*CURRICULUM VITAE*



*سوسن عطا الله صالح العوران*

*Sawsan AS Oran*

**NAME**: SAWSAN ATTALAH SALEH ORAN

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**DEGREES**:

**B. Sc**. (**GENERAL BIOLOGY)**

Dept. Of Biological Sciences

###### Faculty of Science

Baghdad University

Baghdad, Iraq

**M. Sc.** **BOTANY (PLANT TAXONOMY)**

###### Dept. of Botany

Faculty of Science

University of Reading, Berks., England

**Ph.D**. **BOTANY (PLANT TAXONOMY = Biosystematics)**

# Dept. of Botany

Faculty of Science

**University of Reading, Berks**

**England**

**THESIS TITLE (M. Sc.):**

SYSTEMATIC OF THE

GENUS ***ALYSSUM*** IN JORDAN

**THESIS TITLE (Ph. D.):**

Biosystematics of the Genus ***Salvia*** in Jordan and the Neighboring Countries with a Special Emphasis on Anatomy.

**TEACHING EXPERIENCE**:

### **INSTRUCTOR** 1982-1990

### University of Jordan

* **TEACHING ASSISTANCE** 1979-1984

Dept. of Biological Sciences

Faculty of Science

University of Jordan

### **ASSISTANT PROFFESOR** 1991

### Dept. of Biological sciences

### University of Jordan

* + **ASSOCIATE PROFESSER** 1999

### Dept. of Biological sciences

### University of Jordan

* + **PROFESSOR 2006**

DEPT. OF BIOLOGICAL SCIENCES

FACULTY OF SCIENCE

UNIVERSITY OF JORDAN

AMMAN, JORDAN

Sabbatical Year at Dept . of Biological Sciences , The University of Jordan 2000

Sabbatical Year Missouri Botanical Garden USA & George Washington University in St. .Louis **2014-2015**

**● Member of Board of Trusties at Ajlun National University, Jordan 2017- 2020.**

**● Dean of Faculty of Sciences, University of Jordan, 2009- 2011.**

**●** **Dean of Zarka University College / Al-Balqa Applied University , 2006-2008.**

**COURSES TAUGHT:**

1. Vascular Plants (252) 2Nd Year Level
2. General Biology (102) 1St Year Level
3. Plant Anatomy 3Rd Year Level
4. Nonvascular Plants (251) 2Nd Year Level
5. Mycology (453) 33Rd Year Level
6. Special Topics (381) 3Rd Year Level
7. Plant Physiology (Practical) 2Nd Year Level
8. General Biology (Practical)= (103+104) 1St Year Level
9. Plant Taxonomy (451) 4Th Year level
10. General Botany (251) 2Nd Year level
11. Research
12. Advanced plant Taxonomy (0324753) POSTGRADUATE COURSE
13. Biodiversity (304774) POSTGRADUATE COURSE
14. Medicinal Plants POSTGRADUATE COURSE
15. Plant Tissue Culture TechnologyPOSTGRADUATE COURSE
16. Environmental ManagementPOSTGRADUATE COURSE

**PREVIOUS EXPERIENCE**

1. Herbarium Supervisor University Of Jordan 1979-1990
2. Teaching Assistant, 1985-1990 University Of Jordan

**FIELDS OF RESEARCH INTEREST**

1. Plant taxonomy (systematic)
2. Medicinal plants
3. Economic plants and socioeconomic
4. Plant anatomy
5. Biodiversity and conservation
6. Tissue culture
7. Balneology
8. Conservation Strategies
9. Management of Plant Natural Resources
10. Environmental Impact Assessment
11. Genetic Diversity
12. Plant Pollution
13. Bioethics
14. Management of Botanical Gardens
15. Herbaria Management
16. Conservation Management
17. Climate Change and Plant Biodiversity Management
18. Environmental Management

**ORGANIZATIONS**

**LOCAL (OUTSIDE THE UNIVERSITY):**

1. Active member in the Royal Society for the Conservation of Nature.
2. Member in the Jordan Environmental Society.
3. Jordanian Biological Society.
4. Friends of Plants.
5. Society of Friends of Scientific Research at Public Universities in Jordan.
6. Member in The Jordanian Society for Desertification Control & Badia development.
7. Vice President in Jordan Society for National Code Ethics.

**LOCAL (INSIDE THE UNIVERSITY):**

1. Advisor of “The Protection of Nature Club”.
2. Advisor of “The Scientific Club”.

**OUTSIDE**

1. **Juror of Ford Motor Company Conservation and Environmental Grants for MENA and North Africaa Region (2016-now.)**
2. Member of the **OPTIMA** (Organization for the Phyto-Taxonomic Investigation of the Mediterranean Area.
3. Honorable Member of **the Tunisian Society of the Natural Sciences**.
4. Member of the **IAVS** (International Association of Vegetation Sciences).

**PUBLICATIONS**

1. **Oran, S. A.,** **(1994)**. Isolation and Counting of Cyanobacteria. IN ALEF, K. (ED.). **Methods in Applied Soil Microbiology and Biochemistry**, pp 181-191. *Academic Press*.
2. Oran, S. A., (1994). Flora of Shoubak Mountain, Socioeconomic and Man Impact. Proceeding of The International Symposium "Man and Mountains 94". Primo Convergo Internazionale Per La Protezione E Lo Sviluppo Dell' Ambiente Montano (BS), Italy 20-24 Guigno 1994. PP. 739-751.
3. **Oran, S**. **A.,** **(1994). Vascular Plants of Shoubak Pro**. *Bull. Soc. Sc. nat. Tunisie,* Vol. 24: 35-50
4. **Al-Eisawi, D. & Oran, S.** **A.,** **(1994)**. ***Nicotiana glaucum*** (**Solanaceae**), new to the flora of Jordan, *Quaderni Museo di Storia Naturale di Livorno,* 13: 19-21.
5. **Oran, S**. **A., Oran, R., & AL-Eisawi, D.,** **(1995). Biodiversity of Karak Province \ Jordan. *Mu’tah Journal for Research and Studies,* Vol.10 (4): 15-41.**
6. **Oran, S. A**., **Al-Eisawi, D.,**  & **Podlech D.,** **(1994**). Two Genera of Compoistae to the Flora of Jordan*. Sendtnera* 2: 35-37.
7. **Al-Eisawi, D., Oran, S. A.** & **Podlech D.,** **(1994).** Two Genera of Umbelliferae to the Flora of Jordan.*Sendtnera* 2: 31-34.
8. **AL-HILI, M., AL-ANI, AL-NAJAR, S. & ORAN, S**. **A.,** **(1994).** The Botanical­ Atlas. *Deanship of Sceintific Research, Univ. of Jordan/Amman.*
9. **Oran, S. A., (1997). Biodiversity of Petra (Jordan**). *Journal of Damascus* *University for Basic Sciences* Vol. 13(1): 153-163.
10. **Oran, S. A., Kochkar, N. and Rais, A., (1998).** Anatomical study of two xerophytic Mediterranean species of ***Globularia*** L. *Dirasat, Natural and Engineering* *Sciences*, 25 (3): 451-455.
11. **Oran, S.** **A.** & **Al- Eisawi, D.M.**, **(1998).** Checklist of Medicinal Plants in Jordan. *Dirasat, Medicinal and Biological Sciences*, 25(2): 84-112.
12. **Oran, S. A., (1999).** Potato Disc Bioassay of Some Jordanian Medicinal Plants. *Pharmaceutical Biology,* 37(4): 296-299.
13. **Oran, S. A., Kochkar, N. and Raies, A.,** Biosystematics of the Genus ***Globularia*** L. in Jordan and Tunisia **(1999)**. *Dirasat,* 26(2): 203-210.
14. **Oran, S. A.,** Trichomes of the Genus of ***Alyssum***in Jordan **(1995).** *Webbia,* 50(2): 237-245.
15. **Oran, S. A.,** The Ultrastructure of Nutlet Surface of the Genus ***Salvia***L**.** in Jordan and The Neighboring Countries **1995**. *Dirasat*, Vol.23 (3): 393-408.
16. **Oran, S.** **A.** Flavonoids of the Genus***Salvia*** (**Labiatae**) in Jordan **(1996)**.  *Bull. Soc. Sc. Nat. Tunisie,* Vol. 25: 93-96.
17. **Oran, S.** **A.** **(1994).** Genetic Resources of Medicinal Plants in Jordan. *IPEGRI, (International Plant Genetic Resources Institute),* pp117-126.
18. **Oran, S. A.,** Nutlet Anatomy of the Genus ***Salvia*** L. in Jordan**. (1997).** *Flora Mediterranean,* Vol.7: 27-40.
19. **Al- Eisawi, D.M., Al-Oqlah, A., Oran, S. A. & Lahham, J.,** **(1996).** **Plant Biodiversity in Jordan**. Proceeding of a national seminar on: Plant genetic resources of Jordan. Amman-Jordan (2-4 August 1994), *IPGRI* (International plant geneticresources institute): 13-51.
20. **Oran, S. A.,** **(1997).** Ultrastructure of pollen grains of the Genus ***Salvia*** L. **(Labiatae**) in Jordan and the neighboring countries*, Dirasat*, *Natural and* *Engineering Sciences*, 24(3): 629-641.
21. **Al-Eisawi, D. M., Oran, S. A.,** **(1995).** **Plant Biodiversity in Jordan** (For better use of land sources) the third Jordanian Scientific week. Publication of thee Higher Council for Science and Technology, Amman-Jordan. The 5th volume (Scientific papers “Environmental”): 3-23.
22. **Oran, S. A**., **(1997).** Systematics of the Genus ***Salvia*** L. in Jordan and TheNeighboring Countries, *Bull. Soc. Sci. Nat. de Tunisie,* 26: 75-82.
23. **Elbetieha, A., Oran, S .A., Alkofahi, A., Darmani, H., and Raies, A. M. (2000)** Fetotoxic potentials of ***Globularia arabica*** and ***Globularia alypum*** (**Globulariaceae**) in rats. *J. Ethnopharmacol*. 72(1-2): 215-219
24. **Oran, S. A., and Raies, A. M. (2000)** Antimicrobial Activity of ***Globularia arabica*** Jaub. And Spach and ***G. alypum*** L. (**Globulariaceae**). *Dirasat.* 27(1): 71-73
25. **Oran,** **S. A.** **(2004)** Micropropagation of Tow Endagered Species of ***Globularia*** L. (**Globulariaceae**). *Dirasat..* 31 (2): 158162.
26. **Al-Hilli, M. R., and Oran, S. A.** **(2002)** Eco-Phytososiological Study on Wadi Hauran, Western Desert-IRAQ. *Dirasat*. 29(2)
27. **Oran, S. A., and Al- Da’ja, I. K.** **(2002)** Plant Association with the Endemic ***Iris nigricans*** Dinsmore. (Iridaceae)), in Jordan. *Dirasat.* 29(2):
28. **Oran, S. A.. and Fattash, I.A.** **(2005)** *In Vitro* Propagation of Endangered and Medicinal Bulbous Plant ***Sternbergia clusiana*** Ker-Gawler (Amaryllidaceae). *The Journal of Horticultural Science & Biotechnology*. 80: 399-402.
29. **Ibrahima. O., Oran, S. A. et Aly Raies., (2003)** Evaluation morphologique de cultivars de mil (Pennisetum glucum (L.) R. Br.) collectés en Tunisie et en Afrique de l’Ouest. *Plant Genetic Resourses Newsletter*, 2003, No. 133: 35-40.
30. **Oran, S. A., and Al-Da’ja, I. K.** **(2003**) Systematic Re-Evaluation of one Species of Royal ***Iris***: ***I. atrofosca*** Bak of one Locality in Amman Area / Jordan. *Dirasat.* 30 (2): 283-304
31. **Atrouz, O. M., Oran, S. A., and AL-Abbadi, S. Y.** **(2004)** Chemical analysis and identification of pollen grains from different Jordanian honey samples. *International Journal of Food Science and Technology*. **39,** 1-5.
32. **Abrahima, Chibani, Oran, S. A., Boussaid, Karamanos, Raies. (2005)** Allozyme variation among some pearl millet cultivars collected from Tunisia and West Africa**.** *.Genetic resources and crop evolution.***52:1087-1097**
33. **Al-Mohaisen, D. M. and Oran S. A.** (2005) Plant Biodiversity of the surrounding area of Al-Fuhais cement plant/ Jordan, *Revue Soc.Sci.Nat.de Tunisie*, T:31(35-50
34. **Odeh**, **M**. and **Oran, S**. **A**. (**2005**). Biosystematic Evaluation of the Genus ***Ornithogalum*** L. (Liliaceae) in Jordan, , **accepted**, proceedings**, International Conference on Promoting Community-Driven Conservation and Sustainable Use of Dry Land Agrobiodiversity,** ICARDA, Aleppo, Syria, 18-21 April 2005.
35. **Oumar Ibrahima, Farhat Chibani, Oran, S. A., Mohamed Boussaid, Yannis Karamanos and Aly Raies**,(2005). Allozyme variation among some pearl millet ( *Pennisetum* *glaucum* L.) cultivars collected from Tunisia and West Africa. *Genetic Resources and Crop Evolution* (2005).
36. **Odah. M. and Oran. S. A.** (2007). Karyological Study of the Genus *Ornithogalum* (Lilliaceae) in Jordan. *An International Refereed Research Journal*.. 34(.2): 211-220.
37. **Shammout. M. W., Oran. S. A. and Fayyad. M. (2008).** The application of duckweed (Lemna sp.) in wastewater treatment in Jordan***. International Journal of Environment and Pollution.****vol.33 No. 1, 2008.*
38. **Abu- Zahra. H and Oran. S.A. (2009).** *In Vitro* Micropropagation of the bulbous, medicinal *Narcissus tazzeta,*. *Proceedings of the First International Medicinal and Aromatic Plants on Culinary Herbs.* Acta Horticulturae.826: (135- 140).
39. Silvio Sosa, Mayada B. Shehadeh, Antonio Vassallo, Laura Lepore**, Sawsan AS., Oran,** Aurelia Tubaro and RobertoDella Loggia**., (2009).** Screening of Six Jordanian *Salvia* Species Commonly Used in Traditional Medicine for Topical Anti- inflammatory Activity. *Natural Product Communications (NPC).* Vol.4 No. 0: (1-6):
40. Yasser Bustanji, Mohammad Hudaib, Khaled Tawaha, Mohammad Mohammad, Ihab Almsri, Saja Hamidand **Sawsan Oran (2011)**. In Vitro Xanthine Oxidase Inhibition by Selected Jordanian Medicinal Plants. *Jordan Journal of Pharmaceutical Sciences,* 4 (1): 49-56.

**41*.* Ala Issa, Mohammad Mohammad, Mohammad Hudaib, Khalid Tawah, Talal Abu Rjai, Sawsan Oran and** Yasser Bustanji **(2011).** Potential role of *Lavandula* angustifolia in the management of diabetic dyslipidemia.*Journal of Medicinal Plants Research* 5(16): 3876-3882.

42. Al-Bakri, J., Al-Eisawi, D., Damhoureyeh, S., **and Oran, SA., (2011).**  GIS-based analysis of spatial distribution of medicinal and herbal plants in arid and semiarid zones in the northwest of Jordan.

 *Annals of Arid zone*. **50(2): 99-115.**

43. **Dawud Al-Eisawi M and SAWSAN A. ORAN (2012).** New records and synopsis to the genus *Alyssum* (Cruciferae) in Jordan. *Webbia* **67**(2): 189-193.

44. **Rana Zeidan, Sawsan Oran, Khaled Khleifat and Suzan Matar (2013). Antimicrobial activity of leaf and fruit extracts of Jordanian *Rubus sanguineus* Friv. (Rosaceae)**. *African Journal of Microbiology Researhc*, 7(44): 5114-5118.

45. **Oran, SA., (2014**). **A List of FloweringWild Plants in Tafila Province/ Jordan.** *International Journal of Biodiversity and Conservation*. 6(1): 28-40.

46**. Oran, SA**., and Abu Zahra, Hammad (**2014**). **The Impact of the Cement Dust Emitted from the South Cement Factory in Tafila/ Jordan on Plant Diversity of the Surrounding Area.** *International Journal of Biodiversity and Conservation.* 6(5): 400- 414.

47. **Oran, SA**.,and Al-Eisawi, DM., **(2014**). Medicinal Plants in the High Mountains of Northern Jordan. *International Journal of Biodiversity and Conservation*. 6(6): 436- 443.

48. **Oran, (2014).** The Status of Medicinal Plants of Jordan. *Journal of Agricultural Science and Technology A & Journal of Agricultural Science and Technology* B. V.4, Number 6A: 461-467

49. Shehadeh, MB., Sosa S., Suaifan GARY., Darwish, RM., Giangaspero A., Vassallo A., Lepore L., **Oran SA.,** Hammad, H., Tubaro A., Tommasi N De., Loggia RD., 2014. Topical antiinflamatory potential of six species grown in Jordan, Jordan Journal of pharmaceutical Sciences. 7(2): 153-161.

50. **Oran SA**. and Ghabeish A. (2014**). Conservation of *Iris bismarckiana* Regel (Iridaceae) Using Plant Regeneration *Via* Somatic Embryogenesis. *Journal of Agricultural Science and Technology*** *A & Journal of Agricultural Science and Technology*. 4 (7): 612-619.

51. Zaidan, R. and **Oran, SA., (2014)**. Antioxidant activity of fruit extracts of Jordanian Rubus sanguineus Friv. (Rosaceae). *Journal of Medicinal Plants Research*. 8(39): 1179-1190.

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52. **Oran, SA**, Al-Eisawi, DM,. **2015**. Etnnobotanical survey of the medicinal plants in the central mountains (north-south) in Jordan. *Journal of Biodiversity and Environmental Sciences (JBES),* 6(3): 381-400.

53. **Oran, SA**. **2015**. **Selected wild plant species with exotic flowers from Jordan**. *International Journal of Biodiversity* *and Conservation*. 7(5): 308-320.

54. Al-Eisawi, DM, **Oran, SA, 2015.** Assessment of the vegetation covers of northern high mountains in Jordan. *Journal of Biodiversity and Environmental* *Sciences* *(JBES),* 6(5): 93-106.

55**. Oran, SA,. 2015**. Some **geophytes with ornamental and economic interests from Jordan. *Journal of Applied* *Research (RA)*, 1 (3):**

56. **Oran, SA. 2015**. Ultrastructure of pollen grains of the genus *Phlomis* (Lamiaceae) in Jordan. **International Journal of Herbal Medicine, 2(7): 83-87.**

57. **Oran, SA. 2015**. **Flora of Bader Al-Jadida** county, western high mountains of Amman-Jordan**.**, *International Journal of Herbal* Medicine , 3(4): 49-59.

58. **Oran, SA, 2015. Some selected wild aromatic plants in Jordan**, *International Journal of Medicinal Plants (****Photon****)*, 108: 686- 699.

59**. Oran, SA. 2015.** Systematics of the genus *Phlomis* L*.* (Lamiaceae) in Jordan**,** *International Journal of Herbal Medicin*, 2(8): 7-11

60. **Oran, SA. 2015.** Ultrustructure of pollen grains of the genus *Ornithogalum* L. (Hyacinthaceae) in Jordan, *International Journal of Current Research in Biosciences and Plant Biology*, 2(9): 1-6.

61. Majali. I. S., **Oran. S. A**., khleifat, K., Qaralleh, H., Rayyan, W. and Althunibat, O. **2015**. Assessment of the antibacterial effects of *Moringa peregrina* extracts*, African Journal of Microbiology Research*, 9(51):2410-2414.

62. **Oran S.A.** **2016.** [**Plant diversity of Al-Balqa Governorate, Jordan**](https://scholar.google.com/scholar?oi=bibs&cluster=18098586920345826538&btnI=1&hl=en), *International Journal of Biodiversity and Conservation*, 8(5): 93-104.

63. **Oran, S. A**. and Al-Zo’ubi, E. **2016**. The Impact of the Emitted Dust from Zarka (Jordan) Petroleum Refinery on Plant Biodiversity, *International Journal of Current Research in Biosciences and Plant Biology*, 3(6): 1-13.

64. Bzour, A.F., Khoury, H.N and Oran, S.A., .**2016**. Assessment of Bioavailability of Chromium (Cr), Vanadium (V) and Uranium (U) in Wild Plants in Siwaqa Area, Central Jordan, *International Journal of Current Research in Biosciences and Plant Sciences*, 3(12): 84-94.

65. Bzour, A.F., Khoury, H.N and Oran, S.A**. 2017**. .Uptake of Some Toxic Elements by Wild Plants in Siwaqa Area/ Central Jordan, *Applied Microscopy*, 47(3):148-156.

66. Bzour, A.F., Khoury, H.N and Oran, S.A **2017**. Uptake of Arsenic (As), Cadmium (Cd), Chromium (Cr), Selenium (Se), Strontium (Sr), Vandium (V) And Uranium (U) by Wild Plants in Khan Al-Zabib Area/ Central Jordan. *Jordan Journal of Earth and Environmental Sciences JJEES*, (81): 45-53.

67. Al-Majali, I**., Oran, S**., Hassuneh, M., Al-Qaralleh, H., Abu Rayyan, W., Al-Thunibat, O., Mallah, E., Abu-Rayyan, A., Salem,S **2017.** Immunomodulatory effect of *Moringa peregrina* leaves, *ex vivo* and *in vivo* study. Central European Journal of *Immunology*, 42 (3): 231-238.

68 Yousef, I., Oran S., Bustanji, Y., Al.Eisawi, D., and AbuIrmaileh,b. . Cytotoxic effect of selected wild medicinal plant species from Jordan on two different breast cancer cell lines, MCF7 and T47D, **2018*,*** *Journal of Biology and Medicine*, vol 10 (4)

69. Abu-zaiton, A., Abu-Samak, M., Oran,S. A., Yousef, I., Hypoglycemic, Hypolipidimi and Protective effect of Arbutus andrachne Extracts in Streptozotocin Induced Diabetic Rats. **2019***. Research Journal of Biological Sciences*, 14(3-6): 56-60.

70. Jaffal , Sahar, Al-Najar-Bilal, Abad, , Manal and Oran, S.A. Antinociceptive action of *Moringa peregrina* is mediated by an interaction with α2-Adrenergic receptor 2020*. Balkan Med J*, 37:189-95.

71. Jaffal, Sahar, Oran, S.A., Alsalem, M. 2020. Anti-nociceptive effect of *Arbutus andrachne* L. methanolic leaf extract mediated by CB1, TRPV1 and PPARS in mouse pain models 2020. *Inflammopharmacology*; 28(6):1567-1577.

72.Bzour, A., Oran, S., Khory, H (2020). A list of wild plants in central Jordan desert Siwaqa and Khan Al-Zabib Areas. *The journal of biodiversity Photon*, 120: 595-600.

73. . Jaffal, Sahar. , Oran, S.A., Alsalem, M. 2020. Alleviation of capscaicin-induced mechanical allodynia by *Arbutus andrachne* L. , methanolic leaf extract in male rats., Mutah Lil Buhuth wad- Dirasat, *Natural and Applied Sciences Series*; 37(2): 31- 49.

74. Althaher, A.R., Oran, S., A., and Bustanji, Y., K. 2020. Phytochemical analysis, *in vitro* assessment of antioxidant properties and cytotoxic potential *Ruta chalepensis* L., essential oil. Journal of Essential Oil Bearing Plants, 23(6):1409-1421.

75. Al Qaisi, Y., t., Khleifat, K., m. and Oran, S.A. 2021. *In vitro* quantitative assessment of viability of *Echinococcus granulosus* protoscoleces after treatment with *Ruta graveolens* L. methanolic extract. *International Journal of Pharmaceutical Research*, 13(1): 3841-3850.

76. Bajes, H., Oran, S.A., and Bustanji, Y., 2021. Chemical composition and antiproliferative and antioxidant activities of methanolic extract of *Alcea setosa* A., Malvaceae, *Research Journal of Pharmacy and Technology*, Vol 14 (12): 6447-4.

 77. Yousef, I., Oran, S., Alqaraleh, M. and Bustanji, Y. 2021. Evaluation of cytotoxic, antioxidant and antibacterial activities of *Origanum* day, *Salvia palaestina* and *Bongardia chrysogonum* plants growing wild in Jordan. *Tropical Journal of Natural Product Research*, 5(1): 66-70.

 78. Bajes, H., Oran, S.A., and Bustanji, Y., 2021. Chemical composition and antiproliferative and antioxidant activities of essential oil from *Juniperus phoenicea* L., *Research Journal of Pharmacy and Technology*, 15(1): 153- 159.

79. Yaseen T., AlQaisi, Khaled M., Khlaifat, Sawsan A., Oran, 2021. Inhibitory Effects of Some Jordanian Medicinal Plants on *In Vitro* Viability of Protoscolices of Hyditid Cysts, *Tropical Journal of Natural Product Research*, Vol.5 (4): 707-714.

80. Hana, R., Bajes, Sawsan A. Oran, and Emad AS Al-Dujaili 2021. Investigating the Anti-Viral and Anti-Bacterial activities of Jordanian Medicinal Plants; A narrative review, *Research Journal of Pharmacy and Technology,* 15(1): 153- 159.

81. Arwa R. Althaher., Oran, S. A., and Bustanji, Y., K. 2021. Chemical Composition, and In Vitro Evaluation of Antioxidant Properties, Cytotoxic Activity of the Essential Oil from *Calamintha incana* (Sm.) Helder (Lamiaceae). *Tropical Journal of Natural Product Research*, 5(8): 1333-1339.

82. Alsarayreh, ahmad, Z., Oran, S. A. and Shakhanbeh, M., 2021. Evaluation of Anti-inflammatory Activity of Methanol Extract of *Rhus coriaria* L., in Diabetic Rats. Tropical Journal of Natural Product Research. *Tropical Journal of Natural Product Research*, 5(8): 1409-1413.

83. Jaffal, Sahar, M., Oran, Sawsan, A., and Alsalem, Mohammad, I., 2021. Anti-inflammatory and antipyretic potential of Arbutus andrachne L. methanolic leaf extractin rats, *Asian Pacific Journal of Tropical Biomedicine*, IP: 10.232.74.27.

84. Oran SA, Althaher AR, Al Shhab MA (2022) Chemical composition, in vitro assessment of antioxidant properties and cytotoxicity activity of ethanolic and aqueous extracts of *Ajuga orientalis* L. (Lamiaceae). *J Pharm Pharmacogn Res* 10(3): 486–495. <https://doi.org/10.56499/jppres22.1344_10.3.486>.

85. Hana R. Bajes, Sawsan A. Oran, Emad AS Al-Dujaili. Investigating the Anti-Viral and Anti-Bacterial activities of Jordanian Medicinal plants: A narrative review. *Research Journal of Pharmacy and Technology*. 2022; 15(1):127-6. doi: 10.52711/0974-360X.2022.00021.

86. Al Sarayreh AZ, Attalah Oran S., Shakhanbeh JM. In vitro and in vivo wound healing activities of Globularia arabica leaf methanolic extract in diabetic rats. *J Cosmet Dermatol*. 2022; 00: 1- 13.

87. Ahmad Z. Alsarayreh, Sawsan A. Oran, Jumah M. Shakhanbeh , Khaled M. Khleifat , Yaseen T. Al Qaisi, Ibrahim I. Alfarrayeh, Ayah M. Alkaramseh. (2022). Efficacy of methanolic extracts of some medicinal plants on wound healing in diabetic rats. *Heliyon*. 2022. E10071.

88. Jaffal S, Oran S, Alsalem M, Al-Najjar B. Effect of *Arbutus andrachne* L. methanolic leaf extract on TRPV1 function: Experimental and molecular docking studies. J Appl Pharm Sci, 2022; 12(10):069–077.

89. Samer Y. Al-Qaraleh, Wael A. Al-Zereini, Sawsan A. Oran (2022). Phyto-Decoration of Selenium Nanoparticles Using *Moringa peregrina* (Forssk.) Fiori Aqueous Extract: Chemical Characterization and Bioactivity Evaluation. *Biointerface Research in Applied Chemistry*; 13(2): 112, 1- 15.

90. Oran SA, Yousef I, Jaffal SM. Evaluation of the antiproliferative effect of selected plant extracts on colon and skin cancer cell lines. J Appl Pharm Sci, 2022; 12(11):091–096.

91. Samer Y. Al-Qaraleh, Wael A. Al-Zereini, Sawsan A. Oran, Ahmad Z. Al-Sarayreh, Sa'ed M. Al-Dalain (2022). Evaluation of the antioxidant activities of green synthesized selenium nanoparticles and their conjugated polyethylene glycol (PEG) form in vivo. OpenNano 8(2022) 100109:1-9.

92. Yaseen Al Qaisi, Ibrahim Alfarrayeh, Ahmad Alsarayreh, Enas Al-Khlifeh and Sawsan Oran (2023). *In vitro* antiprotozoal activity of some medicinal plants methanolic extracts against *Entamoeba histolytica* and *Giardia lamblia*. International Journal of Phytomedicines and Related Industries, Vol. 15 (1), March 2023, 106-115.

93. Wa'el M.A. Hammour, Sawsan A Oran, Rula M Darwish (2023). *In Vivo* Evaluation of the Wound Healing Potential of the Aerial Parts of *Globularia arabica* Aqueous and Methanol Extracts Grown in Jordan. Trop J Nat Prod Res, March 2023; 7(3):2611-2617.

94. Hana Bajes, Sawsan Oran, Yasser Bustanji. Phytochemical Analysis, *In vitro* Assessment of Antioxidant Properties and Cytotoxic Potential of *Thymus capitatus* Essential Oil. Research Journal of Pharmacy and Technology 2023; 16(3):1100-8. doi: 10.52711/0974-360X.2023.00183.

95. Almasarwah SY, Oran SA, Darwish RM. Efficacy of *Nitraria retusa* L. Fruits Aqueous and Methanol Extracts as Antioxidant and Antiinflammatory Activities on Carrageenan-Induced Paw Edema in Rats. Trop J Nat Prod Res. 2023; 7(4):2725-2729 <http://www.doi.org/10.26538/tjnpr/v7i4.9>.

96. Yaseen T. Al Qaisi, Khaled M. Khleifat, Sawsan A. Oran, Ibrahim I. Alfarrayeh, Ahmad Z. Alsarayreh, Mohammad A. Abu-lubad and Bushra K. Al-Tarawneh (2023). The *in vivo* preventive effect of some medicinal plant extracts on the development of hydatid cyst infection. Asia-Pacific Journal of Science and Technology: Volume: 28. Issue: 03. Article ID.: APST-28-03-08.

97. Yaseen Al Qaisi, Ibrahim Alfarrayeh, Ahmad Alsarayreh, Enas Al-Khlifeh and Sawsan Oran (2023). *In vitro* antiprotozoal activity of some medicinal plants methanolic extracts against *Entamoeba histolytica* and *Giardia lamblia*. Medicinal Plants Vol. 15 (1), March 2023, 106-115.

**Conferences and Workshops**

**A. Conferences:**

1. Advances in **Labiatae** Science Conference, Royal Botanic Gardens, **Kew,** and **U.K. 2-5 April 1991**.

 **Abstract Submitted**: Pollen Morphology of the genus ***Salvia*** in Jordan and the neighboring countries.

1. The 12th Scientific Conference for the Iraqi Biological Society, **BABEL\ IRAQ, 18-20-Feb, 1992. Abstract:** Scanning Electron Microscopy of seed surface of the genus ***Salvia*** L. in Jordan and the neighboring countries.
2. The 3rd Jordanian Conference and the 6th Scientific Conference of Biological Sciences, **Jordan, Amman, 24-28, Oct., 1992.**

**Abstract:** Seed Anatomy of the genus ***Salvia*** in Jordan and the neighboring countries.

1. Man and Mountains 94, First International Symposium on Protection and Development of Mountains, **PONTE DE LEGNO\ ITALY, 20-24 June, 1994.**

**Abstract**: Flora of Shoubak Mountains, Socioeconomic and Man Impact.

1. The 7TH Arab Conference of Biological Sciences, (Biodiversity and Environment) **SUSSA, TUNISIA, 4-7 NOVEMBER 1994.**

**Abstract**: Biodiversity of Karak Province (Jordan).

1. The 3rd Scientific Conference, the Higher Council for Science and Technology**, SEPT. 1995, AMMAN.**

**Abstract:** Biodiversity in Jordan.

1. The 1st Arab Conference for Conservation of Biodiversity in the Arab World.

**Abstract**: Biodiversity of Petra (Jordan), **4-7 Sept. 1995, ALEPPO, Syria.**

1. Symposium International sur La Re'novation Didactique en Biologie, **Tunisia, 4-7/11. 1995.**

 **Abstract**: Teaching of biological sciences in Jordan University. The Jordanian experience.

1. Past, Present and Future, Middle East Desert. **Yarmouk University, 30 July- 1 August 1996.**

 **Abstract**: the desert of Jordan (Badia).

1. The Forth Scientific Conference, the Higher Council for Scientific and Technology, **Amman, 27th August-3rd September**.

**Abstracts**: 1-Plant Biodiversity in Jordan. Database of Plant Biodiversity in Jordan.

 2-The characterization of the Medicinal Plant ***Globularia*** in Jordan and Tunisia.

1. The 9th International Biological Days of Biotechnology and Development., **Monstir. Tunisia, 7-10/1996.**

 **Abstract submitted**: Diversity of medicinal plants in the desert of Jordan.

1. The 8th Arab Conference of Biological Sciences and the 4th Jordanian Conference of Biological Sciences, **Amman, 8-16 Nov 1997.**

 **Abstract**: Anatomy of Two Species of ***Globularia***

1. Femme, Science et Technologie, Etat des Lieux ET Prospectives, 20- 22 Nov 1996, **Tunis**

 **Abstract:** Woman and Technology in Jordan.

1. WSEK Congress (International Options for Close Water System, Wagningen-Congress, **Netherlands**, **11-13 May 1998.**

**Abstract submitted**: Use of Duckweed for Wastewater Treatment at Khirbet AL-Samra Wastewater Treatment Plant/ Jordan.

1. IX OPTIMA Collique/ Meeting, International Conference, **Paris**, **11-17 May 1998.**

**Abstract submitted**: Biosystematics of the genus ***Globularia*** in Jordan and Tunisia.

1. Xth Biological Conference / International Symposium, Hammamat/ Tunisia, 6-8 November 1998.

**Abstract submitted**: Potato Disc Bioassay of Some Jordanian Medicinal Plants.

1. 4th Symposium of African Palynology, **Susse, Tunisia**, **26-30 April ‏1999**

 **Abstract submitted**: Ultra-structure of pollen grains of some **Labiatae** members.

1. 42ND Annual Symposium of the IAVS: Vegetation and Climate**. Bilboa, Spain 26-30 July 1999.**

**Abstract submitted**: Anatomy of Two Mediterranean xerophytic plants in Jordan and Tunisia.

1. The 6th International Conference on the Development of Dry Lands International Center for Agriculture Research in

 Dry Areas **(ICARDA).** **Cairo, Egypt** 22**-27 August 1999.**

  **Abstract:** Micro-propagation of Two Endangered Species of ***Globularia*** L. (**Globulariaceae**).

1. Mediterranean Conference **MEDFORUM** (Protected areas, preservation of biodiversity and sustainable

 development in the Mediterranean. Strategic **guidelines** and good practices) **Malaga, Spain 18-20 Nov.**

 **1999.** Project submitted: Biodiversity of Jordan, Scientific results of the final phase, and

recommendations.

1. **“The Siq Project/ Petra”, Amman/ 11.Nov.1999.**

**Abstract submitted: Environmental Impact Assessment on Plant Life.**

1. Mediterranean Conference **MEDITEREANEAN NGO PARTICIPATION IN THE NATIONAL PROGRAMS**

 **TO COMBAT DESERTIFICATION AND DROUGHT.** **Murcia (Spain), 16-18 June, 2000.**

1. 43th Annual symposium of the IAVS**. Navano/Japan** July 2000.

 **Abstract:** Evaluation of some lentil germplasm.

1. 10th international pharmaceutical technology symposium. **DEVELOPMENT AND DELIVERY CHALLENGES**

 **OF THE NEXT GENERATION OF DRUGS. Istanbul – Turkey. September 11-13, 2000.**

**Abstract submitted**: evaluation of Ethanolic extracts of ***Globularia arabica*** and ***Globularia alypum*** on the fertility of female rat.

1. **XIIth National Days of Biology “Biodiversity and Biotechnology.” 5-7 November 2001, Monastir / Tunisia**.

**Paper submitted**: *In Vitro* Propagation of Endangered and Medicinal Bulbous Plant ***Sternbergia clusiana***. Ker-Gawler (Amaryllidaceae).

1. The Arab Conference on Medicinal Plants 13- 15 May 2002, **Manama- Kingdom of Bahrain “**Terpenoid **of *Inula viscosa* induces mitochondrial-independent apoptosis-like cell death in yeast** *Saccharomyces cerevisiae”.*
2. **Biotechnologyies Vègètales: Valorisations, Pour Une Agriculture durable. 7-9 October 2002, Marrakech-****Maroc.** Vlllemes Journèes Scientifiques du Rèsoau “Biotechnologi

es, Amèlioration des plantes et Sècuritè Alimentaire” de l’Agence Universitaire de la Francophonie.

**Abstract submitted:** Evaluation du polymorphisme enzymatiques accessions du Mil *(Pennisetum).*

1. ***L’essor des Bioressources*.DJERBA du 16-19 Mars 2003.** SOCIETE DES SCIENCES NATURELLES

DE TUNISIE, XIIIEMES JOURNEES NATIONALES DE BIOLOGIE.

 **Abstract submitted**: DIVERSITE GENETIQUE DES PENNISETINES DE QUELQUES CULTIVARS

 DL MIL COLLECTES EN TUNISIE ET EN AFRIQUE DE L’OUEST.

1. **“The Seventh Jordanian Scientific Week”,** for science and technology. **6-8 October. 2003.** The Higher Council for Science and Technology.

**Abstract submitted**: i*n Vitro* Propagation of (Amaryllidaceae).

1. **“The first Conference on Scientific Research in Jordan”,** Programme Agenda. The society of friends of scientific research / **Amman**. Oct. 25-26, 2003.
2. **“The Tenth Jordanian Scientific Week”,** for science and technology. **19-21. Sep. 2003.**The Higher Council for Science and Technology.
3. **“Helmholtz Dead Sea conference”, Dead Sea- Jordan, 16**- 19 January 2004.
4. “ 2nd World Botanic Gardens Congress, Botanic Gardens- A World of Resources and Heritage for **Humankind**/ April 17- 22, 2004, BARCELONA, SPAIN.
5. **ملتقى المرأة العربية الاول للتربية البيئية**/ فندق الانتركونتننتال/ الاردن. عمان 24/ 4/ 2004.
6. “**Agenda for Consultation Workshop on Refedain Marshlands (AL-Ahwar) Management”**, Le Meridien Hotel/ Amman, Jordan, June 19-22, 2004.
7. **The Second Environmental Symposium of the German-Arabic Society for Environmental Studies**/ Amman, Jordan/ October 4&5, 2004 / **Water Resources and Environmental Protection in the Middle East and North Africa.**
8. Land use and management options for biodiversity in the Dead Sea region, **The Centre for Environmental** Research **Leipzig-Halle GmbH, Germany**, August 30 to September 2004,

**Abstract** **submitted**: “Plant Biodiversity of the Jordan Valley”.

1. **The international symposium of botanical gardens in the MENA region** (Mediterranean and North Africa), 19-21 March/ 2005, Dead Sea, Jordan.
2. **International symposium on the biology of the Palm**, 6-8 April/ 2005, Royal Botanic Gardens, Kew and Linnean Society of London, London, UK.

**Abstract** submitted: plant biodiversity of AL-Fuhais area/ Jordan.

1. **International Conference on Promoting Community-Driven Conservation and Sustainable Use of Dry Land Agrobiodiversity,** ICARDA, Aleppo, Syria, 18-21 April 2005.

**Abstract** submitted: Biodiversity and Biosystematic Evaluation of the Genus *Ornithogalum* L. (Liliaceae) in Jordan.

1. **The State of Gulf Ecosystem : Future and Threats,** 5-7 March 2006, Al Ain, UAE,

 **Abstract** submitted: Plant Biodiversity and some exotic species in Jordan

1. **Molecular Mapping and Marker assisted Selection in Plants**, 3-6 February 2008.

 Vienna, Austria.

**Abstract submitted**:Biosystematics of Onopordum in Jordan

1. **International Medicinal and Aromatic Plants Conference on Culinary Herbs**, 29April- 04 May2007, Divan Talya Hotel, Antalya- Turkey,

**Abstract submitted**: "Micropropagation of the Wild Endangered Daffodil *Narcissus tazetta* L."

1. **The 1st International Symposium on Medicinal Plants, their Cultivation and Aspects of Uses,** 15-16 October 2008, Petra Marriot Hotel, Petra-Jordan,

**Abstract submitted**: “The immunomodulatory and antitumor effects of the Crude Aqueus Suspension of *Globularia Arabica* leaves in Balb/c Mice".

1. **First International** **Congress Documenting, Analysing and Managing Biodiversity in the Middle East,**  20- 23 October 2008, Intercontinental Hotel, Aqaba- Jordan.

**Abstract submitted**: “Plant Biodiversity of Al- Balqa Governorate –Jordan."

1. **International Conference on Plants & Environmental Pollution,** July 6-11, 2009, Kayseri- Turkey.

**Abstract submitted**: "The Impact of the Emitted Dust from Zarka (Jordan) Petroleum Refinery on the Plant Biodiversity".

1. **American Association for Cancer Research (AACR) Conference, March 7-10, 2010, Dead Sea- Jordan.**

**Abstract submitted**: The Immunomodulatory and Antitumor Effects of *Globularia Arabica*.

1. **NatureServe Conservation Conference 2010, Biodiversity without Boundaries, April 26- 30, 2010, Austin- Texas- USA.**

**Abstract submitted**: Biodiversity in Jordan and Conservation Strategies.

1. **Eurasia Conference on Chemical Sciences- 11, EuAsC2S- 11 Chemistry Cares. October 6, 2010. Dead Sea, Jordan.**
2. **37th Natural Areas Conference. October 26-29, 2010. Tan-Tar-A, Osage Beach, MO, Lake of the**

**Ozarks, Missouri, USA.**

 **Abstract submitted**: PLANT BIODIVERSITY AND SOME EXOTIC SPECIES IN JORDAN.

1. **Biodiversity without Boundaries Conference 2011, 8-12 May 2011. Nebraska City, USA.**

**Abstract submitted**: Effect of Climate Change and Land Use on Biodiversity Wadi Shueib Area/Jordan.

1. **7th International Symposium on In Vitro Culture and Horticultural Breeding Biotechnological advances *in In Vitro* Horticultural Breeding. Ghent, 18-22 Sept, 2011.**

Abstract submitted: Plant Regeneration of *Iris bismarckiana* Regel (Iridaceae) via somatic embryogenesis.

1. **The 3rd International Symposium on Medicinal Plants, Their Cultivation and Aspects of Uses**, 21- 23 Nov. 2012, Petra, Jordan.

**Abstract submitted**: The Status of Medicinal Plants in Jordan.

1. The 2nd Symposium for '' Global Harmonization of Bioequivalence Requirments'', Oct 30th- 31st 2017, ACDIMA, Amman- Jordan.
2. The 3rd Scientific Conference for the Center of Biodiversity (Nature Conservation Monitory (RSCN) Center, 19/12/2017, Amman- Jordan.

**B. Workshops**

1. Workshop on plant Genetic Resources in Jordan, Jordan, **2-4, August 1994.** Abstract: Genetic

 Resources of Medicinal Plants in Jordan. Abstract: Biodiversity of Karak **(Jordan).**

1. Workshop Forestry and Communities of Forests**, AL-Ruman, Jordan**, **10-13 OCT** **1994**.
2. The Experts of Biodiversity in Jordan Workshop, **18-19 June,** **Amman, Jordan.** Abstract: Plant Biodiversity in Jordan (a Country Study).
3. EIA (Environment Impact Assessment) workshop, **Aqaba, 24-27, May, 1997** Promotion and Preservation of Medicinal and Herbal Plant, Workshop on Medicinal and Herbal Plants in Jordan, **NCARTT, Baqa, Jordan June 28, 1998,** Abstract: Diversity of Plant Genetic Resources in Jordan
4. GEF/ SGP National Workshop, Country Program Strategy, **Amman, April 22nd, 1999.**
5. Environmental Public Awareness Course and Workshop, (World University of Canada and the General Corporation for Environmental Protection), **Amman,** **May 13th, 1999**
6. Conservation of Medicinal and Herbal Plants of Jordan, (PDF-B Grant), National Stakeholder Workshop, **24-25 April 2002**, Movenpick at the **Dead Sea / Jordan**.
7. Workshop on Environmental Cases / Projects of Specialized Studies / Great Amman Municipality,

 Amman, **22/** **12**/ **2002**.

1. 2nd meeting / Discussing the Laws of Environment / Ministry of Environment/ Amman.
	1. EIA law (Environmental Impact Assessment). Committee.
	2. Reserves law. Committee.

 **May** **17th**, **2003**, Amra hotel/ Amman.

1. “ The effect of using computer, multiple tools, and free experience, in teaching the students of

 science / University of Jordan” workshop/**Amman**. **Oct. 16th. 2003.** Higher Councle of Science and Technology.

1. Jordan- conservation of medicinal and herbal plants (P069847)- project launching workshop/ 12-13 April 2004/ Holiday-Inn/ Amman- Jordan.
2. “Environmental Impact Assessment of wastewater plants and water reuse in the Mediterranean rejoin” workshop / 11.7- 15.7.2004. AL-Albait University/ Jordan, **Abstract submitted**: PLANT BIODIVERSITY and EIA
3. Landuse and management options for biodiversity in the Dead Sea region, **The Centre for Environmental** Research **Leipzig-Halle GmbH, Germany**, August 30 to September 2‏004, Abstract submitted: “Plant Biodiversity at the Jordan Valley”.
4. The effect of the extracts of some Jordanian medicinal plants on the immune system. Amman . August. 13th .2006. The higher council of Science and Technology.
5. **ورشة إطلاق قاعدة البيانات الوطنية للتنوع الحيوي, 3 حزيران 2009 في مبنى "برية الأردن/ وزارة البيئة".**
6. **ورشة عمل "إعداد السياسة والإستراتيجية العلمية والتكنولوجية الوطنية للأعوام (2011- 2015)" 25 كانون الثاني 2010 /جامعة الأميرة سمية.**
7. [PEARSON Life- Sciences e- Learning Workshop](http://www.ju.edu.jo/sites/Academic/s.oran/My%20Gallery/Scientific%20Days/PEARSON%20Life-%20Sciences%20e-%20Learning%20Workshop.JPG), University of Jordan. September 30th, 2010.

**Other Research activities**

* Member of the Agenda 21 Project **(A21)**: Writing the Plant biodiversity Chapter (1997-)
* Carried out 2 projects sponsored by The **Higher Council for Science and Technology** / Jordan, (**R & D**

 **Fund**): 1996- 2000:

1. **Data Base**
2. **Biodiversity of Medicinal Plants in Jordan.**
3. **Glowa Project**
4. **Conservation of medicinal plants in Jordan**
* A partner (Biologist) in a joint project (**Canadian Government and the Water research center/Univ.**

 **of Jordan) for using the duckweed in water treatment): 1997-1998.**

* Carried out a project entitled” Biology of *Globularia* in Jordan”, sponsored by Deanship of Scientific

 Research, University of Jordan. 1995-2002.

* Researcher (consultant) in the pilot project at Wadi Musa (Waste Water Plant), Badia Research and

 Development Program (BRDP) / 2002, carried out the vegetation survey.

* Researcher **in Glowa** Project, Universituy of Jordan and Tuebingen University,2005 – now.
* Major researcher in a project entiteled :”**Consrvation and micropropagation of rare , bulbs and other** **medicinal plants in Jordan**”, sponsored by the Deanship of Academic research, University of Jordan , 2003-…now
* Major researcher in a project entitled “ **The impact of the Cement Dust Emitted from Al-Janoub (Al-Rashadyah Tafila) Cement Plant on the Biodiversity of the surrounding Area**” sponsored by the Deanship of Academic Research, University of Jordan, Amman, Jordan, 2005.
* Major researcher in a project entitled " The Impact of the Emitted Dust from Zarka (Jordan) Petroleum Refinery on the Plant Biodiversity",sponsored by the Deanship of Academic Research, AL- Balqa'a Applied University, Jordan 2007.
* Major researcher in an ongoing project entitled “*In Vitro* Micropropagation of *Iris bismarckiana* Regal plant (Iridaceae) in Jordan” sponsored by the Deanship of Academic Research, University of Jordan, Amman, Jordan, 2009.
* The Jordanian Lavander Scientific Group. 2021

**M. Sc. & PhD Thesis (supervision) + examining committees**

* **Member** of the examination committee for the student Ghadeer Omar 1994

 Thesis title: Anatomy of the Genus ***Clochicum*** (Liliaceae) In Jordan.

* **Member** of the examination committee for the student Ahmad Mohammad 1998

 Thesis title: Determination of Organic and Inorganic N-chloramines in Al-Samra Chlorinated

 Wastewater and its effects on the Disinfection Process.

* **Member** of the examination Committee for the PH.D student Salam Jamal Iyoub 2001

 Thesis title: A study of some Physiological and Anatomical Aspects of Rooting Nabali and Raseei Olive

 Semi-Hardwood Stem Cuttings

* **Member** of the examination Committee for the PH.D student Nihadd Issa Al-Smeirat 2002‏

 Thesis title: Comparative Study on Rooting of two Apple Rootstocks by Stem Cuttings

 **Member** of the examination Committee for the PH.D student Ghadeer Omar (2006)

 Thesis title: Systematics of the genus *Allium* in Jordan.

* **Member** of the examination Committee for the M. Sc student Fathi Goma AL-Sghair 2004‏

 Thesis title: Vegetation study of Dibin National Park, Jordan.

* **Major** **advisor** for the M. Sc Student Misa’a Shamoot / Ecology 1997-1998.

 Thesis title: Use of Duckweed for Waste Water Treatment at Khirbet Al-Samra Waste Water Treatment

 Plant / Jordan

* **Major advisor** for the M. Sc Student Muna Odeh 1999

 Thesis title: Systematic Study of the Genus ***Ornigthogallum*** (Liliaceae) in Jordan

* **Major advisor** for the M. Sc student Dana AL-Mohaisen 2003

 Thesis title: Botanical Study of the Surrounding Area of AL-Fuhays Cement Plant and its Impact on

 Plant Biodiversity.

* **Major advisor** for the PH.D student Enas Al – Zua'bi, 2004

Thesis title: Systematic study of the genus *Onopordum* (Asteraceae) in Jordan.

* **Major advisor** for the M.Sc. student Hamad Abu Zahra, 2005.

 Thesis title: Micropropagation of the wild, endangered Daffodil (*Narcissus tazetta* L.).

* **Co-advisor** for the student Omaima Al-Kiswani.

 Thesis title: Anatomical Studies of the Genus ***Crocus*** (Iridaceae) In Jordan.

* **Co-advisor** for the studentYassir Adil Turki, 2004.

 Thesis title: Assessment of the Immunolmodulatory and Antitumor Effects of Some Plant Extracts on

 Bala/ c Mice.

* **Major advisor** for the PH.D student Jameel Fayyad Bzour, 2009- 2011.

 Thesis title: "Assesment of the Antirheumatic Activity of *Salvia* *fruticosa* Mill. (Syn.:*Salvia triloba* L.fil.) ( Lamiaceae) ; by Performing Enzymatic, Cellular and *in vivo* Studies".

* **Member** of the examination committee for the MSc. student Katie Hodali 2011.

 Thesis title: Systematic Revision of the Genus *Tulipa* (Liliaceae) in Jordan.

* **Major advisor** for the PH.D student Ibrahim AlMajali, 2009-2012.

 Thesis title: " The Antimicrobial and Anticancerous effect of *Moringa peregrina* in Jordan".

* **Major advisor** for the PH.D student Nasab Al- Rawashdeh, 2007-2013.

 Thesis title: " Distribution of Plant Biodiversity as Affected by Different Ecosystems and Land Use in Wadi Shueib/ Jordan".

* **Major advisor** for the MSc. student Rana Zaidan, 2011-2013.

 Thesis title: " Assesment of antioxidant and antimicrobial potential of *Rubus sanguineus*  Friv. ( Rosaceae)."

* **Member** of the examination committee for the PHD student Kanar Swiss 2012.

 Thesis title: Plant Biodiversity and Climate Change in relation to Phenology and Palaenology and Flora distribution in Fuhais Area- Jordan.

**Member** of the examination committee for the MSc. student Mariam Al- Khatib 2013. Thesis title: Systematic Revision of the Genus *Haplophyllum* (Rutaceae) in Jordan in Jordan with a special Emphasis on Plant Anatomy.

* **Co-advisor** for the MSc. student Asma Bzour, 2015/2016.

 Thesis title: “Assessment of Radioactivity and Accumulation of Uranium in Wild plants in the Central Desert of Jordan (Swaqa and Khan Al- Zabib)”.

**Major advisor** of the MSc student Hanan Hamad 2016-2018

Thesis title Cancer Antiproliferative Evaluation of Seed Extracts of ***Moringa perigrina*** (Forssk.) Fiori., and identification of its volatile oils.

**Major advisor** of the **Ph.D**. student Isra' Bani Hani 2016-2018

**Thesis title:**  The cytotoxic Effect and Antioxidant Potential of Some Selected Wild Medicinal Plants in Jordan

**Major advisor of the MSc. Student Hadeel Shaheen 2018**

**Major advisor for the MSc. Student Sara Al-Mulla 2019-**

**Major advisor for PhD student Sahar Jafal 2020**

**Major advisor for Ph.D student Arwa Althahaer 2021-02-13**

**Major advisor for Ph.D student Hana Bajas 2021**

**Major advisor for Msc student Belal Ayasrah 2020**

**Co advisor for Ph.D students:**

**Yaseen Al Qaisi 2019-2022**

**Samer Al-qaralaeh 2019-2022**

**Ahamed Al-Saraireh 2019-2022**

**Major supervisor PH.d student Sahem Masarwah, 2019-2023**

**Major supervisor PH.d student2019-2023**

**Major supervisor for MS.c student2021-2023**

**Major main supervisor for PH.d student Iman Edwan 2023-now**

**Major main supervisor PH.d student Rand momani 2023-now**

**Major mainsupervisor for PH.d student Mariam al-Khateeb 2023-now**

**Major supervisor for PH.d student Mohamed Mai’ta 2023-now**

**Major supervisor for PH.d student Maisa Darweish 2023-now**

**Non-Academic Experiences**

## Herbarium curator / University of Jordan / Amman

**Committees**

1. Member of Comprehensive Exam Committee/ University of Jordan 2010.
2. Member of the Competence Committee for Arabic Language/ University of Jordan 2010.
3. Member of the Steering committee of the Biodiversity Project-Jordan / Higher Council for Science

 and Technology.

1. Member of the Agenda 21 National Project
2. Member of the national team for the study of plant Biodiversity in Jordan / The General Corporation for

 Environment Protection. (1995-now).

1. Member of **OPTIMA** Organization (Organization for the Phyto-Taxonomic Investigation of the

 Mediterranean Area).

1. Member of the Organization for the Phyto-Taxonomic Investigation of the Mediterranean area.
2. Member of Jordan Society of Biological Sciences
3. Member of Jordan Society of Environment.
4. Member in the Royal Society for Conservation of Nature.
5. Member of plant friends Society / Jordan
6. Member of Society of Friend of Scientific Research at Public Universities.
7. Member in the Tunisian Society for Natural Sciences
8. Member in the Activation and Stimulation of Computer Society in the faculty of Science/ University

 of Jordan 1997/1998

1. Supervisor of Environment Conservation Club for Students / University of Jordan – Dean ship of

 Students Affairs 1994.

1. Supervisor of Science Creativity Club for Students / University of Jordan – Dean ship of Students Affairs 1995.
2. Secretary of the Biological Department Council / University of Jordan1996 / 1995.
3. Member of the Scientific Research Committee / Department of Biological Sciences / University of Jordan 1998 / 1999.
4. Member of the Social and Sport Committee / Faculty of Science / University of Jordan 1996 / 1997 /1998.
5. Representative of the Faculty of Science Council / University of Jordan 1998 / 1999.
6. Member of Student Execution Committee / Faculty of Science – University of Jordan 1999.
7. Member of the Approval Committee of Petra (Al-Banat) University (Private University) / 1995 / Ministry of Higher Education
8. Member of the Scientific Research Committee / Department of Biological Sciences / University of Jordan 1999 /2000.
9. Representative of Department of Biological Sciences in the Faculty of Science Council.
10. Member of Execution Committee for Students / Faculty of Science / University of Jordan 1999/2000.
11. Member of the steering committee for the Promotion, Conservation and Utilization of Medicinal Plants in Jordan Project/ Ministry of Agriculture/ National Center for Agricultural Research and Technology Transfer 1998-1999.
12. Member of Communication with Society Committee / Faculty of Science / University of Jordan 1999 / 2000.
13. Member of the Social Committee / Department of Biological Sciences / Faculty of Science / University of Jordan 1999 / 2000.
14. Member of the Approval Committee of Jaresh University (Private University) / 2001 / Ministry of Higher Education
15. Member of the Technical Committee of Medicinal and Ornamental Plants / Ministry of Agriculture / National Center for Agricultural Research and Technology Transfer 2001.
16. Member of the committee for the Shafa Badran Botanical Gardden/ Faculty of Agriculture/ Univ. Of Jordan
17. Member of the Technical and stearing committee for the conservation of medicinal and herbal plants of Jordan. Project – PDF – B – Grand 2002.
18. Member of the chevening Association / British council / Amman.
19. Member of the equal postgraduate degrees committee / 2002 -Now/ Ministry of Higher Education & Scientific research.
20. Representative of Department of Biological Sciences in the Faculty of Science Council.2003-2004.
21. Member of Execution Committee for Students, in the Faculty of Science Council/ University of Jordan 2003-2004.
22. Member of Execution Committee for Students, in the University Council/ University of Jordan 2003-2004.
23. Member of course outlines committee for the Department of Biological Sciences/ University of Jordan 2003-2004.
24. Member of the Associate studies committee, 2003- 2004. Faculty of postgraduate studies/ University of Jordan.
25. Member of the scientific day committee, 2004. Faculty of science/ University of Jordan.
26. Member of Student Execution Committee for the Faculty of Science – University of Jordan 2004/2005.
27. Member of the scientific day and social communication committee, 2004/2005. Faculty of science/ University of Jordan.
28. Representative of Department of Biological Sciences in the Faculty of Science Council.2004-2005.
29. Member of the postgraduate studies committee / Department of Biological Sciences / Faculty of Science/ University of Jordan. 2004-2005.
30. Member of Student Execution Committee of the university 2004/2006.
31. Member of Energy Council Committee / University of Jordan.
32. Member of Hamdi Mngo Council Committee / University of Jordan.
33. Member of Journals Committee / University of Jordan.
34. Member of Conferences and Seminars Committee / University of Jordan.
35. Member of Appointment and Promotion Committee / University of Jordan.
36. **Member of the Editorial Board for the Jordan Journal of Biological Sciences (JJBS). 2010- Now.**
37. **Member of accreditation committee in the Open Amman Al- Arabiya, 2014**

**Fellow ships:**

1. M. Sc grant (Reading University U. K.) from the University of Jordan 84.
2. British Council/ Amman, Jordan. P. H. D 90 (Reading University, U. K.).

**Consultancy:**

1. Consultant in the *Pilot Project at Wadi Musa* (**Waste Water Plant**)

Badia Research and Development Program (BRDP)/ 2002

 Carried out the vegetation survey.

1. Consultant in a study entitled “**Survey of medicinal plant in south of Jordan “submitted** to Jordanian company for investment and development of the south/ 1994.
2. Consultant in a study entitled “**Planting the site of the south cement mines in Al- Rashadieh / Tafila**” submitted to the Center for Consultation and Technical Services / University of Jordan.

,4. Consultantancy member with a team worked on a project entitled “Conservation of medicinal and herbal plants of Jordan (P069847) 2007-2008.