Lachin Mokhtarnejad PhD
Assistant Professor of Plant Pathology

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Academic qualifications

2012-2016 **PhD in Mycology (specialist in Yeast systematic)**
Department of Plant Protection - University of Tabriz

2008 – 2010 **Master of Science in biocontrol – Plant Protection**
Department of Plant Pathology, College of Agriculture
University of Tehran, Tehran, Iran

2003 – 2008 **Bachelor of Science in Plant Disease – Plant Protection**
Department of Plant Protection, College of Agriculture
University of Tabriz**, Tabriz, Iran**

DISSETATION / THESIS

- **PhD** Species diversity and phylogeny of yeasts in soils of Urmia lake basin and biological control of bunch rot diseases of grapevine using *Pichia* species.

- **MSc Thesis:** Mass production and formulations of three yeast species *Rhodotorula mucilaginosa*, *Candida membranifaciens*, *Pichia guilliermondii* and their survival on different substrates.

Research interests

- Biological control of plant diseases
- Mass production of biocontrol agents
- Formulation and application of microbial biopesticides
- Biocontrol of Post-harvest diseases
- Taxonomy of yeast

Selected research projects

1. Isolation, screening, Identification, Fermentation and formulation of biocontrol yeasts for biological control of post-harvest diseases of apple and grape (034-36-1605-099-001052).
2. Optimization of biomass production and formulation of effective bacterial and fungal strains with biological control activity against powdery mildew of cucumber in greenhouse (Research No. 01-16-16-074-000340).
3. The study of effectiveness of fungicide (fludioxonil 24% + boscalid 6% SC 30%) formulation usage in management of gray mold of grapevine and its residue on Fruits, verification of pre-harvest interval and residue assessment (Research No. 04-36-16-083-020791).
4. Evaluating the efficacy of some physical and chemical treatments for control of apple post-harvest rots (Research No. 04-43-16-010-020033).
5. Investigating the effect of Maxim X fungicide (flodioxonil 25 g/liter + metalaxyl-M 10 g/liter) FS 3.5% formulation in controlling sugar beet seedling seedling damping-off caused by Pythium spp. and Rhizoctonia solani (04-55-16-038-020295).
6. Evaluation two plant-based fungicides; carnation oil-based+Carnauba wax (Fresh Save HN) and Bioxeda on apple post-harvest diseases (Research No. 04-16-16-023-030172).
7. Investigating the efficacy of Priaxor fungicide (floxapyroxad 75 g/liter + pyroclostrobin 150 g/liter) EC 22.5% formulation in controlling sugar beet root rot caused by Rhizoctonia solani (Research No. 04-55-16-027-040140).
8. Study the biocontrol potential of Bacillus subtilis and Bacillus velezensis isolates against wheat bacterial leaf streak (Research No. 03-16-1610-085-030865).
9. Preparation of a suitable model and its validation for forecasting downy mildew of grapevine using weather data in North Khorasan and West Azerbaijan Provinces (Research No01-45-16-005-99063-010027).
10. Investigating the residue levels of the new combined fungicide Ares (SC56%) (Trifloxystrobin 14%+ Boscalid 42%) on grape in the control of grapevine powdery mildew (Research No. 04-16-16-063-030526).

Selected publications Journals papers

1. **Mokhtarnejad, Lachin**, Samira Shameli, Mohsen Farzaneh. (2025). Optimizations commercial culture medium of Bacillus subtilis isolate B2 and its formulation for controlling powdery mildew of cucumber at greenhouse. Applied Entomology and Phytopathology
2. **Mokhtarnejad, Lachin**, Samira Shameli, (2025). Optimizations of industrial culture condition for biomass production of biocontrol isolate *Trichoderma harzianum* K18 and its formulation for controlling of cucumber powdery mildew at greenhouse. Applied Entomology and Phytopathology.

3. Turaj Nader, Mohhamad ali Tajick Ghanbary, **Mokhtarnejad, Lachin**, Siamak Hanifeh . (2023). Biological control of Alternaria solani by tomato epiphyte yeasts and investigation of some their biocontrol mechanisms. BIOLOGICAL CONTROL OF PESTS AND PLANT DISEASES.
4. Bahrami Nejad, Simin **Mokhtarnejad, lachin**, FarzanehMohsen. (2023). Effects of nanoencapsulated formulation of two different medicinal plants essential oil using tragacanth gum in control of post-harvest penicillium decay of tomato fruit. Journal of Applied Research in Plant Protection, 1-12
5. **Mokhtarnejad, lachin**, Naeimi, Shahram, Farzaneh, Mohsen (2023). Biodiversity and biocontrol activity of grape epiphyte yeasts in control of gray mold disease. BioControl in Plant Protection
6. **Mokhtarnejad, lachin**., Farzaneh, Mohsen (2023). First report of occurrence fusarium wilt on cyclamen caused by Fusarium oxysporum in Iran. Journal of Plant Pathology, 1-1
7. **Mokhtarnejad**, **lachin**, Farzaneh, Mohsen (2020). A review on yeasts roles and applications on biological control of plant diseases. BioControl in Plant Protection
8. **Mokhtarnejad, Lachin**, Mahdi Arzanlou, Asadollah Babai-Ahari, Simone Di Mauro, Pietro Buzzini, Benedetta Turchetti. (2016). Culturable yeast diversity in the soils of the Urmia Lake National Park, Iran. Extremophiles, 20:915–928.
9. **Mokhtarnejad, Lachin,** Mahdi Arzanlou, Asadollah Babai-Ahari. (2015) Molecular identification of Ascomycetous yeasts from Urmia Lake hypersaline soils. *Rostaniha* 16(2): 174-185.
10. **Mokhtarnejad, Lachin,** H. R. Etebarian, P. Sheikhpour, M. Farzaneh, M. R. Khoshayand. (2015). Biomass production and formulation of biocontrol yeast *Candida membranifaciens*. J. Crop Prot. 4 (Supplementary): 617-625.
11. **Mokhtarnejad, Lachin,** Mahdi Arzanlou, Asadolah Babai- Ahari, Benedeta Turchetti (2015). Phylogenetic analyses of basidimyceteous yeasts from soils in Iran. Rostaniha 16(1): 61-80.
12. for Mass Production of *Candidamembranifaciens*, Biocontrol Agent of Blue Mold and Gray Mold Diseases of Apple. Applied research in plant protection, 2 (2): 1-15. (In farsi).

13. Mohammad Reza Khoshayand, **Lachin Mokhtarnejad**, Hasan Reza Etebarian, Mohsen Farzaneh,Pejman Sheikhpour (2014). Screening and Optimization of Industrial Medium
14. **Lachin Mokhtarnejad**, H. R. Etebarian, M. R. Fazeli and M. Khoshayand (2012). Influence of adjuvants on shelf life of *Pichia guillermondii* in powder carriers and their efficacy in controlling blue mold of apple. Journal of Plant disease 437- 448. (In farsi)
15. **Lachin Mokhtarnejad**, H. R. Etebarian, M. R. Fazeli and H. Jamalifar (2011). Evaluation of different formulations of potential biocontrol yeast isolates efficacy on apple blue mold at storage condition. "Archives of Phytopathology and Plant Protection" 183-190.

16. Mojdeh Maleki, **Lachin Mokhtarnejad** and Somayyeh Mostafaee (2011). Screening of Rhizobacteria for Biological Control of Cucumber Root and Crown Rot Caused by Phytophthora drechsleri. Plant Pathology Journal 27(1): 78-84.

17. M. Maleki1, S. Mostafaee1, **Lachin Mokhtarnejad** & M. Farzaneh. (2010) Characterization of *Pseudomonas fluorescens* strain CV6 isolated from cucumber rhizosphere in Varamin as a potential biocontrol agent. AJCS 4(9):676-683.

18. **Lachin Mokhtarnejad**, H. R. Etebarian, M. R. Fazeli (2009). Survival of *Pichia guilliermondii* yeast isolate in powder formulation and estimination of Biocontrol ability of formulation against Gray mould of apple. Journal of Iranian Plant Protection Sciences. 9-18. (In farsi)

19. Fatemeh Sarafraz Nikoo, Navazolah Sahebani, Heshmatolah Aminian, **Lachin Mokhtarnejad**, Reza Ghaderi (2014). Induction of systemic resistance and defense-related enzymes in tomato plants using *Pseudomonas fluorescens* CHAO and salicylic acid agains troot-knot nematode *Meloidogyne javanica*. JOURNAL OF PLANT PROTECTION RESEARCH Vol. 54, No. 4.

INTENATIONAL CONGRESS PRESENTATIONS

ORAL PERESENTATION

Mokhtarnejad, Lachin. Biocontrol of gray mold decay of grape fruit by low temperature tolerate- yeast strains. Plant Health 2023. USA

Mokhtarnejad, Lachin, Mahdi Arzanlou, Asadollah Babai-Ahari, Benedeta Turchetti Culturable yeast diversity in the soils of the Urmia Lake National Park, Iran. International congress of biodiversity and biotechnology, Perugia, Italy (2015).

Mokhtarnejad Lachin, Mahdi Arzanlou, Asadollah Babai-Ahari, Benedeta Turchetti**.** Molecular identification of basidiomycetous yeasts from soils in Iran. Mycology symposium of iran, Karaj, (2015).

Mokhtarnejad, Lachin, Hasan Reza Etebarian, Mohammad Reza Khoshayand. Screening and optimizing of industrial culture media for mass production of Candida membranifaciens biological yeast using response surface methodology. The 19th International & Iranian congress of Plant Protection, Tehran, Iran (2010).

Theses supervised

- Nader, T. 2024. Biodiversity of Tomato Yeastes Flora and Their Ability to Biocontrol of *Alternaria blight* on tomato. MSc thesis in Plant diseases, University of Sari.
- Mohammadi, J. 2025. Evaluation of biocontrol potential of cucumerinum yeasts on fusarium wilt caused by *Fusarium oxysporum* f.sp. *cucumerinum* MSc thesis in Plant diseases, University of Urmia.
- Darvishzadeh, P. 2025. MSc thesis in Plant diseases, University of Urmia. Investigating the flora of peach and nectarine yeasts and their biocontrol capability on gray mold caused by *Botrytis cinerea.* MSc thesis in Plant diseases, University of Urmia.
- Masumi, R. 2025. Evaluation of bio-control potential of Strawberry yeasts on gray mold caused by *Botrytis cinereal*. MSc thesis in Plant diseases, University of Urmia.

Other achievements

- Nominated for Best Master Thesis of the Year, Khwarizmi National Competition, Iran. 2010
- Exceptional Talent Student, University of Tehran, Tehran, Iran. 2008 – 2010
- Exceptional Talent Student, University of Tabriz, Tabriz, Iran2012-2016
- Sabbatical time in Italy- University of Perugia with financial support of Scientific Ministry of Iran.2013- 2014
- FEMS young Scientist Meeting Grant (YSMC). 2015
- Lecture: Importance of yeasts in plant protection. Department of plant pathology University of Perugia, Perugia, Italy. 2014
- Lecture: Prediction role of yeasts in agriculture in next decade. Perugia University Research and education Center seminar series. 2014
- Lecture: New methods of yeasts identification and new application of yeast in IPM. Department of plant protection, University of Tabriz, Tabriz, Iran. 2015.