



CURRICULUM VITAE

Parastoo Motallebi (PhD)

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Academic qualifications

PhD: Plant Physiology, University of Tehran, Tehran, Iran (2010-2015).

MSc: Plant Pathology, University of Tehran, Tehran, Iran (2006- 2008).

BSc: Plant Protection, University of Tehran, Tehran, Iran (2002-2006).

Sabbatical period: Guest researcher at the Department of Agricultural Sciences, University of Bologna, Bologna, Italy (2014).

Research interests:

- Plant-pathogen interactions.
- Molecular Plant Pathology and Plant Physiology.
- Plant Induced Systemic and Systemic Acquired Resistance.
- Management and Control of Plant Diseases.

HONORS/AWARDS

- **Dr. Kazemi Ashtiani Award** from National Elites Foundation (INEF).
- **Scientific award** from 13th best year thesis Awards of Iran (2009).
- **Scientific certificate** of appreciation from 24th Tehran University Research and Technology Award (2015).
- **Scientific certificate** from the 1st innovation and technology Award of Tehran University (Shahid Dr. Chamran Award (2009)).
- Ranked **Distinguished Researcher** in Ph.D., University of Tehran (2015).
- Ranked **Elite** and **Brilliant** talent in Ph.D. (2014).
- Selected **scientific top grade** for publication of ISI papers in Ph.D. University of Tehran (2015).
- Ranked **Top** and **Brilliant talent** in MSc., University of Tehran (2008).
- Ranked **Top, Distinguished** and **Brilliant talent** in Bsc., University of Tehran (2006).

MEMBERSHIP

- Member of Iran's National Elites Foundation (INEF) (since 2014).
- Editorial Board, Majestic Greengenix: A Journal of Modern Plant Science.
- International reviewer for Springer and Elsevier.
- Member of Iranian Phytopathological Society (IPS).
- Member of Iranian Biology Society (IBS).
- Member of Iranian Genetic Society (IGS).
- Member of Iranian Mycology society (IMS).
- Member of Iranian Agricultural Engineering System (IES).

REVIEWER

- Annual and Final Reports, at the Iranian Research Institute of Plant Protection.
- Projects, Technical instructions and publications.
- International and national scientific Congresses and Conferences.
- International reviewer in Elsevier journals since 2017.
- International reviewer in Springer journals since 2016.
- Reviewer of World Journal of Iranian Biology.
- PhD thesis reviewer at Varamin University, Iran.

Other achievements:

- **IELTS** certificate (Academic) from Cambridge university.
- **TOLIMO** certificate.
- **Professional English certificate** from Iran Language Institute (ILI).

Languages:

English, Persian, Turkish

Participation in Elites Meetings

- Meeting with the Honorable President of the Iran, 1403
- Elites Specialized Meeting at the National Elites Foundation, 1404
- Meeting with the Vice President for Science and Technology, 1403
- Meeting with the Head of the National Elite Foundation, 1403
- Meeting with the Advisor to the Supreme Leader, 1403
- Meeting with the Head of the Iranian Broadcasting Organization, 1403

Selected research projects:

- Evaluating the efficacy of Phitrex® fungicide in controlling strawberry gray mold disease
- Study on the distribution and pathogenicity of gummy stem blight of cucurbits in Iran
- The effect of Neem seed extracts in controlling gray mold and anthracnose diseases of strawberry.
- Evaluation of the effect of neem formulation in controlling important strawberry diseases.
- Evaluation of the possibility of the induction of resistance against *Botrytis cinerea* causal agent of gray mold of cucumber in greenhouse condition.
- Evaluation of the efficacy of minerals and antioxidants in controlling the powdery mildew disease of greenhouse cucumber.
- Evaluate the efficacy of eco-friendly compounds against tomato diseases.
- Physiological and molecular study of susceptible and resistant Wheat genotypes against crown and root rot Pathogen *Fusarium culmorum* (Fc) infection.
- Evaluation of methyl jasmonate application for inducing systemic resistance during wheat-*Fusarium* interaction.
- biomolecular studies, genetic chemotyping characterization, and comparison of *F. culmorum* strains, isolated from different agro-ecological countries, Iran, Syria (Middle East) and Italy (Europe).
- Study on aggressiveness levels of *F. culmorum* for development of FCRR on wheat.
- Comparative proteome analysis of wheat genotypes in response to *Fusarium* crown and root rot infection.
- Study on Population Structure of *Magnaporthe grisea* (Hebert) Barr Isolated from Rice and some Poaceae Weeds, Based on Identification of VCGs and rep-PCR Fingerprinting.

Selected publications

- **Parastoo Motallebi** (2026) Methyl Jasmonate–Based Defense against *Fusarium culmorum* in Wheat: Current Evidence and Future Directions- A Review. *Journal of Plant Growth Regulation*. <https://doi.org/10.1007/s00344-026-12194-z>
- **Parastoo Motallebi** (2025) Potential of Neem Extract Formulation in Controlling *Botrytis cinerea* and *Colletotrichum nymphaeae* Diseases of Strawberry under Greenhouse Conditions. *Applied Fruit Science*, 67:220. <https://doi.org/10.1007/s10341-025-01450-3>.
- **Parastoo Motallebi**, Mehdi Nasr Esfahani, Mohammad Reza Islahi, Ali Abbasi, Mojtaba Moradzadeh Eskandari and Farzad Karampour (2025) Quarantine Evaluation of *Didymella bryoniae* in Cucurbits from Iran. *Indian Phytopathology*. 25:85. <https://doi.org/10.1007/s42360-025-00910-w>
- **Parastoo Motallebi** and Maryam Negahban (2024) Neem (*Azadirachta indica*) Seed Extract Formulation for Managing Anthracnose and Grey Mold diseases in Strawberry. *South African Journal of Botany*. 169: 66-71. <https://doi.org/10.1016/j.sajb.2024.04.027>.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh (2023) The defense response in seedling roots of two wheat cultivars with contrasting resistance to *Fusarium* crown and root rot disease. *Cereal Research Communications*. <https://doi.org/10.1007/s42976-022-00276-z>.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh (2022) Central role of Methyl jasmonate in resistance of wheat against *Fusarium culmorum*. *Physiological and Molecular Plant Pathology*. 119:101812. <https://doi.org/10.1016/j.pmpp.2022.101812>.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Majid Hashemi and Sattar Tahmasebi Enferadi (2017) Exogenous methyl jasmonate treatment induces defense response against *Fusarium culmorum* in wheat seedlings. *Journal of Plant Growth Regulation*, 36(1):71-82.

- **Parastoo Motallebi** , Stefano Tonti, Vahid Niknam, Hassan Ebrahimzadeh, Annamaria Pisi, Paola Nipoti, Majid Hashemi and Antonio Prodi (2017). Induction of basal resistance by methyl jasmonate against *Fusarium culmorum* in bread wheat. *Cereal research communications*, 45(2):248-259.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Majid Hashemi, Annamaria Pisi, Antonio Prodi, Stefano Tonti, Paola Nipoti (2016). Methyl Jasmonate Strengthens Wheat Plants against Root and Crown Rot Pathogen *Fusarium culmorum* Infection. *Journal of Plant Growth Regulation*, 34(3):624-636.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Sattar Tahmasebi Enferadi and Majid Hashemi. (2015). The Effect of Methyl jasmonate on Enzyme Activities in Wheat Genotypes Infected by the Crown and Root Rot Pathogen *Fusarium culmorum* . *Acta Physiologiae Plantarum*, <https://doi.org/10.1007/s11738-015-1988-3>.
- **Parastoo Motallebi**, Dima Alkadri, Annamaria Pisi, Paola Nipoti, Stefano Tonti, Vahid Niknam, Antonio Prodi (2015). Pathogenicity and mycotoxin chemotypes of Iranian *Fusarium culmorum* isolates on durum wheat, and comparisons with Italian and Syrian isolates. *Phytopathologia Mediterranea*, 54(3):437-445.
- **Parastoo Motallebi**, Mohammad Javan-Nikkhah & Sayyed Mahmoud Okhovvat. (2013). Characterization of *Magnaporthe grisea* Populations associated with rice and weeds in Iran. *Australasian Plant Pathology*, 42:693–700.
- Alireza Valipour, VenKatraman Raman, **Parastoo Motallebi**. (2010). Application of Shallow Pond System Using Water Hyacinth for Domestic Wastewater treatment in the Presence of High total Dissolved (TDS) and Heavy Metal Salts. *Environmental Engineering and Management Journal*, 9(6): 853-860.
- **Parastoo Motallebi**, M. Javan-Nikkhah , S. M. Okhovvat , K. B. Fotouhifar and M. Bargnil. (2009). Vegetative Compatibility Groups within Iranian Populations of *Magnaporthe grisea* species complex from Rice and Some Grasses. *Journal of Plant Pathology*, 91(2): 469-473.

- **Parastoo Motallebi**, Mohammad Javan-Nikkhah, Sayyed Mahmoud Okhovvat, Khalil Berdi Fotouhifar & Gholam H. Mosahebi. (2009). Differentiation of *Magnaporthe* species complex by REP-PCR genomic fingerprinting. *Communications in Agricultural and Applied Biological Sciences*, **74**(3): 821-830.
- **Parastoo Motallebi**, Mohammad Javan-Nikkhah, Sayyed Mahmoud Okhovvat & Khalil Berdi Fotouhifar. (2009). Study on Population Structure of *Magnaporthe grisea* (Hebert) Barr Isolated from Some Poaceae Weeds, Based on Identification of VCGs and rep-PCR DNA Fingerprinting. *Iranian Journal of agricultural Science*, **40**(1):73-84.
- **Parastoo Motallebi**, Mohammad Javan-Nikkhah, Sayyed Mahmoud Okhovvat and KHALIL Berdi Fotouhifar (2011). Study on population structure of *Pyricularia grisea* isolated from rice, Based on PCR DNA fingerprinting and identification of VCGs. *Iranian Journal of Plant Protection Science*, **42**(2): 227-239.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh and Majid Hashemi (2014). The effect of *Fusarium* infection on some biochemical and physiological responses in wheat. *Biology and natural science*, BS101633427.

Conference papers:

- **Parastoo Motallebi** (2024) Investigating the effect of neem extracts in controlling strawberry gray mold disease. 25th Iranian Plant Protection Congress.
- **Parastoo Motallebi** (2024) The effect of methyl jasmonate on the expression of PR-proteins in *Fusarium* crown and root rot of wheat. 25th Iranian Plant Protection Congress.
- **Parastoo Motallebi** (2024) Preparation of microcapsule formulation based on neem extract to control strawberry anthracnose. 25th Iranian Plant Protection Congress.

- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh (2022) Methyl jasmonate effect on the activity and expression of phenylalanine ammonia lyase and lipoxygenase genes in wheat against *Fusarium* crown and root rot. 24th Iranian Plant Protection Congress and 2nd Iranian plant pathology congress.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Majid Hashemi (2022) Evaluating the role of phenylpropanoid and octadecanoid signal transduction pathways in wheat-*Fusarium culmorum* interaction. 24th Iranian Plant Protection Congress and 2nd Iranian plant pathology congress.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Majid Hashemi (2022) Investigation of the possibility of induced systemic resistance in wheat against *Fusarium* by methyl jasmonate application. 24th Iranian Plant Protection Congress and 2nd Iranian plant pathology congress.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, et al (2015). Enzymatic activities of two Iranian wheat cultivars infected with *Fusarium culmorum*. International Conference on Agricultural Economics and Environmental Research. Turkey, code 15TR01000727.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Annamaria Pisi, Antonio Prodi (2014). Differential Expression of Phenylalanine ammonia-lyase Gene in Crown and Roots of Wheat Genotypes Induced by *F. culmorum* Infection. International Conference on Advances in Agricultural, Biological & Environmental Sciences. Dubai, IICBE.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Majid Hashemi, Sattar Tahmasebi Enferadi (2014). Effect of Methyl jasmonate on changes in protein profile of some wheat genotypes infected with *Fusarium culmorum*. 1st international & 13th Iranian Genetics congress, Page: 481.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Sattar Tahmasebi Enferadi, Majid Hashemi (2014) Proteome analysis of some wheat genotypes infected with crown rot disease caused by *Fusarium culmorum*. 1st international & 13th Iranian Genetics congress, Page 480.

- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Sattar Tahmasebi Enferadi, Majid Hashemi (2015) Differentially expressed proteins associated with *Fusarium* crown rot resistance in wheat. Plant Genome Evolution congress, No: 0086.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, and majid Hashemi (2014) Changes in antioxidant properties and phenolic contents of some wheat genotypes inoculated with *Fusarium culmorum*. 18th national and 6th international congress of Biology, Kharazmi University, Iran. Page 80.
- **Parastoo Motallebi**, Vahid Niknam, Hassan Ebrahimzadeh, Sattar Tahmasebi Enferadi and majid Hashemi (2014) Effect of methyl jasmonate during early and later stages of infection in susceptible wheat genotypes by *Fusarium culmorum*. 18th national and 6th international congress of Biology, Kharazmi University, Iran. Page 81.
- **Parastoo Motallebi**, M. Nikkhah and M. Okhovvat (2011). Genetic Differentiation in Populations of *Pyricularia grisea* (Cooke) Sacc obtained from Various Hosts, Based on detection of VCGs and rep-PCR. Published in XVIII International Botanical Congress, Melbourne, Australia; P0405.
- **Parastoo Motallebi**, Mohammad Javan-Nikkhah, Sayyed Mahmoud Okhovvat, Khalil Berdi Fotouhifar & minoo Bargnil (2008). Vegetative compatibility in *Magnaporthe grisea* (Hebert) Barr populations from rice and weeds. Published in 18th Iranian Plant Protection Congress, page 611.
- **Parastoo Motallebi**, M. Nikkhah and M. Okhovvat (2010). Genetic diversity in *Pyricularia grisea* population from various hosts by emphasizing of molecular markers. *The 16th National & 4th International Conference of Biology*, Iran. Page 262.
- **Parastoo Motallebi**, Mohammad Javan-Nikkhah, Sayyed Mahmoud Okhovvat, Khalil Berdi Fotouhifar & Gholam Hosein Mosahebi (2009). Differentiation of *Magnaporthe grisea* Species Complex by rep-PCR Genomic Fingerprinting. *Published in 61st International Symposium on Crop Protection*. May 19, Ghent, Belgium. Page 254.

- Mohammad Javan-Nikkhah, Roghaye Hemati, Minoos Barghil, **Parastoo Motallebi** & Masood Niknam (2008). Current Status of *Magnaporthe grisea* (Hebert) Yaegashi & Udgawa in Iran. *Published in International Plant Protection Congress, IUMS, Istanbul, Turkey*. Page Mp69.

TEACHING EXPERIENCE:

- Teaching Plant physiology, Plant growth regulators, Photoperiodism, Phytochrome and molecular structure of photosystems, University of Tehran.
- Investigation of the possibility of inducing resistance in wheat to *Fusarium* root rot disease.
- Investigation of the effect of chemical elicitors in disease management.
- The effect of neem oil in plant diseases management.
- Genetic diversity of rice blast disease in molecular level, University of Tehran (advisor).
- Methods for controlling plant pathogen populations
- Vegetable and horticultural disease management.
- Fungal diseases of plants.
- Types of plant resistance to pathogens.
- Introduction and management of cucurbit diseases.
- Introduction to gummy stem blight disease of cucurbits.
- Integrated management of important cucumber diseases.
- Various methods of control (agronomic, chemical, biological, resistance) in controlling fungal plant diseases.
- The effect of neem formulation in controlling important strawberry diseases.
- Key speaker in scientific criteria in Plant science, Kharazmi University, Iran.

E-publications:

- Motallebi, P (2021). Poster: “*Fusarium* crown and root rot”
- Motallebi, P (2021). Poster: “Cucumber *Fusarium* Rot”
- Motallebi, P (2021). Poster: “Cucumber *Sclerotinia* Rot”
- Motallebi, P (2025) Identification and Management of *Fusarium* Crown and Root Rot of Wheat.