

Nidà Mohammad Ismail Salem

n.salem@ju.edu.jo

Plant Pathology
Department of Plant Protection
Faculty of Agriculture
University of Jordan
Amman 11942, Jordan
Tel: (+962-6) 5355000 Ext. 22358
Fax: (+962-6) 5300806
<http://eacademic.ju.edu.jo/n.salem/default.aspx>

Education History

- Ph.D. (A: Excellent): Horticulture and Plant Protection/Pathology, Faculty of Agriculture, University of Jordan, 2002, Jordan.
Ph.D. thesis: Occurrence and partial characterization of *Prunus necrotic ringspot ilarvirus* in Jordan.
- M.Sc. (A: Excellent): Plant Protection/Pathology, Faculty of Agriculture, University of Jordan, 1997, Jordan.
M.Sc. thesis: *Faba bean necrotic yellows virus*: virus-vector relationships and effect on plant growth.
- B.Sc. (86.4%: Excellent): Plant Protection, Faculty of Agriculture, University of Jordan, 1994, Jordan.
- Elementary, preparatory and secondary schools, 1978-1990, Jordan.

Area of Specialization

Molecular biology; plant pathology/virology; isolation and characterization of plant pathogens; study viruses biology and epidemiology; and developing molecular methodologies for detection of plant pathogens and elimination in their host plants. Green synthesis of nanoparticles using plants and their applications.

Work Experience and Qualifications

- Assistant professor
University of Jordan, Jordan
9/5/2011-now
- Visiting scholar
University of California, Davis, USA
6/1/2013-9/5/2013
- Lecturer (Full time)
University of Jordan, Jordan
4/17/2011-9/5/2011
- Lecturer (Part time)

German Jordanian University, Jordan
The academic year 2010/2011

- Research Scientist
Royal Scientific Society
11/11/2007-4/14/2011
- Lecturer (part time)
University of Jordan, Jordan
The academic year 2009/2010
- Postdoctoral researcher
University of California, Riverside, USA
8/1/2006-5/15/2008

Projects: Identification and molecular characterization of lettuce chlorosis virus.

Developing multiplex PCR for detection of cowpea viruses.

- Postdoctoral researcher
University of California, Davis, USA
9/1/2005-7/31/2006

Project: Identification and molecular characterization of the causal agent associated with fig mosaic disease.

- Fulbright Postdoctoral scholar
University of California, Davis, USA
9/1/2004-8/31/2005

Project: Identification, molecular characterization, detection and elimination of rose mosaic viruses.

- Lecturer (part time)
University of Jordan, Jordan
The academic year 2003/2004
- Research assistant
University of Jordan, Jordan
2002-8/30/2004

Project: Viral diseases of stone fruits, pome fruits and grapevines in Jordan.

- Research assistant
University of Jordan, Jordan
1997-2001

Projects: Production of antisera specific to some plant viruses.

Developing of early potato lines tolerant to viral diseases.

- Research assistant
University of Jordan, Jordan
1994-1996

Projects: Purification and antisera production to cucumber vein yellowing virus.

Control of mosaic disease of squash by non-chemical means.

Teaching Experience:

- Graduate level:
Biotechnology in Plant Protection, Ph.D. level.
Fungal Taxonomy, molecular part, Ph.D. level.
Plant-Pathogen Interactions, M.Sc. level.

- Biotechnology, M.Sc. level.
- Applications in Biotechnology, M.Sc. level.
- Undergraduate level:
 - Plant Virus Diseases, B.Sc. level.
 - Principles of Plant Protection, B.Sc. level.
 - Introduction to Plant Pathology, B.Sc. level.
 - Field Training in Plant Protection, B.Sc. level.
 - Biotechnology, B.Sc. level.

Graduate Studies:

- **Advisor of graduate students for the following projects** (starting date)
 - Occurrence and Distribution of Okra Leaf Curl Disease (OLCD) in Jordan. (2014)
 - The Effect of Silver Nanoparticles on Fusarium Wilt of Tomato (*Fusarium oxysporum* f.sp. *lycopersici*). (2014)
- **Co-advisor of graduate students for the following projects** (starting date)
 - Occurrence of Tomato Spotted Wilt Virus on ornamental plants in Jordan. (2014)
 - Detection and Studying the Genetic Diversity of *Pectobacterium carotovorum* subspecies *carotovorum* (Dye, 1969) isolates, the Causal Agent of Potato Soft Rot in Jordan. (2014)
 - Occurrence, incidence and prevalence of yellowing viral disease on cucumber in Jordan. (2011)
 - Control of mold growth and aflatoxins formation in peanuts by using chitosin containing potassium sorbate. (2012)
- **Ph.D. and M.Sc. Defense Committees**
 - Control of mold growth and aflatoxins formation in peanuts by using chitosin containing potassium sorbate. University of Jordan (May, 2013)
 - Isolation and expression analysis of putative oxo-phytodienoic acid reductase gene from barley. Al-Balqa' Applied University (April, 2013)
 - Effect of different commercial mycorrhiza products on plant growth and Fusarium root rot of different vegetable crops. University of Jordan (December, 2012)
 - Occurrence, incidence and prevalence of yellowing viral disease on cucumber in Jordan. University of Jordan (August, 2012)
 - Utilization of an agrodrench inoculation method for *Tomato yellow leaf curl virus*. University of Jordan (June, 2012)
 - Characterization of genetic resistance against Mediterranean cereal cyst nematode (*Heterodera latipons*) in wheat. University of Jordan (June, 2012)
 - A study of chemical components of some medical plants in Syria. Aleppo University (June, 2010)
 - Mining for parasporin toxin genes in Jordanian *Bacillus thuringiensis* strains. University of Jordan (August, 2009)

List of Publications:

1. Jaber, L. and **Salem, N. M.** (2014) Endophytic colonisation of squash by the fungal entomopathogen *Beauveria bassiana* (Ascomycota: Hypocreales) for managing *Zucchini yellow mosaic virus* in cucurbits. ***Biocontrol Science and Technology*** 24, 1096-1109.
2. Mansour, A., Al-Banna, L., **Salem, N.** and Alsmairat, N. (2014) Disease management of organic tomato under greenhouse conditions in the Jordan Valley. ***Crop Protection*** 60, 48-55.
3. Athamenh, B. M., **Salem, N. M.**, El-Zuraiqi, Suleiman, W. and Rusan, M. J. (2014) Combined land application of treated wastewater and biosolids enhances crop production and soil fertility. ***Desalination and Water Treatment*** DOI: 10.1080/19443994.2014.933037.
4. Garcia, F. A., Ordonez, N., Konkol, J., Al Qasem, M., Naser, Z., Abdelwali, M., **Salem, N. M.**, Waalwijk, C., Ploetz, R. C. and Kema, G. (2014) First Report of *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 associated with Panama Disease of banana outside Southeast Asia. ***Plant Disease*** 98, 694.
5. **Salem, N. M.**, Quaglino, F., Abdeen, A., Casati, P., Bulgari, D., Alma, A. and Bianco, P. A. (2013) First report of '*Candidatus Phytoplasma solani*' associated with grapevine Bois noir disease in Jordan. ***Plant Disease*** 97(11), 1505.
6. **Salem, N. M.**, Ahmad, A. L. and Awwad, A. M. (2013) New route for synthesis magnetite nanoparticles from ferrous ions and pistachio leaf extract. ***Nanoscience and Nanotechnology*** 3, 48-51.
7. **Salem, N.**, Mansour, A. and Badwan, H. (2012) Identification and partial characterization of tomato spotted wilt virus on lettuce in Jordan. ***Journal of Plant Pathology*** 94(2), 431-435.
8. Abu-Romman, S., Shatnawi, M., Hasan, M., Qrunfleh, I., Omar, S. and **Salem, N.** (2012) cDNA cloning and expression analysis of a putative alternative oxidase HsAOX1 from wild barley (*Hordeum spontaneum*). ***Genes and Genomics*** 34, 59-66.
9. Awwad, A. and **Salem, N.** (2012) Biosorption of copper(II) and lead(II) ions from aqueous solutions by modified loquat (*Eriobotrya japonica*) leaves (MLL). ***Journal of Chemical Engineering and Materials Science*** 3(1), 7-17.
10. Abo-Sherbi, A. Mansour, A., **Salem, N.** and Al-Tamimi, N. (2012) Viral diseases affecting open field tomato in Jordan. ***Jordan Journal of Agricultural Sciences*** 8(1), 15-21.
11. Al-Tamimi, N., Kawas, H., Mansour, A., Arabiat, A. and **Salem, N.** (2011) Molecular characterization of two (SLCV) isolates: one from the Jordan Valley and the other from Southern Syria. ***Jordan Journal of Agricultural Sciences*** 7 (1), 178-187.
12. **Salem, N.**, Sadder, M. and Abdeen, A. (2011) Application of polymerase chain reaction for detection of camels' milk adulteration by milk of cow. ***Current Opinion in Biotechnology*** 22S (I15), S94.
13. Al-Degs, Y., Al-Ghouti, M. and **Salem, N.** (2011) Determination of frying quality of vegetable oils used for preparing falafel using infrared spectroscopy and multivariate calibration. ***Food Analytical Methods*** 4, 540-549.
14. **Salem, N. M.**, Ehlers, J. D., Roberts, P. A. and Ng, C. K. J. (2010) Biological and molecular diagnosis of seed-borne viruses in cowpea

- germplasm of geographically diverse Sub-Saharan origins. **Plant Pathology** 59, 773-784.
15. Al-Nsour, A., Mansour, A. and **Salem, N.** (2010) Incidence of *Plum pox potyvirus* in Jordan. **Dirasat** 37(1), 24-28.
 16. Al-Nsour, A., Mansour, A., Al-Banna, L. and **Salem, N.** (2010) Detection of *Tomato ringspot virus* on stone fruit trees in Jordan. **Jordan Journal of Agricultural Sciences** 6 (2), 240-247.
 17. Al-Tamimi, N., Kawas, H., Mansour, A., Arabiat, A. and **Salem, N.** (2010) Biological and molecular characterization of some *Zucchini yellow mosaic virus* isolates from Southern Syria and Jordan Valley. **Jordan Journal of Agricultural Sciences** 6 (3), 479-493.
 18. **Salem, N.** and Ahmad, R. (2010) Mycotoxins in food from Jordan: Preliminary survey. **Food Control** 21, 1099-1103.
 19. Ahmad, R., **Salem, N. M.** and Estaitieh, H. (2010) Occurrence of organochlorine pesticide residues in eggs, chicken and meat in Jordan. **Chemosphere** 78, 667-671.
 20. **Salem, N.**, Ahmad, R. and Awwad, A. (2010) Chemical modification of zeolitic tuff for removal of Hg(II) from water. **Environmental Research Journal** 4, 286-290.
 21. Awwad, A. M., **Salem, N. M.** and Ahmad, R. A. (2010) Biosorption of chromium (VI) onto (*Eriobotrya japonica*) loquat bark from aqueous solution. **Environmental Science** 5 (5),
 22. **Salem, N. M.**, Chen, A. Y. S., Tzanetakis, I. E., Mongkolsiriwattana, C. and Ng, J. C. K. (2009) Further complexity of the genus *Crinivirus* revealed by the complete genome sequence of *Lettuce chlorosis virus* (LCV) and the similar temporal accumulation of LCV genomic RNAs 1 and 2. **Virology** 390, 45-55.
 23. Jyot, J., **Salem, N.** and Falk, B. W. (2009) Partial sequence and survey analysis identify a multipartite, negative sense RNA virus associated with fig mosaic. **Plant Disease** 93, 4-10.
 24. **Salem, N. M.**, Ahmad, R. and Estaitieh, H. (2009) Organochlorine pesticide residues in dairy products in Jordan. **Chemosphere** 77, 673-678.
 25. **Salem, N. M.**, Miller, A., Rowhani, A., Golino, D. A., Moyne, A. and Falk, B. W (2008) *Rose spring dwarf-associated virus* has RNA structural and gene-expression features like those of *Barley yellow dwarf virus*. **Virology** 375, 354-360.
 26. **Salem, N. M.**, Golino, A. D., Falk, B. W. and Rowhani, A. (2008) Complete nucleotide sequences and genome characterization of a novel double-stranded RNA virus infecting *Rosa multiflora*. **Archives of Virology** 153, 455-462.
 27. **Salem, N.**, Golino, A. D., Falk, B. W. and Rowhani, A. (2008) Identification and partial characterization of a new *Luteovirus* associated with rose spring dwarf disease. **Plant Disease** 92, 508-512.
 28. **Salem, N.**, Rowhani, A., Moyne, A. L., Sim, S. T. and Golino, D. A. (2007) Identification of a luteovirus associated with rose spring dwarf disease in roses. The 4th International Conference for Rose Research and Cultivation. **Acta Horticulturae** 751, 213-216.

29. Golino, D. A., Sim, S. T., **Salem, N.** and Rowhani, A. (2007) Rooting success of rose cuttings reduced by infection with apple mosaic virus and prunus necrotic ringspot virus. The 4th International Conference for Rose Research and Cultivation. ***Acta Horticulturae*** 751, 225-228.
30. Misbeh, S., Al-Musa, A., Anfoka, G. and **Salem, N.** (2007) Molecular characterization of *Grapevine virus A* (GVA) isolates from Jordan. ***Phytopathologia Mediterranea*** 46 (2), 195-200.
31. **Salem, N.**, Mansour, A., Al-Musa, A. and Mesbah, S. (2007) Survey of grapevine viruses in Jordan. ***Dirasat*** 34 (1&2), 25-33.
32. **Salem, N.**, Mansour, A., Al-Musa, A. and Al-Nsour, A. (2006) Occurrence of *tomato ringspot virus* on grapevines in Jordan. ***Phytopathologia Mediterranea*** 45, 161-162.
33. **Salem, N.** Mansour, A. and Al-Musa, A. (2005) Viruses of pome fruit trees in Jordan. ***Journal of Plant Pathology*** 87 (2), 115-118.
34. **Salem, N.**, Mansour, A., Al-Musa, A. and Al-Nsour, A. (2004) Effect of heat treatment on eradication of *Prunus necrotic ringspot virus* in peach. ***Dirasat*** 31 (3), 311-316.
35. **Salem, N.**, Mansour, A., Al-Musa, A., Al-Nsour, A. and Hammond, R. (2004) Identification and partial characterization of *Prunus necrotic ringspot virus* in Jordan. ***Journal of Plant Pathology*** 86 (1), 83-87.
36. **Salem, N.**, Mansour, A., Al-Antary, T. and Al-Nsour, A. (2004) *Faba bean necrotic yellows virus*: virus-vector relationships and effect of inoculation stage on yield components in faba bean. ***Dirasat*** 31 (1), 12-20.
37. **Salem, N.**, Mansour, A., Al-Musa, A. and Al-Nsour, A. (2003) Incidence of *Prunus necrotic ringspot virus* in Jordan. ***Phytopathologia Mediterranea*** 42 (3), 275-279.
38. **Salem, N.**, Mansour, A., Al-Musa, A. and Al-Nsour, A. (2003) Seasonal variation of *Prunus necrotic ringspot virus* concentration in almond, peach, and plum cultivars. ***Phytopathologia Mediterranea*** 42 (2), 155-160.
39. Al-Nsour, A., Mansour, A., Al-Musa, A. and **Salem, N.** (1998) Distribution and incidence of *Faba bean necrotic yellows virus* in Jordan. ***Plant Pathology*** 47, 510-515.
40. Farhan, A. M., **Salem N. M.**, Al-Dujaili A. H. and Awwad A. M. (2012) Biosorption studies of Cr(VI) ions from electroplating wastewater by walnut shell powder. ***American Journal of Environmental Engineering***, 2(6), 188-195.
41. **Salem, N. M.** and Awwad, A. M. (2011) Biosorption of Ni(II) from electroplating wastewater by modified (*Eriobotrya japonica*) loquat bark. ***Journal of Saudi Chemical Society***, In Press, corrected proof.
42. Awwad, A. M. and **Salem, N. M.** (2012) Kinetics and thermodynamics of cd(II) biosorption onto loquat (*Eriobotrya japonica*) leaves. ***Journal of Saudi Chemical Society***, In Press, corrected proof.

Books:

1. Mansour, A., **Salem, N.** and Badwan, H. (2009) Plant Pathology Laboratory Manual. Amman-Dar. Jalees Alzaman for Publishing of Distribution.

2. In Arabic:

منصور، عقل، أمين عامر حاج قاسم، نداء سالم، ايليا الشويري، يوسف أبو جودة، جبر خليل ونبيل عزيز. (2008) الفيروسات التي تصيب محصول البطاطا/البطاطس. الأمراض الفيروسية للمحاصيل الزراعية المهمة في المنطقة العربية. إعداد: مكوك، خالد محيي الدين، جابر إبراهيم فجلة و صفاء غسان قمرى. 308-273.

Conferences:

- **Salem, N. M.**, Quaglino, F., Abdeen, A., Casati, P., Bulgari, D., Alma, A. and Bianco, P. A. (2013) First report of '*Candidatus Phytoplasma solani*' associated with grapevine Bois noir disease in Jordan. COST Action FA0807 Integrated Management of Phytoplasma Epidemics in Different Crop Systems, September 30-October 1, 2013, Lisbon, Portugal.
- **Salem, N.**, Mansour, A. and Abdeen, A. (2013) Identification of *Cotton leaf curl Gezira virus* in okra in Jordan. The American Society for Virology 32nd Annual Meeting, July 20-24, 2013, Pennsylvania State University, University Park, Pennsylvania, USA.
- Al-Banna, L., Khrfan, W. I., **Salem, N.**, AlMazraawi, D. (2012) Characterization of a fungus parasitizing Mediterranean Cereal Nematode (*Heterodera latipons*). 31st International Symposium of the European Society of Nematologists, September 23-27, 2012, Adana, Turkey.
- **Salem, N.** (2012) Virus and virus-like diseases of stone fruits in Jordan. Biodiversity and nutrition in the Mediterranean area, University of Milan, Faculty of Agriculture, July 5, 2012, Milan, Italy.
- **Salem, N.** (2011) Virus and phytoplasma diseases of stone fruits in Jordan. Emerging phytoplasma diseases of stone fruits and other crops and their possible impact on EU countries, COST Action FA0807 Integrated Management of Phytoplasma Epidemics in Different Crop Systems, December 1-2, 2011, Istanbul, Turkey.
- **Salem, N.**, Sadler, M. and Abdeen, A. (2011) Application of polymerase chain reaction for detection of camels' milk adulteration by milk of cow. European Biotechnology Congress, September 28-October 1, 2011, Istanbul, Turkey.
- **Salem, N.**, Tzanetakis, I., Falk, B. and Ng, J. (2009) *Lettuce chlorosis virus* (LCV): Genome sequencing, molecular characterization and whitefly transmission. The 10th Arab Congress of Plant Protection, October 26-30, 2009, Beirut, Lebanon.
- Chen, A., **Salem, N.**, Mongkolsiriwattana, C. and Ng, J. (2009) Analysis of *Lettuce chlorosis virus* (LCV) subgenomic RNA expression and accumulation kinetics of LCV RNAs. The American Society for Virology 28th Annual Meeting, July 11-15, 2009, University of British Columbia, Vancouver, BC, Canada.
- **Salem, N.**, Tzanetakis, I., Falk, B. and Ng, J. (2008) Genome sequencing, molecular characterization and whitefly transmission of *Lettuce chlorosis*

virus (LCV). The American Society for Virology 27th Annual Meeting, July 12-16, 2008, Cornell University-Ithaca, New York, USA.

- Jyot, J., **Salem, N.**, Aradhya, M., Stover, Ed. and Falk B. (2008) Fig mosaic associated virus: A new type of negative strand RNA virus? The American Society for Virology 27th Annual Meeting, July 12-16, 2008, Cornell University-Ithaca, New York, USA.
- Jyot, J., **Salem, N.**, Aradhya, M. and Falk, B. (2007) Metagenomic sequenced based approach reveals a complex of viruses from diverse taxa associated with fig mosaic disease. The American Society for Virology 26th Annual Meeting, July 14-18, 2007, Oregon State University Corvallis, Oregon, USA.
- **Salem, N.**, Falk, B., Golino, D. and Rowhani, A. (2006) Genomic characterization of a novel member of the *Luteoviridae* associated with rose spring dwarf disease. The American Society for Virology 25th Annual Meeting, July 15-19, 2006, University of Wisconsin-Madison, Madison, USA.
- **Salem, N.**, Rowhani, A., Moyne, A. L., Sim, S. T. and Golino, D. A. (2005) Identification of a luteovirus associated with rose spring dwarf disease in roses. The 4th International Conference for Rose Research and Cultivation, ISHS, September 19-25, 2005, Santa Barbara, California, USA.
- Golino, D. A., Sim, S. T., **Salem, N.** and Rowhani, A. (2005) Rooting success of rose cuttings reduced by infection with apple mosaic virus and prunus necrotic ringspot virus. The 4th International Conference for Rose Research and Cultivation, ISHS, September 19-25, 2005, Santa Barbara, California, USA.
- **Salem, N.** and Mansour, A. (2000) Viral diseases of stone fruits in Jordan. The 7th Arab Congress of Plant Protection, October 22-26, 2000, Amman, Jordan.
- **Salem, N.** and Mansour, A. (1997) Yield reductions in faba bean infected with *Faba bean necrotic yellows virus* in Jordan. The 8th Arab Conference of Biological Sciences and the 4th Jordanian Conference of Biological Sciences, November 8-11, 1997, Amman, Jordan.
- **Salem, N.** and Mansour, A. (1997) Virus-vector relationships of *Faba bean necrotic yellows virus* and the lentil aphid *Aphis craccivora*. The 6th Arab Congress of Plant Protection, October 27-31, 1997, Beirut, Lebanon.

Research:

- Molecular biology: DNA, RNA, and protein isolation; gel electrophoresis; transformation (*Escherichia coli*); labeling (radioactive and nonradioactive); PCR (overlapping, degenerated, RT-PCR); Western, and Northern hybridizations; library screening; DNA sequencing; cDNA-library and cloning; primer engineering; protein purification and antisera production; ODD, ELISA, TBIA tests.
- Scientific procedures, record keeping, documentation, and photography.

Funded Projects:

- Epidemiology; Occurrence, Distribution, Molecular Characterization and Detection of Citrus Virus and Viroid Diseases in Jordan, funded by Scientific Research Fund/Ministry of Higher Education and Scientific Research, 2014. (Principal investigator)
- Novel Approach for Synthesis Sulfur Nanoparticles for Control of Fungal Diseases of Plants, funded by Abdul Hameed Shoman Foundation, Fund for Scientific Research Support, 2014. (Co-investigator)
- Establishing a Botanical Garden at Agricultural Research Station, Deanship of Academic of Research (DAR), University of Jordan, 2013. (Co- investigator)
- Preparation and characterization of magnetite (Fe_3O_4 , Fe_2O_3) nanoparticles from iron wastes: antibacterial and antimicrobial activity, funded by Abdul Hameed Shoman Foundation, Fund for Scientific Research Support, 2012. (Co-investigator)
- Occurrence, distribution and molecular characterization of potato virus diseases in Jordan, funded by Deanship of Academic of Research (DAR), University of Jordan, 2011. (Principal investigator)
- Management of banana wilt diseases in Jordan Valley, funded by National Center for Agricultural Research and Extension (NCARE), 2012. (Co-investigator)
- Development of a novel antimicrobial silver nanoparticle for control of soilborne pathogens, funded by EWE/ Clean Technologies (CT) center/USAID-SABEQ, 2011. (Principal investigator)
- Reuse of biosolids as a fertilizer for increasing forage production and enhancing soil fertility, funded by the Scientific Research Fund/Ministry of Higher Education and Scientific Research, 2011. (Co-investigator)
- An environmentally friendly biosorbents for the removal of toxic heavy metal ions from wastewater, funded by Abdul Hameed Shoman Foundation, Fund for Scientific Research Support, 2010. (Co-investogator)
- Toxicity of Jordanian zeolitic nano tuff and other engineered nanoparticles to the nematode *Caenorhabditis elegans*, funded by Hamdi Mango Center for Scientific Research (HMCSR), 2010. (Co-investigator)
- Development of a rapid, sensitive and reliable test for detection of *Salmonella* spp. in food, funded by Support to Research and Technological Development and Innovation Initiatives and Strategies in Jordan (SRTD), 2009. (Principal investigator)
- Detection of adulterated food products in Jordan, funded by Abdul Hameed Shoman Foundation, Fund for Scientific Research Support, 2009. (Principal investigator)
- Development of salinity tolerant tomato genotypes using molecular marker assisted selection, funded by the Scientific Research Fund/Ministry of Higher Education and Scientific Research, 2009. (Co-investigator).
- Preliminary survey of food contamination by mycotoxins in Jordan, funded by The National Centre for Biotechnology (NCB), 2008. (Principal investigator)

Affiliations:

- The American Phytopathological Society (APS) since 2007.
- The American Society for Virology (ASV) since 2005.
- The Arab Society for Plant Protection since 1995.
- The Jordanian Agricultural Engineers Association since 1994.

Training courses and workshops:

- "Defects in cereal and legume seeds", University of Jordan, December 2-5, 2013, Amman, Jordan.
- "Expert Mission on Detection of Phytoplasmas Disease in Jordan", AGR IND/EXP 53371, European Commission, Technical Assistance Information Exchange Instrument (TAIEX), October 27-31, 2013, Amman, Jordan.
- "E-learning Contents Design and Development", University of Jordan, Center for Educational Development, January 16-24, 2013, Amman, Jordan.
- Regional Workshop on "Strengthening Regional Cooperation and Knowledge Sharing in Plant Protection between the Near East Countries" December 2-4, 2012, Cairo, Egypt.
- Regional Workshop on "Agricultural Biotechnology Knowledge Network for Strengthening Regional Cooperation and Knowledge Sharing" July 2-4, 2012, Cairo, Egypt.
- "Staff Development Workshops", University of Jordan, Center for Educational Development, January 15- February 6, 2012, Amman, Jordan.
- "Clean Technology Applications in Energy, Water & Environment, scientific visit in USA" organized by EWE/ Clean Technologies (CT) center/USAID-SABEQ, including University of Nevada, Desert Research Institute (DRI), Reno, Nevada; University of Illinois at Chicago, Chicago, Illinois; The Milwaukee Water Council, Milwaukee, Wisconsin, December 12-21, 2011, USA.
- "Clean Technology Applications in Energy, Water & Environment" USAID and RSS, November 20-22, 2011, Amman, Jordan.
- "EU legislations on Import Control of Potato Seeds", AGR 43028, European Commission, Technical Assistance Information Exchange Instrument (TAIEX), DG Enlargement, October 25-26, 2010, Amman, Jordan.
- "Quality Infrastructure for Food Safety" 229MENA, February 7- March 5, 2010, Sweden.
- "Media Go to Europe" Framework Programme 7, the European Commission's main Instrument for Funding Research, October 14, 2009, the Royal Scientific Society, Amman, Jordan.
- Strategies and techniques for generating inventions and acquiring patents, September 6-10, 2009, Royal Scientific Society, Amman, Jordan.
- Practical training on GC/MS, November 11-15, 2007, Royal Scientific Society, Amman, Jordan.
- Taqman-Real time PCR, July 26, 2007, University of California, Riverside, USA.

- A field guide to genbank and National Center for Biotechnology Information (NCBI) molecular biology resources, July 12, 2005, University of California, Davis, USA.
- Principles of beekeeping and honey production, March 16-22, 1999, the Ministry of Agriculture, Amman, Jordan.
- "Introduction to modeling and model maker", June 19-23, 1999, the University of Jordan, Amman, Jordan.
- Conversation in English language / advanced level, July 11-August 12, 1998, the Center for Consultation, Technical Services and Studies, Amman, Jordan.
- Specialized training course in virus diagnosis, December 2-7, 1996, the International Center for Agriculture Research in Dry Area (ICARDA), Aleppo, Syria.
- Microsoft Word (Windows 3.1), July 2-13, 1994, the Center for Consultation, Technical Services and Studies, Amman, Jordan.

Academic awards and honors:

- ASV 2013 Undergraduate Teacher Travel Grant to attend 32nd Annual Meeting, July 20-24, 2013, Pennsylvania State University, University Park, Pennsylvania, USA.
- A 2004-05 Fulbright Post-Doctoral Scholar Award. 1st September 2004 - 31st August, 2005, University of California Davis, USA.
- A ward for the best research paper presentation in the 7th Arab Congress of Plant Protection, October 22-26, 2000, Amman, Jordan.
- University of Jordan stipendium for Ph.D. degree (1999/2000).
- Hamdi and Manko fellowship for M.Sc. and Ph.D. degrees (1995, 2000).
- First rank certification for B.Sc. (1994), M.Sc. (1997) and Ph.D. degrees (2002).

Skills:

- Languages:
 1. Arabic: mother language.
 2. English: very good.
- Computer:

Good capability in dealing with several software packages: word processing (WinWord), statistics (SAS, Excel), graphics /presentation (PowerPoint, Adobe photoshop), primers design, clustal X, clustal W (DNA and protein sequense alignment and phylogenic analysis), sequence analysis programs (DNASIS, NTIVector, NCBI, MEGA2).