluA2 and GluA2/A3 AMPA receptors using curcumin derivatives. ***PLOS ONE***, 14(8), e0221132. https://doi.org/10.1371/journal.pone.0221132.
35. **Qneibi, M.***, Jaradat, N., Hawash, M., Zaid, A. N., Natsheh, R., Yousef, R., & AbuHasan, Q. (2018). The Neuroprotective Role of Origanum syriacum L. And Lavandula dentata L. Essential Oils through Their Effects on AMPA Receptors. ***BioMed Research International***, 2019(1), 5640173. https://doi.org/10.1155/2019/5640173.
36. N Jaradat, A Khasati, BA Abu-Shanab, S Al-lahham, A Naser Zaid, MN Abualhasan, **M Qneibi**, M Hawash. (2019) Bactericidal, Fungicidal, Helminthicidal, Antioxidant, and Chemical Properties of Chrozophora obliqua Extract. ***Phytothérapie***, https://doi.org/10.3166/phyto-2019-0134.
37. Nidal Jaradat, Nuha, Shawarb, Fatima Hussein, Motasem Al-Masri, Ismail Warad, Ahmad Khasati, Mayadah Shehadeh, Mohammad Qneibi, Azmi Mahmoud, Ali Hussein, Sabha Makhamrehet al. Antibacterial and Antioxidant Screening of Semi-Synthetic Naringin Based Hydrazone and Oxime Derivatives.Jundishapur J Microbiol.11(6):e65496. https://doi.org/10.5812/jjm.65496
Qneibi M*, Jaradat N, Zaid AN, Abu-Khalaf N, Natsheh A, Hussein F. (2018) Evaluation of taste, total phenols and antioxidant for fresh, roasted, shade dried and boiled leaves of edible Arum palaestinum Bioss. ***Journal of Research in Pharmacy.***; 22 (1): 52-58. http://doi.org/10.12991/mpj.2018.40.

38. Matt, L., Kirk, L. M., Chenaux, G., Speca, D. J., Puhger, K. R., Pride, M. C., **Qneibi, M.**, Haham, T., Plambeck, K. E., Stern-Bach, Y., Silverman, J. L., Crawley, J. N., Hell, J. W., & Díaz, E. (2018). SynDIG4/Prrt1 Is Required for Excitatory Synapse Development and Plasticity Underlying Cognitive Function. ***Cell Reports***, 22(9), 2246-2253. https://doi.org/10.1016/j.celrep.2018.02.026
39. Jaradat, N. A., Zaid, A. N., Al-Ramahi, R., Alqub, M. A., Hussein, F., Hamdan, Z., Mustafa, M., **Qneibi, M**., & Ali, I. (2017). Ethnopharmacological survey of medicinal plants practiced by traditional healers and herbalists for treatment of some urological diseases in the West Bank/Palestine. ***BMC Complementary and Alternative Medicine***, 17, 255. https://doi.org/10.1186/s12906-017-1758-4
40. Jaradat N.A., Hussein F., Eldin A.N., Yassin T., Khawaja M., **Qneibi M.**, (2017) Phytochemical and Antibacterial Assessment of Rhagadiolus Stellatus Plant in Jerusalem Area - Palestine. ***Pal. Med. Pharm. J.***, 2, 35-44.
41. Ben-Yaacov, A., Gillor, M., Haham, T., Parsai, A., **Qneibi, M.**, & Stern-Bach, Y. (2017). Molecular Mechanism of AMPA Receptor Modulation by TARP/Stargazin. ***Neuron***, 93(5), 1126-1137.e4. https://doi.org/10.1016/j.neuron.2017.01.032
42. **Qneibi, Mohammad Shaban**, "Structure-activity relationship of 2,3-Benzodiazepin-4-ones as noncompetitive AMPA receptor antagonists" (2013). ***Legacy Theses & Dissertations*** (2009 - 2024). 986. https://scholarsarchive.library.albany.edu/legacy-etd/986
43. **Qneibi, M. S**., Micale, N., Grasso, S., & Niu, L. (2012). Mechanism of Inhibition of the GluA2 AMPA Receptor Channel Opening by 2,3-Benzodiazepine Derivatives: Functional Consequences of Replacing 7,8-Methylenedioxy with 7,8-Ethylenedioxy Moiety. ***Biochemistry***, 51(8), 1787. https://doi.org/10.1021/bi2017552

Published Abstracts

2025 Precision modulation of AMPA receptors by benzodioxole derivatives for motor recovery in Parkinson's disease, Volume 124, Issue 3, Supplement 1295A, February 13, 2025. *Biophysical Journal*

2023 Deciphering the biophysical gating properties of AMPA receptors by 2,3-benzodiazepine derivatives,122, 3, SUPPLEMENT 1, 418A, 2023. *Biophysical Journal*

2014 The Molecular Mechanism of Mechanosensitivity in K_{2P} Channels, *Biophysical Journal. In press*.

2013 Mechanism of Inhibition of the GluA2 AMPA Receptor Channel Opening by 2,3-Benzodiazepine Derivatives, *Biophysical Journal, vol. 104, issue 2, p. 273a*.

Conferences & Presentations

2022 An-Najah University, Nablus, West Bank. *The oral* workshop is titled *"The Competency-Based Education (CBE) Approach.*"

2021 An-Najah University, Nablus, West Bank. *The oral* workshop is titled *"Using Socrative Online Assessment Tool.*"

2019 An-Najah University, Nablus, West Bank. *The oral* workshop is titled *"Using Technology in Education.*"

2018 An-Najah University, Nablus, West Bank. *The oral* workshop titled *"Transforming Assessment Practices in Large Enrollment First-Year Education.*"

2016 An-Najah University, Nablus, West Bank. *The oral* workshop is titled *"Scientific Research Paper Writing for early researchers.*"

2016 King's Academy, Amman, Jordan. *The oral* workshop is titled *"A Training Workshop on Scientific Research Paper Writing and Presentation Skills.*"

2014 The 58th annual meeting of Biophysical Society, San Francisco, CA. Poster presentation titled "*The Molecular Mechanism of Mechanosensitivity in K_{2P} Channels."*

2013 Yale University, School of Medicine, Cellular & Molecular Physiology Annual retreat, West Haven, CT. Oral presentation titled "*Deciphering the Molecular Mechanism of Mechanosensitivity in K_{2P} Channels."*

2013 Yale University, School of Medicine, Cellular & Molecular Physiology Annual retreat, West Haven, CT. Poster presentation titled "*Is the Mechanosensitivity of K_{2P} Channels Controlled by their C-Terminal Domain?*"

2013 *The 57th* annual meeting of Biophysical Society, Philadelphia, PA. Poster presentation titled "*Mechanism of Inhibition of GluA2 AMPA Receptor Channel Opening by 2,3-Benzodiazepine Derivatives."*

2011 University at Albany, Life Science Research Symposium, Albany, NY. The oral presentation titled "*Mechanism of Inhibition of GluA2 AMPA Receptor Channel Opening by 2,3-Benzodiazepine Derivatives."*

Journal Reviewer

- Acta Pharmacologica Sinica
- Molecular Neurobiology
- iScience
- Chemistry & Biodiversity
- Neurology International
- Journal of Molecular Structure
- General Physiology and Biophysics Journal
- Journal of Research and Reports in Biochemistry
- Pharmaceuticals
- Neurology Journal
- MDPI Biomolecules
- MDPI Molecules
- MDPI Applied Sciences
- MDPI Cells
- MDPI Metabolites
- MDPI Nutrients
- MDPI Journal of Clinical Medicine
- MDPI International Journal of Molecular Sciences
- Biomedicines

Research support

Completed research support

- Scientist Development Grant, The German Federal Ministry of Education and Research (Grant number: PALGER2017-009). Novel approaches to adjust glutamatergic synaptic transmission in the central nervous system
  Role: Principal Investigator.
  Funding amount: **€40,000**
  Dates: 11/2019-11/2020

- Research cooperation and staff exchange, Joint Research and Education Programme "Palestinian-German Science Bridge PGSB. *Regulation of AMPA-type glutamate receptors by newly synthesized chemical compounds*
  Role: Principal Investigator.
  Dates: 08/2022-08/2023

- Science Development Grant, The Palestinian Ministry of Education and Higher Education (Grant number: ANNU-MoHE-1819-Sc009). Inhibition and assessment of the biophysical gating properties of Curcumin-Based Diazepines on AMPA receptors.
  Role: Principal Investigator
  Funding amount: **$14,700**
  Dates: 04/2018-08/2019
  Published Article: https://doi.org/10.1371/journal.pone.0221132

- Science Development Grant, The Palestinian Ministry of Education and Higher Education (Grant number: ANNU-MoHE-1819-SC011). Biological Evaluation of Natural Oil on AMPA Receptor.
  Role: Principal Investigator.
  Funding amount: **$15,000**
  Dates: 05/2018-04/2019
  Published Article: https://doi.org/10.1155/2019/5640173

- Science Development Grant, The Palestinian Ministry of Education and Higher Education (Grant number: ANNU-MoHE-1819-Sc017). Approaches Toward Design and Synthesis of Curcumin-Based Diazepines Inhibitors for AMPA Receptors
  Role: Principal Investigator.
  Funding amount: **$15,000**
  Dates: 05/2018-06/2019
  Published Article: https://doi.org/10.1016/j.ejps.2019.06.005

Supervision

Ongoing

Medical Student

Graduation Project*- Novel insights into the pharmacology and regulation of AMPA receptors by TARP auxiliary subunits*

- Sosana Bdir

Alumni

Ph.D. graduates in chemistry department_ co-adviser

Thesis- *Design, Synthesis, Antimicrobial and Cytotoxicity of Curcumin-Based Benzodiazepines, Diazepines, Diazoles, and Amines*

- Rola Alqerem

Thesis- *Structure-activity relationship of Curcumin-Based Diazepines and their effect on AMPA receptors.*

- Rana Alqerem

Master graduates in chemistry department_ co-adviser

- Safa' Nassar

Thesis- *Evaluation and synthesis of α-Lipoic Acid Derivatives as Allosteric Modulators for AMPA-Type Glutamate Receptor Gating Module Targeting*

- Hanan Jumaa

Thesis- *Novel-1-Aryl-7,8-Methylenedioxy-2,3-Benzodiazepines as Non-competitive AMPA Receptor Antagonists*

- Ata' Awwadeh

Thesis- *Vanillin-based Thiazine, Oxazine, and Pyrazole as non-competitive AMPA receptor antagonists*

Medical Students

Thesis- *Effect of Raw Curcumin on AMPA Receptor Kinetics*

- Remah Abdelfatah Yousef
- Yasmeen Mohammad Abu Naba
- Hasan Rashed Arafat

Special Courses

2018 Building Program on New Approaches to Assessment and Self-Learning Online Practices and Work Collaboratively on Elements Related to Project Activities, University of Cork, Ireland

2013 Regulatory Training for Animal Care & Use, Yale School of Medicine, New Haven, CT

2013	Medical Surveillance Program for Animal Handlers, Yale School of Medicine, New Haven, CT
2013	Biosafety - Part 1 & 2, Yale School of Medicine, New Haven, CT
2013	Fundamentals of Teaching in Science, Yale University, New Haven, CT

Laboratory Skills

Surgery	Dissection of trigeminal and dorsal root ganglia from mouse
Electrophysiology	Patch-clamp recording in Human embryonic kidney (HEK) 293T cells and Xenopus Oocytes: Whole-cell, inside-out, outside-out, dual patch (multiple cells), and electrical stimulation of primary neuronal cultures
Cell culture	HEK293T cells, Primary culture of trigeminal ganglion neurons, Xenopus Oocytes
Biochemistry	SDS-PAGE electrophoresis, PCR of genomic DNA, western blotting
Chemistry	Organic synthesis, gas chromatography (GC), mass spectrometry (MS)
Software	P-clamp, Origin, Prism, Adobe Illustrator, MATLAB, Microsoft Office