



CURRICULUM VITAE

Maryam Khezri (Ph.D.)

Iranian Research Institute of Plant Protection, Agricultural Research (IRIPP)

Research Department of Plant Disease

P. O. Box 1454, Tehran 19395

Tel: +98 212122403012-16

Fax: +98 2122403692

Email: m.khezri@iripp.ir

ma_khezri@yahoo.com

URL: www.iripp.ir



Academic qualifications

- Ph.D. Plant Pathology (Plant bacteriology), University of Tehran, Karaj, Iran (2005-2010)
- M.Sc. Plant Pathology (Plant bacteriology), University of Tehran, Karaj, Iran (2000-2002)
- B.Sc. Plant Protection, Shiraz University, Shiraz, Iran (1994-1998)

Research interests

- Plant pathogenic bacteria
- Biological control of plant disease
- Plant-microbe interactions

Teaching Experience

- Urmia University

- Teaching field:

M.Sc. Plant pathogenic prokaryotes, Practical plant pathology, Soil-borne plant pathogens, Plant diseases management

B.Sc. Introductory plant pathology, Plant bacteriology, Principal of plant diseases control, Genetic, Cellular biology

- Duration: 6 years

- University of Tehran

- Teaching field:

M.Sc. Plant pathogenic prokaryotes

- Duration: one year

Selected research projects

- Evaluating the effects of some chemical soil amendments and green manure on potato common scab disease.
- Evaluating the effectiveness of saffron corm disinfection against corm and leaf bacterial rot disease.
- Monitoring, survey and genetic characterization of *Xylella fastidiosa*, the causal agent of quick decline syndrome of olive, pierce's disease of grapevine and leaf scorch of almond, and identification of vector(s) of the pathogen in different regions of Iran.
- Evaluating the effect of agronomical management on the process of bacterial rot of saffron corm (*Burkholderia gladioli*).
- Identification of wheat bacterial leaf streak pathogens and its distribution in Iran.
- Investigation of bacterial causal agents of saffron rot disease in fields of Razavi and South Khorasan provinces.
- Identification, distribution and phylogenetic relationships of tomato bacterial canker and evaluation of different cultivar of tomato resistance to disease in West Azarbaijan province.
- Evaluation of some *Bacillus subtilis* strains potential in biological control of wheat take-all disease.
- Study of expression of genes involved in biofilm production in native *Bacillus subtilis* isolates in antagonist conditions.

- Investigation of biofilm formation and expression of *tasA* and *sinR* genes in *Bacillus subtilis*, biocontrol agent of *Fusarium culmorum*, the causal agent of wheat common root rot.

Selected publications

Journals papers

- Abbaspour Anbi, A. and **Khezri, M.** 2022. Evaluating the reaction of some non-hybrid and hybrid tomato cultivars to bacterial speck disease. *Journal of Iranian Plant Protection Research*, 35(4): 409-420.
- **Khezri, M.** 2021. The role of biofilm formation by plant associated beneficial bacteria in reducing the damage of plant pathogens. *Biocontrol in Plant Protection*, 8(2): 35-48.
- **Khezri, M.**, Allahyari Igdar, S. and Aghazadeh Soureh, Z. 2021. Tomato bacterial diseases in West Azerbaijan province of Iran. *Plant Pathology Science*, 10(1): 86-96.
- Mohammadsour, F., **Khezri, M.**, Ghasemi, A. 2021. Evaluation of various treatments on disinfestation of tomato seeds infected with *Clavibacter michiganensis* subsp. *michiganensis*. *Journal of Applied Research in Plant Protection*, 10(1): 57-70.
- Rouydel, Z., Barin, M., Rasouli-Sadaghiani, M.H., **Khezri, M.**, Vetukuri, R.R. and Kushwaha, S. 2021. Harnessing the potential of symbiotic endophytic fungi and plant growth-promoting rhizobacteria to enhance soil quality in saline soils. *Processes*, 9: 1810. doi: 10.3390/pr9101810.
- Hashemnejad, F., Barin, M., **Khezri, M.**, Ghoosta, Y. and Hammer, C. 2021. Isolation and identification of insoluble zinc-solubilising bacteria and evaluation of their ability to solubilise various zinc minerals. *Journal of Soil Science and Plant Nutrition*, 21: 2501–2509.
- Royodel, Z., Barin, M., Rasouli Sadaghiani, M.R. and **Khezri, M.** 2021. Isolation and identification of PGP rhizobacteria from saline soils and their effect on nutrients uptake in wheat under salinity stress. *Journal of Soil and Plant Interactions*, 11(4): 81-100.
- Mousavi, R., Rasouli-Sadaghiani, M.R., Sepehr, E., Barin, M. and **Khezri, M.** 2021. Effects of enriched biochars on the availability and fractions of phosphorus in the saline soils of Lake Urmia basin. *Iranian Journal of Soil and Water Research*, 51(12): 3177-31930.
- **Khezri, M.** 2019. The effects of biofilm formation in bacteria from different perspectives. *Nova Biologica Reperta*, 6(1): 70-78.
- Hosseini, Ch., Asghari, M.R. and **Khezri, M.** 2019. Evaluation of oregano essential oil effects on quality and biochemical attributes of sweet cherry (*Prunus avium* L. cv. 'Takdaneh Mashhad). *Pomology Research*, 3(2): 55-69.
- **Khezri, M.**, Ghasemi, A. and Ahangaran, A. 2019. Detection and characterization of endophytic bacteria causing knot in young olive trees. *Acta Agriculturae Slovenica*, 113(1): 109-119.
- Shabani, R., Rastgou, M. and **Khezri, M.** 2018. Serological and molecular detection of PVY^N, PVY^C, PVY^O and PVY^{NTN} on tomato and pepper in Urmia. *Yuzuncu Yil University Journal of Agricultural Sciences*, 28: 71-78.
- **Khezri, M.** and Mohammadi, M. 2018. Identification and characterization of *Pseudomonas syringae* pv. *syringae* strains from various plants and geographical regions. *Journal of Plant Protection Research*, 58(4): 354-361.
- **Khezri, M.**, Abbaspour Anbi, A. and Mohammad Sour, F. 2018. Evaluation of seed biopriming on tomato leaf spot biocontrol and plant growth factors. *Biological Control of Pest and Plant Diseases*, 7(2): 1-16.
- **Khezri, M.** 2017. Biological control of wheat take-all disease using some biofilm-forming *Bacillus subtilis* strains. *Biocontrol in Plant Protection*, 5(1): 15-30.
- **Khezri, M.** 2017. Effect of biofilm by plant probiotic rhizobacteria on root colonization and growth of wheat. *Biological Control of Pest and Plant Diseases*, 6(1): 96-102.
- **Khezri, M.**, Ahmadzadeh, M. and Salehi Jouzani, Gh. 2016. *Fusarium culmorum* affects expression of biofilm formation key genes in *Bacillus subtilis*. *Brazilian Journal of Microbiology*, 47: 47-54.
- **Khezri, M.**, Ahmadzadeh, M., Salehi Jouzani, Gh. and Sharifi, R. 2016. A new gene involving in biofilm formation of *Bacillus subtilis*. *Modern Genetics Journal*, 11(2): 245-259.
- **Khezri, M.** 2016. Biofilm formation in probiotic bacterium *Bacillus subtilis*. *Plant Pathology Science*, 5: 52-62.
- **Khezri, M.** 2016. Influence of some environmental and nutritional conditions on biofilm formation of probiotic *Bacillus subtilis* strains. *Biological Control of Pest and Plant Diseases*, 4(2): 157-165.
- **Khezri, M.**, Ahmadzadeh, M., Salehi Jouzani, Gh., Behboudi, K., Ahangaran, A., Mousivand, M. and Rahimian, H. 2011. Characterization of some biofilm-forming *Bacillus subtilis* and evaluation of their biocontrol potential against *Fusarium culmorum*. *Journal of Plant Pathology*, 93(2): 373-382.
- Heidari-Tajabadi, F., Ahmadzadeh, M., Moinzadeh, A. and **Khezri, M.** 2011. Influence of some culture media on antifungal activity of *Pseudomonas fluorescens* UTPF61 against the *Sclerotinia sclerotiorum*. *African Journal of Agriculture Research*, 6(30): 6340-6347.

- **Khezri, S.**, Rahimian, H., Ahangaran, A. and Mohammadi, M. 2010. Comparisons of Iranian strains of *Pseudomonas syringae* pv. *syringae* from various hosts with different methods. *International Journal of Agriculture and Biology*, 12: 106-110.
- Ahangaran, A., Mosahebi-Mohammadi, Gh., Koochi Habibi, M., **Khezri, S.** and Shahraeen, N. 2009. Use of rapid serological and nucleic acid-based methods for detecting the *Soybean mosaic virus*. *Journal of Agricultural Science and Technology*, 11: 91-97.
- Ahangaran, A., Mosahebi, Gh., Koochi Habibi, M., Shahraeen, N. and **Khezri, S.** 2008. Identification of strains of *soybean mosaic virus*-SMV from Mazandran and Golestan provinces. *Iranian Journal of Agricultural Sciences*, 39: 99-105.
- Ahangaran, A., **Khezri, S.**, Koochi Habibi, M., Alizadeh, A. and Mosahebi-Mohammadi, Gh. 2006. The first report of detection of a phytoplasma in olive trees in a botanic collection in Iran. *Communication in Agriculture and Application Biological Science*, 71: 1133-1138.
- Ahangaran, A., Mosahebi-Mohammadi, Gh., Koochi Habibi, M., Shahraeen, N. and **Khezri, S.** 2006. Rapid diagnosis of *Soybean mosaic virus* in soybean by tissue-print immunoassay and DIBA in comparison to other serological methods. *Communication in Agriculture and Application Biological Science*, 71: 1207-1212.

Conference papers

- Allahyari Imdir, S. and **Khezri, M.** 2021. Biological, physiological and molecular identification of tomato stem soft rot in West Azarbaijan province. In Proceedings of the 12th National and 4th International Biotechnology Congress of Islamic Republic of Iran (August 22-24). Iranian Biotechnology Society, Tehran, Iran. pp. 1-6.
- **Khezri, M.** and Ghaeb Zamharir, M. 2021. Genetic and bioinformatics study of phytoplasma isolated of tomato big bud in West Azarbaijan. In Proceedings of the 12th National and 4th International Biotechnology Congress of Islamic Republic of Iran (August 22-24). Iranian Biotechnology Society, Tehran, Iran. pp. 1-6.
- Farri, K. and **Khezri, M.** 2021. Phylogenetic analysis of apple crown gall agent based on *recA* gene in West Azarbaijan province. In Proceedings of 5th National Conference of Biodiversity and its Effect on Agriculture and the Environment (January 28). Afagh High Education Institute, Urmia, Iran. pp. 1-6.
- **Khezri, M.**, Karimi Shahri, M.R. and Ghasemi, A. 2021. Study on the effect of different antibiotics on *Burkholderia gladioli*, the causative agent of saffron corm rot. In Proceedings of 5th National Conference of Biodiversity and its Effect on Agriculture and the Environment (January 28). Afagh High Education Institute, Urmia, Iran. pp. 1-6.
- Arzheh, K. and **Khezri, M.** 2019. Evaluation of some wheat cultivars for response to bacterial leaf streak disease in West Azarbaijan. In Proceedings of the 1st Iranian Plant Pathology Congress (August 31- September 1). University of Tehran, Karaj, Iran. pp. 340-341.
- Farri, K. and **Khezri, M.** 2019. Phenotypic and molecular characterization of crown gall inducing bacteria in stone fruits and apple trees. In Proceedings of the 1st Iranian Plant Pathology Congress (August 31- September 1). University of Tehran, Karaj, Iran. pp. 176-177.
- Arzheh, K., Farri, K. and **Khezri, M.** 2019. Antimicrobial efficacy of some medicinal plant essential oils against *Rhizoctonia solani*. In Proceedings of the 1st Iranian Plant Pathology Congress (August 31- September 1). University of Tehran, Karaj, Iran. pp. 94-95.
- Arzheh, K., Farri, K. and **Khezri, M.** 2019. Antifungal activity of some plant essential oils on *Alternaria tenuissima* isolated from tomato. In Proceedings of the 9th National Conference on Biological Control in Agriculture and Natural Resources (July 10-11). University of Bu-Ali Sina, Hamedan, p. 90.
- Arzheh, K. and **Khezri, M.** 2019. *In vitro*, antimicrobial efficacy of cumin essential oil on bacterial agent of wheat leaf streak. In Proceedings of the 9th National Conference on Biological Control in Agriculture and Natural Resources (July 10-11). University of Bu-Ali Sina, Hamedan, p. 91.
- Roydel, Z., Barin, M., Rasouli-Sadaghiani, M.R. and **Khezri, M.** 2019. Effect plant growth promoting rhizobacteria bacteria, mycorrhiza and endophyte fungi on wheat growth parameters in under saline stress conditions. In Proceedings of the 2nd International and 6th National Congress on Organic vs. Conventional Agriculture (August 25-26). University of Mohaghegh Ardabili, Ardabil, Iran. pp. 1-10.
- Farri, K. and **Khezri, M.** 2019. Effect of thyme essential oil on the growth of bacterial agent of crown gall and the effect of streptomycin on essential oil activity. In Proceedings of the 11th Iranian Horticultural Science Congress (August 26-29). Urmia University. Urmia, Iran. pp. 1910-1914.
- Farri, K., Arzheh, K. and **Khezri, M.** 2019. Evaluation of antifungal activity by volatile compounds of some essential oils on *Rhizopus stolonifera*. In Proceedings of the 11th Iranian Horticultural Science Congress (August 26-29). Urmia University. Urmia, Iran. pp. 1915-1918.
- Hosseini, Ch., Asghari, M.R. and **Khezri, M.** 2019. Biological control of grey mold (*Botrytis cinerea*) in Takdaneh Mashhad sweet cherry by using *Bacillus subtilis* and marjoram essential oil. In Proceedings of the 11th Iranian Horticultural Science Congress (August 26-29). Urmia University. Urmia, Iran. pp. 3130-3136.
- Roydel, Z., Barin, M., Rasouli-Sadaghiani, M.R. and **Khezri, M.** 2019. Evaluation of effect of inoculation of plant growth promoting rhizobacteria bacteria, mycorrhizal fungi and entophytic fungi on the uptake of some

- elements in wheat under saline conditions. In Proceedings of the 16th Iranian Soil Science Congress (August 27-29). University of Zanjan, Zanjan, Iran. pp. 1-6.
- Abbaspour Anbi, A. and **Khezri, M.** 2018. Evaluation of different tomato cultivars resistance to bacterial speck disease. In Proceedings of the 23rd Iranian Plant Protection Congress (August 27-30). University of Agricultural Sciences and Natural Resources, Gorgan, Iran. pp. 553-554.
 - Mohammad Sour, F. and **Khezri, M.** 2018. A study on different disinfection methods in infected tomato seeds with *Clavibacter michiganensis* subsp. *michiganensis*. In Proceedings of the 23rd Iranian Plant Protection Congress (August 27-30). University of Agricultural Sciences and Natural Resources, Gorgan, Iran. pp. 555-556.
 - Mohammad Sour, F., Abbaspour Anbi, A. and **Khezri, M.** 2018. Investigating the possibility of biological control of tomato bacterial leaf spot in laboratory and greenhouse. In Proceedings of the 23rd Iranian Plant Protection Congress (August 27-30). University of Agricultural Sciences and Natural Resources, Gorgan, Iran. pp. 557-558.
 - Shabani, R., Rastgou, M. and **Khezri, M.** 2018. Serological and molecular detection of PVY^N, PVY^C, PVY^O and PVY^{NTN} on tomato and pepper in Urmia. In Proceedings of the International Agricultural Science Congress (May 9-12). Van Yuzuncu Yil University, Van, Turkey. p. 473.
 - Aghazadeh, Z., **Khezri, M.** and Sadeghinasab, F. 2017. Identification of pathogenic bacteria in tomato fields of Urmia. In Proceedings of the 1st International and 5th National Congress on Organic vs. Conventional Agriculture (August 16-17). University of Mohaghegh Ardabili, Ardabil, Iran. p. 278.
 - Allahyari, S., **Khezri, M.** and Sadeghinasab, F. 2017. A study on tomato Gram-negative pathogenic bacteria in West Azarbaijan. In Proceedings of the 1st International and 5th National Congress on Organic vs. Conventional Agriculture (August 16-17). University of Mohaghegh Ardabili, Ardabil, Iran. p. 279.
 - **Khezri, M.** 2017. Screening of some fluorescent pseudomonad isolates for biocontrol of potato soft rot caused by *Pectobacterium carotovorum*. In Proceedings of the 8th National Conference on Biological Control in Agriculture and Natural Resources (November 10-11). University of Gilan, Rasht, Iran. p. 103.
 - **Khezri, M.** and Aghazadeh Soureh, Z. 2017. A study on the effect of biocontrol agents on some plant pathogenic bacteria isolated from Urmia, *in vitro*. In Proceedings of the 8th National Conference on Biological Control in Agriculture and Natural Resources (November 10-11). University of Gilan, Rasht, Iran. p. 104.
 - **Khezri, M.**, Ghasemi, A. and Ahangaran, A. 2016. Identification of olive knot agent in a garden in Golestan province and eradication. In Proceedings of the 22nd Iranian Plant Protection Congress (August 27-30). University of Tehran. Karaj, Iran. p. 80.
 - **Khezri, M.** and Manafi Shabestari, M. 2016. Biological control of wheat take-all by native probiotic *Bacillus subtilis*. In Proceedings of the 22nd Iranian Plant Protection Congress (August 27-30). University of Tehran. Karaj, Iran. p. 288.
 - **Khezri, M.** 2016. Effect of soil-borne probiotic bacteria on wheat seed index. In Proceedings of the 2nd International and 14th National Crop Science Congress (August 30-September 1). University of Gilan, Rasht, Iran. pp. 1-6.
 - Sadeghi, L., **Khezri, M.** and Safaei, N. 2016. Pathogenicity and biochemical variability of Iranian isolates of *Gaeumannomyces graminis* var. *tritici*. In Proceedings of the 2nd International and 14th National Crop Science Congress (August 30-September 1). University of Gilan, Rasht, Iran. pp. 1-6.
 - **Khezri, M.**, Ahmadzadeh, M., Salehi Jozani, Gh., Behboudi, K., Ahangaran, A., Rahimian, H., Soheilvand, S. and Shobbar, Z. 2012. The effect of *Fusarium culmorum* on expression of two important gene involved in biofilm formation of *Bacillus subtilis*. In Proceedings of the 20th Iranian Plant Protection Congress (August 25-28). Shiraz University, Shiraz, Iran. p. 246.
 - **Khezri, M.**, Ahmadzadeh, M., Salehi Jozani, Gh., Behboudi, K., Ahangaran, A. and Rahimian, H. 2012. Identification of some native antagonistic isolates of *Bacillus* sp. in species level and determination of their phylogenetic relationships. In Proceedings of the 20th Iranian Plant Protection Congress (August 25-28). Shiraz University, Shiraz, Iran. p. 538.
 - **Khezri, S.**, Ahmadzadeh, M., Salehi Jozani, Gh., Sharifi, R., Behboudi, K. and Rahimian, H. 2010. A study on *Bacillus* rhizobacteria effects on the root colonization, plant growth factors and biological control of *Fusarium culmorum* on wheat. In Proceedings of the 19th Iranian Plant Protection Congress (July 31-August 3). Iranian Research Institute of Plant Protection, Tehran, Iran. p. 829.
 - **Khezri, S.**, Ahmadzadeh, M., Salehi Jozani, Gh., Ahangaran, A., Behboudi, K., Rahimian, H., Kovacs, A. and Kuipers, O. 2010. Study on the role of different microbial media on expression of *ykuT* in *Bacillus subtilis*. In Proceedings of the 19th Iranian Plant Protection Congress (July 31-August 3). Iranian Research Institute of Plant Protection, Tehran, Iran. p. 497.
 - **Khezri, S.**, Ahmadzadeh, M., Sharifi, R. and Ahangaran, A. 2010. Screening of some isolates of *Pseudomonas fluorescens* against *Sclerotinia sclerotiorum* on sunflower. In Proceedings of the 19th Iranian Plant Protection Congress (July 31-August 3). Iranian Research Institute of Plant Protection, Tehran, Iran. p. 830.

- **Khezri, M.**, Ahmadzadeh, M., Salehi Jozani, Gh., Behboudi, K. and Rahimian, H. 2010. A study on the effect of sugars and amino acids secreted from wheat root on biofilm formation of *Bacillus subtilis*. In Proceedings of the 19th Iranian Plant Protection Congress (July 31-August 3). Iranian Research Institute of Plant Protection, Tehran, Iran. p. 417.
- **Khezri, M.**, Ahmadzadeh, M., Salehi Jozani, Gh., Behboudi, K. and Rahimian, H. 2010. An investigation on the effect of environmental factors on *Bacillus subtilis* biofilm formation, *in vitro*. In Proceedings of the 19th Iranian Plant Protection Congress (July 31-August 3). Iranian Research Institute of Plant Protection, Tehran, Iran. p. 496.
- Ahangaran, A., Mosahebi Mohammadi, Gh., Koochi Habibi, M., Shahraeen, N., and **Khezri, S.** 2006. Rapid diagnostic of *Soybean mosaic virus* using RT-PCR and IC-RT-PCR molecular methods. In Proceedings of the 17th Iranian Plant Protection Congress (September 2-5). University of Tehran, Karaj, Iran. p. 236.
- Ahangaran, A., Mosahebi Mohammadi, Gh., Koochi Habibi, M., Shahraeen, N., and **Khezri, S.** 2006. Rapid diagnosis of Soybean mosaic virus in soybean by tissue-print immunoassay and DIBA in comparison to other serological methods. In Proceedings of the 58th International Symposium on Crop Protection (May 23). Ghent, Belgium. p. 324.
- Ahangaran, A., **Khezri, S.**, Koochi Habibi, M., Alizadeh, A., and Mosahebi Mohammadi, Gh. 2006. The first report of detection of a phytoplasma in olive trees in a botanic collection in Iran. In Proceedings of the 58th International Symposium on Crop Protection (May 23). Ghent, Belgium. p. 309.
- **Khezri, S.**, Mohammadi, M., Rahimian, H. and Sharifi Tehrani, A. 2004. Biochemical, Phenotypical and antibiogram comparisons of Iranian strains of *Pseudomonas syringae* pv. *syringae* isolated from various host plants. In Proceedings of the 15th International Plant Protection Congress (May 11-16). Beijing, China. p. 353.
- **Khezri, S.**, Mohammadi, M., Rahimian, H. and Sharifi Tehrani, A. 2004. Serological comparison of Iranian strains of *Pseudomonas syringae* pv. *syringae* isolated from various host plants. In Proceedings of the 15th International Plant Protection Congress (May 11-16). Beijing, China. p. 354.
- Ahangaran, A., Mosahebi Mohammadi, Gh., Koochi Habibi, M., Shahraeen, N. and **Khezri, S.** 2004. Detection of *Soybean mosaic virus* by RT- PCR and IC- RT- PCR. In Proceedings of the 15th International Plant Protection Congress (May 11-16). Beijing, China. p. 263.
- **Khezri, S.**, Mohammadi, M., Rahimian, H., Sharifi Tehrani, A., and Ahangaran, A. 2004. Phenotypical, serological and molecular comparisons of Iranian strains of *Pseudomonas syringae* pv. *syringae* Van Hall isolated from various host plants. In Proceedings of the 56th International Symposium on Crop Protection (May 4). Ghent, Belgium. p. 207.
- Ahangaran, A., Mosahebi Mohammadi, Gh., Koochi Habibi, M., Shahraeen, N., and **Khezri, S.** 2004. Identification of *Soybean mosaic virus* by molecular methods and the best buffer and condition for transmission of SMV. In Proceedings of the 56th International Symposium on Crop Protection (May 4). Ghent, Belgium. p. 215.
- Ahangaran, A., Mosahebi Mohammadi, Gh., Koochi Habibi, M., Shahraeen, N., and **Khezri, S.** 2003. Total RNA extraction using RNawiz and phenol-chloroform for detecting *Soybean mosaic virus* by RT-PCR. In Proceedings of the IV Asian- Pacific Crop Protection Conference and Exhibition (September 18-19). New Dehli, pp. 1-5.
- **Khezri, S.**, Mohammadi, M., Rahimian, H. and Sharifi Tehrani, A. 2003. SDS-PAGE analysis, plasmid DNA profile and molecular characterization of strains of *Pseudomonas syringae* pv. *syringae* isolated from various host plants. In Proceedings of the 5th International Symposium in the Series Resent Advanced in Plant Biotechnology (September 7-13). High Tatras, Slovak Republic. p. 126.

Thesis supervised

- Supervisor (2021). Phylogenetic study of *Agrobacterium tumefaciens* strains isolated from sweet cherry, plum and apple trees in West Azarbaijan province using multilocus sequence analysis. (M.Sc. student in Urmia University, Urmia, Iran).
- Supervisor (2019). Reaction of different tomato cultivars to bacterial speck disease and evaluation of seed disinfection via different treatments. (M.Sc. student in Urmia University, Urmia, Iran).
- Supervisor (2019). Evaluation of different tomato cultivars to bacterial canker disease and study on different methods for seed disinfection. (M.Sc. student in Urmia University, Urmia, Iran).
- Advisor (2019). Effect of isolated PGPR bacteria from saline soils of around Urmia Lake, mycorrhiza and endophyte fungi on wheat growth indices in saline conditions. (M.Sc. student in Urmia University, Urmia, Iran).
- Supervisor (2018). Phenotypic and genotypic identification of *tomato* pathogenic bacteria in Urmia. (M.Sc. student in Urmia University, Urmia, Iran).
- Supervisor (2018). Study on pathogenic Gram-negative bacteria of tomato foliage in West Azarbaijan province. (M.Sc. student in Urmia University, Urmia, Iran).

- Advisor (2018). Evaluation of antagonistic *Bacillus subtilis* effect and oregano essential oil effects on *Botrytis cinerea* and *Penicillium expansum* extension, fruit storage life and quality attributes in sweet cherry (*Prunus avium* L.) cv. Takdaneh Mashhad. (M.Sc. student in Urmia University, Urmia, Iran).
- Advisor (2018). Isolation and identification of zinc-soluble microorganisms and preparation suitable carrier for zinc bio-fertilizer formulation. (M.Sc. student in Urmia University, Urmia, Iran).
- Advisor (2018). Identification and race determination of potato Y virus strains in farms under cultivation of Solanaceae plants in Urmia (M.Sc. student in Urmia University, Urmia, Iran).
- Supervisor (2016). Isolation, phenotypic and genotypic identification and host range determination of the causal agent of crown gall disease on apple cultivars (M.Sc. Student in Islamic Azad University, Malekan Branch, Malekan, Iran).

Membership in Scientific Association

- Membership in Iranian Phytopathological Society
- Membership in Council of Agriculture and Natural Resources