

CURRICULUM VITAE



Prof. Dr. SA'ED MOHAMED AL-DALAIN

I. IDENTITY DATA

Name: Sa'ed Mohamed Al-dalain

Birth Date: April 19, 1970

Nationality: Jordan

Marital Status: Married

Sex: Male

E-mail: aldalaensm@yahoo.com

Mobile: 00962-799389948

College Degrees:

- Bachelor in Pharmaceutical Sciences (Havana University, 1997)
- Master in Experimental Pharmacology (Havana University, 1999)
- PhD degree in Pharmaceutical Sciences (Havana University, 2003)

II. LANGUAGES

Language	Speaks	Reads	Writes
English	Well	Well	Well
Spanish	Well	Well	Well
Arabic (Mother language)			

III. UNDERGRADUATE & POSTGRADUATE STUDIES

Senior High School: Country: Jordan, Municipality Ay, Province Al-Karak 1986-1989, School "Joza" Diploma obtained: Senior High School Certificate, July 12, 1989

College:

- Bachelor in Pharmaceutical Sciences. Faculty of Pharmacy, Havana University, Cuba, 1997
- Master in Experimental Pharmacology. Faculty of Pharmacy, Havana University, Cuba, 1999.
- Ph.D. degree in Pharmaceutical Sciences, Faculty of Pharmacy, Havana University, Cuba, 2003

IV. POST-GRADUATE STUDIES

1. Course "Biostatistics and Experimental Design" Pharmacy Faculty, Havana University, October 15, 1996 to January 31, 1997. 60 hours. Evaluation: Excellent.
2. Course "Immunology" Pharmacy Faculty, Havana University, May 26, 1997 to July 3, 1997. 30 hours. Evaluation: Excellent.
3. Course "Molecular Pharmacology" Pharmacy Faculty, Havana University, January-March 1998. 60 hours. Evaluation: Excellent.
4. Course "Pathophysiology" Pharmacy Faculty, Havana University, January-March 1998. 60 hours. Evaluation: Excellent.
5. Course "Experimental Toxicology" Pharmacy Faculty, Havana University, January-March 1998. 60 hours. Evaluation: Excellent.
6. Course "Immunopharmacology" Pharmacy Faculty, Havana University, May-June 1998. 60 hours. Evaluation: Excellent.
7. Course "Pharmacokinetics Modulation" Pharmacy Faculty, Havana University, May-June 1998. 60 hours. Evaluation: Excellent.
8. Course "Clinical Pharmacology" Pharmacy Faculty, Havana University, May-June 1998. 30 hours. Evaluation: Excellent.
9. Course "Methodology of Scientific Research" Pharmacy Faculty, Havana University, May-June 1998. 30 hours. Evaluation: Excellent.
10. Course "Clinical Pharmacokinetics" Pharmacy Faculty, Havana University, September-December 1998. 60 hours. Evaluation: Excellent.
11. Course "Bioanalysis of Drugs" Pharmacy Faculty, Havana University, December-February 1998. 60 hours. Evaluation: Excellent.
12. Course "Pharmacodynamic Basis of Bioequivalence" Pharmacy Faculty, Havana University, December-February, 1998. 60 hours. Evaluation: Excellent.

V. SCIENTIFIC ACTIVITIES

Scientific Projects Presented:

1. "Protective effects of ozone oxidative preconditioning on the injury associated to carbon tetrachloride hepatotoxicity". Author. Scientific Workshop, Pharmacy Faculty, Havana University, Cuba. April 1997..
2. "Protective effects of ozone against anaerobic glycolysis and reactive oxygen species formation induced by carbon tetrachloride". Author. Poster presented at the First International Congress on Pharmacology (Cuban Pharmaceutical Society), Havana, Cuba. October 21, 1998.
3. "Effects of ozone oxidative preconditioning on the injury associated to hepatic ischemiareperfusion in rats". Scientific Workshop, Pharmacy Faculty, Havana University. December 23, 1999.
4. "Effects of Ozone Therapy on the Oxidative Stress Associated to Diabetes Mellitus". Author. 15th Ozone World Congress. London, United Kingdom (11th-15th September, 2001).
5. "The oxidative stress in diabetes and their complications". Author. IV International Congress of Pharmacology, Umuarama, Brazil. May 22, 2002.
6. IV Workshop on Clinical Pharmacy. "Study of the therapeutic efficacy of ozone and its effects on systemic mediators of endothelial damage in patients with neuro-infectious diabetic foot". 29-31 May, Havana City, Cuba.2002.
7. CUBAFARMACIA 2002. VIII Congress of the Cuban Pharmaceutical Sciences Society. IV

Ibero-American Scientific Workshop on Pharmaceutical and Food Sciences. Study of the therapeutic efficacy of ozone and its effects on systemic mediators of endothelial damage in patients with neuro-infectious diabetic foot". 15-17 October, Havana City, Cuba.2002.

Scientific Events:

1. Scientific Workshop, Pharmacy Faculty, Havana University, Cuba. Author. 1997 and 1999. Author.
2. First International Congress on Pharmacology (Cuban Pharmaceutical Society), Havana, Cuba. October 21, 1998. Author.
3. 15th Ozone World Congress. London, United Kingdom. September/2001. Author.
4. IV Internacional Congreso on Pharmacology, Umuarama, Brazil. May/2002. Author.
5. IV Congress on Clinical Pharmacy, Havana, Cuba. May/2002. Author.
6. CUBAFARMACIA 2002. VIII Congress of the Cuban Pharmaceutical Sciences Society. IV Ibero-American Scientific Workshop on Pharmaceutical and Food Sciences. Havana City, Cuba.2002. Author.

Books, Text books, Monographies, Thesis

Thesis: "Efectos protectores del O₃/O₂ contra la glucólisis anaerobia y la generación de EROS inducida por CCl₄ (Protective effects of ozone against anaerobic glycolysis and reactive oxygen species generation after CCl₄)". Departament of Pharmacology and Toxicology. Pharmacy Faculty, Havana University. Diploma work, 1997. Master work, 1999. **Author.**

Thesis: "Estudio de la eficacia terapéutica del Ozono, y sus acciones sobre mediadores sistémicos del daño endotelial, en pacientes con Pie Diabético Neuroinfeccioso (Study of the therapeutic efficacy of ozone and its effects on systemic mediators of endothelial damage in patients with neuro-infectious diabetic foot)". Departament of Pharmacology and Toxicology. Pharmacy Faculty, Havana University. 2002. Master work.

Thesis: "Estudio Farmacodinámico del O₃/O₂, en Modelos Experimentales y en un Ensayo Clínico de Eficacia, en Diabéticos con Pie Neuroinfeccioso (A Pharmacodynamic Study on the effects of Ozone in experimental models of diabetes and in a Clinical Trial of Efficacy in Patients with neuro-infectious diabetic foot)". Departament of Pharmacology and Toxicology. Pharmacy Faculty, Havana University. 2003. PhD degree work. **Author.**

Book Chapter: León OS, Menéndez S, Martínez G, Candelario-Jalil E, Al-Dalain SM. (2002): Oxidative Konditionierung durch Ozon. Pharmakodynamische Aspekte des Medizinischen Ozons. In: Ozone-Handbuch Grundlagen, Praevention Therapie, Eds. Viebahn R and Knoch H.G. (Germany: Ecomed-Verlag 1995-2002). Website: <http://www.ozonosan.de>

Publications

1. Saadh, M. J., Aggag, M. M., Alboghdadly, A., Kharshid, A. M., **Aldalaen, S. M.**, & Abdelrazek, M. A. (2021). Silver nanoparticles with epigallocatechingallate and zinc sulphate significantly inhibits avian influenza A virus H9N2. *Microbial Pathogenesis*, 158, 105071.
2. Saadh, M. J., Aggag, M. M., Alboghdadly, A., Kharshid, A. M., **Aldalaen, S. M.**, & Abdelrazek, M. A. (2021). Silver nanoparticles with epigallocatechingallate and zinc sulphate significantly inhibits avian influenza A virus H9N2. *Microbial Pathogenesis*, 158, 105071.
3. Saadh, M. J., Almaaytah, A. M., Alaraj, M., Dababneh, M. F., Sa'adeh, I., **Aldalaen, S. M.**, ... & DAYYIH, W. (2021). Punicalagin and zinc (II) ions inhibit the activity of SARS-CoV-2 3CL-

- protease in vitro. *European Review for Medical and Pharmacological Sciences*, 25(10), 3908-3913.
4. El-Khatib, L., **Al-Dalain, S.**, Al-Matarneh, R., Al-Bustanji, S., Al-Dmour, M., Al-Amarin, Y., & Gaber, Y. (2021). Prevalence of Multi-drug Resistant Acinetobacter baumannii (MDRAB) in Amman Jordan During 2018. *Infectious Disorders-Drug Targets (Formerly Current Drug Targets-Infectious Disorders)*, 21(1), 105-111.
 5. Saadh, M. J., & **Aldalaen, S. M.** (2021). Inhibitory effects of epigallocatechin gallate (EGCG) combined with zinc sulfate and silver nanoparticles on avian influenza A virus subtype H5N1. *European Review for Medical and Pharmacological Sciences*, 25(6), 2630-2636.
 6. Mohamed J Saadh, **Saed M Aldalaen**, Hala M Sbaih, Inhibitors of Neutral Peptidase, Research Journal of Pharmacy and Technology
 7. Saadh, M. J., Tanash, S. A., Almaaytah, A. M., Sa'adeh, I. J., **Aldalaen, S. M.**, & Al-Hamaideh, K. D. (2021). Immunodiagnosis of cattle fascioliasis using a 27 kDa *Fasciola gigantica* antigen, Veterinary World, 14 (8): 2097-2101.
 8. **Aldalaen, S.**, El-Gogary, R. I., & Nasr, M. (2019). Fabrication of rosuvastatin-loaded polymeric nanocapsules: a promising modality for treating hepatic cancer delineated by apoptotic and cell cycle arrest assessment. *Drug development and industrial pharmacy*, 45(1), 55-62.
 9. **Saed Aldalaen**, Maha Nasr, Riham I El-Gogary: Angiogenesis and collagen promoting nutraceutical-loaded nanovesicles for wound healing (sciencedirect.com). *Journal of Drug Delivery Science and Technology*, 2020 April.
 10. **Saied M. I. Al-Dalaen**, Abdul-Wahab R. Hamad, Fawaz Al-Saraireh, Rawan Nayef Alkaraki, Mousa Khames Mezel Magarbeh and Fahil M. Abid. Bioequivalence and Bioavailability of Allopurinol in Two Tablet Formulations. *Biomedical Pharmacology Journal* 13 (2): 2020.
 11. Saied M. I. Al-Dalaen, Abdul-Wahab R. Hamad and Faker Al-Ani. Evaluation of Proteins in Serum and Cerebrospinal Fluid in Primary Brain Tumors. *Biomedical and Pharmacology Journal* 13 (1):41-46 2020.
 12. Sherif S Ebada, Nariman A Al-Jawabri, Fadia S Youssef, Amgad Albohy, **M Aldalaien Sa'ed**, Ahmad M Disi, Peter Proksch: In vivo antiulcer activity, phytochemical exploration, and molecular modelling of the polyphenolic-rich fraction of *Crepis sancta* extract (springer.com). *Inflammopharmacology*, 2020
 13. Sherif S Ebada, Nariman A Al-Jawabri, Fadia S Youssef, Dina H El-Kashef, Tim-Oliver Knedel, Amgad Albohy, Michal Korinek, Tsong-Long Hwang, Bing-Hung Chen, Guan-Hua Lin, Chia-Yi Lin, **M Aldalaien Sa'ed**, Ahmad M Disi, Christoph Janiak, Peter Proksch:Anti-inflammatory, antiallergic and COVID-19 protease inhibitory activities of phytochemicals from the Jordanian hawksbeard: identification, structure–activity relationships, molecular modeling and impact on its folk medicinal uses. *RSC Advances*, 2020, 10, 38128–38141
 14. Mousa K. Magharbeh, Tayel A. Al-Hujran, **Saied M. I. Al-Dalaen** and Abdul-Wahab R. Hamad. Effects of *Paronychia argentea* on Kidney Stone By Using Calcium Oxalate Method. (Accepted by Biomedical Pharmacology Journal for publication: Volume 13 (3) (2020).
 15. Mohamed J. Saadh, Bashar Haj Rashid M, Roa'a Matar, Sajeda Riyad Aldibs, Hala Sbaih, & **Saed Aldalaen**: SARS-COV2 virus and Coronavirus disease (COVID-19). *International Journal of Research in Pharmaceutical Sciences* 2020.
 16. **S Aldalaen**, RI El-Gogary, M Nasr : Fabrication of rosuvastatin-loaded polymeric nanocapsules: a promising modality for treating hepatic cancer delineated by apoptotic and cell cycle arrest assessment (tandfonline.com). *Drug development and industrial pharmacy*, 2019

17. Aiman Al-Maathidy ,Jihad A.M.Alzyoud , **Said Al Dalaen** , Aiman Al Qtaitat. Histological alteration in the thyroid follicular cells induced by lead acetate toxicity in adult male albino rats. International Journal of Pharmaceutical and Phytopharmacological Research. October 2019.
18. Ahmed Mohamed Mohamed Youssef, Zeinab Ahmed Said El-Swaify, Yousef Mohammed Al-Saraireh, **Saed Mohammed Al-Dalain**, Anticancer effect of different extracts of Cynanchum acutum L. seeds on cancer cell lines, Pharmacognosy Magazine, 2019; 15, 261
19. **Saed M.Aldalaien**, Fakhir S.Al-Ani, Marwan S.M.Al-Nimer, Alaa Daher Dalaien, Maha Nasr, Metformin as a potential anti-proliferative agent againsts cancer cells: A comparative study elucidating the mechanism of action and anti-proliferative preference. Focus on Medical Sciences Jornal.2018,VOLUME 4, ISSUE 2
20. Livan Delgado-Roche, Mario Riera Romo, Luis Fernando Mesta Carrillo, **Said M. Al-Dalaen**, Gregorio Martínez-Sánchez ,Medical ozone promotes Nrf2 phosphorylation reducing oxidative stress and pro-inflammatory cytokines in multiple sclerosis patients , European journal of pharmacology 811, June 2017, DOI: 10.1016/j.ejphar.2017.06.017
21. Aiman Al-Qtaitat, Jihad Alzyoud, Mohammad Al-Rawashdeh, **Said Al-Dalaen**: Bone Age Determination of Epiphyseal Union Around Wrist Joint and its Correlation with Chronological Age: A Radiological Study in a Jordanian Population (biotech-asia.org), Biosciences Biotechnology Research Asia, 2016.
22. **Said Al-Dalaen**, Jihad Alzyoud, Aiman Al-Qtaitat: The effects of L-arginine in modulating liver antioxidant biomarkers within carbon tetrachloride induced hepatotoxicity: experimental study in rats (biomedpharmajournal.org), Biomedical and Pharmacology Journal, 2016.
23. **Said Al-Dalaen**, Aiman Al-Qtaitat, Mohammad Al-Rawashdeh, Jihad Alzyoud, Aiman Al-Maathadi: Rheumatoid arthritis: hyaluronic acid and cartilage oligomeric matrix protein as predictors of the disease progression (biomedpharmajournal.org), Biomedical and Pharmacology Journal, 2016
24. Abdul-Wahab R Hamad, N Khaled, **Saied M Al-Daline**, Faker Al-Ani: EFFECT OF CIGARETTE SMOKING ON SERUMAND SALIVALIVER ENZYMES FUNCTION. (researchgate.net), European Journal of Biomedical and Pharmaceutical sciences: 2 (1):107-120; 2015.
25. Aiman Al-Qtaitat, **Said Al-Dalaen**, Samir Mahgoub, Nedal Alnawaiseh, Jehad Al-Shuneiqat, Sameeh Al-Sarayreh, Yousef Al-Saraireh: Plasma thrombopoietin level in thrombocytopenic patients with or without liver cirrhosis chronically infected by the hepatitis C virus (journaljammr.com), Journal of Advances in Medicine and Medical Research, 2015
26. **Said Al-Dalaen**, Aiman Al-Qtaitat, Samir Mahgoub, Nedal Alnawaiseh, Jehad Al-Shuneiqat, Samih Sarayreh, Yousef Sarayreh: Ramipril and Valsartan as protective agents against some complications of an experimentally induced obesity in rats (researchgate.net), American Journal of Life Sciences, 2014.
27. Jihad Shniqat, Samih, Sarayreh, and Yousef Sarayreh, Mahmoud Al-Qudah, Ibrahim Al-Tarawneh, **Said Al-Dalaen**. (2014). Chemical composition and antimicrobial activity of the essential oil of wild Thymus vulgaris grown in South Jordan. IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS). 2014; 9 (5 Ver.II): 1-6.
28. **Said Al-Dalaen**, Samir Mahgoub and Aiman Al-Qtaitat (2014). Carcinogen Metabolizing Enzymes: Modulation of Their Activities in Liver, Lung and Stomach by Thymoquinone. European Journal of Medicinal Plants, 2014; 4(4): 383-393.

29. Aiman Al-Qtaitat, **Said Al-Dalaen**, Samir Mahgoub, Mohammad Al-Rawashdeh, Jean E. Aaron.(2014). Bioactive propolis and bone loss reduction in an ovariectomized rat model of hypogonadal osteoporosis. American Journal of BioScience. 2014; 2(6): 217-221.
30. Aiman I. Al-Qtaitat, **Said Al-Dalaen**, (2014). A review of non-collagenous proteins; their role in bone. American Journal of Life Sciences. 2014; 2(6): 351-355.
31. **Said Al-Dalaen**, Aiman I. Al-Qtaitat. (2014). Review Article: Oxidative stress versus antioxidants.American Journal of Bioscience and Bioengineering. 2014; 2(5): 60-71
32. Rania M. Al-Groom, Abdul-Wahab R. Hamad and **Saied M. Al-Daline** (2013). Assessment of Important Trace Elements in Jordanian Adult Females and Males by Using Atomic Absorption Spectrophotometer. Pakistan Journal of Nutrition, 2013; 12 (8): 761 – 767.
33. OS. Leon Fernandez, G. Martinez, **SM Al-Dalain**, AM. Carmona, S. Menéndez, L. Re, A.Giuliani. Ozone Treatment Reduces Markers of Oxidative and Endothelial Damage in an Experimental Diabetes Model in Rats. 17th World Congress of Ozone & RelatedOxidants. Strasbourg, France, 2005 August 22-25. Congress proceeding pag.III.1.3/1-8.
34. Silvia Menendez, Olga Sonia Leon, **Said M Aldalain**, Gregorio Martinez, Hector Alvarez & Jose I Fernandez-Montequin. Ozone Medical Application in patients with diabetic foot.
35. 17th World Congress of Ozone & Related Oxidants. Strasbourg, France, 2005 August22-25. Congress proceeding pag.IV.2.1-12.
36. Gregorio Martínez-Sánchez, **Saied M. Al-Dalain**, Silvia Menéndez, Lamberto Re, AttiliaGiuliani, Eduardo Candelario-Jalil, Hector Álvarez, José Ignacio Fernández-Montequín,Olga Sonia León. Therapeutic efficacy of ozone in patients with diabetic foot. European Journal of Pharmacology 2005.
37. Gregorio Martinez, **Said Mohammed Al-dalain**, Silvia Menendez, A.Guiliani & O. S. Leon.Ozone Treatment Reduces Blood Oxidative Stress and Pancreas Damage in a Streptozotocin Induced Diabetes Model in Rats. Acta Farm. Bonaerense (2005);24 (4): 491-7.
38. **Saed Mohamed Al-dallen**, Taimy Chávez Rodríguez, G. M. Sanchez, E. F. Bega, OS. L.. Fernandez. El Equilibrio Redox en la Diabetes y sus Complicaciones (The Redox Balancein Diabetic and it Complications).Acta Farm. Bonaerence 2003 Jul 26; 23 (2):231-42.
39. Candelario-Jalil, A. González-Falcón, M. García-Cabrera, D. Alvarez, **S. M. Al-Dalain**,G. Martínez, O. S. León, J. E. Springer (2003). Assessment of the relative contribution ofCOX-1 and COX-2 isoforms to ischemia-induced oxidative damage andneurodegeneration following transient global cerebral ischemia. Journal of Neurochemistry.
40. Candelario-Jalil E, Alvarez D, Castañeda JM, **Al-Dalain SM**, Martínez G, Merino N, León OS. The highly selective cyclooxygenase-2 inhibitor DFU is neuroprotective when given several hours after transient cerebral ischemia in gerbils. Brain Research 2002 Feb 15;927 (2): 212-5.
41. **Said Mohammed AL-Dalain**, Gregorio Martínez, Eduardo Candelario-Jalil, SilviaMenéndez, Lamberto Re, Attilia Giuliani and Olga Sonia León (2002). Ozone Treatment Reduces Blood Oxidative Stress and Pancreas Damage In Streptozotocin-Induced Diabetes Model In Rats.
42. Candelario-Jalil E, **Al-Dalain SM**, León OS, Menéndez S, Pérez-Davison G, Merino N, Sam S, Ajamieh HH. Oxidative preconditioning affords protection against carbon tetrachloride-induced glycogen depletion and oxidative stress in rats. Journal of Applied Toxicology 2001 Jul-Aug; 21 (4): 297-301.
43. **Saed Mohamed Al-dallen** , Menéndez, S., Martínez, G., León Fernández O. S., et al. Ozone therapy effects in the oxidative stress associated to diabetes mellitus. Proceedings of the 15th Ozone World Congress. London, United Kingdom (11-15 sept., 2001) p. 163-173.

44. Candelario-Jalil E, **Al-Dalain SM**, Castillo R, Martínez G, León OS. Selective vulnerability to kainate-induced oxidative damage in different rat brain regions. *Journal of Applied Toxicology*. 2001 Sep-Oct; 21 (5): 403-407.
45. Candelario-Jalil E, Mhadu NH, **Al-Dalain SM**, Martinez G, León OS. Time course of oxidative damage in different brain regions following transient cerebral ischemia in gerbils. *Neuroscience Research* 2001 Nov; 41 (3): 233-241.
46. **Al-Dalain SM**, Martínez G, Candelario-Jalil E, Menendez S, Re L, Giuliani A, León OS. Ozone treatment reduces markers of oxidative and endothelial damage in an experimental diabetes model in rats. *Pharmacological Research* 2001 Nov; 44 (5): 391-6.
47. 46. Martínez, G., Popov, I., Pérez, G., **Al Dalaen, S. M.**, Horwat, R., Giuliani, A., & León, O. S. (2005). Contribution to characterization of oxidative stress in diabetic patients with macroangiopathic complication. *Acta Farm Bonaerense*, 24(2), 197-203.
48. A review of non-collagenous proteins; their role in bone.
49. **Aldalaen, S.**, Nasr, M., & El-Gogary, R. I. (2020). Angiogenesis and collagen promoting nutraceutical-loaded nanovesicles for wound healing. *Journal of Drug Delivery Science and Technology*, 56, 101548.
50. Al-Qtaitat, A., Alzyoud, J., Al-Rawashdeh, M., & **Al-Dalaen, S.** (2016). Bone Age Determination of Epiphyseal Union Around Wrist Joint and its Correlation with Chronological Age: A Radiological Study in a Jordanian Population. *Biosciences Biotechnology Research Asia*, 13(1), 67-73.
51. Magharbeh, M. K., Al-Hujran, T. A., **Al-Dalaen, S. M.**, & Hamad, A. W. R. (2020). Assessment of Paronychia Argentea Extraction on Kidney Stone By Using Calcium Oxalate Method. *Biomedical and Pharmacology Journal*, 13(4), 1745-1754.
52. Dayyih, W. A., Layth, R., Hailat, M., Alkhawaja, B., AITamimi, L., Zakaraya, Z., & **Aldalaen, S.** (2022). Effect of Date Molasses on Levetiracetam Pharmacokinetics in Healthy Rats.
53. Abu-Azzam, O., **Aldalaen, S.**, & Nasr, M. (2022). Potentiation of the Cytotoxic Activity of Nutraceutical Phloretin against Cervical Cancer by Formulation into Microemulsion. *Pharmaceutical Chemistry Journal*, 55(11), 1215-1218.
54. Saadh, M. J., Aggag, M. M., Alboghdadly, A., Kharshid, A. M., **Aldalaen, S. M.**, & Abdelrazek, M. A. (2021). Silver nanoparticles with epigallocatechingallate and zinc sulphate significantly inhibits avian influenza A virus H9N2. *Microbial Pathogenesis*, 158, 105071.
55. Al-Sarayreh, A. Z., Khleifat, K. M., **Al-Dalain, S. E. M.**, Al-Saraireh, Y. M., Al-Qaisi, Y. T., Al-Farrayeh, I. I., & Al-Qaraleh, S. Y. (2022). Globularia arabica methanolic leaf extract has higher efficacy on burn wound healing in diabetic rats compared to Malva sylvestries methanolic leaf extract. *Journal of Burn Care & Research: Official Publication of the American Burn Association*, irac089-irac089.
56. Al-Saraireh, Y. M., Alshammari, F. O., Satari, A. O., Al-Mahdy, Y. S., Almuhaisen, G. H., Abu-Azzam, O. H., ... & Al-Sarayreh, S. A. (2022). Cytochrome 4Z1 Expression Connotes Unfavorable Prognosis in Ovarian Cancers. *Medicina*, 58(9), 1263.
57. Hussein, R. M., & **Al-Dalain, S. M.** (2021). Betaine downregulates microRNA 34a expression via a p53-dependent manner in cisplatin-induced nephrotoxicity in rats. *Journal of Biochemical and Molecular Toxicology*, 35(9), e22856.
58. Al-Hawadi, J., Haddad, M., Ateyyat, M., **Al-Dalaen, S.**, & Al-Hababbeh, K. Banned Organochlorine Pesticides Residues in Camel Milk, Meat, and Liver: A case study from Jordan. *Jordanian Journal of Engineering and Chemical Industries*, 4(1), 31-37.

59. El-Khatib, L., **Al-Dalain, S.**, Al-Matarneh, R., Al-Bustanji, S., Al-Dmour, M., Al-Amarin, Y., & Gaber, Y. (2021). Prevalence of multi-drug resistant *Acinetobacter baumannii* (MDRAB) in Amman Jordan during 2018. *Infectious Disorders-Drug Targets (Formerly Current Drug Targets-Infectious Disorders)*, 21(1), 105-111.

VI. PROFESSIONAL ACTIVITIES

Researcher and Pharmacology lecturer. Center for Research and Biological Evaluation, Institute of Pharmacy and Food Sciences. Havana University. Cuba. 1997-2002.

Assistant Professor of Pharmacology, Faculty of Medicine, Mu'tah University. Jordan. 2007-2016

Associate Professor of Pharmacology, Faculty of Medicine, Mu'tah University. Jordan. 2016-2021

Dean of the Faculty of Pharmacy at Mu'tah University from September 2017- September 2021

Professor of Pharmacology, Faculty of Medicine, Mu'tah University. Jordan. 2021 until now

Dean of the Faculty of Medicine at Mu'tah University from September 2021- February 2023