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Department of Plant Pathology
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Education

Oct. 2003-Sep. 2007	Tabriz University, Iran Bachelor of Plant Protection
Sep. 2008-Sep. 2011	University of Tehran, Iran Master of Plant Pathology
Oct. 2015-Jun 2020	Ghent University, Belgium PhD of Bioscience Engineering: Biotechnology

Employment

Sep. 2020-on going	Assistant Professor, Tarbiat Modares University
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Research interests

Plant epigenetics
Plant-microbe/nematode interactions
Control of plant parasitic nematodes/plant diseases
Plant genome editing

Teaching experience

Resistance to plant diseases (PhD), Tarbiat Modares University

Molecular methods in plant pathology (MSc), Tarbiat Modares University

Plant breeding for Biotic stresses resistance (PhD), Tarbiat Modares University

Genetics of pathogenicity in plant pathogens (PhD), Tarbiat Modares University

Plant-microorganisms interactions (MSc), Tarbiat Modares University

Thesis supervision during PhD, Ghent University, Belgium

Jonathan Smet (BSc, 2016)

Raquel Ancos Pintado (MSc, 2018)

Expedito Olimi (MSc, 2019)

Thesis supervision/co-supervision, Tarbiat Modares University

Khakbaz, Fatemeh (MSc, Co-supervisor)

Kazemi, Roya (MSc, advisor)

Amiri, Mohammad (MSc, advisor)

Monemi, Somayeh (MSc, advisor)

Azaryan, Ayub (MSc, co-supervisor)

Astraki, Sajjad (PhD, ongoing, advisor)

Azizi, Didar (MSc, ongoing, supervisor)

Kordi, Reihaneh (MSc, supervisor)

Esmaeili, Ensieh (MSc, ongoing, supervisor)

Molla-Mohammadi (MSc, ongoing, supervisor)

Amiri, Mohammad (PhD, ongoing, co-supervisor)

Pourehtesham, Niloofar (PhD, ongoing, co-supervisor)

Roshanroo, Mehran (PhD, ongoing, co-supervisor)

Research Publications

2023

Mohammadzadeh, Z., Shojaeiyan, A., Ayyari, M., Tohidfar, M., Mokhtassi-Bidgoli, A., & **Atighi, M. R.** (2023). Comparative analysis of bioactive compounds in various organs of Iranian okra accessions. *South African Journal of Botany*, 160, 682-696.

Giti, M., Pourjam, E., Parvizi, K., **Atighi, M. R.**, & Pedram, M. (2023). Evaluation of resistance of some cultivars and advanced clones of potato against potato golden cyst nematode (*Globodera rostochiensis*) and tracing of the resistance gene using two TG689 and 57R markers. *Applied Entomology and Phytopathology*.

Banihashemian, S. N., Jamali, S., Golmohammadi, M., Noorizadeh, S., & **Atighi, M. R.** (2023). Reaction of Commercial Cultivars of Kiwifruit to Infection by Root-knot Nematode and Its Biocontrol Using Endophytic Bacteria. *Journal of Nematology*, 55(1).

Keramat, M., Mahboubi, Z., **Atighi, M. R.**, Pourjam, E., Abolafia, J., Abdulhussin, S., & Pedram, M. (2023). Description of *Ektaphelenchus phoenicis* n. sp. (Rhabditida: Ektaphelenchinae), a morphological and molecular phylogenetic study. *Nematology*, 1(aop), 1-17.

Meijer, A., **Atighi, M. R.**, Demeestere, K., De Meyer, T., Vandepoele, K., & Kyndt, T. (2023). Dicer-like 3a mediates intergenerational resistance against root-knot nematodes in rice via hormone responses. *Plant Physiology*, kiad215.

Pour Ehtesham, N., Pedram, M., **Atighi, M. R.**, & Jahanshahi Afshar, F. (2023). Morphological and molecular phylogenetic study of *Longidorus soosanae* n. sp. (Nematoda: Longidoridae) from Golestan province, northern Iran. *European Journal of Plant Pathology*, 1-13.

Monemi, S., **Atighi, M. R.**, Abolafia, J., Castillo, P., & Pedram, M. (2023). Morphological and Molecular Characterization of *Filenchus multistriatus* n. sp. (Tylenchomorpha: Tylenchidae) and Data on a Known Species of the Genus from Bushehr Province, Southern Iran. *Journal of Nematology*, 55(1).

Mahboubi, Z., Keramat, M., Pourjam, E., **Atighi, M. R.**, Clavero-Camacho, I., Abolafia, J., ... & Pedram, M. (2023). Morphological and Molecular Characterization of *Ottolenchus isfahanicus*

n. sp.(Tylenchomorpha: Tylenchoidea) from Rhizosphere of Gramineous Plants in Isfahan Province, Iran. *Journal of Nematology*, 55(1).

Bonab, M. A., **Atighi, M. R.**, & Pedram, M. (2023). *Deladenus bonabensis* n. sp.(Tylenchomorpha: Neotylenchidae) from East Azarbaijan province, northwestern Iran: A morphological and molecular phylogenetic study. *Journal of Nematology*, 55(1).

Heydari, F., **Atighi, M. R.**, & Pedram, M. (2023). New species of the genus *Ektaphelenchus* Fuchs, 1937 isolated from dead wood in northern Iran. *Applied Entomology and Phytopathology*, 90.

2022

Monemi, S., **Atighi, M. R.**, Abolafia, J., Pourjam, E., & Pedram, M. (2022). Description of *Boleodorus bushehensis* n. sp.(Rhabditida: Tylenchidae) from Southern Iran, and Observations on a Commonly Known Species. *Journal of Nematology*, 54(1).

2021

Khakbaz, F., Gharibzadeh, F. **Atighi, M. R.**, and Pedram, M (2021). Description of *Ditylenchus azarbaijanensis* n. sp. (Tylenchomorpha: Anguinidae) from West Azarbaijan province, northwest Iran. *J. Crop Prot.* 2021, 10 (3): 575-583

Verstraeten, B., **Atighi, M. R.**, Ruiz-Ferrer, V., Escobar, C., De Meyer, T. and Kyndt, T. (2021). Non-coding RNAs in the interaction between rice and *Meloidogyne graminicola*. *BMC Genomics*, 22:560.

Heydari, F., **Atighi, M. R.**, Pourjam E., Pedram, M. (2021). Description of *Longidorella* (*Saevadorella*) *caspiensis* n. sp. (Dorylaimida: Nordiidae) from north Iran. *Journal of nematology*, 53: e2021-04.

Atighi, M. R., Verstraeten, B., De Meyer, T. and Kyndt, T. (2021). Genome-wide shifts in histone modification patterns at early stage of rice infection with root-knot nematode *Meloidogyne graminicola*. *Molecular Plant Pathology* 22 (4): 440-455.

2020

Atighi, M. R., Verstraeten, B., De Meyer, T. and Kyndt, T. (2020). Genome-wide DNA hypomethylation shapes nematode pattern-triggered immunity in plants. *New Phytologist* 227(2): 545-558.

2019

Panahandeh, Y. **Atighi, M. R.**, De Ley, I. T., Pourjam, E., Mundo-Ocampo, M., Abolafia, J., Koolivand, D., Jahanshahi Afshar, F. and Pedram, M. (2019). An integrative study of *Sakia sisanganensis* n. sp. (Rhabditida: Tylenchidae) from Sisangan forest, Iran, and new morphological observations for the genus, *Forest Pathology* 2019: 49: e12536.

2017

Pedram, M., Roshan-Bakhsh, A., Pourjam., **Atighi, M. R.**, Decraemer, W. and Bagheri, A. (2017). Additional data on Iranian trichodorids (Triplonchida: Trichodoridae) and first record of a rare species, *Trichodorus variabilis* Roca, 1998. *Nematology* 19 (2): 121-129.

2016

Yaghoubi, A., Alvarez-Ortega, S., Liébanas, G., **Atighi, M. R.** and Pedram, M. (2016). *Discopersicus* n. gen., a new member of the family Tylenchidae Örley, 1880 with detailed SEM study on two known species of the genus *Discotylenchus* Siddiqi, 1980 (Nematoda; Tylenchidae) From Iran. *Journal of nematology* 48 (3): 214-221.

Golhasan, B., Heydari, R., Alvarez-Ortega, S., Meckes, O., Pedram, M. and **Atighi, M.R.** (2016). *Rotylenchus Sardashtensis* n. sp., a Monosexual Species from Iran, With Molecular Identification and Detailed Morphological Observations on an Iranian Population of *Rotylenchus Cypriensis* Antoniou, 1980 (Nematoda: Rhabditida: Hoplolaimidae). *Systematic parasitology* 93(4): 395-411.

Miraeiz, E., Aliramaji, F., Pourjam, E., Heydari, R., Aliramaji, F., Pourjam, E., Pedram, M. and **Atighi, M. R.** (2016). New morphometric ranges for *Bursaphelenchus willibaldi* Schönfeld et al. 2006 (Nematoda: Parasitaphelenchidae) from Iran. *Forest Pathology* 46 (1): 29-34.

2015

Panahandeh, y., Aliramaji, F., **Atighi, M. R.** and Pedram, M. (2015). First record of three known species of the family Tylenchidae Örley, 1880 (Nematoda: Tylenchina) from Iran with new morphological and molecular data. *Journal of Agricultural Science and Technology* 17 (7): 1903-1918.

Miraeiz, E., Heydari, R., Alvarez-Ortega, S., Pedram, M. and **Atighi, M. R.** (2015). Molecular and morphological characterization of *Veleshkinema iranicum* n. gen., n. sp. (Nematoda: Hexatyliina, Sphaerularioidea) from Iran. *Zootaxa* 4000 (5): 531-546.

Pedram, M., Pourjam, E., **Atighi, M. R.** and Panahandeh, Y. (2015). Further studies on soil nematode fauna in north western Iran with the description of one new species. *Journal of Nematology* 47(2): 148-152.

Talezari, A. Pourjam, E., Kheiri, A., Liebanas, G., Aliramaji, F., Pedram, M. Rezaee, S. and **Atighi, M. R.** (2015). *Rotylenchus castilloi* n. sp. (Nematoda: Hoplolaimidae), a new species with long stylet from northern Iran. *Zootaxa* 3931(1): 088-100.

Ghaemi, R., Pourjam, E., Álvarez-Ortega, S., Pedram, M. and **Atighi, M. R.** (2015). A curious nematode, *Diploscapteroides persicus* n. sp. (Nematoda: Rhabditida: Rhabditomorpha), from Iran with a note on the status of the male genital papillae. *Nematology* 17(9): 1045-1056.

Pedram, M., Pourjam, E., Panahandeh, Y., Soleymanzadeh, M., **Atighi, M. R.**, Roshan-Bakhsh A. and Ehsani, A. (2015). Additional data on Iranian trichodorids (Triplonchida: Trichodoridae) and proposal for a new synonymy. *Nematology* 17(10): 1185-1191.

Atighi, M. R., Pourjam, E., Bert, W., Pedram, M., Ghaemi, R. and Panhandeh, Y. (2015). An aberrant nematode, *Baldwinema* n. gen. (Nematoda: Panagrolaimomorpha: Panagrolaimidae), from Iran with description of three new species. *Nematology* 17(8): 877-896.

Noruzi, E., Asghari, R., **Atighi, M. R.**, Eskandari, A., Cantalapiedra-Navarrete, C., Archidona-Yuste, A., Liébanas, G., Castillo, P. and Palomares-Rius, E. J. (2015). Description of *Rotylenchus urmiaensis* n. sp. (Nematoda: Hoplolaimidae) from North-western Iran with a molecular phylogeny of the genus. *Nematology* 17(5): 607-619.

Yaghoubi, A., Pourjam, E., **Atighi, M. R.** and Pedram, M. (2015). Description of *Atetylenchus minor* n. sp. (Tylenchina: Tylenchidae) and data on two other species of the family. *Nematology* 17(8): 981-994.

Aliramaji, F., Pourjam, E., Karegar, A., **Atighi, M. R.** and Pedram, M. (2015). Description of *Ektaphelenchoides caspiensis* n. sp. (Nematoda: Ektaphelenchinae) from Iran. *Nematology* 17(2): 169-177.

Aliramaji, F., Pourjam, E., Álvarez-Ortega, S., Pedram, M. and **Atighi, M. R.** (2015). *Rotylenchus dalikhaniensis* n. sp. (Nematoda: Hoplolaimidae), a monosexual species recovered from the rhizosphere of *Ruscus hyrcanus* Woronow in Mazandaran province, northern Iran. *Nematology* 17(1): 67-77.

2014

Panahandeh, Y., Pourjam, E., **Atighi, M. R.** and Pedram, M. (2014). Morphological and molecular characterization of three species of the genus *Pratylenchoides* Winslow, 1958 (Tylenchina, Merliniidae, Pratylenchoidinae) from Iran. *Journal of Crop Protection* 3 (20): 691-709.

Esmaeili, M., Heydari, R., Pourjam, E. and **Atighi, M. R.** (2014). Description of *Ektaphelenchoides fuchsi* n. sp. (Nematoda: Ektaphelenchinae) from western Iran. *Zootaxa* 3846 (3): 430-438.

Yaghoubi, A., Pourjam, E., Pedram, M., Siddiqi, M.R. and **Atighi, M. R.** (2014). Description of *Abursanema iranicum* n. gen., n. sp. (Nematoda: Hexatylinea, Sphaerularioidea) from Iran and its phylogenetic relationships *Zootaxa* 3826(2): 301-314.

Yaghoubi, A., Pourjam, E., **Atighi, M. R.** and Pedram, M. (2014). Molecular and morphological characterisation of *Ektaphelenchoides ruehmi* sp. n. (Nematoda: Ektaphelenchinae) from southwestern Iran. *Russian Journal of Nematology* 22(1): 31-38.

Aliramaji, F., Pourjam, E., **Atighi, M. R.**, Karegar, A. and Pedram, M. (2014). *Devibursaphelenchus kheirii* sp. n. (Nematoda: Ektaphelenchinae) from Iran with remarks on *Devibursaphelenchus* Kakuliya, 1967. *Nematology* 16: 1069-1078.

Atighi, M. R., Pourjam, M., Ghaemi, R., Pedram, M., Liébanas, G., Cantalapiedra-Navarrete, C., Castillo, P. and Palomares-Rius, E. J. (2014) Description of *Rotylenchus arasbaranensis* n. sp. from Iran with discussion on the taxonomic status of *Plesiorotylenchus* Vovlas, Castillo & Lamberti, 1993 (Nematoda: Hoplolaimidae). *Nematology* 16: 1019-1045.

Aliramaji F, Pourjam E, **Atighi M. R.**, Ye, W., Roshan-Bakhsh, A. and Pedram, M. (2014). Description of *Ektaphelenchoides poinari* sp. n. (Nematoda: Ektaphelenchinae) from Iran with

compendium of the valid species of the genus *Ektaphelenchoides* Baujard, 1984. Russian Journal of Nematology 22: 11-22.

2013

Namjou, S., Pedram, M., Poinar, G., Pourjam, E. and **Atighi, M.R.** (2013). Novel host associations for dorylaim nematodes (Nematoda: Dorylaimida). International Journal of Nematology 23(1): 111-114.

Atighi, M. R., Pourjam, E., Pedarm, M., Ye, W. and Aliramaj, F., (2013). Molecular and morphological characterization of *Ektaphelenchoides andrassyi* sp. n. (Nematoda: Ektaphelenchinae) from northern Iran. Journal of Nematode Morphology and Systematics 16 (1): 17-23.

Atighi, M. R., Pourjam, E., Pedram, M., Ye, W. and Robbins R. T. (2013). Molecular and morphological characterization of *Ektaphelenchoides kelardashtensis* sp. n. (Nematoda: Ektaphelenchinae) from northern Iran. Russian Journal of Nematology 21 (1): 23-30.

Atighi, M. R., Pourjam, E., Pedram, M., Ye., W. and Robbins R. T. (2013). Molecular and morphological characterization of *Ektaphelenchoides hunti* sp. n. (Nematoda: Ektaphelenchinae) from northern Iran. Russia Journal of Nematology 20 (1): 37-44.

Atighi, M. R., Pourjam, E., José Pereira. T., Okhovvat, S. M., Ahmad Alizada, B., Mundo-Ocampo, M, Baldwin G. J. (2013). Redescription of *Filenchus annulatus* (Siddiqui & Khan, 1983) Siddiqi, 1986 based on specimens from Iran with contributions to the molecular phylogeny of the Tylenchidae. Nematology, 15 (2): 129-141.

Atighi, M. R., Pourjam, E., Kanzaki, N., Giblin-Davis, RM, Tandingan De Ley, I., Mundo-Ocampo. M., Pedram, M. (2013). Description of two new species of diplogastrid nematodes (Rhabditida: Diplogastridae) from Iran. Journal of Nematode Morphology and Systematics 16(2): 113-129.

2012

Pedram, M., Pourjam, E., Namjou, S., **Atighi, M. R.**, Cantalapiedra-Navarrete, C., Liébanas, G., Palomares-Rius J. E. and Castillo, P. (2012). Molecular and morphological characterisation of *Paralongidorus iranicus* n. sp. and *P. bikanerensis* (Lal & Mathur, 1987) Siddiqi, Baujard & Mounport, 1993 (Nematoda: Longidoridae) from Iran. Nematology 14(4): 427-443.

Ghaemi, R., Pourjam, E., **Atighi, M, R.**, Pedram, M. and Karssen, G. (2012). First record of the

genus *Discotylenchus* Siddiqi, 1980 (Nematoda: Tylenchidae) from Iran, with description of one new and data on two known species. *Zootaxa* 3493: 72-82.

Pedram, M., Pourjam, E., **Atighi, M. R.**, Ye, W. and Houshmand, A. (2012). *Ektaphelenchoides Sylvestris* sp. nov. (Nematoda: Ektaphelenchinae) from Iran. *Annles Zoologici (Warszawa)* 62(2): 325-329.

2011

Pedram, M., Pourjam, E., Robbins, R. T., Ye, W., **Atighi, M. R.** and Decraemer, W. (2011). Morphological and molecular characterisation of *Xiphinema mazandaranense* n. sp. (Dorylaimida: Longidoridae), a new member of the *Xiphinema pyrenaicum* species complex. *Nematology* 14(1): 109-119.

Atighi, M. R., Pourjam, M. and Okhovat, S. M. (2011). The genus *Filenchus* in Northern Khorasan Province, Iran. *Iranian Journal of Plant Protection Science* 42 (2): 261-266 (In Persian with English summary).

Pedram, M., Pourjam, E., Ye, W., **Atighi, M. R.**, Robbins, R. T. and Ryss, A. (2011). Description of *Bursaphelenchus mazandaranense* sp. n. (Nematoda: Parasitaphelenchidae) from Iran. *Russian Journal of nematology* 19 (2): 121-129.

Atighi, M. R., Pourjam, E., Pedram, M., Cantalapiedra-Navarrete, C., Palomares-Rius, J. E. and Castillo, P. (2011). Molecular and morphological characterisations of two new species of *Rotylenchus* from Iran. *Nematology* 13 (8): 951-964.

Conference Presentations:

Conferences with oral presentation

Atighi, M. R., Verstraeten, B., De Meyer, T. and Kyndt, T. (2018). *Meloidogyne graminicola* induces DNA hypomethylation in rice. 33rd Symposium of the European Society of Nematologists. Ghent, Belgium.

Conferences with poster presentations

Verstraeten, B., **Atighi, M. R.**, De Meyer, T. and Kyndt, T. (2018). Investigating the role of miRNAs in the interaction between root-knot nematode and rice. *Meloidogyne graminicola* induces DNA hypomethylation in rice. 33rd Symposium of the European Society of Nematologists. Ghent, Belgium.

Kyndt, T., **Atighi, M. R.**, Verstraeten, B., Meijer, A., De Meyer, T. (2019). The role of epigenetics in the interaction between rice and parasitic nematodes. IS-MPMI XVIII Congress. Glasgow, Scotland.

Atighi, M. R., Verstraeten, B., De Meyer, T. and Kyndt, T. (2019). DNA hypomethylation confers enhanced immunity against parasitic nematodes in rice. IS-MPMI XVIII Congress. Glasgow, Scotland.

Verstraeten, B., **Atighi, M. R.**, De Meyer, T. and Kyndt, T. (2019). The role of ncRNAs in the interaction between root-knot nematode and rice. IS-MPMI XVIII Congress. Glasgow, Scotland.

M. R. Atighi, B. S. Ghods Alavi, M. Okhovvat, E. Pourjam, M. Ahmadzadeh and E. Mehdikhani Moghaddam. A new host for two species *Meloidogyne cruciani* and *Zygotylenchus Guevara*. 19th Iranian Plant Protection Congress. Aug., Tehran, Iran. Iranian Research Institute of Plant Protection, p. 590.

M. R. Atighi, M. Okhovvat and E. Pourjam. First record of genus *Discotylenchus* from Iran. 19th Iranian Plant Protection Congress. Aug., Tehran, Iran. Iranian Research Institute of Plant Protection, p. 591.

M. R. Atighi, M. Okhovvat and E. Pourjam. Some nematodes from Northern Khorasan province. 19th Iranian Plant Protection Congress. Aug., Tehran, Iran. Iranian Research Institute of Plant Protection, p. 592.

M. R. Atighi, M. Okhovvat and E. Pourjam. Some species of genus *Coslenchus* from Northern Khorasan. 19th Iranian Plant Protection Congress. Aug., Tehran, Iran. Iranian Research Institute of Plant Protection, p. 593.