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).
- 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).
- International reviewer in Elsevier journals since 2017.
- International reviewer in Springer journals since 2016.
- Reviewer of World Journal of Iranian Biology.

Other achievements:

- **IELTS** certificate (Academic).
- **TOLIMO** certificate.
- **Professional English certificate** from Iran Language Institute(since 2005).

Languages:

English, Persian, Turkish

Selected research projects:

- Study of distribution and pathogenicity of Gummy Stem Blight on cucurbits.
- The effect of Neem seed extracts in controlling gray mold and anthracnose diseases of strawberry.
- 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 early blight disease of tomato.
- 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** (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** 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 lyse 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 crown and root rot 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 6thinternational congress of Biology, Kharazmi University, Iran. Page80.

- **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 18 th 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, Minoo Bargnil, **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 disease management.
- Genetic diversity of rice blast disease in molecular level, University of Tehran (advisor).
- Vegetable and horticultural disease management.
- 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, Iran (2015).
- PhD thesis reviewer at Varamin University

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”