

# Raed Abdalla Alkowni

## “Associate Professor”

Department of Biology and Biotechnology - Faculty of Science.

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### RESEARCHES OF INTEREST

- **Molecular Virology:** Studying Molecular variants of plant viruses, Developing molecular tools, viral genome expression and Bioinformatics.
- **Genetic Engineering:** Gene silencing.
- **Plant Cell Culture:** micro-propagation of medicinal plants

### ACADEMIC QUALIFICATIONS:

- **Doctorate (Ph.D.),** Molecular Plant Virology. 2001, University of Bari, Italy.
- **Master of Science (M.Sc.),** Plant Virology. 1997, CIHEAM, Bari, Italy.
- **Bachelor (B.Sc.),** Plant Protection. 1992, University of Jordan, Amman, Jordan.

### SCIENTIFIC REWARDS:

1. **The Engineer Zuhair Hijawi Award for Scientific Research in the natural Sciences and Biotechnology for academic year 2008/9.** The Arab American University – Jenin (AAUJ), Palestine
2. **IDB Merit Scholarship Program for academic year 1427H/2006-07.** Islamic Development Bank (IDB), Jeddah Saudi Arabia.
3. **Testimonial Certificate for the best Master thesis of the academic year 1996/1997.** (CIHEAM). Bari, Italy.

### EMPLOYMENT:

- **Associate Professor,** Biology and Biotechnology Department/Arab American University – Jenin, Palestine. (2007-2009):
- **Researcher at UC-Davis (Junior Specialist),** University of California at Davis, California, USA. (2007-2008).
- **Head of Biology and Biotechnology Department,** Arab American University – Jenin, Palestine. (2004-2007).
- **Assistant Professor,** Biology and Biotechnology Department/Arab American University – Jenin, Palestine. (2003-2007).
- **Postdoctoral Researcher.** University of California at Davis, California, USA. (2001-2003)
- **Professional Assignment.** (CIHEAM), Bari, Italy. (2000–2001)

### SKILLS:

- **Bioinformatics:** Database retrieving and submission to GeneBanks (NCBI and EMBL); Sequence analysis (Alignment and Comparison) using BLAST, FASTA, and CLUSTALW, Phylogenetic Analysis; Genome mapping and Clones analysis by Vector NTI® software-the highly integrated desktop bioinformatics applications- provided by *Invitrogen* company.
- **Computer skills:** Excel, Word, PowerPoint, and the Internet
- **In Vitro Tissue Culture:** Callus induction, Heat therapy, Meristem tip culture, Micrografting, Protoplasts preparation, and Micropropagation techniques
- **Molecular Diagnosis:** Development of molecular tools (PCR methodologies, Molecular Hybridization [Northern, Southern and Dot Blot Hybridization]) for detection purposes. Application of Molecular and Serological Assays, Protein extraction and Analysis (Western Blot).
- **Languages:** Fluent in Arabic, English and Italian.

### SELECTED PUBLICATIONS:

1. **Alkowni R.,** Zhang Y-P., Rowhani A., Uyemoto J. K.; and Minafra A. (2011). Biological, Molecular, and Serological Studies of a Novel Strain of Grapevine Leafroll-associated Virus 2. *Virus Genes* **43**( 1): 102-110, [DOI: 10.1007/s11262-011-0607-7]
2. **Alkowni R.** (2011). Advanced Molecular Techniques For Detection And Identification Of Olive-Infecting Viruses. In: *First International Conference of olive in Palestine (ICOP): “Status and Challenges” February 8<sup>th</sup>-10<sup>th</sup>, 2011.* The Palestine Technical University – Kadoorie (PTUK), Tulkarm, Palestine. p27

3. **Alkowni R.**, and Sawalha K. (2010). Conservation of Palestinian Biodiversity by *In vitro* culture. In: "The Second Conference on Biotechnology Research and Application in Palestine". September 26<sup>th</sup> -27<sup>th</sup>, 2010. An-Najah National University. Nablus, Palestine. p77
4. **Alkowni R.** and Srouji F. (ed) (2009). Food Security and Viral Diseases (in Fruit Trees). *Palestine Economic Policy Research Institute (MAS)*. Ramallah-Palestine. [In Arabic]
5. Lima M., **Alkowni R.**, Uyemoto J. K., and Rowhani A. (2009). Genomic Study And Detection Of A New Variant Of Grapevine Rupestris Stem Pitting Associated Virus In Declining California Pinot Noir Grapevines. *Journal of Plant Pathology*. **91** (1): 153-160.
6. **Alkowni R.** (2009). Complete nucleotide sequence, genome organization and phylogenetic analysis of eight open reading frames of grapevine leafroll associated virus. In: "The First Conference on Biotechnology Research and Application in Palestine". April 3<sup>rd</sup> -4<sup>th</sup>, 2009. Bethlehem University-Palestine. p23
7. Amro S.; **Alkowni R.** and Hamdan A. (2009). Biological and molecular studies on most economical Palestinian tomato cultivars infected with TYLCV in Southern Highlands of West Bank. In: "The First Conference on Biotechnology Research and Application in Palestine". April 3<sup>rd</sup> -4<sup>th</sup>, 2009. Bethlehem University-Palestine. p24
8. Jaradat S.; Abo-Alrob K.; Modallal Y.; and **Alkowni R.** (2009). In vitro propagation of Palestinian most economically important medicinal plants. In: "The First Conference on Biotechnology Research and Application in Palestine". April 3<sup>rd</sup> -4<sup>th</sup>, 2009. Bethlehem University-Palestine. p 29
9. **Alkowni R.** (2008). Detection of Genomic Variations in Grapevine Rupestris Stem Pitting Associated Virus, leading for identification of new virus isolates and Developing of Molecular Tool for their Specific detection. *Hebron University Research Journal*. **3** (2): 36-48.
10. Lima M. F., **Alkowni R.**, Uyemoto J. K., Golino D, Osman F, and Rowhani A. (2006). Molecular analysis of a California strain of Rupestris stem pitting associated virus isolated from declining Syrah grapevines. *Archive of Virology* **151** (9): 1889–1894.
11. **Alkowni R.** (2006). Comparative Analyses of the Coat Protein of Newly Discovered Ampelovirus Using Computer-Assisted Phylogenetic Reconstruction and Analysis: An Approach for Classification and Characterization. *Hebron University Research Journal*. **2** (2): 16-26.
12. Lima, M. F.; **Alkowni R.**; Uyemoto, J. K.; and Rowhani, A. (2006). Molecular analysis of a Californian strain of Rupestris stem pitting associated virus from Pinot Noir grapevine. In: *25th Annual Meeting of American Society for Virology, 2006*, Madison-WI (USA). p259
13. **Alkowni R.** (2005). Establishment of a Center for Biotechnological Application. In: *Expert Group Meeting On Modern Biotechnology; Technical and policy Implications*. ESCWA-FAO United Nations House, Beirut, Lebanon. p14
14. **Alkowni R.** (2005). Biodiversity and Biotechnology Chapter 5. In: Sawalha, Kh (ed.). *Plant Biodiversity*. ISBN. 9950-338-00-X. Al-Quds University. [In Arabic]. p81-87
15. **Alkowni R.**, Rowhani A., Daubert S. and Golino D.A., (2004). Partial Characterization of a New Ampelovirus Associated with Grapevine Leafroll Disease. *Journal of Plant Pathology*. **86** (2): 122-132
16. Lima, M. F.; **Alkowni R.**; Golino, D.; Uyemoto, J. K.; Rowhani, A. (2004). Characterization of Two New Strains of Grapevine Rupestris Stem Pitting- Associated Virus. In: *American Phytopathological Society Annual Meeting, 2004*, Anaheim-CA. Phytopathology (Supplement to n<sup>o</sup> 94):S61.
17. **Alkowni R.** and Rowhani A, (2003). Grapevine Leafroll Associated virus 9: Partial Genome Organization and Identification of Its Coat Protein Gene. In: *The American Society 22<sup>nd</sup> Annual Meeting for Virology, 2003*. University of California, Davis. USA. p176
18. Sim S.T., Rowhani A., **Alkowni R.**, and Golino D.A., (2003). Experimental transmission of Grapevine leafroll-associated virus 5 and 9 by longtailed mealybugs. In: *14th Meeting of the International Council for the Study of Virus and Virus-like Diseases of the Grapevine (ICGV)*, 2003. Locorotondo (Bari), Italy. p211
19. Grieco, F., **Alkowni R.**, Saponari, M., Pantaleo, V., Savino, V. and Martelli, G.P. (2002). Molecular detection of olive-infecting viruses. *Acta Hort. (ISHS)*. **586**:737-740
20. Saponari, M., **Alkowni R.**, Grieco, F., Driouech, N., Hassan, M., Di Terlizzi, B., Digiario, M., Pantaleo, V., Savino, V. and Martelli, G.P. (2002). Detection of olive-infecting viruses in the Mediterranean basin. *Acta Hort. (ISHS)*. **586**:787-790
21. **Alkowni R.**, Grieco F. and Martelli G.P., (2001). Complete nucleotide sequence of RNA-2 of Olive latent ringspot virus. *Archives of Virology*, **146** (1): 117-125.
22. Grieco F., **Alkowni R.**, Saponari M., Savino V. and Martelli, G.P. (2000). Molecular detection of olive-infecting viruses. *Bulletin OEPP/EPPO Bulletin* **30**,469-473

23. Grieco F., Saponari M., **Alkowni R.**, Garau R., Savino V. and Martelli G.P., (2000). Progressi nella diagnosi dei virus dell'olivo. *Informatore Fitopatologico*, **11**, 49-52 [in Italian].
24. **Alkowni R.**, Rowhani A., and Golino D.A., (2002). Partial nucleotide sequence and molecular detection of a putative new grapevine leafroll associated virus. *Phytopathology*. **92** (supplement to n°6): S3.
25. Grieco F., **Alkowni R.**, Saponari M., Savino V. and Martelli, G.P., (2000). Molecular Detection of Olive Viruses. *EPPO*. In: *Conference On Diagnostic Techniques For Plant Pests, 2000*, Wageningen, Holland, p43
26. **Alkowni R.**, Digiario M., and Savino V., (1998). Viruses and virus diseases of grapevine in Palestine. *EPPO Bulletin*, **28**, 189-195.
27. **Alkowni R.**, Digiario M., and Savino V., (1997). A survey of grapevine viruses in Palestine. In: *O. A. Sequeira, de, J. C. Sequeira, and M. T. Santos* (Ed), *Extended abstracts 12<sup>th</sup> Meeting ICGV, Lisbon, Portugal, 1997*. Dep. Plant Pathology, Estação Agronomica Nacional, Oeiras, Portugal. p.111-112
28. Abu Qauod H. and **Alkowni R.**, (1995). Measuring and increasing the percentage of germination of *Gundelia tournefortii* seeds. *An-Najah Journal Research*, volume III, No. 9, 1995, Nablus, Palestine.

#### Gene Bank Publications:

- (77) protein sequences and (60) nucleotide Sequences were published in the **National Center for Biotechnology Information** (NCBI)-USA
- **PubMed** cited (3) of my research papers.

#### Selected Conferences & Workshops:

1. **Workshops and Seminars for faculty Series "Course Design; Assessment; Action research and Problem based learning; Active Learning and Critical Thinking; E-learning"**. July 17<sup>th</sup> -29<sup>th</sup>, 2011. Center for Excellence in Learning and Teaching (CELT), An-Najah University, Nablus Palestine.
2. **Academic Colloquium 2011, Leadership for Innovation in Training and Learning**. July 2<sup>nd</sup> -3<sup>rd</sup> , 2011. Palestinian Faculty Development Program (PFDP), Ramallah
3. **Teaching by Research and training Skills Workshop**. April 5<sup>th</sup> -6<sup>th</sup> 2011. An-Najah University, Nablus Palestine.
4. **Seminar for Excellence in Teaching (SET) Workshop**. March 26<sup>th</sup>-28<sup>th</sup>, 2011. Palestinian Faculty Development Program (PFDP), Ramallah
5. **Ecology Workshop**. January 12<sup>th</sup>, 2011. Palestinian Hydrology Group, Ramallah
6. **The Second Conference on Biotechnology Research and Application in Palestine**. September 26<sup>th</sup>-27<sup>th</sup>, 2010. An-Najah National University. Nablus, Palestine
7. **Frontier in Molecular Biology Workshop**. March 20<sup>th</sup> - 21<sup>st</sup>, 2010. Birzeit University, Palestine
8. **The Research and Development Statistics Workshop**. October 25<sup>th</sup>, 2009. Palestinian Central Bureau of Statistics. Ramallah, Palestine.
9. **Food Security Improvement through Pathogen-Resistance Horticultural Crops Workshop**. April 28<sup>th</sup>, 2009. Palestine Economic Policy Research Institute (MAS). Ramallah-Palestine
10. **The First Conference on Biotechnology Research and Application in Palestine**. April 3<sup>rd</sup> -4<sup>th</sup>, 2009. Bethlehem University-Palestine.
11. **Intended Learning Outcomes Workshop**. March 2<sup>nd</sup> - 3<sup>rd</sup>, 2009. British council, in An-Najah University-Nablus and Arab American University-Jenin, Palestine.
12. **The Role of Biotechnology and Genetic Sciences in Developing Agricultural Sector in Palestine Workshop**. October 7<sup>th</sup>, 2008. Palestine Polytechnic University, Hebron.
13. **25<sup>th</sup> Annual Meeting of American Society for Virology**, 2006, Madison-WI, USA.
14. **The Use of Biotechnology to analyze Plant Genetic Material Workshop**, 2004. Al-Quds University, Jerusalem.
15. **Agrobiodiversity Workshop**, 2004. Naim Khader training center, Azzababdeh, Jenin.
16. **Genetic Engineering Workshop**. 2003. Jenin Municipality.
17. **14<sup>th</sup> Meeting of the International Council for the Study of Virus and Virus-like Diseases of the Grapevine (ICGV)**. September 12<sup>th</sup>-17<sup>th</sup>, 2003. Locorotondo (Bari), Italy.
18. **The American Society 22<sup>nd</sup> Annual Meeting for Virology**, July 12<sup>th</sup>-16<sup>th</sup>, 2003. University of California, Davis. USA.

### **COMMITTEES AND MEMBERSHIPS**

- *Academic assistant of the Center for Excellence in Learning and Teaching (CELT)*
- *Coordinator of FP-7. An-Najah national University*
- *Coordinator of Scientific Committee For The 2nd Biotech Conference, Palestine*
- *Member Of The Center Of Excellency In Biotechnology And Medical Sciences*
- *Editorial in Journal of Applied Biological Sciences (JABS). Nobel Publishing, Ankara-Turkey.*

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